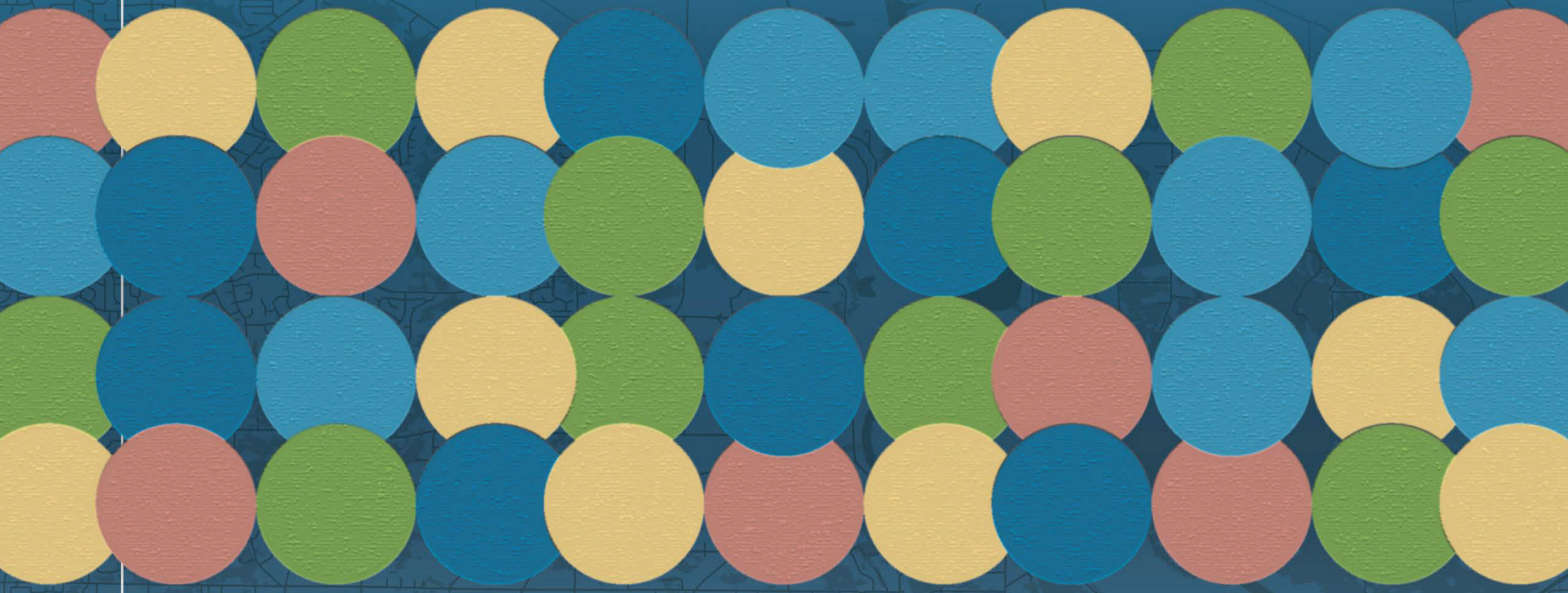
City of Snohomish

Right-of-Way ADA Transition Plan



Prepared by Transpo Group • December 2023

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WHAT TRANSPORTATION CAN BE.

CITY OF SNOHOMISH

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Additional copies of this document are available online at: **www.snohomishwa.gov**

For questions about the City of Snohomish ADA Transition Plan or for access to an alternate format of this document email Yoshihiro Monzaki, City of Snohomish ADA Coordinator, at: **monzaki@snohomishwa.gov** or by calling toll free: 360-568-3115.

For those who are deaf or hard of hearing, the Washington State Relay can be contacted at 711 for assistance in making a request to the City.

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Contents

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Executive Summary

This Americans with Disabilities Act Self-Evaluation and Transition Plan establishes the City of Snohomish's ongoing commitment to providing equal access for all, including those with disabilities. In developing this plan, the City of Snohomish has undertaken a comprehensive evaluation of its facilities and policies related to the public rights-of-way to determine what types of access barriers exist for individuals with disabilities. This plan will be used to help guide future planning and implementation of necessary accessibility improvements.

Both the Self-Evaluation and the Transition Plan are required elements of the federally mandated ADA Title II, which requires that government agencies provide equal access to programs and services they offer.

While the ADA applies to all aspects of government services, **this document focuses on City of Snohomish facilities within the public right-of-way. This includes attributes of sidewalks, curb ramps, and pedestrian pushbuttons as these are the facility types inventoried by the City.**

This document summarizes the Self-Evaluation, which includes an accessibility assessment of pedestrian facilities as well as practices and procedures which relate to them, such as curb ramp design standards. It also contains a Transition Plan, which identifies a schedule for the removal of barriers and identifies how the City will address requests for accommodation in a consistent manner.

The City's objective is to remove physical barriers associated within the public right-of-way using Capital Improvement Program, Sidewalk Maintenance, and Maintenance Program funding. The City is committed to removing these barriers and in future years will implement projects to remove barriers identified in this plan. In addition, the City is continually working towards maintaining ADA compliance for all future capital improvement projects, permitted development, and any other right-of-way construction projects.

This plan does not evaluate the need for new non-motorized facilities in areas that do not have non-motorized facilities.

1 Introduction

1.1 Plan Requirement

The Americans with Disabilities Act (ADA) was enacted on July 26, 1990 and provides comprehensive civil rights protections to persons with disabilities in the areas of employment, state and local government services, and access to public accommodations, transportation, and telecommunications.

Cities and other government agencies are required to have an ADA self-evaluation and transition plan when they grow beyond a threshold of 50 employees. Accessibility requirements extend to all public facilities. The scope of this plan is focused on accessibility within the public rights-of-way.

The City completed an inventory of some of its pedestrian facilities and this plan allows the City to prioritize removal of barriers and update procedures as they relate to the public right-of-way.

There are five titles, or parts, to the ADA of which Title II is most pertinent to travel within the public right-of-way and government owned buildings. Title II of the ADA requires public entities to make their existing "programs" accessible "except where to do so would result in a fundamental alteration in the nature of the program or an undue financial and administrative burden." Public right-of-way, public government buildings, and public parks all fall within the City's programs.

This effort was initiated by the City of Snohomish to satisfy the requirements of ADA Title II Part 35, Subpart D – Program Accessibility § 35.150 (d)(3) which states:

The plan shall, at a minimum:

i. Identify physical obstacles in the public entity's facilities that limit the accessibility of its programs or activities to individuals with disabilities;

ii. Describe in detail the methods that will be used to make the facilities accessible;

iii. Specify the schedule for taking the steps necessary to achieve compliance with this section and, if the duration of the transition plan is longer than one year, identify steps that will be taken during each year

iv. Indicate the official responsible for implementation of the plan.

To determine the physical obstacles in a public entity's facility, the proper standards and guidance must be identified for each feature type.

The 2010 ADA Standards for Accessible Design (ADAS), is the standards document in which all Federal ADA standards are collectively held. The 2010 ADAS and regulations from the 28 CFR Part 36 replaced the 1991 ADA (ADA Accessibility Guidelines (ADAAG)).

The **Revised Draft Guidelines for Accessible Public Rights-of-Way** was published by the United States Access Board in 2005 to provide guidance on establishing accessible facilities within the right-of-way. The United States Access Board's **Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way**, or PROWAG, was then published for comment in 2011 as a revised set of guidelines for right-of-way pedestrian facilities. On August 8, 2023, the final rule of the PROWAG was published in the Federal Register. This plan evaluated facilities against the 2011 guidelines. PROWAG has been endorsed by the Federal Highway Administration (FHWA), the US Access Board, and is the standard to which the Washington State Department of Transportation adheres.

1.2 Plan Structure

The structure of this plan was organized to closely follow federal ADA transition plan requirements. This includes:

Chapter 1: Introduction

Chapter 2: Self-Evaluation
Documents Self-Evaluation methods and findings for policies, practices, design standards, and pedestrian facilities that result in accessibility barriers.

Chapter 3: Stakeholder Engagement
Documents public engagement methods and findings.

Chapter 4: Pedestrian Barrier Removal Methods and Schedule
Provides an overview of existing barrier removal approaches employed by the City, describes barrier removal priorities, and develops a total planning level cost estimate for the removal of existing pedestrian barriers and an accompanying schedule.

Chapter 5: Recommendations and Next Steps
Provides a set of recommendations to inform the implementation of this Transition Plan and ongoing removal of pedestrian barriers.

Several associated appendix items are included to supplement this plan.

2 Self-Evaluation

Title II of the Americans with Disabilities Act (ADA) requires that jurisdictions evaluate services, programs, policies, and practices to determine whether they comply with the nondiscrimination requirements of the ADA.

This chapter describes the methods and findings of the Self-Evaluation. Section 2.1 provides an overview of ADA-related City policies. Next, Section 2.2 reviews City practices and design standards. Finally, Section 2.3 summarizes the Self-Evaluation's field data collection methods and findings regarding existing pedestrian facilities, such as sidewalks and curb ramps.

2.1 Policy Review

The City of Snohomish primarily addresses pedestrian facilities in their City of Snohomish Standard Plans and Municipal Code. The City of Snohomish Comprehensive Plan (2016) also includes goals and policies that address pedestrian connectivity.

The policies and standards were reviewed against the Access Board's Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way, PROWAG 2011 and recommendations were provided to fill gaps as they relate to the ADA.

2.1.1 Method

These documents were reviewed for content that relate to existing ADA programs, policies, and practices.

2.1.2 Findings

The City of Snohomish's Comprehensive Plan, required by State's Growth Management Act (GMA), articulates a series of goals, policies, objectives, and actions, and standards that are intended to guide the day-to-day decisions by the City Council and staff. The latest version of this plan was adopted in 2016 and amended in 2022. The plan elements include land use, housing, capital facilities, utilities, transportation, economic development, parks and recreation, environmental protection, and shoreline. The City is currently in the process of updating its Comprehensive Plan as part of the 2024 GMA periodic update cycle.

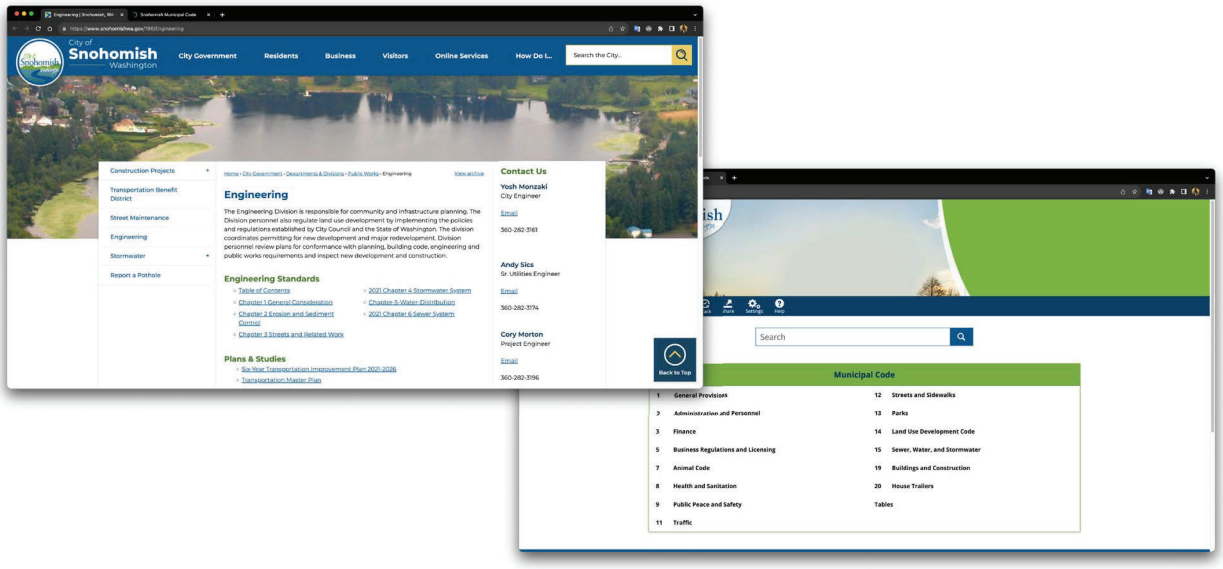


Figure 2-1 *City of Snohomish Engineering Design and Construction Standards web page and City of Snohomish Municipal Code web page*

Goals and policies connected to transportation, specifically pedestrian facilities, within the 2016 adopted Comprehensive Plan generally include the following:

- Develop an integrated and balanced transportation system in Snohomish that provides safe, efficient, and reliable multimodal transportation and improves the system's environmental outcomes.
- Increase the share of trips made by non-motorized travel modes, for all ages and abilities.
- Provide a transportation system that supports the City's Land Use Plan and is consistent with the Snohomish County Countywide Planning Policies and the Puget Sound Regional Council's Vision 2050 Multicounty Planning Policies.
- Preserve and extend the service life and utility of transportation investments.
- A stable, long-term financial foundation for improving the quality, effectiveness, and efficiency of the transportation system.

2.2 Practices and Design Standards

Practices and design standards that meet accessibility standards are essential to ensure that new or upgraded pedestrian facilities are accessible and therefore reduce the number of accessibility barriers throughout the city.

This section summarizes a review of the City of Snohomish Engineering Design and Construction Standards, March 2004 (EGCS) and City of Snohomish Municipal Code (SMC) to identify any barriers to accessible design. The review was conducted in January 2023. For greater detail on the practices and standards review, see Appendix A for a barrier audit memo.

2.2.1 Method

The City of Snohomish EGCS and SMC were reviewed for compliance with ADA guidelines found in the 2011 Proposed Guidelines for Pedestrian Facilities in the Public Right-of Way (PROWAG).

2.2.2 Findings

The City of Snohomish EGCS and SMC maintain adopted design standard plans and guidelines for sidewalks, handrails, pathways, curb ramps, and driveways. Figure 2-1 shows the webpages where the standard plans and municipal code can be accessed.

The City's design standards and code are limited to a portion of the design elements associated with ADA compliance. The review recommended several changes to the current City standards to achieve ADA compliance and improve clarity. Most recommendations to the City standards were intended to improve clarity, increase consistency across figures, and provide a greater level of detail for design elements that have not yet been addressed. The City standards and code do not address all ADA elements but provide a catch all to refer to WSDOT standards.

2.3 Existing Pedestrian Facilities

The Self-Evaluation inventoried barriers to access associated with existing pedestrian facilities, including curb ramps, sidewalks, pedestrian pushbuttons, as required by ADA Title II Part 35, Subpart D – Program Accessibility § 35.150 (d)(3). Each facility and associated barriers were field inventoried and cataloged within the project's geospatial (GIS) database. Curb ramp, pushbutton, and sidewalk field data was collected by Transpo between May 2022 and January 2023.

Many existing pedestrian features in the City of Snohomish right-of-way contain barriers and require improvements to meet current ADA standards. It is important to note that many of these facilities were constructed before the adoption of current ADA standards, and likely met applicable state and federal standards at the time of construction. Additionally, it is important to note that ADA regulations require facilities to be made accessible to "the maximum extent feasible," (MEF) in "circumstances when the unique characteristics of terrain prevent the incorporation of accessibility features" (U.S. Department of Justice, 28 CFR § 35.151 New construction and alterations). These circumstances are often a result of adjacent topography or otherwise constrained locations, which are common to the Snohomish road system. This plan's Self-Evaluation examined whether facilities were compliant with current ADA design requirements; it did not examine whether non-compliant facilities were built to the maximum extent feasible or practical.

Additional detail regarding the Self-Evaluation's findings for curb ramps, sidewalks, and pedestrian pushbuttons is provided in the following sections.

Figure 2-2 *Examples of Inventoried Facilities*

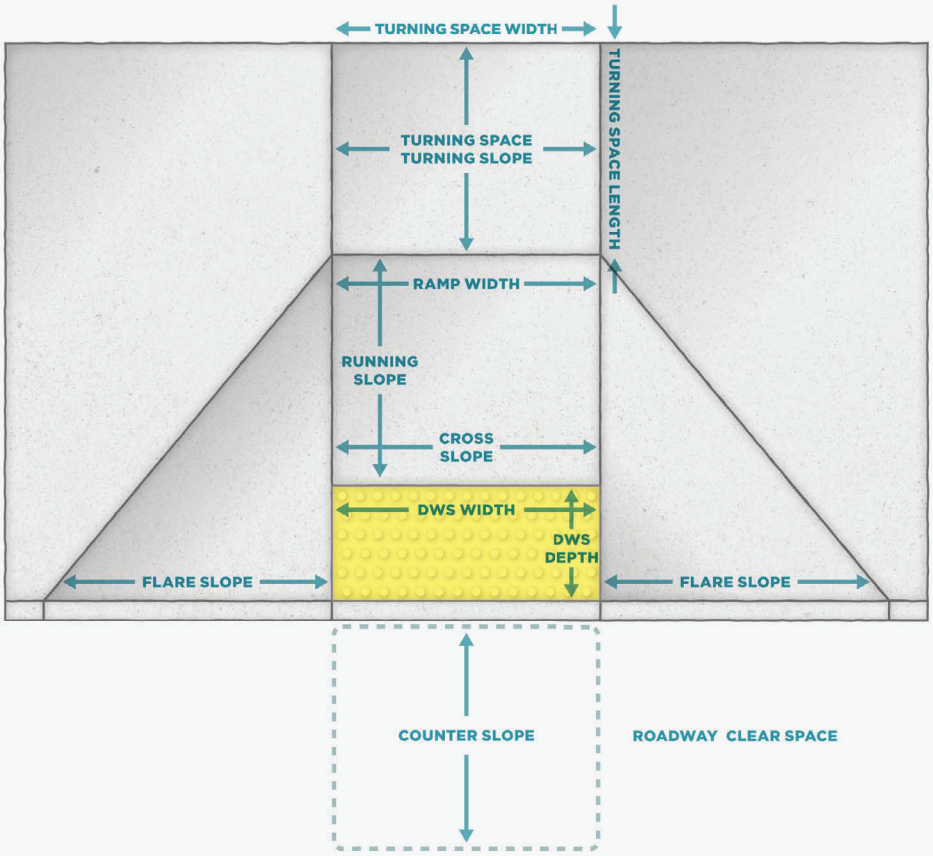


Figure 2-3 *Perpendicular Curb Ramp Attributes*

2.3.1 Method

A self-evaluation of facilities within the public right-of-way was conducted by Transpo Group on behalf of the City. Transpo Group's data collection included pedestrian pushbuttons, sidewalks, and curb ramps.

The physical inventory of pedestrian facilities, as shown in Figure 2-2, included:

- 834 sidewalks (approximately 47 miles)
- 1,251 curb ramps, including 320 missing ramps.
- 108 signal pushbuttons
- 18 parking stalls
- 28 bus stops
- 836 driveways
- 6,667 hazards

Inventory maps of collected pedestrian features can be found in Appendix B.

Curb Ramps

Field data was collected for existing curb ramps by Transpo. The field data was then evaluated for their compliance with ADA standards. Figures 2-3 and 2-4 show the major components of typical perpendicular and parallel curb ramps, respectively, two common types of curb ramps. Less common ramp types, such as ramps that provide a transition from the end of a sidewalk to the road shoulder are also located in the city.

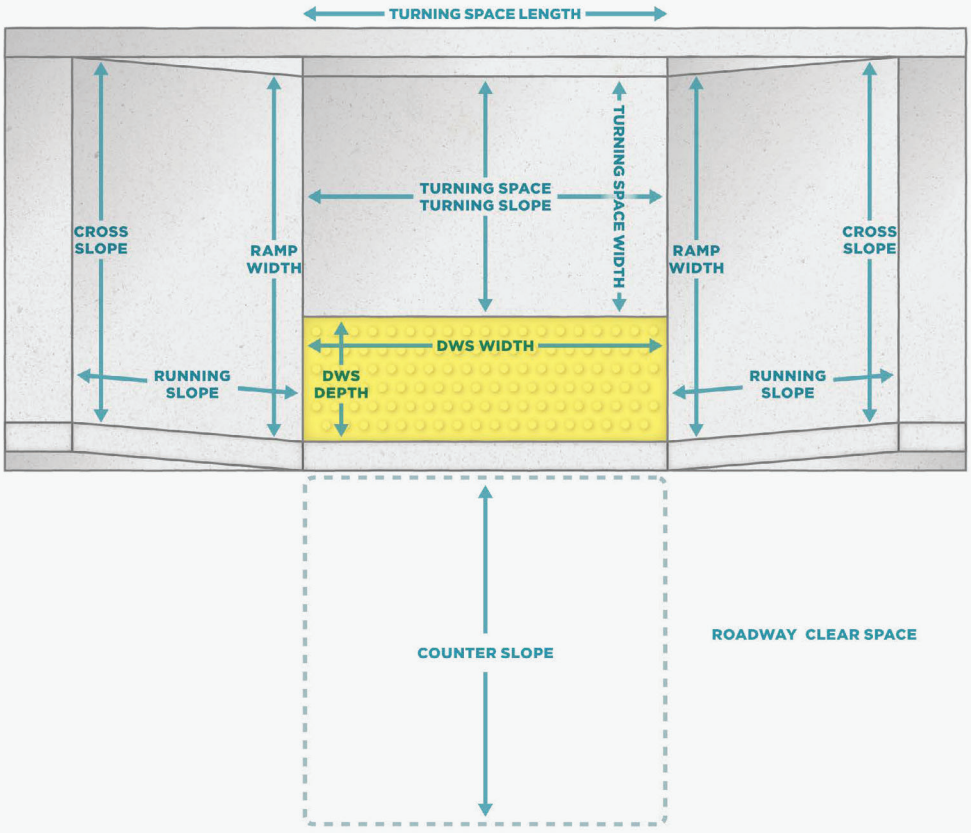


Figure 2-4 *Parallel Curb Ramp Attributes*

Each curb ramp was reviewed for compliance, then scored based on the degree to which the barrier impeded accessibility. Curb ramps were scored using a scale of 0-30 and categorized as follows:

- 0: Compliant.
- 1-29: Minor Compliance Issue.
- 30: Significant Compliance Issue.

These scores are referred to as the Accessibility Index Score (AIS). Curb ramps that had running slopes that were too steep received a score of 30 and were considered non-compliant. Curb ramps that had cross slopes slightly above the compliant threshold (>2%) received a score of 20 while steeper (>3%) cross slopes received a 30. Other criteria relating to turning space, flare slopes, detectable warning surfaces (DWS), obstructions, and condition were weighted lower, but could cumulatively reach the threshold for non-compliance.

To maximize efficiency during data collection, an optimization process was used to collect curb ramp data. If the width, running slope, or cross slope was found to be non-compliant, it is assumed that the remedy to correct the accessibility barrier would be full replacement. Because of this, if the accessibility criteria listed above were found to be out of compliance, data collectors would cease collecting and move on to the next feature.

Prioritization scoring and compliance criteria are discussed in more detail in Section 4.2.1 and in Appendix C.

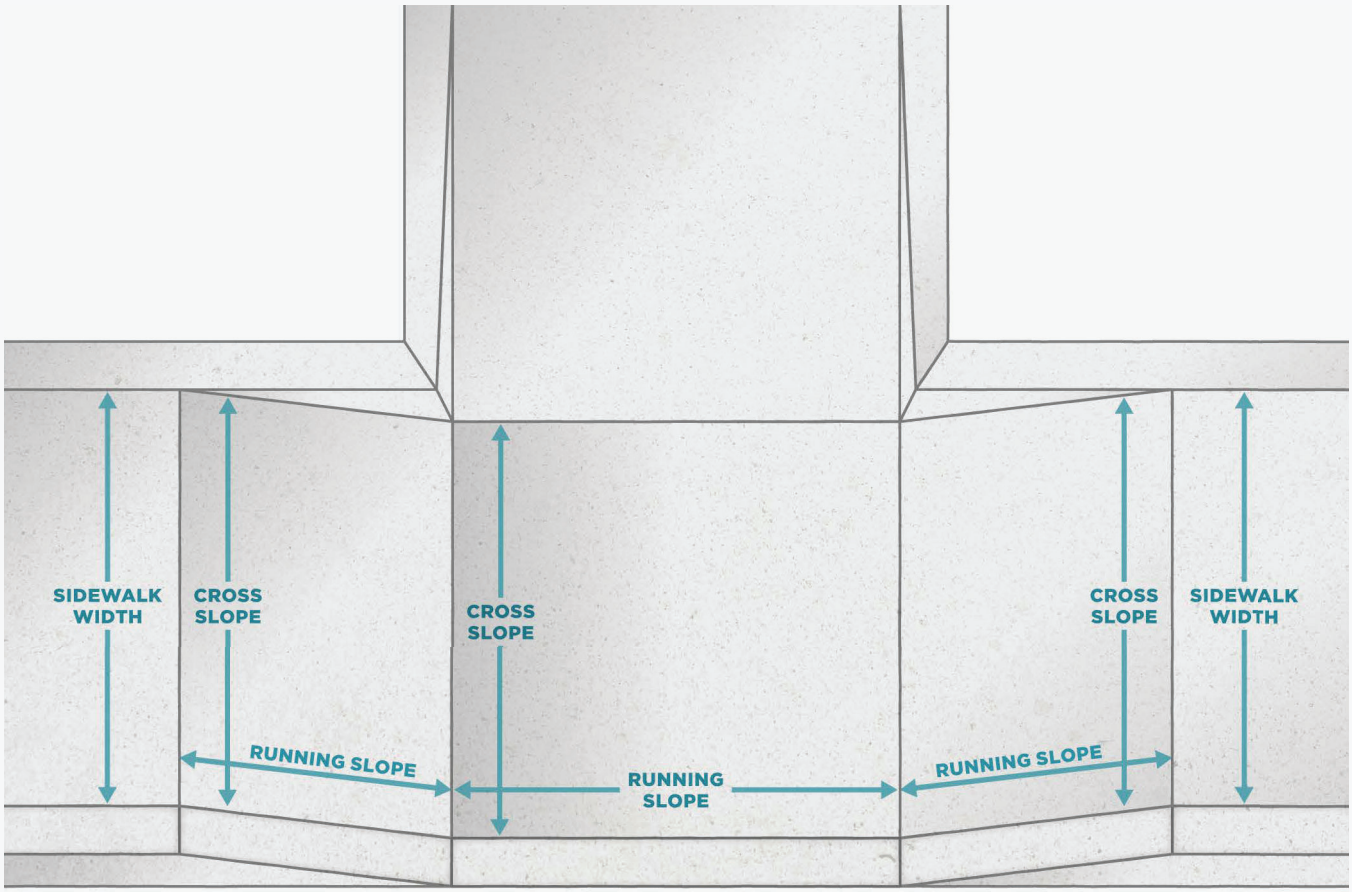


Figure 2-5 *Sidewalk Attributes*

Sidewalks

Field data was collected for sidewalks by Transpo. This field data collection for sidewalks was completed along the length of each segment and then evaluated for their compliance with ADA standards. Common attributes for sidewalks are shown in Figure 2-5.

Each sidewalk was reviewed for compliance, then score based on the degree to which the barrier impeded accessibility.

- Sidewalk Width, i.e., the sidewalk is too narrow.
- Sidewalk Condition, i.e., amount of cracking.

Sidewalks were scored using a scale of 0-30 and categorized as follows:

- 0: Compliant.
- 1-15: Minor Compliance Issue.
- 16-30: Significant Compliance Issue.

Prioritization scoring and compliance criteria are discussed in more detail in Section 4.2.1 and in Appendix C.

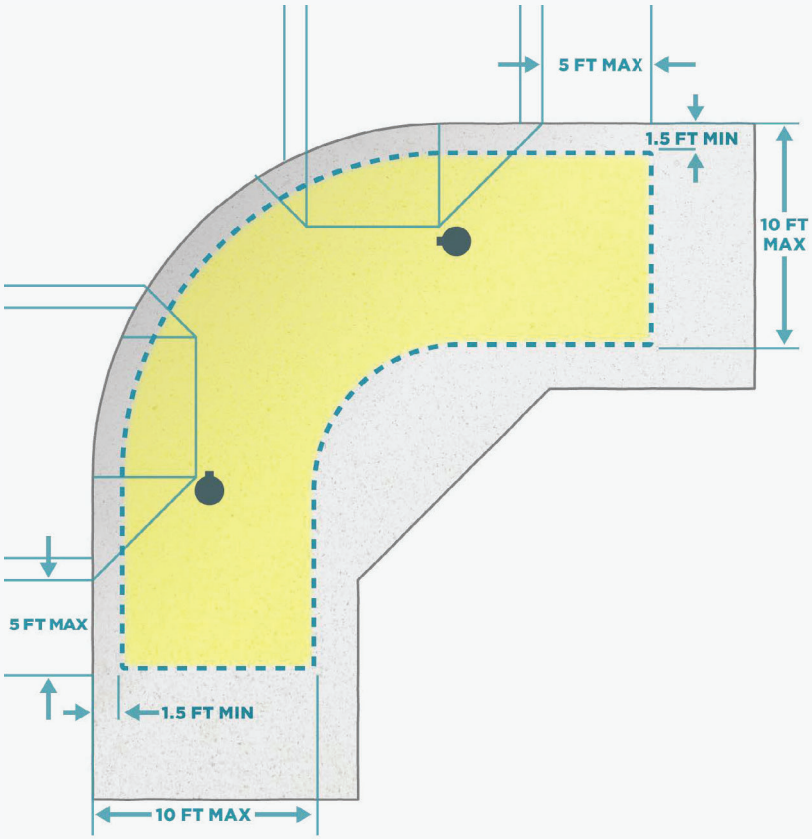


Figure 2-6 *APS Pedestrian Pushbutton and Pushbutton Location Attributes*

Signal Pushbuttons

Accessible pedestrian signals and pushbuttons (APS) provide integrated visual, audible, and vibrotactile information to help pedestrians cross signalized intersections. Some pushbuttons can be programmed to request an extended crossing time or to make the name of the street being crossed audible when pushed for a longer time.

GIS data was provided for pedestrian pushbuttons at traffic signals by the City of Snohomish.

Data collectors recorded location and design attributes for each pushbutton. Location attributes included reach distance to the button, availability of a clear and level area at the button, and the location relative to the intersection and corresponding crosswalk (see Figure 2-6). Design attributes included visual and tactile elements, such as a raised arrow pointing to the crossing, as well as features that provide audible and vibrational feedback. Each pedestrian pushbutton was reviewed for compliance using fifteen criteria, then scored based on the degree to which the barrier impeded accessibility.

Pushbutton scores ranged from 0-30 and were categorized as follows:

- 0: Compliant.
- 1-15: Minor Compliance Issue.
- 16-30: Significant Compliance Issue.

Prioritization scoring and compliance criteria are discussed in more detail in Section 4.2.1 and in Appendix C.

Bus Stops

Data was collected for bus stops located across the city. Features measured included boarding and alighting areas, bus shelter areas, and connecting pathways.

Each bus stop was reviewed for compliance, then scored based on the degree to which the barrier impeded accessibility. These barriers include:

- Boarding/alighting dimensions, i.e., the area is too narrow.
- Boarding/alighting grades, i.e., the area is too steep.
- Shelter surface grades, i.e., the area is too steep.

ADA Parking Stalls

Data was collected for accessible parking stalls located across the city. Features measured included:

- Parking area location, i.e., on-street or in a parking garage, each of the following attributes were collected in the field to determine if enough and the right type of parking and access aisles are provided per each parking lot or garage.
- Vertical clearance to van accessible stalls, i.e., If a van accessible parking spot is in a garage, the entire driving path of the vehicle from the garage entrance to the stall must be at least 98 inches tall.
- Stall arrangement, i.e., whether parking stalls are arranged at 90 degrees, angled, or parallel, stall width, i.e., accessible parking stalls must be at least 96-inches to be compliant, stall turning slope, i.e., slopes in all directions across parking stalls need to be 2 percent or less.
- Presence of items such as pavement marking, including the International Symbol of Accessibility (wheelchair symbol).
- Presence and compliance of wheel or curb stops, (for 90 degree/angled parking stalls only), located in the front of the parking stall to keep vehicles from reducing the clear width of the accessible route below 48 inches. Wheel stops should be approximately 6 inches high and a minimum of 6 feet long.
- Presence and height of accessible parking signs and their features.

Access aisle information was also recorded including the arrangement, turning slope, dimensions, markings, and adjacent pathway width.

Scoring and compliance criteria are discussed in more detail in Section 4.2.1 and in Appendix C.

Table 2-1 Curb Ramp Compliance

CURB RAMP COMPLIANCE	RAMPS	% OF TOTAL
Significant Compliance Issue	751	60%
Minor Compliance Issue	300	24%
Compliant ramps	200	16%
Total	**1,251**	

2.3.2 Findings

Curb Ramps

Approximately 84% of the 1,251 existing curb ramps do not meet ADA standards (see Table 2-1 and Figure 2-7).

As discussed in Section 2.3.1, non-compliant ramps are those that have:

- Non-compliant ramp width, i.e., the ramping area is not present or too narrow (Figure 2-8).
- Non-compliant running slope, i.e., the ramp running slope is too steep (Figure 2-9). 140 curb ramps have running slopes greater than 8.3%.
- Non-compliant cross slope, i.e., the cross slope is too steep (Figure 2-10). 363 curb ramps have cross slopes greater than 2%, 207 of which have cross slopes greater than 3%.
- Several minor non-compliant features.

Curb ramps are designed and constructed to tie into the existing roadway. As noted previously, steep or otherwise constrained locations may make it infeasible to meet ADA grade standards. When it is not feasible to remove all curb ramp barriers, ramps may be built to the maximum extent feasible (MEF) to satisfy ADA requirements. This planning level Self-Evaluation did not examine whether non-compliant ramps were built to the maximum extent feasible. See Section 5.1 for additional information regarding MEF documentation.

It should be noted that data regarding missing curb ramps was also collected along with the curb ramp compliance data collected on existing sidewalk segments as shown in Table 2-1. 320 missing curb ramps were recorded. Missing curb ramps are recorded with maximum scoring and are in the "significant compliance issue" category as shown in Figure 2-11.

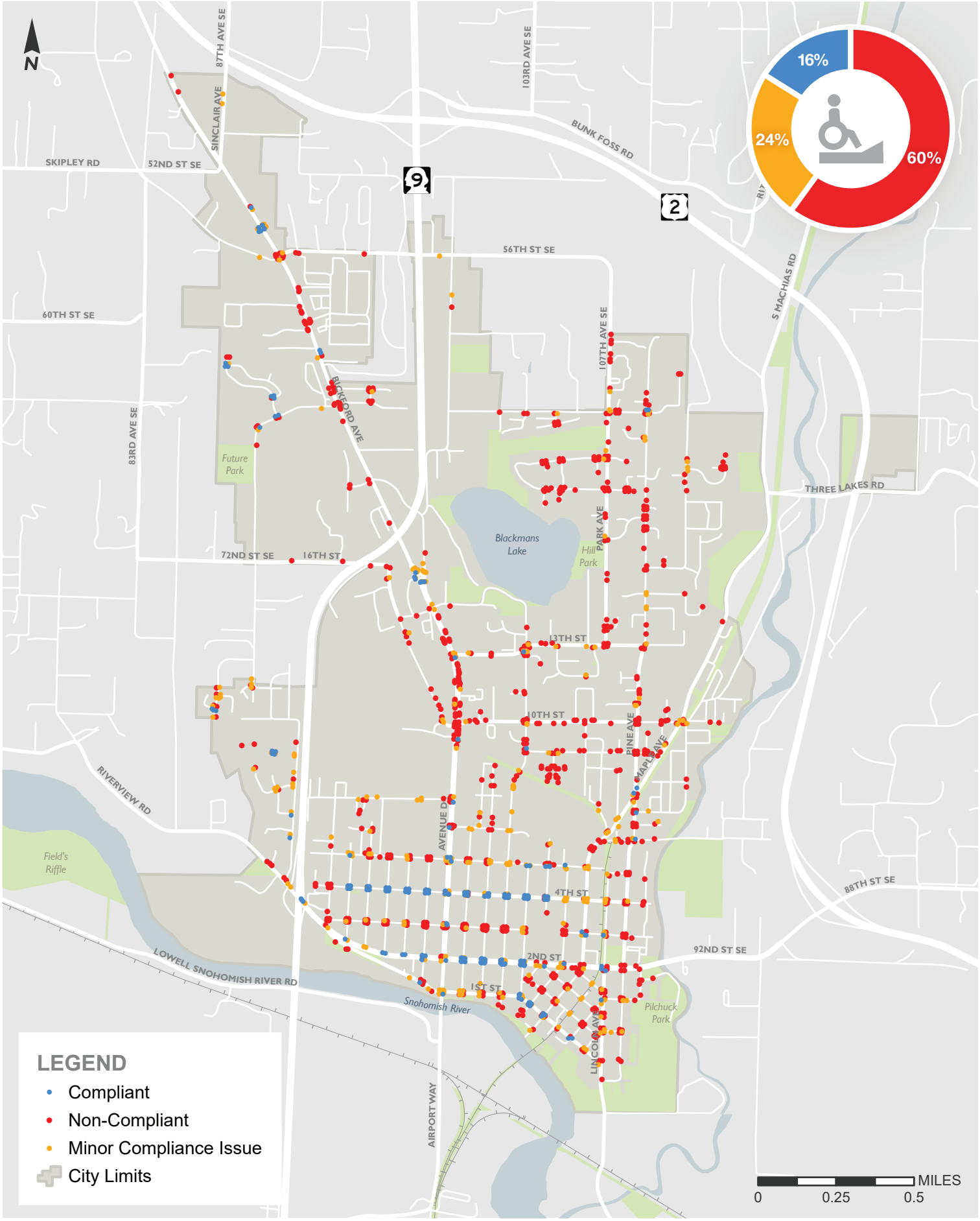


Figure 2-7 *Non-Compliant Curb Ramp*

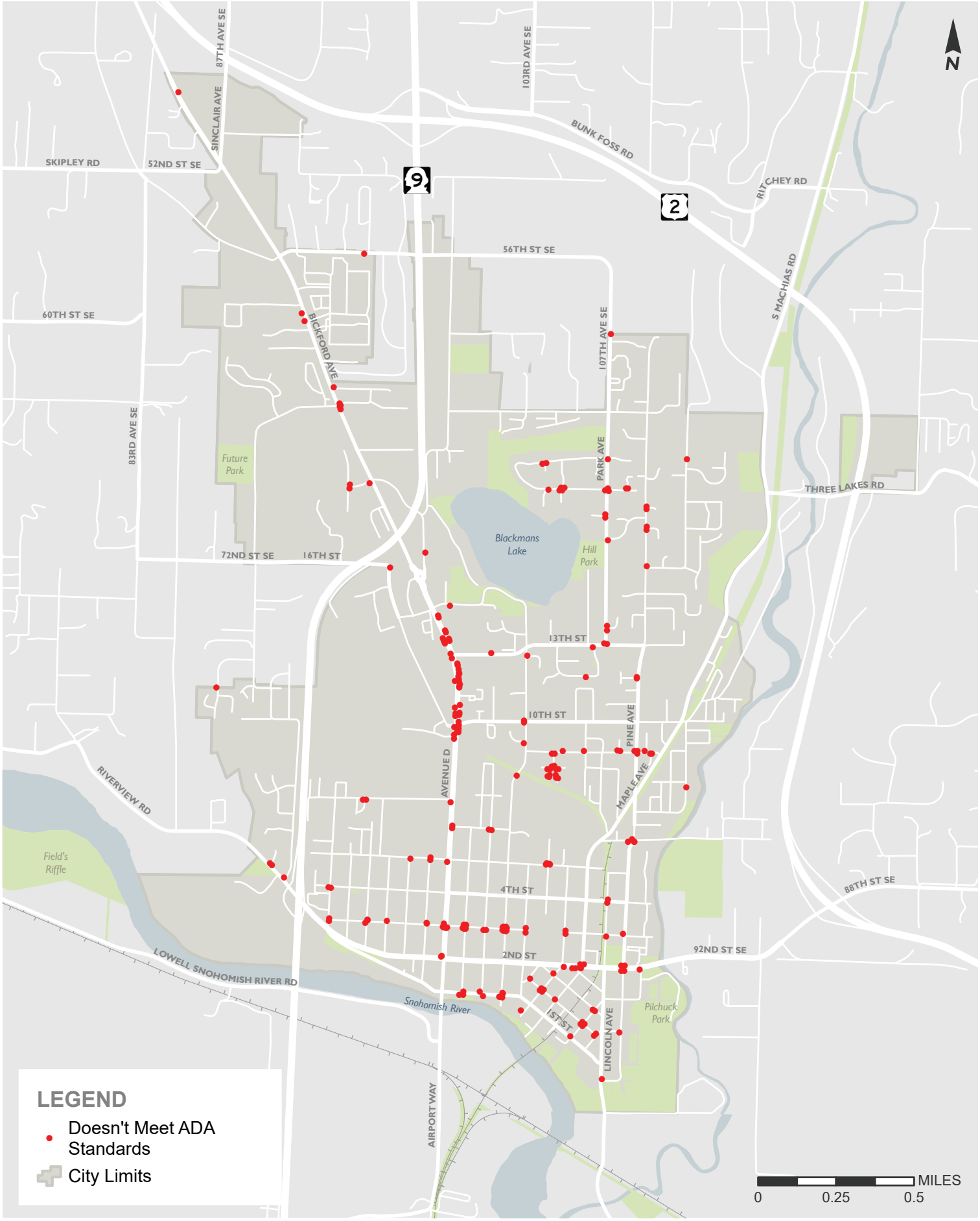


Figure 2-8 *Curb Ramp Width*

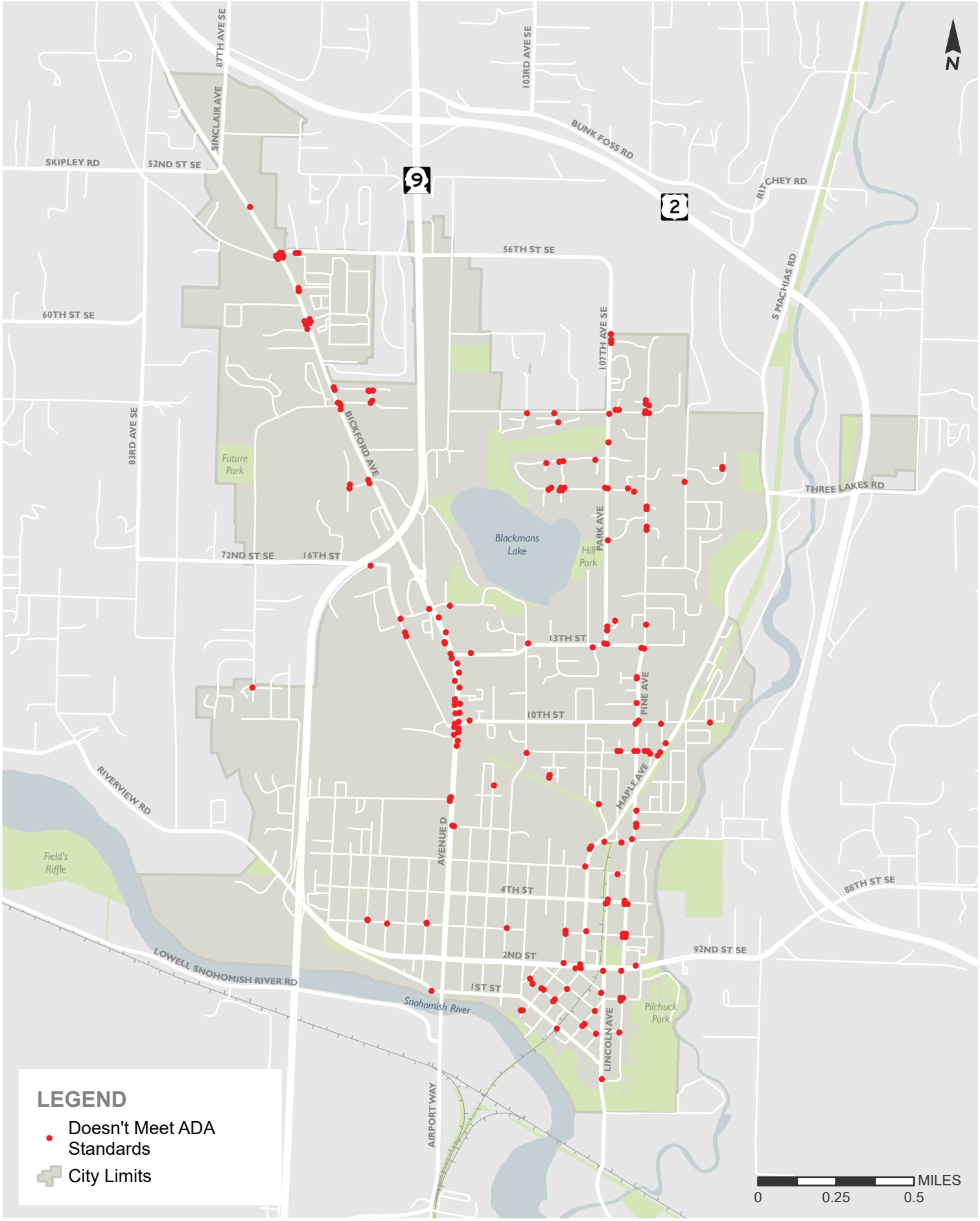


Figure 2-9 *Curb Ramp Running Slope*

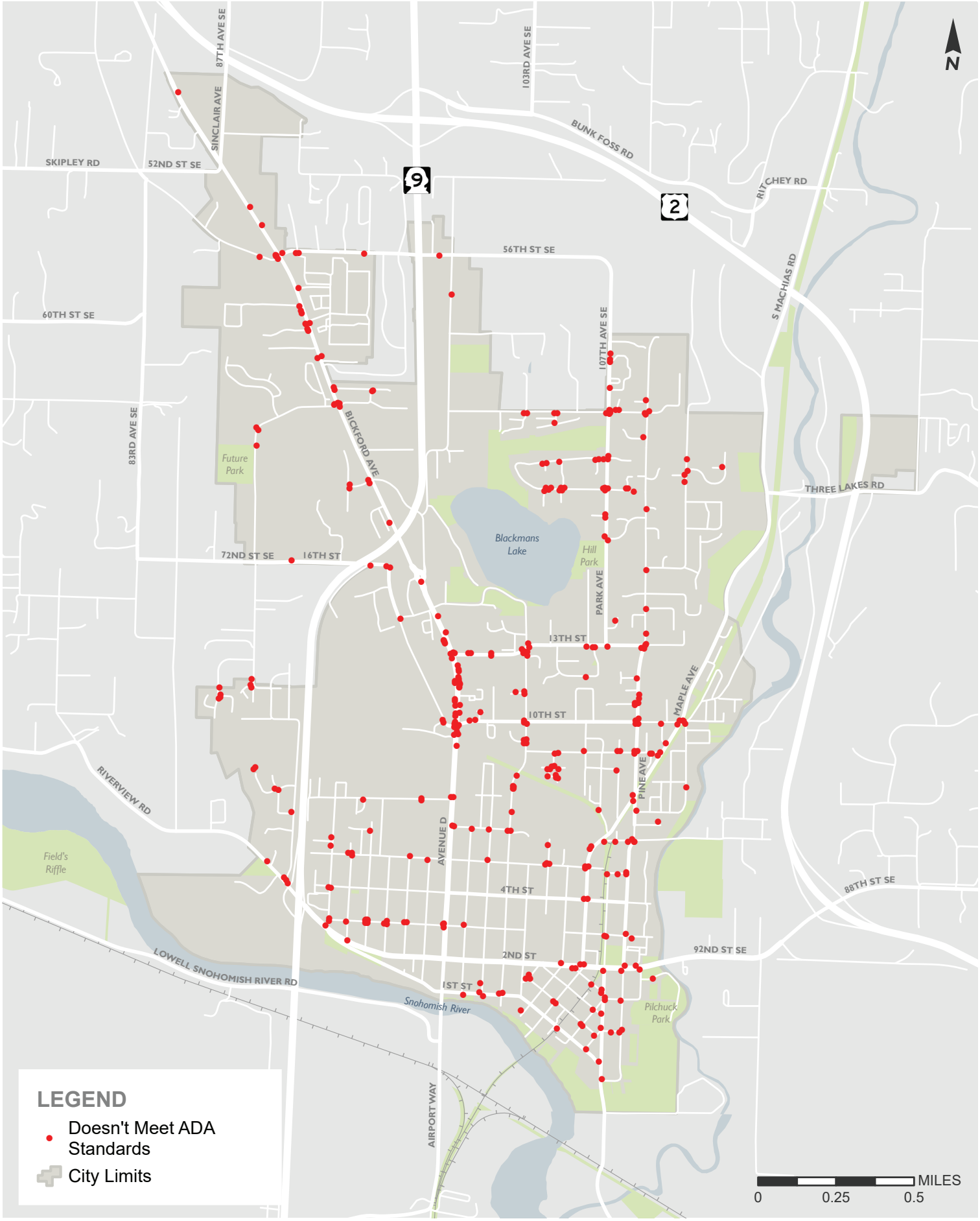


Figure 2-10 *Curb Ramp Cross Slope*

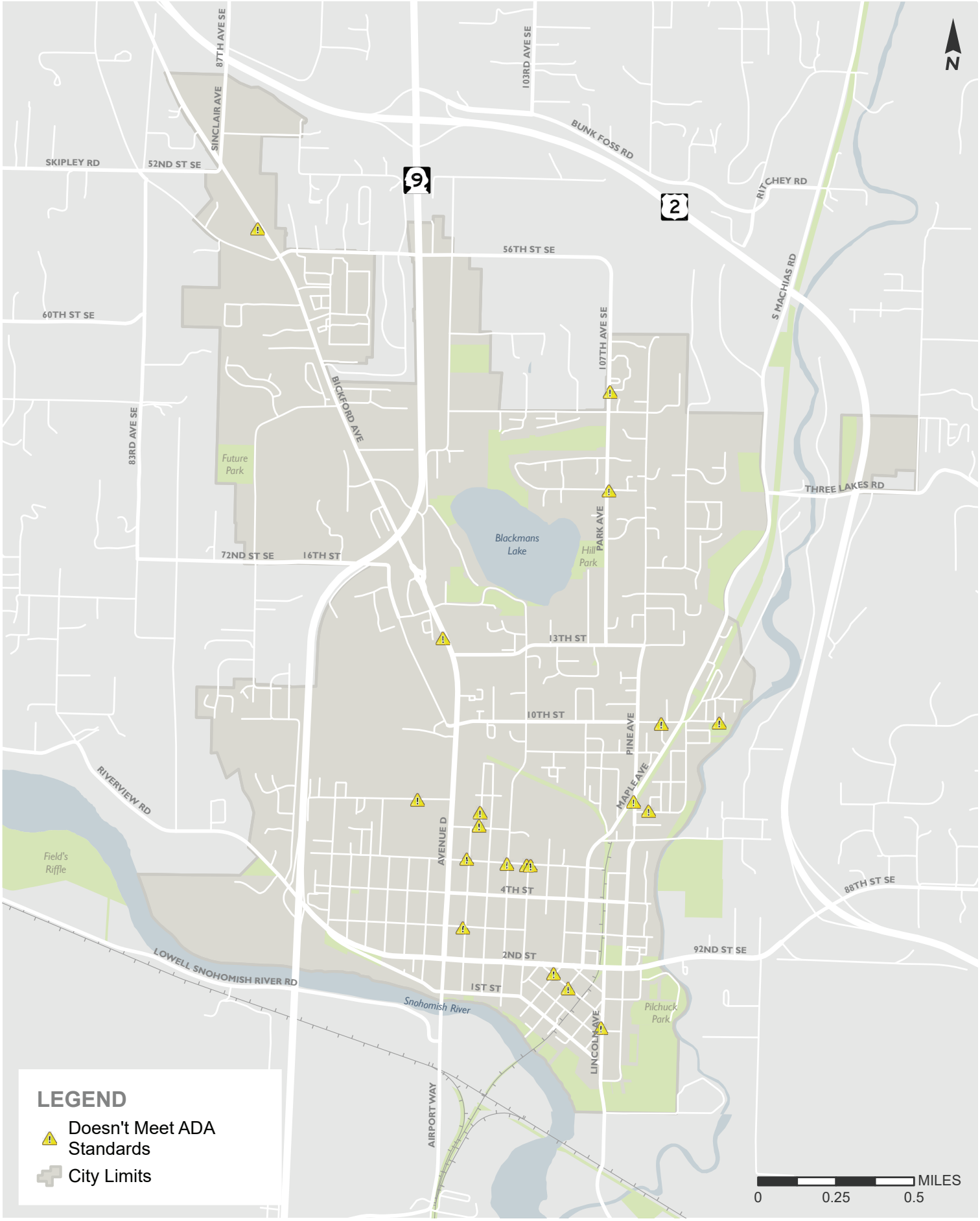


Figure 2-11 *Curb Ramp No Receiving Ramp*

Sidewalks

Approximately 47 miles of sidewalk were inventoried with approximately 98% not meeting ADA standards (see Table 2-2 and Figures 2-12 and 2-13). Grinding, patch repair, and full reconstruction are potential solutions for removing the sidewalk barriers depending on the severity of the barrier.

***Table 2-2** Sidewalk Compliance*

	TOTAL	
SIDEWALK COMPLIANCE	MILES	% OF TOTAL
Significant Compliance Issue	1.5	3.2%
Minor Compliance Issue	44.9	95.3%
Compliant	0.7	1.5%
Total	**47.1**	

Figure 2-14 shows which sidewalk segments have cross slopes greater than 2.0%.

Hazards

6,667 hazards were inventoried. Pruning, clearing, relocating objects, and full sidewalk panel reconstruction are potential solutions for removing hazards depending on the severity and type of the hazard. Figure 2-15 shows sidewalk hazard barriers.

Driveways

836 driveways which did not meet ADA standards were inventoried. Grinding, patch repair, and full reconstruction are potential solutions for removing the driveway barriers depending on the severity of the barrier.

Figure 2-16 shows non-compliant driveways along sidewalk.

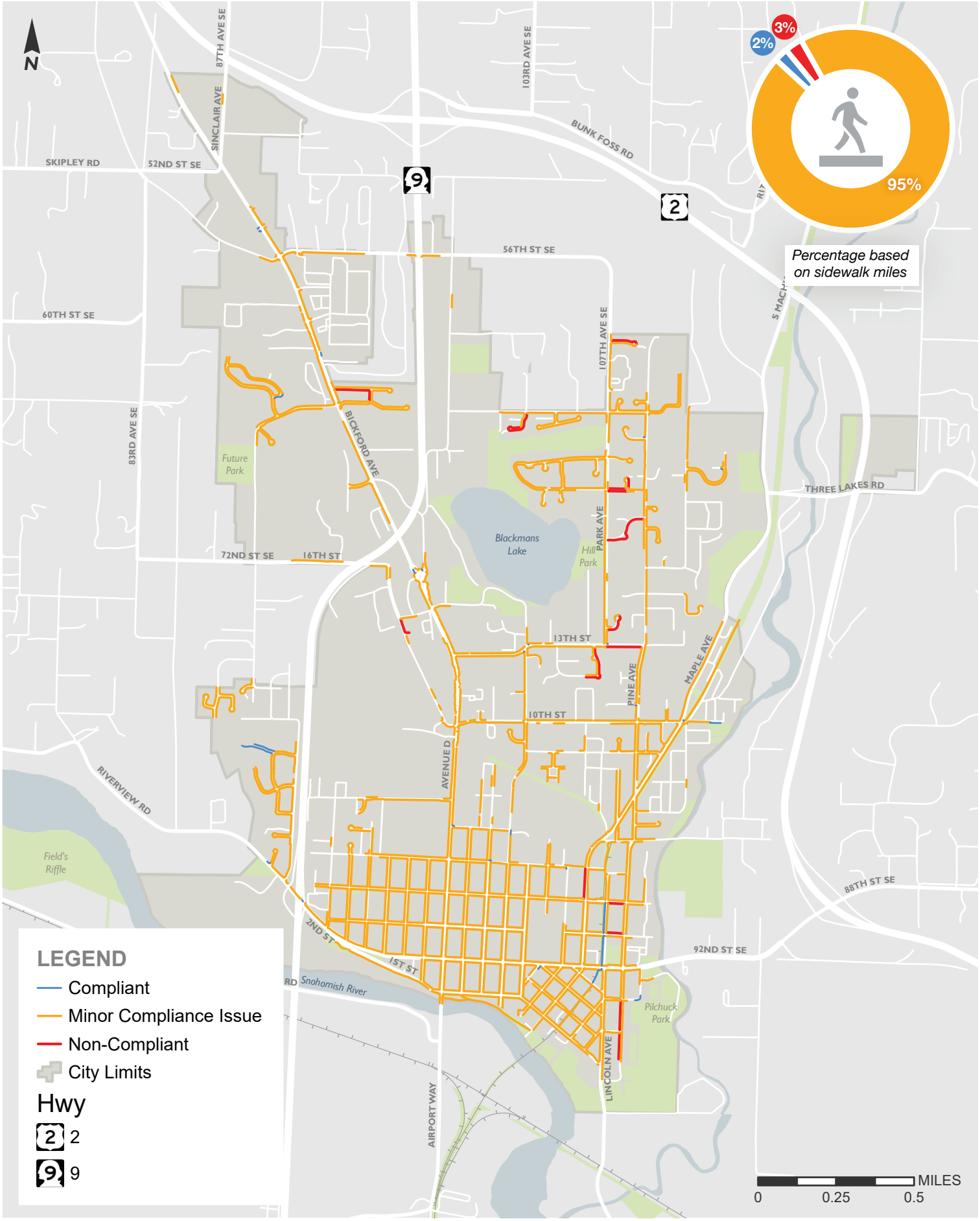


Figure 2-12 *Non-Compliant Sidewalk*

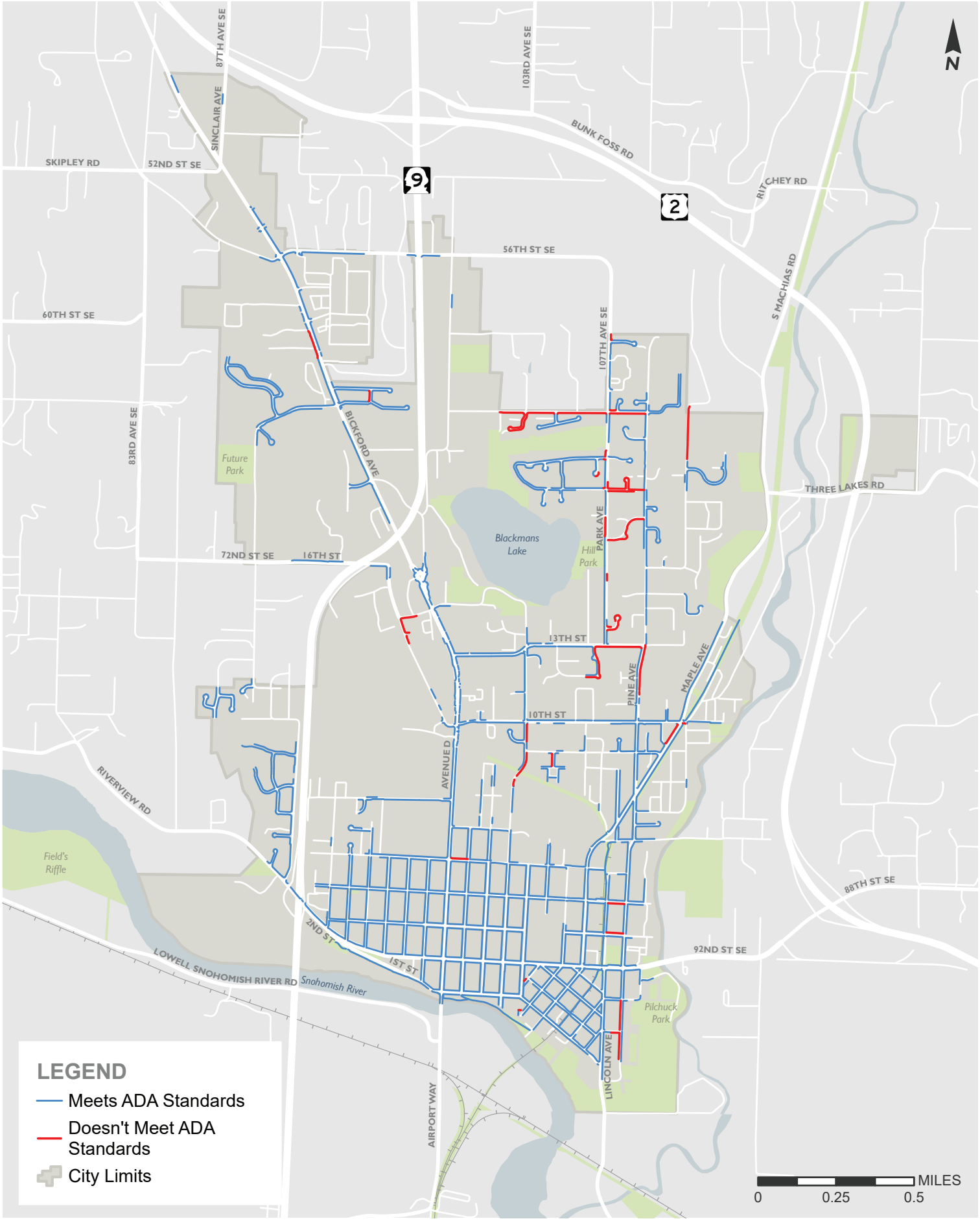


***Figure 2-13** Sidewalk Width*

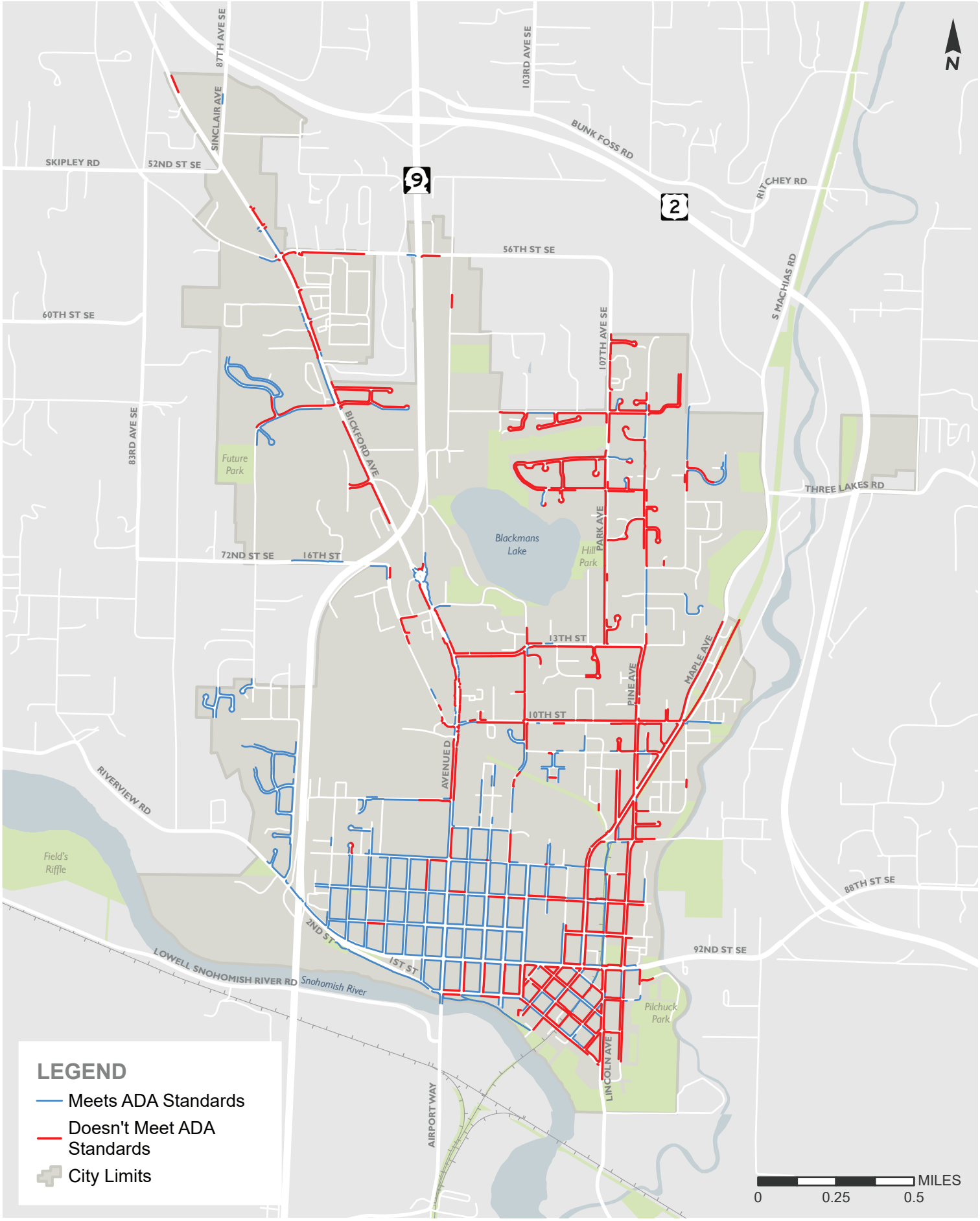


Figure 2-14 *Sidewalk Cross Slope*

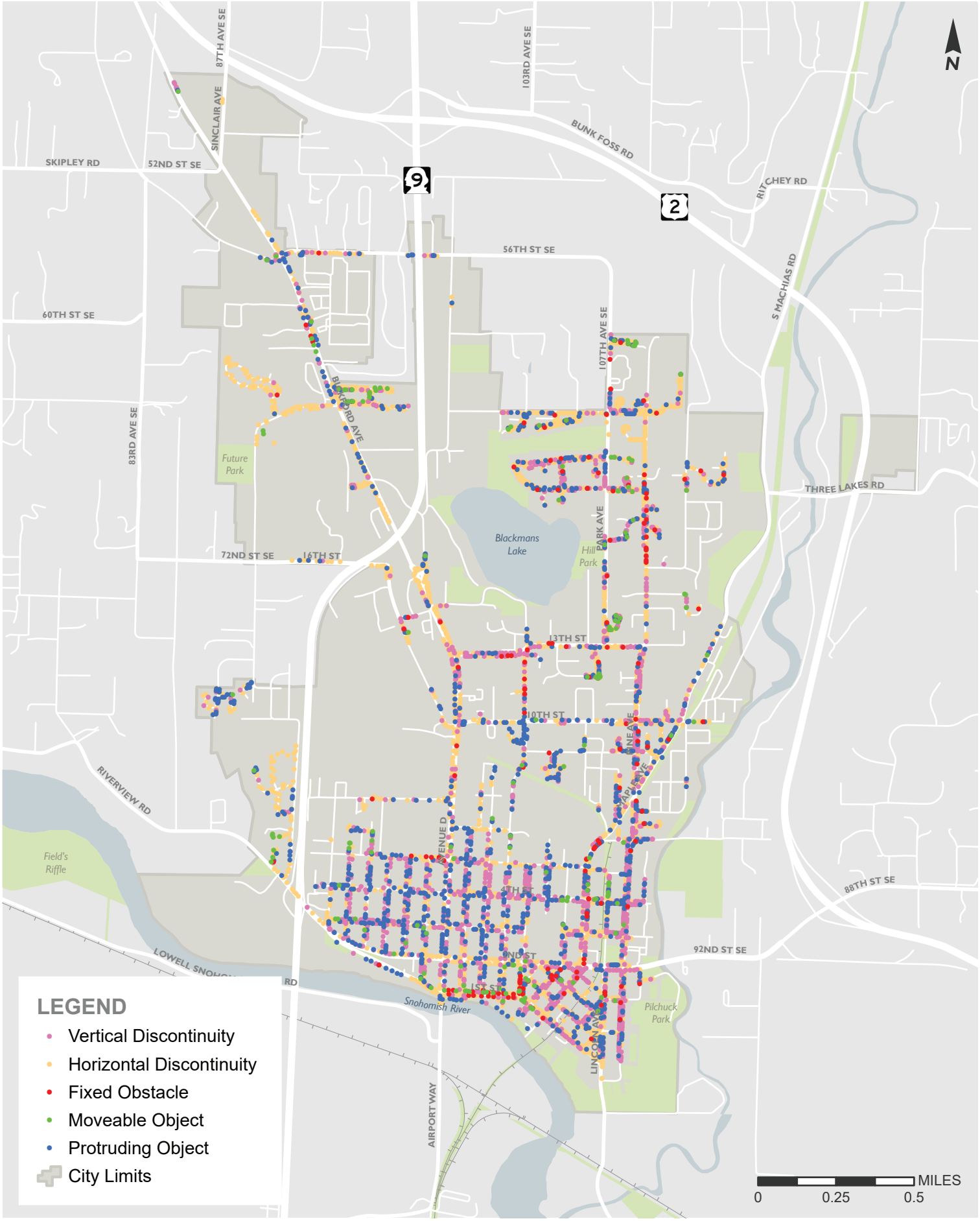


Figure 2-15 *Sidewalk Barriers*

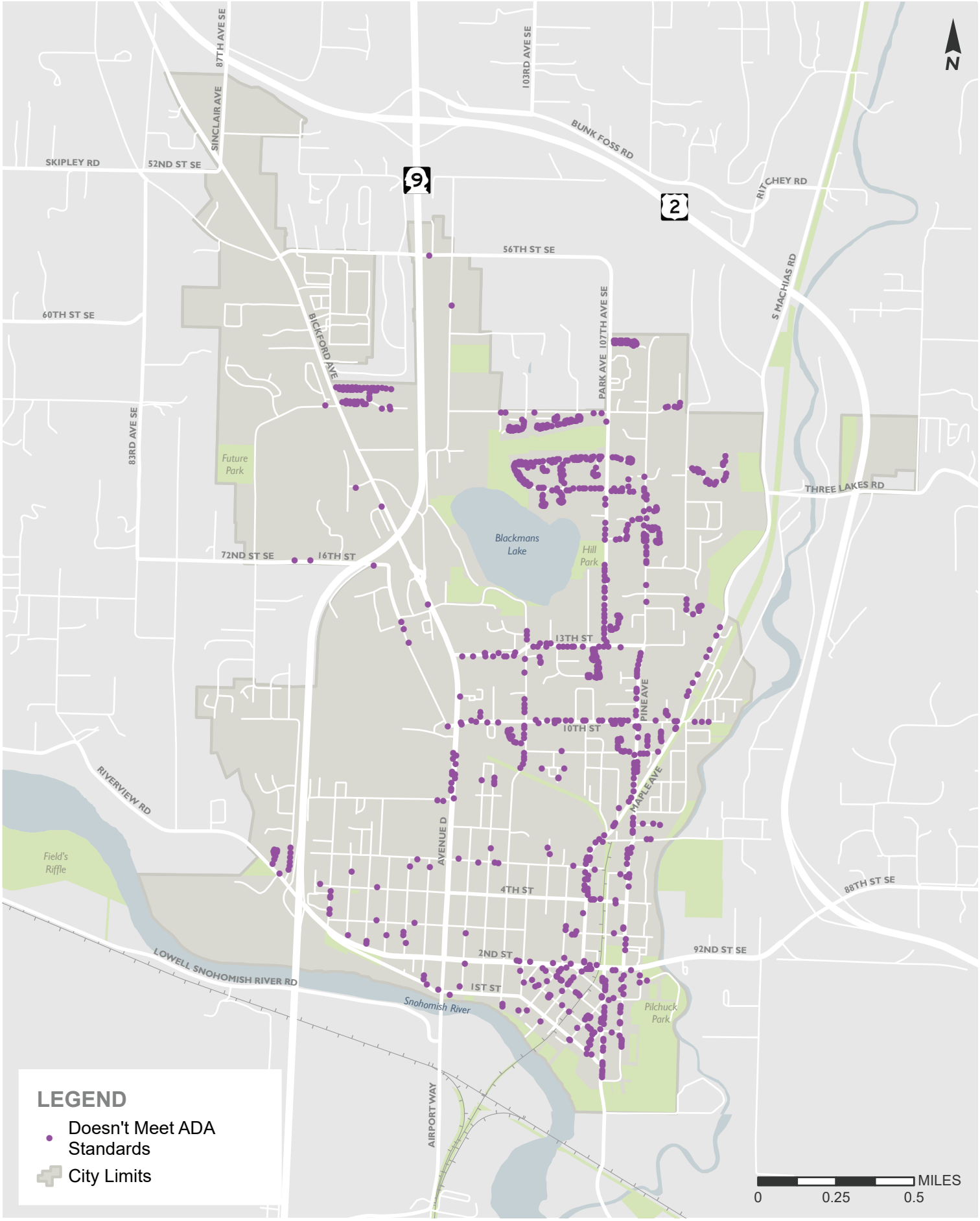


Figure 2-16 *Non-compliant driveway along sidewalk*

Signal Pushbuttons

107 of the 108 inventoried pedestrian pushbuttons were non-compliant. Non-compliant pedestrian pushbuttons include non-APS style buttons to be replaced, and APS-style buttons to be reprogrammed or relocated.

67% of pedestrian pushbuttons in the city are an older "H-style" design (see Figure 2-17 top). This style of pushbutton can be upgraded to increase accessibility but must be fully replaced with an accessible pedestrian signal (APS)-style pushbutton to achieve full ADA compliance (see Figure 2-17 bottom).

The requirement to use APS-style pushbuttons is relatively new and lack of compliance is typically due to a crossing not being upgraded over time to reflect evolving requirements. Pushbuttons are typically upgraded to APS-style in groups rather than individually. As a result, APS-style additions and upgrades usually occur on an intersection-by-intersection basis.

Figure 2-18 demonstrates the type and locations of these pushbuttons throughout the city.

***Figure 2-17** "H-style" (top) and APS-style pedestrian pushbutton (bottom)*

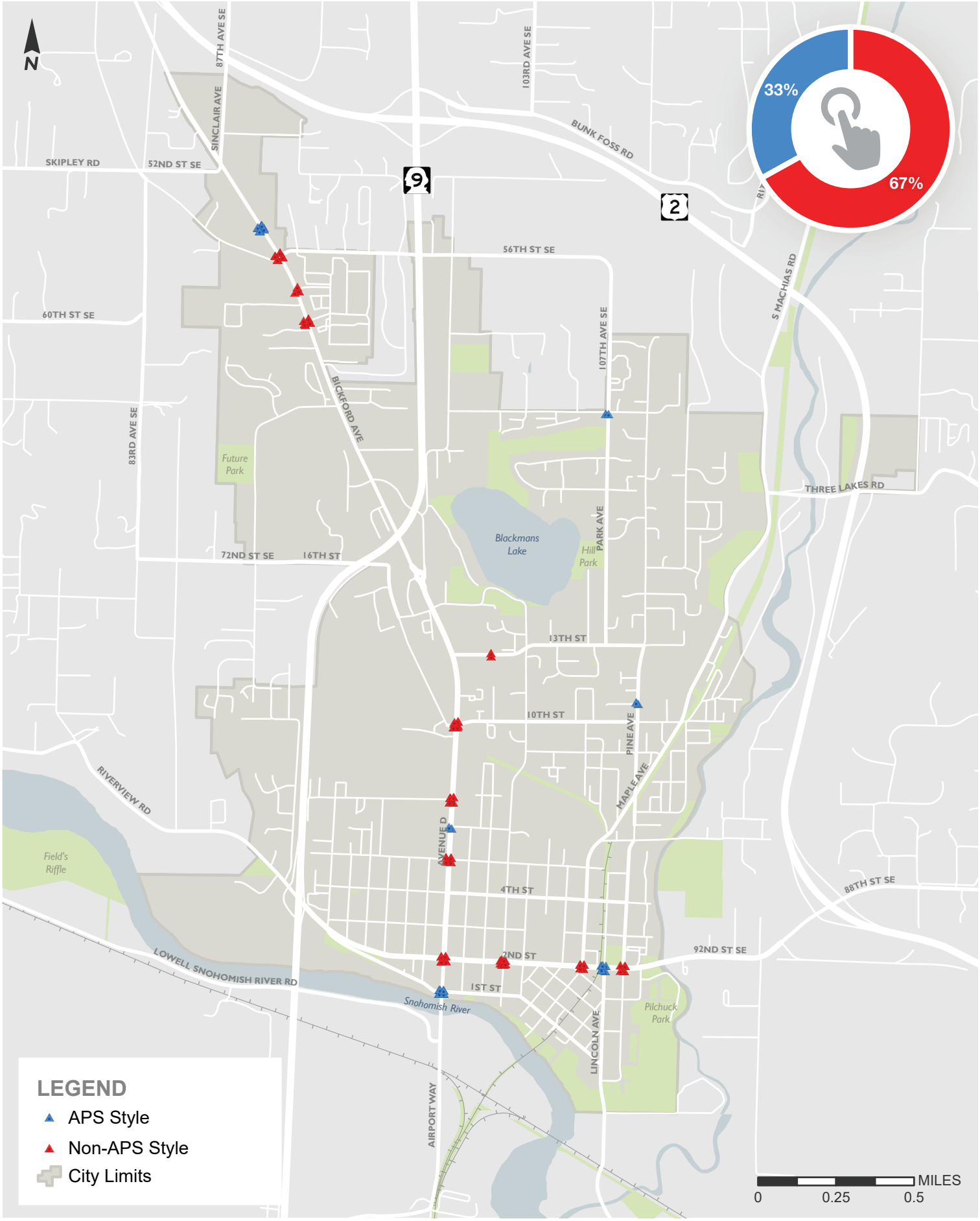


Figure 2-18 *Signal Push Buttons: APS and Non-APS*

Table 2-3 Parking Stall Compliance

REMEDY	TOTAL	
	FEATURES	% OF TOTAL
Parking Stall Regrading	9	50%
Add/Revise Pavement Stall Markings	7	39%
Add/Revise ADA Parking Signs	11	61%
Parking Aisle Regrading	10	56%
Add/Revise Pavement Aisle Markings	2	11%
Compliant	1	6%
Total	18	94%

Bus Stops

There were 28 bus stops collected. Of these bus stops, 25 were found to have a minimum of one non-compliant feature. The most common issue found were bus boarding/alighting areas that were smaller than the required size. The boarding area is required to be a minimum of 8 feet measured perpendicular to the curb or edge of asphalt. This space allows for lifts on buses to be lowered and provides passengers with access to the lifts. Another trend of non-compliance for bus stops were cross slopes within the boarding/alighting areas that are greater than two percent.

ADA Parking Stalls

18 ADA parking stalls were inventoried with 94 percent not meeting ADA standards. Table 2-3 shows the type and quantity of solutions required to remove ADA parking barriers.

The most common issues found were parking stalls that required ADA parking signs, and aisle regrading.

3 Stakeholder Engagement

Public and stakeholder input is an essential element in the transition plan development and self-evaluation processes. ADA implementation regulations require public entities to provide an opportunity to interested persons, including individuals with disabilities or organizations representing individuals with disabilities, to participate in the self-evaluation process and development of the transition plan by submitting comments (28 CFR 35.105(b) and 28 CFR 35.150(d)(1)).

Three primary goals guided the public outreach activities prior to adopting the plan:

- Inform the public about the City's plan and processes regarding removal of barriers to accessibility within the right-of-way. Provide information to assist interested parties to understand the issues faced by the City, alternatives considered and planned actions.
- Obtain public comment to identify any errors or gaps in the proposed accessibility transition plan for the public rights-of-way, specifically on prioritization and grievance processes.
- Meet Title II requirements for public comment opportunity.

3.1 Engagement Methods

To generate public involvement and capture public feedback on the ADA Transition Plan, the City used a virtual open house, engagement survey, and an online mapping tool. Promotion and advertising for these outreach methods utilized the City's website and social media channels, as well as Quarterly magazine, City Council and Parks Board meetings, the farmers market, and through a presentation given at the Senior Center. The City of Snohomish developed a project website: https://www.snohomishada.com/ for easy online access to project information and ways to provide feedback. A full account of the public engagement findings can be found in Appendix D.

3.1.1 Online Open House and Survey

An online open house that dove into the ADA transition plan project, goals and areas of focus of the project, was made available on the City's website. Within the open house an online survey and reporting tool was provided for the public to give feedback on gaps and barriers at specific locations.

The survey contained questions focusing on the following areas.

- Whether they have a disability or support someone with one.
- Which type of accessibility barriers they currently experience.
- How they rate the accessibility conditions of existing right-of-way facilities.
- What facility types they believe should be prioritized when removing accessibility barriers.

The survey was made available for public participation from late July 2022 to late October 2022.

The survey respondents identified their first and second priorities for improving pedestrian facilities within the city. The weighted rank priorities showed that the following three categories were highest priority:

- Neighborhoods
- Retail Services
- Government buildings

A detailed summary of engagement and outreach is included in the Public Involvement Summary in Appendix D. Also included is the summary information regarding the priorities and locations identified through the survey and online mapping tool.

4 Pedestrian Barrier Removal Methods & Schedule

Chapter 4 provides a summary of barrier removal methods and priorities to guide implementation of this plan. This chapter presents a total planning level cost estimate for the removal of existing pedestrian barriers. Finally, a schedule is presented that outlines the steps necessary to achieve compliance with current ADA standards.

4.1 Barrier Removal Methods

The City currently has a variety of barrier removal methods that are funded from sources that include capital projects, road maintenance, and safety or grant programs. Certain programs provide continual means of barrier removal while others vary based on outside influences such as permitted development and grants. The manner in which an existing pedestrian barrier is removed is typically a function of its complexity and cost. Less complex pedestrian barriers, such as a missing detectable warning surface (DWS), can be removed through maintenance and operations programs. More complex barriers, such as barriers associated with ramp or sidewalk design, typically require additional engineering as part of a more costly capital construction project.

For these methods to be effective, City practices and design standards must comply with federal ADA guidance. If standards are not updated and enforced, new or reconstructed pedestrian facilities may not be constructed to accessible standards, requiring costly revision, and increasing the duration it will take the City to remove accessibility barriers.

The following sections provide additional detail regarding capital projects, maintenance, and City programs.

4.1.1 Capital Improvement Program

The Capital Improvement Program (CIP) defines projects and identifies funding for different elements of the government including the Transportation Improvement Plan (TIP). Transportation projects range from minor street widening to street extension projects. A variety of short and long-range plans, studies and individual requests help identify projects which are then included and prioritized. The City of Snohomish updates its TIP annually and forecasts projects for a six-year period. ADA compliant improvements (new or replacement) are often included as a component of these projects. With this transition plan, accessibility barriers may be identified and included in TIP projects.

4.1.2 Sidewalk Maintenance

The maintenance of sidewalks in the City of Snohomish is designated under SMC 12.20 as the responsibility of the adjacent property owner. Once a sidewalk is deemed unsafe, the Public Works Department will place a notice on the resident's property or in the mail instructing them to perform maintenance on the sidewalk. Failure to comply with the improvements will result in a fine from the city.

4.1.3 Maintenance Program

Operational and maintenance activities typically resolve less costly and less complex barriers to accessibility. A subset of the work completed by the Public Works & Utilities department helps to remove ADA related barriers through curbs, streets, and sidewalk repairs. Though maintenance investments for pedestrian facilities often do not bring sidewalks, ramps, and other pedestrian infrastructure fully up to ADA standards, these investments of staff time and resources typically result in critically important access improvements. These activities include sidewalk panel grinding, panel replacement, and request-based curb ramp installations. Maintenance investments are crucial to increasing the longevity of the existing pedestrian network.

4.1.4 Permitted Development

Even with the current funding for accessibility improvements, it will take many years to remove accessibility barriers or provide sidewalk connections between gaps. Redevelopment of properties such as construction of new housing or commercial buildings or major remodels can provide a valuable boost to barrier removal efforts. At times, private development results in street frontage improvements as a function of construction permit requirements. All such improvements are designed and built to meet City and ADA standards. This approach to barrier removal is incremental and depends on the outside influence of developers, and therefore was not included in the City's funding estimate.

4.2 Barrier Removal Plan and Schedule

The ADA requires agencies to specify a schedule for taking the steps necessary to make existing facilities ADA compliant. This plan section summarizes the three-step process used to develop a barrier removal implementation plan and schedule, consistent with ADA transition plan requirements:

1. Prioritization of pedestrian barriers. Physical barriers identified through the Self-Evaluation were prioritized based on the degree to which they physically impacted accessibility and their proximity to key pedestrian destinations. Community input received through stakeholder engagement informed the prioritization process.
2. Estimation of planning level costs to remove pedestrian barriers. Unit costs were applied to the barrier inventory to generate a total planning level cost estimate to remove Self-Evaluation identified barriers. This planning level cost estimate is the total estimated 'need' for barrier removal.
3. Development of a schedule for barrier removal. An estimate of available financial resources was generated and compared to the total estimated need to develop a schedule for barrier removal.

4.2.1 Prioritization of Pedestrian Barriers

To inform the City's future project selection and understand the impact of barrier removal programs, a prioritization system was developed and used to score each pedestrian facility. This system was informed by the Self-Evaluation data, the community engagement process, and technical expertise. It reflects both a facility's physical characteristics and its importance to pedestrian travel. Under the prioritization system, each barrier was scored independently on two factors:

- Physical impact to accessibility.
- Proximity to key pedestrian destinations, such as transit stops and schools.

The two resulting scores were added together to incorporate both factors into a single score for prioritization. Based on each facility's score, it was categorized as very high, high, medium, or low priority for barrier removal. Under this system, facilities that present greater barriers to accessibility and are located near multiple key pedestrian destinations are considered a high priority, while facilities with less significant physical barriers located farther from key pedestrian destinations are considered a low priority. Prioritization scoring factors are described below.

Physical Impact to Accessibility: Accessibility Index Score (AIS)

The Accessibility Index Score describes the degree to which each facility presents a physical barrier to accessibility. Criteria and weights were developed for sidewalks, curb ramps, and pedestrian pushbuttons. These criteria and weights are shown in Appendix C.

Potential scores for each facility range from 0 (compliant) to 30. Each facility's Accessibility Index Score is the sum of the individual criteria scores. For example, existing curb ramps with non-compliant ramp widths, running slopes, or steep cross-slopes were assigned a score of 30. Figures 4-1 through 4-6 show the calculated AIS values and the facility locations.

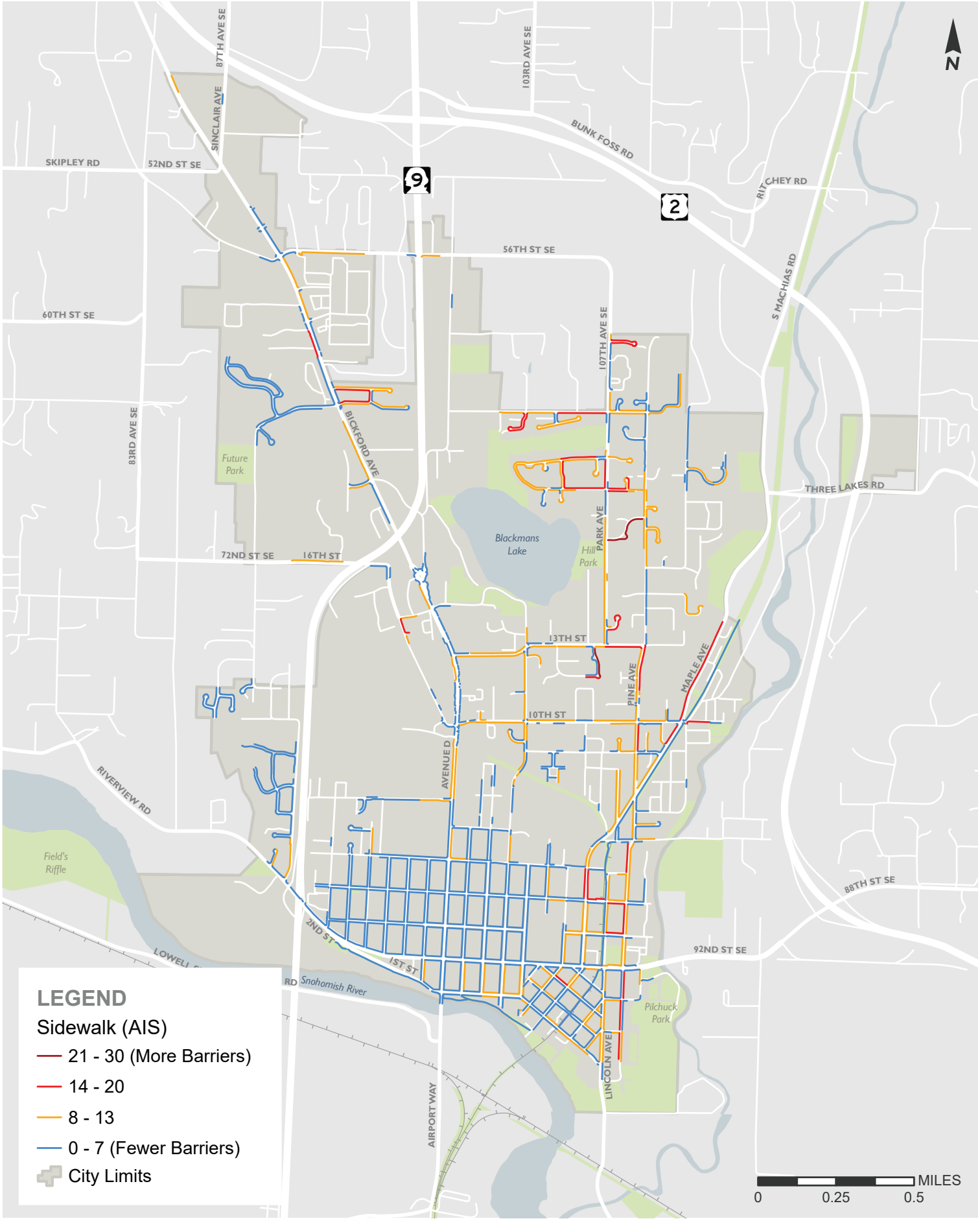


Figure 4-1 *Accessibility Index Score Composite (Sidewalk)*

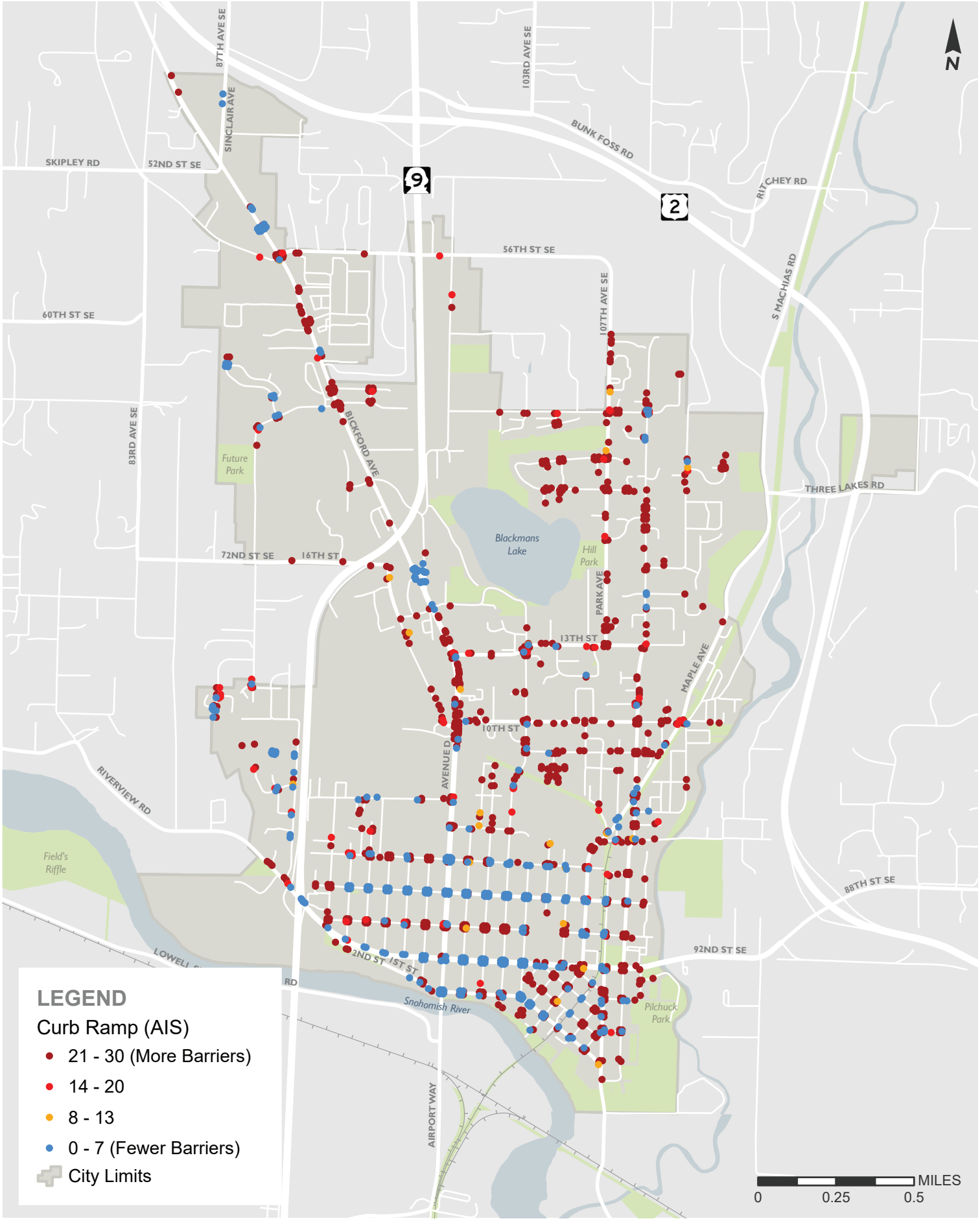


Figure 4-2 *Accessibility Index Score Composite (Curb Ramp)*

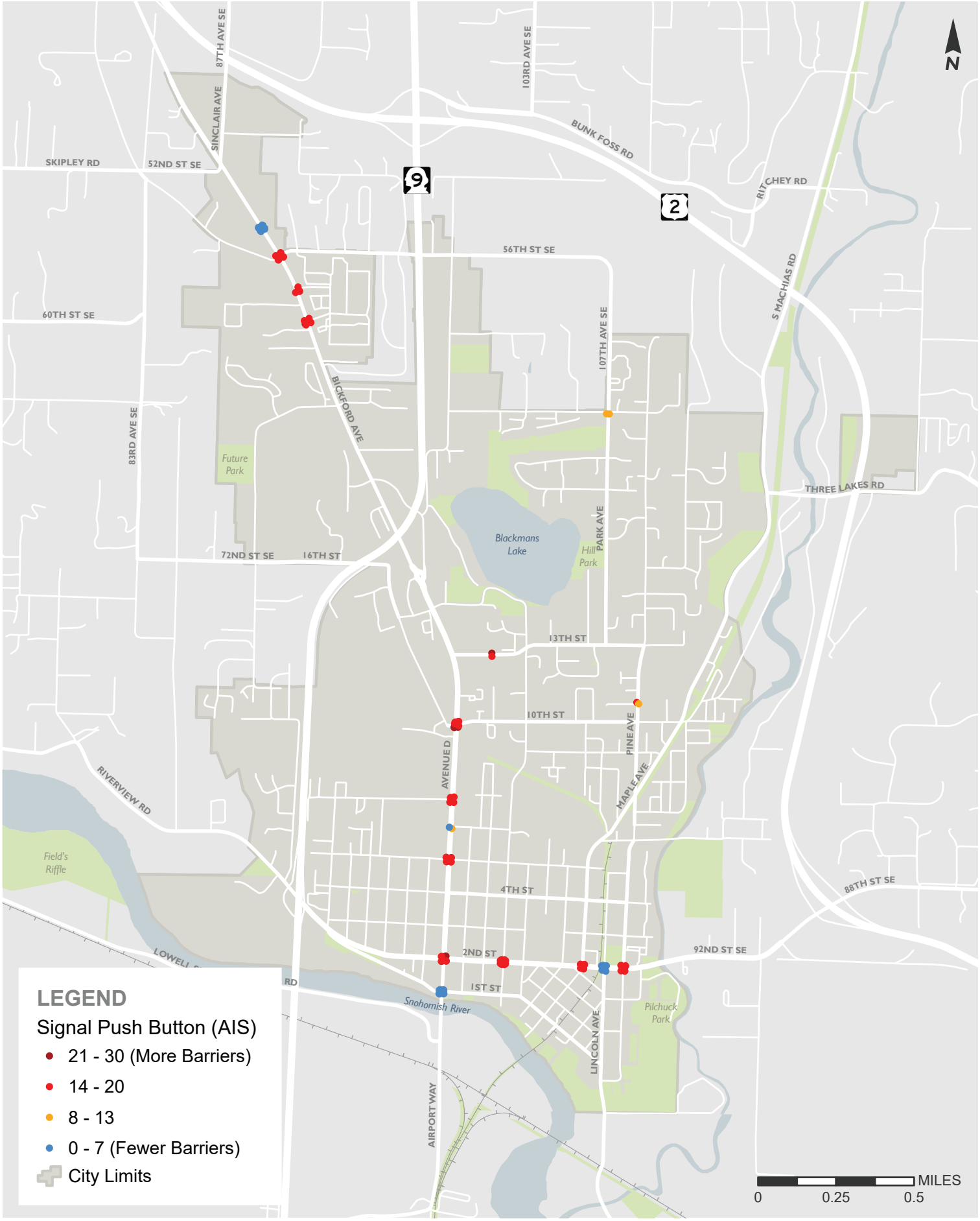


Figure 4-3 *Accessibility Index Score Composite (Signal Push Button)*

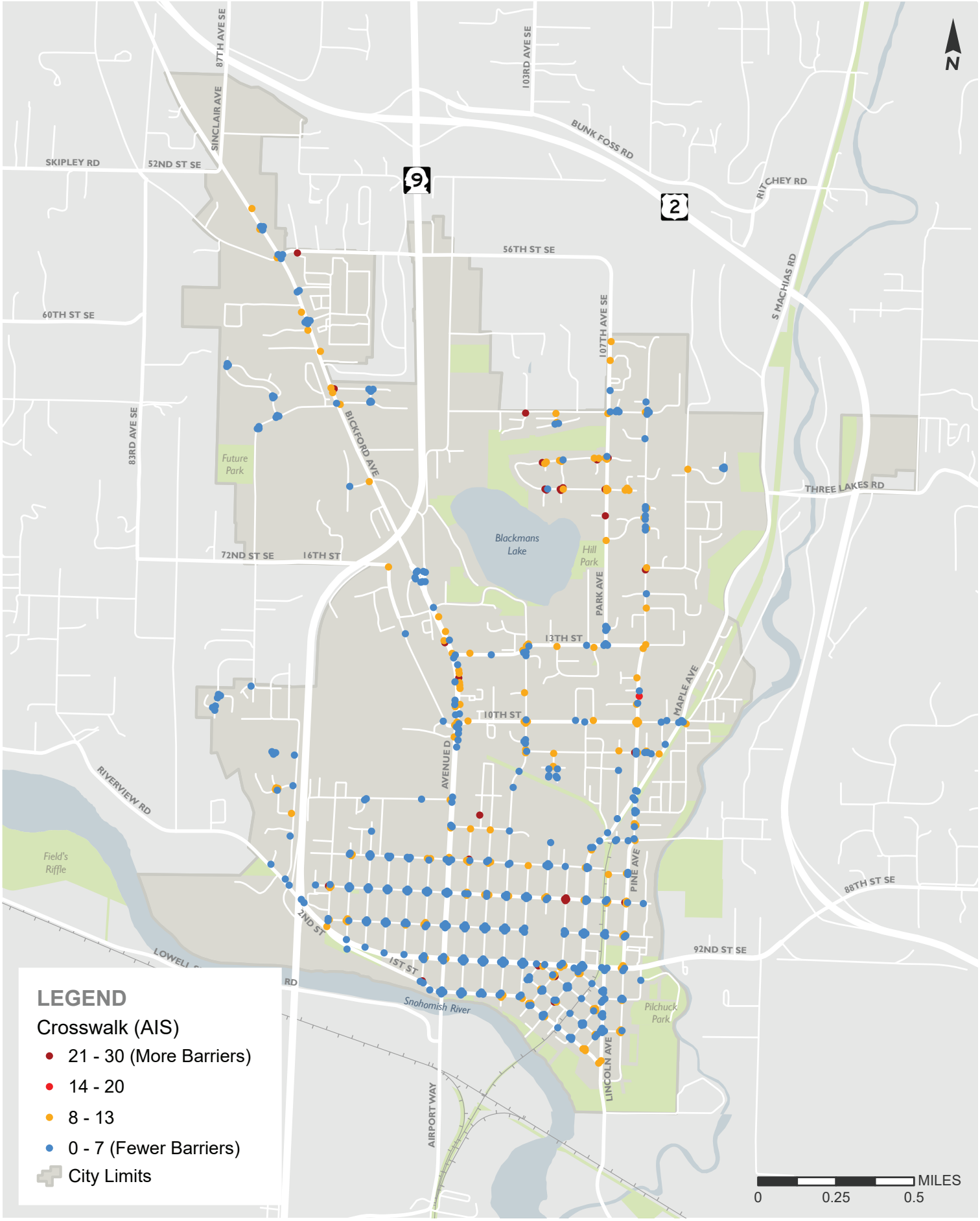


Figure 4-4 *Accessibility Index Score Composite (Crosswalk)*

Figure 4-5 *Accessibility Index Score Composite (Bus Stop)*

Figure 4-6 *Accessibility Index Score Composite (Parking)*

Proximity to Key Pedestrian Destinations: Location Index Score (LIS)

The Location Index Score describes the importance of the pedestrian facility to accessing key pedestrian destinations. Each existing pedestrian facility was scored based on its proximity to schools, parks, transit facilities, signals or roundabouts, public buildings, and downtown or commercial business centers. Facilities near neighborhoods, retail services, and government buildings received a higher score to reflect feedback received through the public engagement survey.

Location Index Scores reflect the number of types of key pedestrian destinations within a defined radius. The full score for each type of destination is assigned if at least one facility of that type is nearby; scores do not increase if a facility is within the radius of multiple destinations of the same type. For example, a facility within one-eighth mile of two parks will receive a score of 5, while a facility within one-eighth mile of a park and a school will receive a score of 10.

Total Location Index Scores ranged from 0 to 45. Location scoring criteria and weights are shown in Appendix C. See Figures 4-7 through 4-11 for LIS values and facility locations.

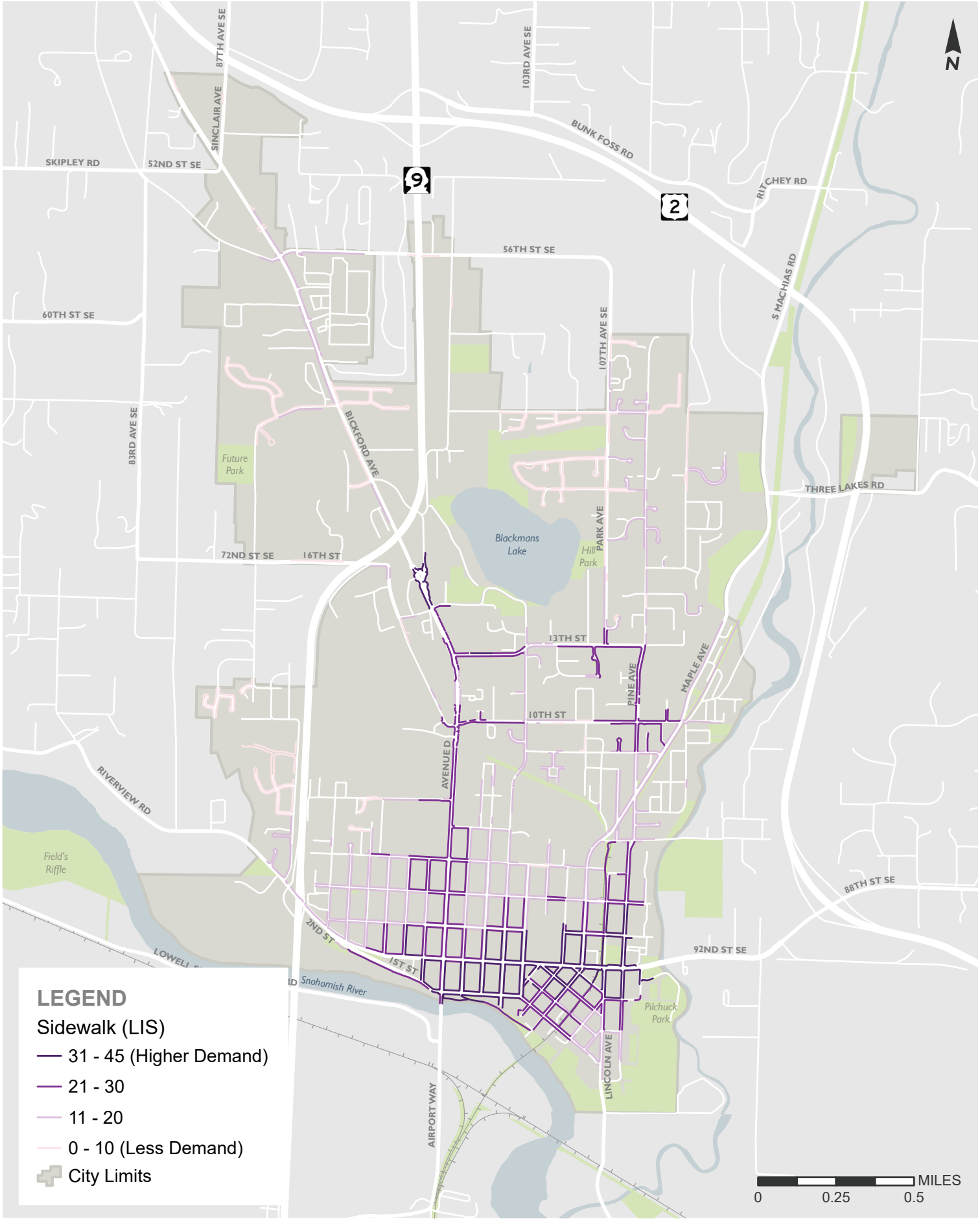


Figure 4-7 *Location Index Score Composite (Sidewalk)*

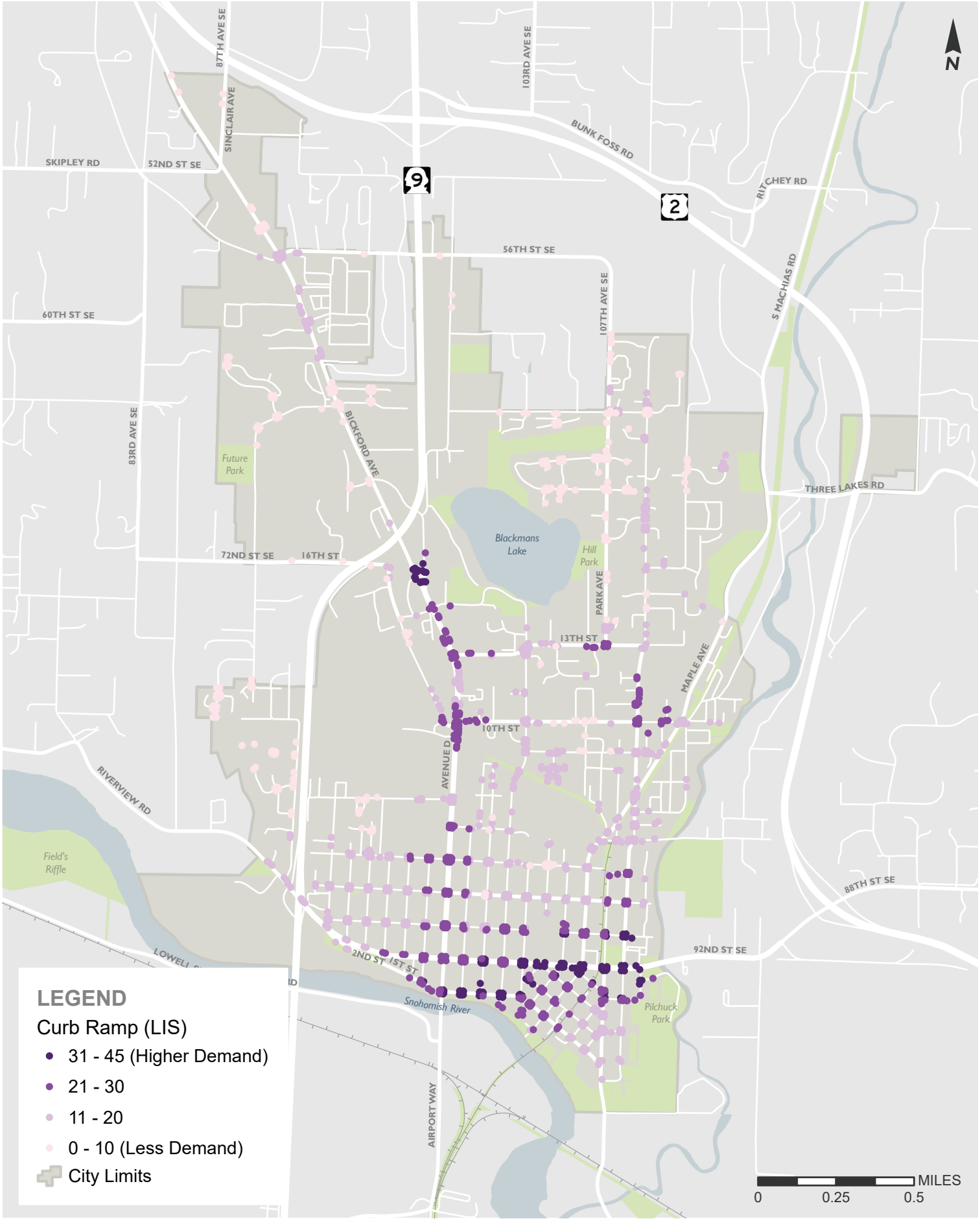


Figure 4-8 *Location Index Score Composite (Curb Ramp)*

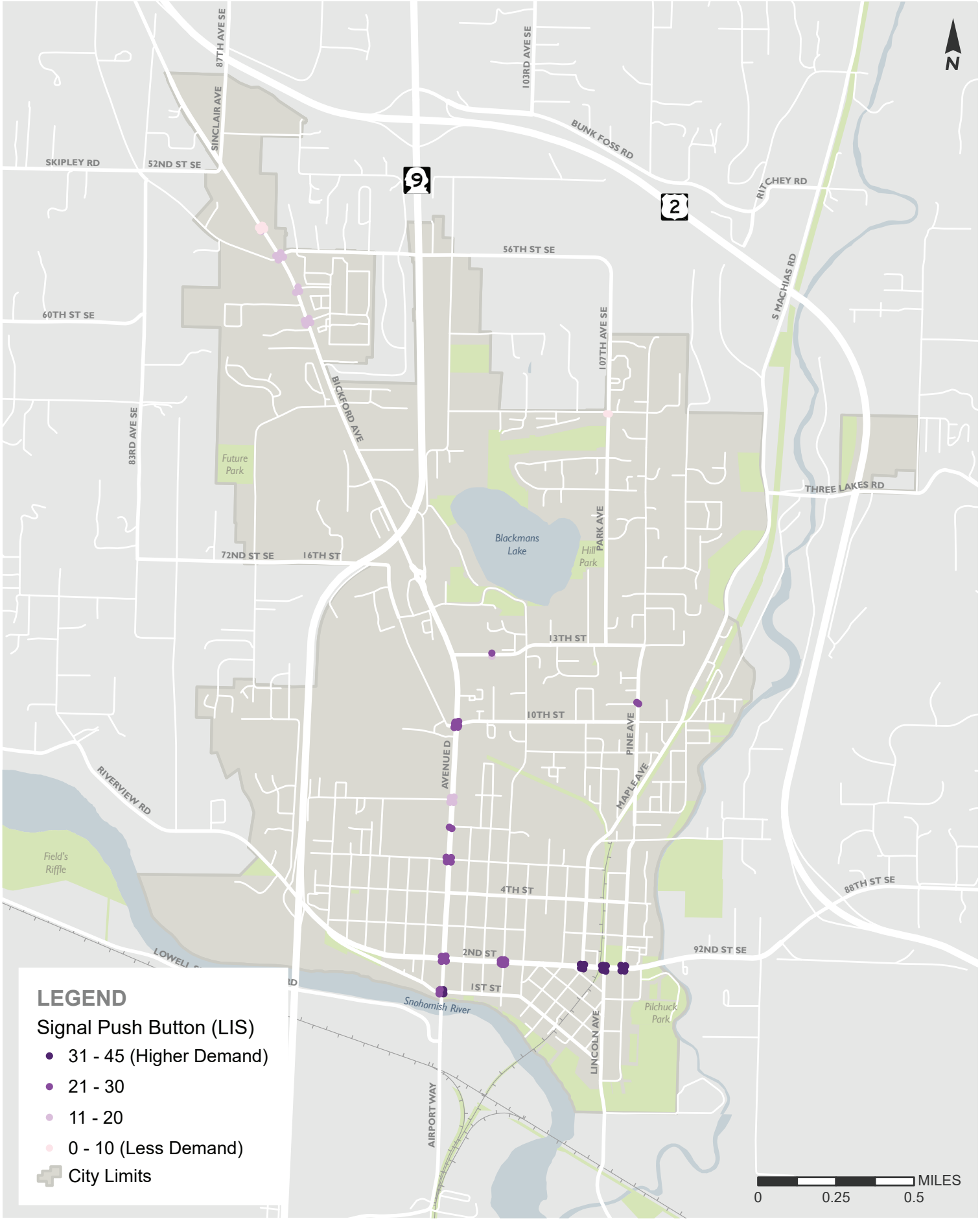


Figure 4-9 *Location Index Score Composite (Signal Push Button)*

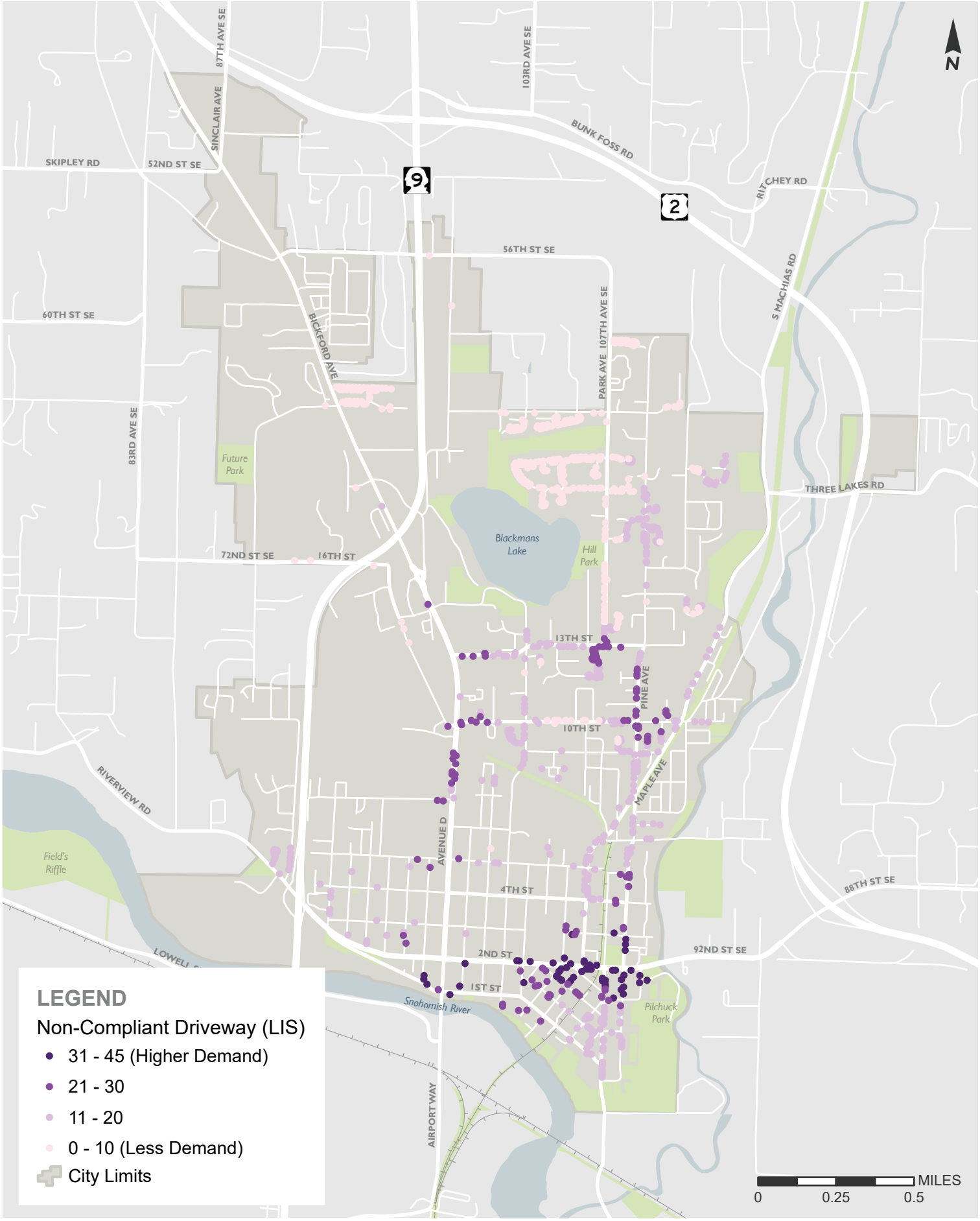


Figure 4-10 *Location Index Score Composite (Non-compliant driveways)*

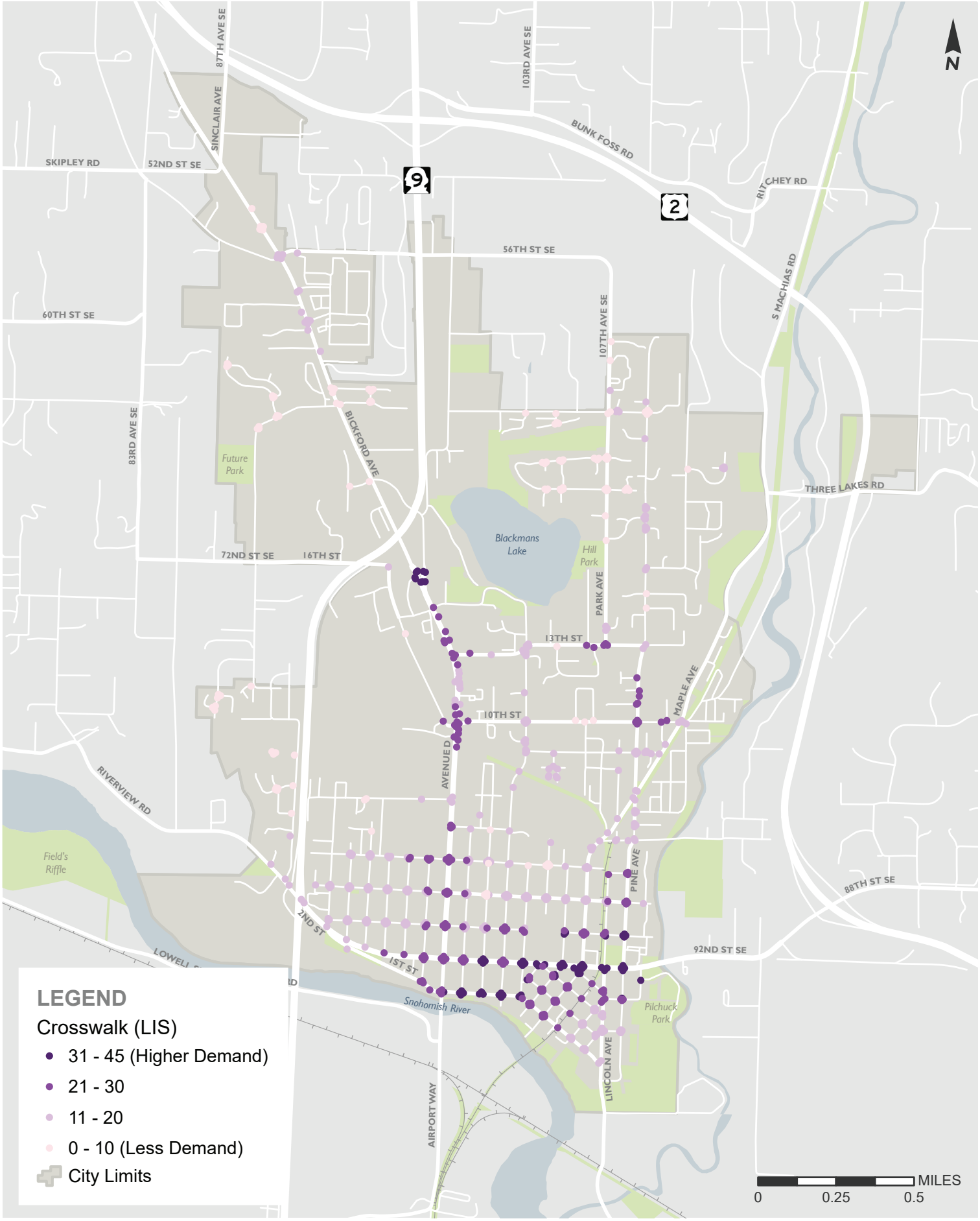


Figure 4-11 *Location Index Score Composite (Crosswalk)*

Combined Index Score

The Combined Index Score sums the Accessibility Index Score and Location Index Score to prioritize facilities with accessibility barriers in areas where pedestrians would be expected.

Scores were grouped into three categories:

- **Very High**: 46+ points
- **High**: 31-45 points
- **Medium**: 16-30 points
- **Low**: 1-15 points

Scores reflect relative priority within each facility type; they do not indicate relative priority between facility types (ex., the importance of addressing a curb ramp barrier versus a sidewalk barrier).

Combined index scores provide planning level context to barrier removal and overall accessibility needs within the city. As this Transition Plan is implemented, barrier removal will be guided by multiple factors, including funding availability, location of capital projects that include pedestrian elements, construction efficiency, project-level analysis, etc. Barriers of all priority levels will be removed over time. Figures 4-12 through 4-14 show the combined index scores and location of facilities.

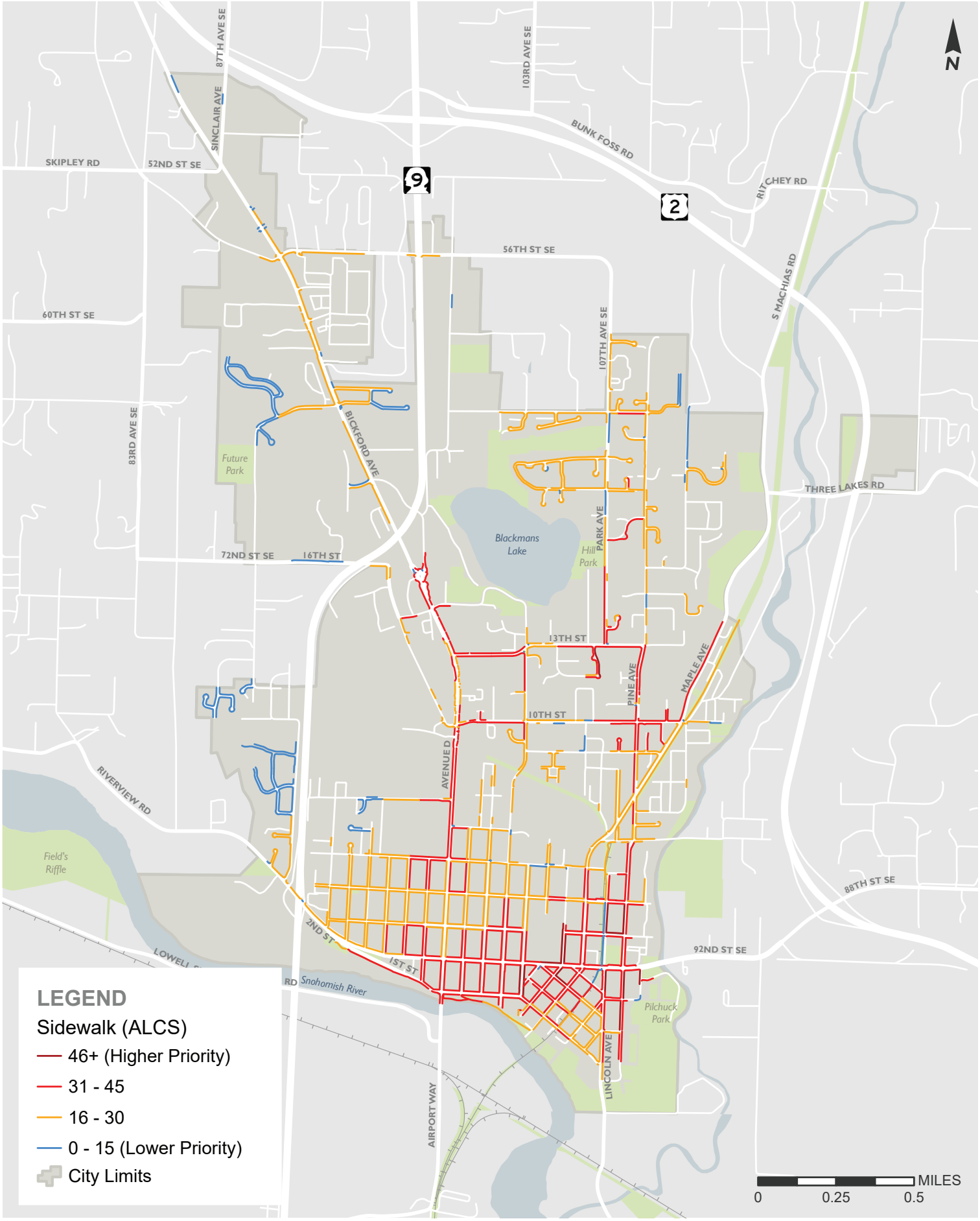


Figure 4-12 *Accessibility (AIS) & Location (LIS) Combined Score (Sidewalk)*

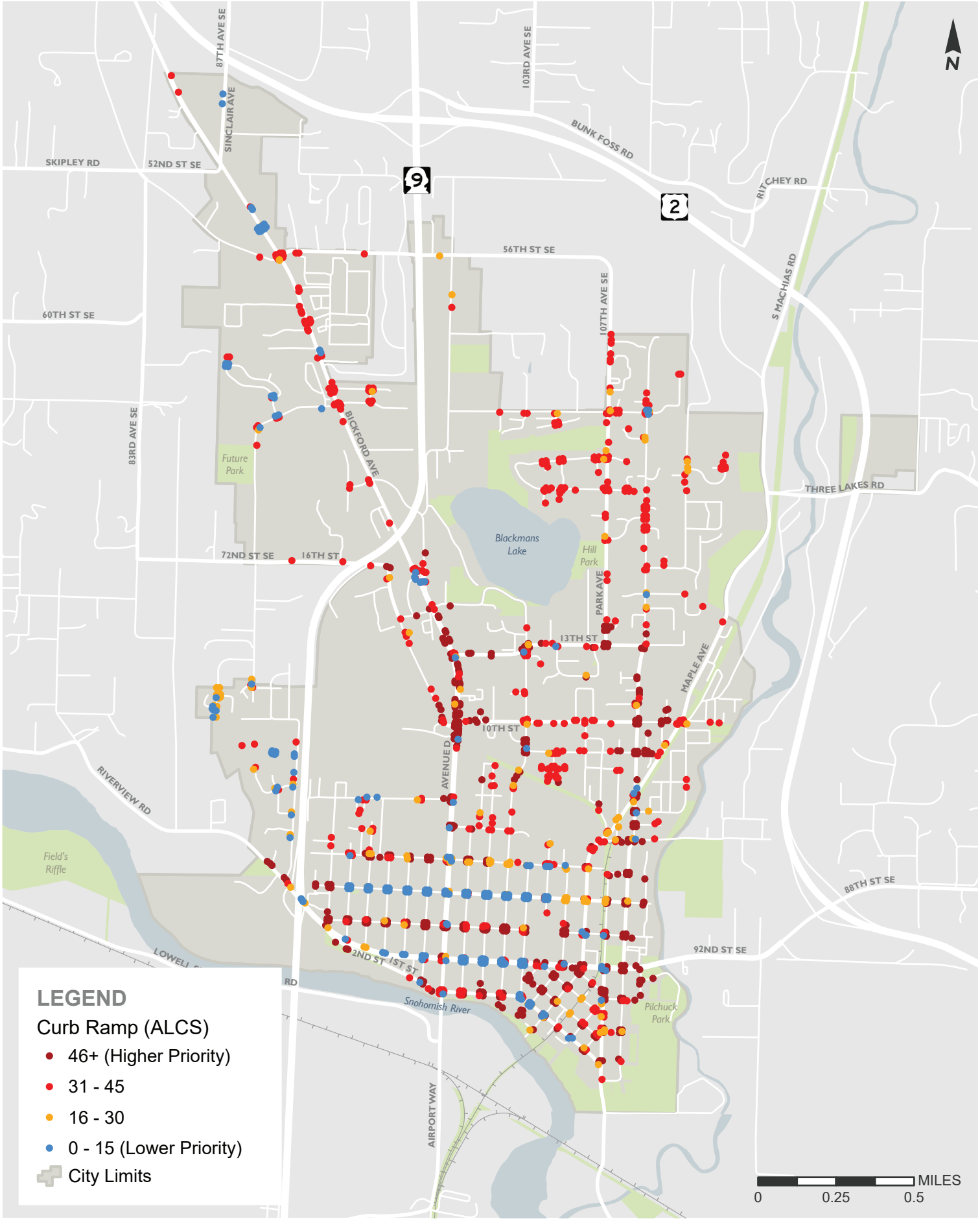


Figure 4-13 *Accessibility (AIS) & Location (LIS) Combined Score (Curb Ramp)*

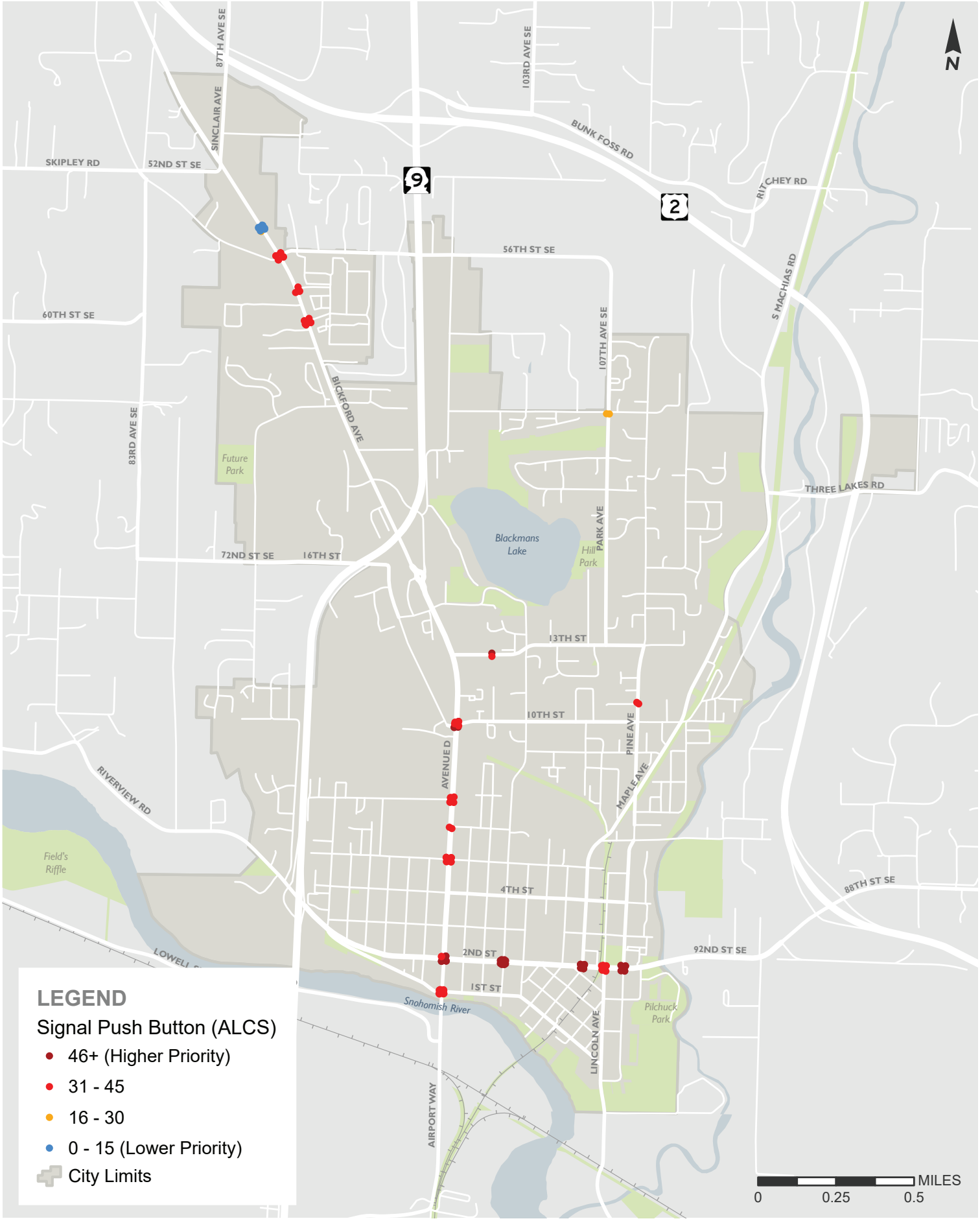


Figure 4-14 *Accessibility (AIS) & Location (LIS) Combined Score (Signal Push Button)*

4.2.2 Planning Level Cost Estimates to Remove Pedestrian Barriers

To meet the ADA transition plan requirement of demonstrating how barriers are to be removed over time, annual available financial resources were estimated and compared to the total estimated barrier removal costs.

Process

Unit costs were developed for the improvements needed to address the pedestrian barriers inventoried through the Self-Evaluation. Unit cost estimates for each barrier type were developed using recent WSDOT and other local construction bid tabulations, input from subject matter experts, and planning level cost assumptions. Unit cost estimates assumed contract-based construction, instead of use of in-house crews.

Unit cost estimates were applied to the inventoried barriers, with adjustments made to account for construction efficiencies and to avoid applying redundant improvements to the same facility. All cost estimates are in 2023 dollars. Cost estimate assumptions are detailed in Appendix E.

Barrier removal construction cost estimates account for contingency, design, right-of-way, mobilization, temporary erosion control, traffic control, and construction management. Sales tax, structural impacts to buildings, permit fees, inflation, and potential changes to accessibility standards are not assumed in the cost estimate.

This planning level cost analysis did not assess whether non-compliant pedestrian facilities had been built to the maximum extent feasible. Therefore, this cost estimate may overstate the amount of feasible improvements.

The total planning-level cost estimate, or total need, to remove **all identified pedestrian barriers is approximately $38,880,000** (in 2023 dollars). Cost estimates by facility and improvement type are shown in Table 4-1.

***Table 4-1** Planning Level Cost Estimate*

ADA DEFICIENCY	IMPROVEMENT TYPES	QUANTITY	UNIT COST	TOTAL COST
Sidewalk Improvements				
Non-compliant sidewalk (width, condition, running slope, cross slope, and/or large vertical discontinuity).	Reconstruct existing sidewalk.	54,067 SY	$150	$8,111,000
Non-compliant driveway (running slope, cross slope, and/or grade break).	New driveway with sidewalk.	836 EA	$2,900	$2,425,000
			Subtotal	**$10,536,000**
Maintenance/Miscellaneous				
Non-compliant vertical discontinuity (>1/4in - <=1/2in w/out bevel)	Sidewalk grinding (5 LF of sidewalk).	848 EA	$250	$212,000
Non-compliant vertical discontinuity (>1/2in)	Replace two adjacent sidewalk panels (5ft x 5ft panels)	883 EA	$850	$751,000
Non-compliant horizontal discontinuity.	Sidewalk crack sealing/grouting (5LF per occurrence)	17,455 LF	$10	$175,000
Fixed Obstacles	Relocation of obstacles including utility pole, mailbox, tree trunk, etc.	160 EA	$3,000	$480,000
Moveable Obstacles	Relocation of obstacles including tree/bush (prunable), message boards, parked cars, etc.	171 EA	$200	$35,000
Protruding Obstacles	Relocation of obstacles including of bush/tree, signs, awnings etc.	1,140 EA	$500	$570,000
			Subtotal	**$2,223,000**
Curb Ramp Improvements				
Missing curb ramps	Install new curb ramp.	320 EA	$6,000	$1,920,000
Non-compliant curb ramp (width, running slope, cross slope, landing, flare slope, lip, grade break, counter slope, lip, and/or clear space)	Remove and reconstruct existing ramp.	701 EA	$7,000	$4,907,000
Curb ramps without detectable warning surface (DWS), non-compliant DWS placement, non-compliant DWS depth, or non-compliant DWS Width	Install/replace detectable warning surface	23 EA	$1,100	$26,000
			Subtotal	**$6,853,000**

***Table 4-1** Planning Level Cost Estimate*

ADA DEFICIENCY	IMPROVEMENT TYPES	QUANTITY	UNIT COST	TOTAL COST
Pushbutton Improvements				
Non-APS pushbutton and pushbutton is located incorrectly	Install new APS pushbutton and install new pole.	72 EA	$5,900	$425,000
APS pushbutton that has non-compliant dimensions and/or programming and located incorrectly	Reprogram pushbutton, reorient pushbutton, and/or install tactile arrow and install new pole and relocated pushbutton	25 EA	$3,700	$93,000
APS pushbutton located incorrectly	Install new APS pushbutton and install new pole.	10 EA	$3,500	$35,000
			Subtotal	**$553,000**
Bus Stop Improvements				
Non-compliant bus shelter turning space cross slope	Replace bus shelter pad (7.5 SY per occurrence)	38 SY	$180	$7,000
Non-compliant bus stop boarding area (running slope, cross slope, size, and/or condition)	Replace/construct boarding area and two transition panels (10 SY per occurrence)	240 SY	$150	$36,000
			Subtotal	$43,000
Accessible Parking Improvements				
Non-compliant parking stall/parking aisle slope	Grind surface and/ or asphalt lift	19 EA	$2,000	$38,000
Non-compliant accessible parking stall/parking aisle width or pavement marking	Install parking stall accessible symbol/ aisle pavement markings or resize and restripe stall/aisle	9 EA	$200	$2,000
Non-compliant sign height or no sign indicating accessible stall	Install new sign or adjust existing sign	11 EA	$100	$1,100
			Subtotal	**$42,000**
			Total	**$20,250,000**
			Contingency @ 20%	$4,050,000
			Design @ 12%	$2,430,000
			Mobilization @ 8%	$1,620,000
			TESC + Traffic Control @ 12%	$2,430,000
			Construction Management @ 20%	$4,050,000
			Right-of-Way @ 20%	$4,050,000
			Grand Total 2023 Dollars	**$38,880,000**

4.2.3 Barrier Removal Funding

A requirement of this plan is to forecast available funding that may be used to support plan implementation. This plan assumes total annual funding for barrier removal of $460,000 per year for pedestrian barrier removal. A breakdown of the annual budget resources anticipated to be available to support pedestrian barrier removal implementation follows.

- Maintenance Program, **$60,000**
- Upcoming Sidewalk Projects, **$200,000**
- Capital Improvement Projects, **$200,000**

See Section 4.1 for details on these programs. These improvements may address low, medium, high, and very high priority barriers based on the location of a proposed larger project or maintenance program. It was assumed that the ADA Barrier Projects funding is allocated primarily to high priority barriers, and the remaining current funding is allocated evenly to low, medium, high, and very high barriers.

4.2.4 Schedule

Based upon the Self-Evaluation, planning-level cost estimates, identified barrier removal methods, and projected budgetary resources that may be available, a barrier removal budget and schedule was developed. Due to the large investment needed to remove accessibility barriers, it is important to identify the highest priority barriers and focus resources to remove them first.

An analysis of the barrier prioritization was completed to determine how many barriers found during the self-evaluation process are classified as 'very high', 'high', 'medium', and 'low' priority as defined in Section 4.1. Highest priority level represents a significant barrier to accessibility in areas with higher pedestrian demand. Lower priority levels represent less severe barriers to accessibility in areas with lower pedestrian demand. Although some facilities will receive low ratings, all barriers associated with them will still need to be removed and be determined to have been built to the maximum extent feasible.

The City should aim to remove the highest priority barriers first as targetable funding becomes available. This will support the goal of providing better access to the most needed programs in the shortest timeframe possible.

A transition plan was developed to target removal of all priority barriers. With the City's current funding allocation, approximately 35 transition years would be required to remove all priority barriers. To remove these barriers at a faster rate, 20-30 years, and address

barriers of lower priority, additional investment would be required. The transition periods based on various funding levels are shown in Table 4-2.

The City should create a two to five-year barrier removal plan with a list of projects to remove specific barriers. This program should focus on the highest priority barriers as funding allows. The purpose of the repeated program is to make progress in barrier removal but also to provide a way to reassess the 20- to 50-year plan and measure incremental progress. In order to inform the two-to-five-year program, a scoping effort should occur that includes site visits for areas identified as a high priority to determine the severity of the barrier and to brainstorm possible solutions to fix the issue. When selecting projects, site conditions and improvement feasibility should be considered. Areas with multiple barriers within proximity to one another can be grouped together to achieve cost savings. As areas are identified, additional data collection should be completed in the vicinity of the proposed project and added into the facility's GIS database. This additional information will provide the remaining attributes necessary to determine if a facility fully meets PROWAG requirements.

Following completion of each two to five-year plan implementation cycle, lessons learned regarding costs, methods, schedule, and outcomes shall be evaluated to inform the next two-to-five-year cycle of pedestrian barrier removal investments. If progress is slower than anticipated, additional funding may be required. If progress is faster than anticipated, a shorter timeline may be achievable. Several factors may contribute to differences between the estimated transition schedule and the actual rate and cost of implementation. Some of these factors include actual funding acquired, individual project cost, site specific design savings, additional deterioration of pedestrian facilities, and unanticipated capital projects. In addition, it may be determined that some barriers identified through this transition plan are on facilities that have been built to the maximum extent feasible as discussed in Section 5.1. Each project to remove barriers should be evaluated to determine if improvements to the facility are feasible in the engineering design phase.

***Table 4-2** ADA Priority Barrier Removal Transition*

TRANSITION YEARS	RECOMMENDED ADDITIONAL ANNUAL INVESTMENT
40 Years	$170,000
30 Years	$270,000
20 Years	$472,000

5 Recommendations and Next Steps

This chapter provides a set of recommendations intended to inform the implementation of this Transition Plan and ongoing removal of pedestrian barriers. Recommendations are not presented in priority order and represent near-term and longer-term Transition Plan implementation workplan tasks.

5.1 Recommended Actions

Recommendations identified as Pending require additional action from the City to implement. Underway recommendations are in progress at this time. On-going recommendations have been previously established and are continually in progress. Complete recommendations have been completed but may require additional action based on adjustments noted in this section.

Recommendation 1:

Update City design standards to match ADA Standards

Status: *Pending*

A detailed audit of City design standards using Proposed Guidelines for Pedestrian Facilities in the Public Right-of-Way 2011 (PROWAG) was conducted to inform Chapter 2. This audit, which is included in Appendix A and recommends specific changes and additions to the City's standard plans and municipal code. Recommendations were identified for updating existing sidewalk, curb ramp, and pushbutton standards and filling in ADA guidelines for areas not covered in the City's standards and code. The City should update these documents to meet PROWAG standards.

Recommendation 2:

Identify an official responsible for Transition Plan implementation within the Public Works Department

Status: *Complete*

The City's ADA Coordinator has been identified as the responsible official. This ADA Coordinator position is one of the four major federal requirements for every ADA transition plan. The current ADA Coordinator is Cory Morton. The ADA Coordinator is responsible for facilitating transition planning such as responding to grievance requests. They also function as a central figure for organizing the various programs within the City to maintain a consistent approach to barrier removal within the public right-of-way and achieving ADA standards across capital, maintenance, and operational activities.

Official Responsible for Plan Implementation:

Yoshihiro Monzaki, *Public Right of Way ADA Coordinator*

116 Union Avenue
Snohomish, WA 98291
360-282-3161
monzaki@snohomishwa.gov

Recommendation 3:

Develop a Citywide Accessible Pedestrian Signal (APS) policy

Status: *Pending*

Accessible Pedestrian Signal (APS) policies serve as a means for cities to be consistent with ADA requirements at traffic signals. The APS policy covers when installation of APS devices that "communicate information about pedestrian timing in nonvisual formats such as audible tones, verbal messages, and/or vibrating surfaces" (MUTCD) is required. The proposed APS policy is included in Appendix F. It is recommended that this policy be modified to specify that all signalized intersections are required to have APS devices installed that meet ADA requirements.

Recommendation 4:

Educate City staff, consultants, and contractors on ADA standards and provide dedicated training to City inspectors

Status: *On-going*

Transition plans are often a learning experience for City staff, consultants, and contractors alike since they change existing practices and expectations. The City should use updates to the City's design standards as an opportunity to teach and learn about accessibility and the barriers that those with limited mobility or sight experience when traveling in the City's public right-of-way. This should include clarifying guidance from the Department of Justice, for example, that when pedestrian facilities (curb ramps, sidewalks, crosswalks, pedestrian signals, etc.) within the public right-of-way are altered, they must be revised/replaced to meet current ADA standards. Education can take many forms from review of updated design standards with key individuals such as field inspectors and contractors, development and review of City specific design standards or checklists with City engineers, or training from groups that serve those with disabilities.

Recommendations 5:

Develop a standard grievance process for barriers to accessibility

Status: *Complete*

Public entities subject to Title II of the ADA are required to adopt and publish a grievance procedure as part of their transition plan. A grievance process allows community members to formally report denial of access to a City facility, program, or activity on the basis of disability.

Currently, the City has an established process to file a grievance or a request for accommodation or barrier removal with the City's ADA Coordinator. A community member can file a grievance or request for barrier removal with the City's ADA Coordinator.

Instructions and contact information are available online within the City's ADA Grievance Procedure page for a member of the public to submit a grievance or request for barrier removal. The policy is found in the City's ADA website and outlines the grievance procedure and the City staff involved in a grievance request. In addition to the ADA Coordinator, a grievance also will be reviewed by the City Manager and a Review Board or hearing if necessary. Information is also included in the policy regarding the established timeline for response from City staff.

The City's grievance procedure can be found in Appendix G.

In addition, the City of Snohomish has an online form where the public can report a concern of varying types. Street or sidewalk issues are included in this online request form. The form can be found at the City's website here: https://www.snohomishwa.gov/forms.aspx?fid=69

The following adjustments are recommended to the City's accommodation request and grievance process:

- Make the grievance process easily navigable from the City's main website.
- Provide contact information for the City Administrator, City ADA Coordinator and other relevant City staff on the grievance procedure website.
- Streamline the grievance request process with an online submission option via the City's website, distinct from the general form to report a concern to the City.
- Identify how and why a grievance may be accepted or denied by the City.
- Connect the reporting tool used in the public engagement effort for this plan to the request for accommodation webpage.

Recommendation 6:

Develop a consistent and centralized MEF documentation database

Status: *Pending*

The ADA dictates that alterations that could affect the usability of a facility must be made in an accessible manner to the maximum extent feasible (MEF). ADA Standards for Accessible Design (2010) dictates that:

Each facility or part of a facility altered by, on behalf of, or for the use of a public entity in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion of the facility is readily accessible to and usable by individuals with disabilities, if the alteration was commenced after January 26, 1992.

The City should document newly constructed or altered facilities that have been built to the maximum extent feasible rather than full ADA standards using standard template. An example template is included in Appendix H. Each project is to be evaluated to determine if improvements to the facility are feasible in the engineering design phase.

The reason for any variation from accessibility standards when it is infeasible to fully remove any barriers should be documented. To help organize MEF documentation, a central location for all MEF documentation can be established and geocoded to the facility location and ensure consistency of data for facilities designed and constructed by others. Consolidation of past MEF records into this data is also recommended.

Recommendation 7:

Develop performance measures and processes to track removal of barriers

Status: *Pending*

The primary purpose of an ADA transition plan is to develop a plan for removal of accessibility barriers. To show progress towards this requirement, the City should develop a process of tracking barrier removal on an annual basis. It is recommended that the City actively update the GIS ADA self-evaluation database developed for this plan, tracking how and when ADA barriers are removed. This data can be used to provide two-to-five-year updates on progress and demonstrate to the public as well as federal regulators that the City is making progress to meet Title II requirements. These updates should coincide with the two-to-five-year planning efforts completed to outline future barrier removal efforts.

Recommendations 8:

Continue data collection for pedestrian features in the public right-of-way

Status: *On-going*

The City should continue their data collection efforts to complete their database of pedestrian facilities in the public right-of-way. Attributes that are part of the PROWAG standards but not included in the first round of collection should be added to the GIS database as well as new types of facilities not inventoried like street parking, crosswalks, and bus stops. As construction projects within the City enter into the as-built phase, pedestrian facility data should be collected and entered into the GIS Database to enhance the barrier removal tracking process.

Recommendation 9:

Review and clarify policies relating to accessibility and implementation of accessible features in construction projects

Status: *Pending*

Work zones must provide the same level of accessibility as permanent pedestrian facilities covered by ADA requirements. Pedestrian accessibility must be maintained in areas of street construction and maintenance. The City should review its standards and policies to ensure that temporary, alternative walking routes are available within designated construction zones.

The City should develop and publish guidelines for replacing pedestrian facilities that are impacted by construction projects. When facilities are altered by construction, they should be reconstructed within ADA compliance to the maximum extent feasible. The City's guidelines would outline expectations for reconstructed facilities and who holds responsibility for reconstruction.

Recommendation 10:

Look for opportunities to increase existing barrier removal funding

Status: *Pending*

As stated in Section 4.2.4 and Table 4-2, with the City's current funding allocation for barrier removal, approximately 70 transition years would be required to remove all high and very high priority barriers, and an additional annual investment of $175,000 is required to remove all high and very high priority barriers within an approximate 50-year transition period. Additional annual investment may be necessary to remove the existing high priority barriers that challenge ADA users in Snohomish. It is recommended that the City of Snohomish actively look for opportunities to increase annual barrier removal funding.

Recommendation 11:

Evaluate all City Programs and Activities as they relate to the ADA

Status: *Pending*

The focus of the initial self-evaluation was on ADA barriers related to the public right-of-way within the City. Although this plan focused on the public right-of-way, the requirements for accessibility found in Title II of the ADA also apply to physical facilities including City-owned buildings and parks. In addition, Title II ADA requirements apply to many functions, programs, and activities the City may provide or engage in such as community gatherings, recreational groups, and City-sponsored events. In addition to the public right-of-way, self-evaluation and transition planning related to activities such as hiring communications, recreational programs, physical facilities, etc. should be performed to identify barriers within these City buildings, parks, programs, and activities.

Appendix A: Standards Review Barrier Audit

TECHNICAL MEMORANDUM

Date:	March 10, 2023	**TG:**	1.21253.00
To:	Cory Morton and Yoshihiro Monzaki, City of Snohomish		
From:	Melissa Whalen, PE, Transpo Group		
Subject:	Barrier Removal Audit – City of Snohomish ADA Transition Plan		

The City of Snohomish maintains road design standards and municipal code covering pedestrian facilities. The design standards are used for both public and private work performed within the street rights-of-way of the City of Snohomish. This memorandum describes design guidelines that meet the requirements of the Americans with Disabilities Act (ADA), common accessibility design issues, and references to specific design guidelines. The audit of the City's roadway design standards and municipal code as they relate to pedestrian features within the public right-of-way include the City's Engineering Design and Construction Standards (EDCS) and the City of Snohomish Municipal Code (SMC).

Design Guidelines

There are several key design measurements that ADA design guidelines address. These measures are used because they are important to the accessibility and safety of the facility. When pedestrian facility designs cannot be constructed to full design requirements, they should be built to conform to the maximum extent feasible. When this arises, the City should identify the location this occurs, provide justification, and document for future reference.

Several guidelines and references are available to assist the City of Snohomish in adhering to accessible design standards based on the needs for various projects. There are many opportunities to improve pedestrian conditions by identifying areas of need and establishing the appropriate accessibility design requirements.

2010 ADA Standards for Accessible Design (ADAS) (September 2010)

The Department of Justice published revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 "ADA" in the Federal Register on September 15, 2010. These regulations adopted revised, enforceable accessibility standards called the 2010 ADA Standards for Accessible Design "2010 Standards". The 2010 Standards set 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.

Proposed Guidelines for Pedestrian Facilities in the Public Right-of Way (PROWAG) (November 2011)

The United States Access Board is the rule making body that guides ADA compliance across the US. Since the late 2000's the US Access Board has been in the process of updating its Guidelines for Pedestrian Facilities in the Public Rights-of-Way. These draft guidelines focus on accessibility of sidewalks, curb ramps and in the soon to be released versions address shared-use trails. The draft guidelines cover legislative background, administration requirements, and design requirements.

Many public entities currently use the 2005 draft PROWAG as 'best practice' for features within the public right-of-ways. This practice has been endorsed by the Federal Highway Administration (FHWA), the US Access Board, and is the standard the Washington Department of Transportation adheres to. The City's standards and codes were evaluated against 2011 PROWAG as this is the latest guideline developed by the Access Board. PROWAG sections

referenced in this memo refer to 2011 PROWAG sections. When these standards conflict with the 2010 ADA, the PROWAG standard is recommended.

Design Requirements

Although the City of Snohomish has standards in place it is important for the standards to be consistent and compliant with the above standards and guidelines. To that end, this memo will provide recommendations to improve and clarify the existing city documents. As well, recommended actions are included where necessary to meet ADA design standards and best practice. The following tables describe requirements for specific design elements, how they are addressed in City standards, and recommendations for modifications. In addition to the following tables, Attachment A includes markups on the city standard drawings to expand on the recommendations below

Sidewalks and Pathways

Sidewalks are mentioned in the City's standard details and city code. These standards cover desired dimensions and materials to be used for construction of these facilities. Sidewalks are a common element found in a pedestrian access route (PAR).

Design Element	Requirement	Review	Recommendations
Pedestrian Access Route (PAR) and Pedestrian Circulation Path (PCP)	Various	Sidewalks shown and mentioned on multiple standard details and within the EDCS text.	N/A
Sidewalk Width	Minimum clear width of PAR is 4 ft. excluding the curb; however, on PAR less than 5 ft. wide, passing space of 5 ft. by 5 ft. is required every 200 ft. minimum (PROWAG R302.3 and R302.4) Clear width of walking surfaces shall be 36 inches minimum. The clear width shall be permitted to be reduced to 32 inches minimum for a length of 24 inches maximum provided that reduced width segments are separated by segments that are 48 inches long minimum and 36 inches wide minimum. Additional space is required at turns (ADAS 403.5.1).	5'-8' sidewalk (EDCS Std. Drawing 301). 12' mixed use trail (EDCS Std. Drawings 301a, 301b, and 301c). 6' sidewalk (EDCS Std. Drawings 301a, 301b, and 301c). 5' Typical (EDCS Std. Drawing 306). Note 7, "Sidewalks are typically 5' wide, except 6' in commercial areas, or as approved by the City Engineer" (EDCS Std. Drawing 306).	N/A
Sidewalk Running Slope	Where the PAR is contained within a street or highway right-of-way, its grade shall not exceed the general grade established for the adjacent street or highway. When the PAR is not contained within the street or highway right-of-way, the grade of shall not exceed 5 percent (PROWAG R302.5). The running slope of walking surfaces shall not be steeper than 1:20 (ADAS 403.3).	Not Mentioned.	Add to EDCS Section 3-17.3, the running slope for a sidewalk along the roadway shall not exceed the general grade of the roadway. Sidewalks not adjacent to a roadway shall not have a running slope greater than 5%.
Sidewalk Cross Slope	The cross slope of a PAR shall be 2 percent maximum (PROWAG R302.6). The cross slope of walking surfaces shall not be steeper than 1:48 (ADAS 403.3).	Sidewalk cross slope shown as 2% max. (EDCS Std. Drawing 306). Sidewalk cross slope shown as 2% (EDCS Std. Drawings 307, 308, and 309).	Recommend including a desired cross slope of 1.5% or flatter to allow for construction tolerances with 2% as the maximum cross slope.
Protruding Objects	Objects with leading edges more than 2.25 ft. and not more than 6.7 ft. above the finish surface shall protrude 4 in. maximum horizontally into the pedestrian circulation path (PCP) (PROWAG R402.2 & ADAS 307.2). Objects mounted on free-standing posts or pylons more than 2.25 ft.	Bottom of sign should be mounted at 7' min. above ground (EDCS Std. Drawing 335). 5' sidewalk in front of mailbox cluster (EDCS Std. Drawing 320).	Add maximum height requirement from ground to bottom of mailbox cluster/mailbox (EDCS Std. Drawings 320, 320a, 321a, and 321b).

Sidewalks and Pathways

Design Element	Requirement	Review	Recommendations
	and not more than 6.7 ft. above the finish surface shall overhang pedestrian circulation paths 4 in. maximum measured horizontally from the post or pylon base. The base dimension shall be 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 1.0 ft, the lowest edge of the object shall be 2.25 ft. maximum or 6.7 ft. minimum above the finish surface (PROWAG R402.3). Free-standing objects mounted on posts or pylons shall overhang circulation paths 12 inches maximum when located 27 inches minimum and 80 inches maximum above the finish floor or ground. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches, the lowest edge of such sign or obstruction shall be 27 inches maximum or 80 inches minimum above the finish floor or ground (ADAS 307.3).	Sidewalk in front of mailbox cluster (EDCS Std. Drawings 321a and 321b). Note 8, "mailbox structures shall be placed back of sidewalk wit no portion of the box or structure protruding into the sidewalk" (EDSC Std. Drawing 320a). "When mailboxes are located adjacent to the sidewalk, the sidewalk shall be widened to provide a clear width of not less than five feet from back of curb to any portion of mailbox Standard Plan No. 321" (EDSC Sec. 3-13 A). "Trees, shrubs, grass, weeds, and other landscaping shall not overhang the public sidewalk by less than nine feet or grow in such a manner as to impede pedestrian circulation (SMC Sec. 8.20.112). "In instances where such obstructions exist, the minimum width of unobstructed public sidewalk shall be 4.5 feet" (SMC Sec. 12.14.070).	
Surface Discontinuities	Vertical surface discontinuities shall not exceed 0.5 in. maximum. Vertical discontinuities between 0.25 in. and 0.5 in. maximum shall be beveled not steeper than 50 percent (PROWAG R302.7.2) Horizontal openings shall not permit passage of a sphere more than 0.5 in. in diameter. Elongated openings in grates shall be placed so that the long dimension is perpendicular to the dominate travel direction (PROWAG R302.7.3). Vertical. Changes in level of ¼ inch high maximum shall be permitted to be vertical. Changes in level between ¼ inch high minimum and ½ inch high maximum shall be beveled with a slope not steeper than 1:2 (ADAS 302.2 & 302.3).	Dummy joints shall be 1/2 inch by 1-1/2 inch (EDSC Sec. 3-17.3(1). Dummy joints shown as 3/8" x 1-1/2" and expansion joints shown as be 3/8" x full depth. (EDCS Std. Drawing 306).	List a consistent width of dummy joints within the standards text and the standard drawing. Add requirement that utility boxes located in sidewalks shall have non-slip lids (EDSC Sec. 3-17.3).

Crossings

Crosswalks are part of the PAR at intersections, midblock crossings, and pedestrian refuge islands. These are important connections across streets to enable pedestrians travelling from one side to the other.

Design Element	Requirement	Review	Recommendations
Crosswalk Running Slope	The running slope shall be 5 percent maximum, measured parallel to the direction of pedestrian travel in the crossing (PROWAG R302.5.1).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Crosswalk Cross Slope	Crosswalk cross slope at crossings without yield or stop control shall be 5 percent maximum (PROWAG R302.6.1). Crosswalk cross slope at yield or stop control crossings shall be 2 percent maximum (PROWAG Advisory R302.6.1). Crosswalks cross slope at midblock crossings shall be permitted to equal the street or highway grade (PROWAG R302.6.2).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Refuge Islands	Detectable warning surfaces at cut-through islands shall be located at placed at the edges of the pedestrian island and separated by a 2.0 ft. minimum length of surface between detectable warning surfaces (PROWAG R305.2.4). The clear width of a PAR with median and pedestrian refuge islands shall be 5.0 ft. minimum (PROWAG R302.3.1).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A

Curb Ramps

Curb ramps are the immediate junctions between the sidewalk and street crosswalk. Perpendicular and diagonal curb ramps have a running slope that cuts through the curb at right angles, while parallel curb ramps have a running slope that is in-line with the sidewalk. Combination ramps include elements of both parallel and perpendicular curb ramps.

Design Element	Requirement	Review	Recommendations
Ramp Width	The clear width of curb ramp runs and blended transitions, excluding flares, shall be 4.0 ft. minimum (PROWAG R304.5.1). The clear width of a ramp run shall be 36 inches minimum (ADAS 405.5).	Ramp width shown as 48" (EDCS Std. Drawings 310a and 310b). Ramp width shown as 5' (EDCS Std. Drawing 310c). Ramp width shown as 5' min. (EDCS Std. Drawing 310d).	Update width units to be consistent across standard details.
Running Slope	The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 15.0 ft. (PROWAG R304.2.2). The running slope of blended transitions shall be 5 percent maximum (PROWAG R304.4.1). Ramp runs shall have a running slope not steeper than 1:12. In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations (ADAS 405.2).	Ramp running slope shown as 12:1 (EDCS Std. Drawings 310a, 310b, 310c, and 310d).	Recommend including a desired running slope of 7.5 percent or flatter to allow for construction tolerances with 8.3 percent as the maximum running slope.
Cross Slope	The cross slope shall be 2 percent maximum. At pedestrian street crossing without yield or stop control and at midblock pedestrian street crossings, the cross slope shall be permitted to equal the street or highway grade (PROWAG R304.5.3). Cross slope of ramp runs shall not be steeper than 1:48 (ADAS 405.3).	Not mentioned.	Add ramp cross slope requirement onto the curb ramp standard drawings (EDCS Std. Drawings 310a, 310b, 310c, and 310d). Recommend including a desired cross slope of 1.5% or flatter to allow for construction tolerances with 2% as the maximum cross slope.
Flared Sides	Flared sides with a slope of 10 percent maximum, measured parallel to the curb line, shall be provided where a pedestrian circulation path crosses the curb ramp (PROWAG R304.2.3). Curb ramp flares shall not be steeper than 10 percent (ADAS 406.3).	Ramp flare slope shown as 10:1 (EDCS Std. Drawings 310a and 310b).	N/A

Curb Ramps

Design Element	Requirement	Review	Recommendations
Direction	Perpendicular curb ramps shall 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. Parallel curb ramps shall have a running slope that is in-line with the direction of sidewalk travel (PROWAG Advisory R304.1).	"Curb ramps shall be provided at all pedestrian crossings with curb sections…when a ramp is constructed giving handicap access to the roadway area, the corresponding ramp at the opposite side of the roadway will also be required (EDCS Sec. 3-17.3(8)).	N/A
Counter Slope	The counter slope of the gutter or street at the foot of curb ramp run, blended transitions, and turning space shall be 5 percent maximum (PROWAG R304.5.4). Counter slopes of adjoining gutters and road surfaces immediately adjacent to the curb ramp shall not be steeper than 5%. The adjacent surfaces at transitions at curb ramps to walks, gutters, and streets shall be at the same level (ADAS 406.2).	Not Mentioned.	Add counter slope label to the curb ramp standard drawings (EDCS Std. Drawings 310a, 310b, 310c, and 310d).
Grade Breaks	Grade breaks at the top and bottom of curb ramps shall be perpendicular to the direction of 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 (PROWAG R304.5.2). Changes in level other than the running slope and cross slope are not permitted on ramp runs (ADAS 405.4).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Turning Space/Landing Size	For perpendicular curb ramps, a turning space 4.0ft. by 4.0ft. minimum shall be provided at the top of the curb ramp. If the turning space is constrained at the back of sidewalk, the turning space shall be 4.0ft. by 5.0ft. minimum. The 5.0ft. dimension shall be provided in the direction of the ramp run. (PROWAG R304.2.1). For parallel curb ramps, a turning space 4.0ft. by 4.0ft. minimum shall be provided at the bottom of the curb ramp. If the turning space is constrained on 2 or more sides, the turning space shall be 4.0ft. by 5.0ft. minimum. The 5.0ft. dimension shall be provided in the direction of the pedestrian crossings. (PROWAG R304.3.1). The landing clear length shall be 36 inches minimum. The landing clear width shall be at least as wide as the curb ramp, excluding flared sides, leading to the landing (ADAS 406.4).	Ramp turning space shown as 4' min. x 48" (EDCS Std. Drawings 310a and 310b). Ramp turning space shown as 4.5' min. x 5' (EDCS Std. Drawings 310c and 310d).	Update turning space width to be 5' measured from back of curb to face of pedestrian curb (EDCS Std. Drawings 310c and 310d).

Curb Ramps

Design Element	Requirement	Review	Recommendations
Turning Space/Landing Slope	The running slope of turning spaces shall be 2 percent maximum (PROWAG R402.2 & PROWAG R304.3.2). The cross slopes of 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. (PROWAG R304.5.3).	Ramp turning space slope shown as 0.02'/ft (EDCS Std. Drawings 310c and 310d).	Add ramp turning space requirement onto the curb ramp standard drawings (EDCS Std. Drawings 310a, 310b, 310c, and 310d). Recommend including a desired cross slope of 1.5% or flatter to allow for construction tolerances with 2% as the maximum cross slope. Update units to be consistent across standard details.
Clear Space	Beyond the bottom grade break, a clear space 4.0ft. by 4.0ft. minimum shall be provided within the width of the pedestrian crossing and wholly outside the parallel vehicle travel lane (R304.5.5). Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a clear space 48 inches minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches minimum clear space within the markings. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches long minimum located on each side of the curb ramp and within the marked crossing (ADAS 406.6).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A

Curb Ramps

Design Element	Requirement	Review	Recommendations
Detectable Warning Surfaces	Detectable warning surfaces shall extend 2.0 ft. minimum in the direction of pedestrian travel and the full width of the curb ramp (exclusive of flares), the turning space, or the blended transition. (PROWAG R305.1.4). The truncated domes in a detectable warning surface shall have a base diameter of 0.9 in. minimum and 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 0.2 in. (PROWAG R305.1.1 & ADAS 705.1.1). The truncated domes shall have a center-to-center spacing of 1.6 in. minimum and 2.4 in. maximum, and a base-to-base spacing of 0.65 in. minimum, measured between the most adjacent domes (PROWAG R305.1.2 & ADAS 705.1.2) Detectable warning surfaces shall contrast visually with adjacent gutter, street or highway, or walkway surfaces, either light-on-dark or dark-on-light (PROWAG R305.1.3). Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light (ADAS 705.1.3).	Ramp Dome Detail includes dimensions between domes and size of domes (EDCS Std. Drawings 310a, 310b, 310c, and 310d).	Update size of domes to match ADA requirements or reference WSDOT Std. Plan F-45.10 for truncated dome requirements.

Curb Ramps

Design Element	Requirement	Review	Recommendations
Detectable Warning Surface Placement	On perpendicular curb ramps, detectable warning surfaces shall be placed as follows: • 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. • 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 5.0 ft. or less, detectable warning surfaces shall be placed on the ramp run within one dome spacing of the bottom grade break. • 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 5.0 ft, detectable warning surfaces shall be placed on the lower landing at the back of curb. (PROWAG R305.2.1). On parallel curb ramps, detectable warning surfaces shall be placed on the turning space at the flush transition between the street and sidewalk at the back of curb. (PROWAG R305.2.2). 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 (PROWAG R305.2.3).	Detectable warning devices shown on plan view (EDCS Std. Drawings 310a, 310b, 310c, and 310d). "Truncated dome warning devices shall be installed 6" from the curb, 24" deep and painted "safety yellow" per ADAAG 2.9.2" (EDCS Sec. 3-17.3(8)).	Add reference to WSDOT Std. Plan F-45.10 for truncated dome requirement placement requirements. Revise the discussion of the detectable warning surface location in EDCS Section 3-17.3(8) that the DWS should be at the back of curb instead of "6 in from the curb".
Receiving Ramp	A crosswalk served by a curb ramp must also have an existing curb ramp in place on the receiving end unless there is no curb or sidewalk on that end of the crosswalk Revised Code of Washington (RCW) 35.68.075.	"Curb ramps shall be provided at all pedestrian crossings with curb sections…when a ramp is constructed giving handicap access to the roadway area, the corresponding ramp at the opposite side of the roadway will also be required (EDCS Sec. 3-17.3(8)).	N/A

Signals

Signals are important connections in the pedestrian network that provide crossings at intersections for all roadway users. 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 (PROWAG R209.1).

Design Element	Requirement	Review	Recommendations
Accessible Pedestrian Signals and Pedestrian Pushbuttons	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. 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. (PROWAG R209.1). Existing pedestrian signals shall comply with R209.1 when the signal controller and software are altered, or the signal head is replaced (PROWAG R209.2).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Accessible Pedestrian Pushbuttons Clear Space	Clear spaces shall be 2.5 ft. minimum by 4.0 ft. minimum with additional space needed if it is confined on all or part of three sides (PROWAG R404.3). One full unobstructed side of a clear space shall adjoin a pedestrian access route or adjoin another clear space (PROWAG R404.6).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Accessible Pedestrian Pushbutton Reach Ranges	Where a forward reach is unobstructed, the high forward reach shall be 4.0 ft. maximum and the low forward reach shall be 1.25 ft. minimum above the finish surface. Forward reach over an obstruction is not permitted (PROWAG R406.2). Where a clear space allows a parallel approach to an element and the side reach is unobstructed, the high side reach shall be 4.0 ft. maximum and the low side reach shall be 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 10 in. maximum (PROWAG R406.3).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Pedestrian Crossing Times	All pedestrian signal phase timing shall comply with section 4E.06 of the MUTCD, shall be based on a pedestrian clearance time that is	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate	N/A

Signals

Design Element	Requirement	Review	Recommendations
	calculated using a pedestrian walking speed of 3.5 ft./s. or less (PROWAG R306.2).	standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	
At Roundabouts	At roundabouts with multi-lane pedestrian street crossings, a pedestrian activated signal shall be provided for each multi-lane segment of each pedestrian street crossing, including the splitter island (PROWAG R306.3.2).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
At multi-lane channelized turn lanes	At signalized intersections and roundabouts with multi-lane channelized turn lane crossings, pedestrian activated signals shall be provided (PROWAG R306.4 & PROWAG R306.5).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A

Other Pedestrian Areas

Other pedestrian areas include transit stops and work zones. Transit provides a critical lifeline of access and independence for those with limited mobility or vision. Transit stops have additional width requirements for boarding and alighting passengers, and work zones should provide the same level of accessibility as permanent pedestrian facilities.

Design Element	Requirement	Review	Recommendations
	Transit Stops		
Boarding and Alighting Area Dimensions	Bus stop boarding and alighting areas shall provide a clear length of 8.0 ft. minimum, measured perpendicular to the curb or vehicle street or highway edge, and a clear width of 5.0 ft. minimum, measured parallel to the vehicle street or highway (PROWAG R308.1.1.1 & ADAS 810.2.2).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Boarding and Alighting Area Slopes	Parallel to the street or highway, the grade of the bus stop 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 the bus stop boarding and alighting areas shall not be steeper than 2 percent (PROWAG R308.1.1.2 & ADAS 810.2.4).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Transit Shelters	Transit shelters shall be connected by PARs to boarding and alighting areas. 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 1.5 ft. from the front edge of the seat (PROWAG R308.2). Bus shelters shall provide a minimum clear floor or ground space complying with 305 entirely within the shelter. Bus shelters shall be connected by an accessible route complying with 402 to a boarding and alighting area complying with 810.2 (ADAS 810.3).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
		Parking	
Parking Spaces	Where parking spaces are marked with lines, width measurements of parking spaces and access aisles shall be made from the centerline of the markings (ADAS 502.1). Car parking spaces shall be 96 inches wide minimum and van parking spaces shall be 132 inches wide minimum, shall be marked to define the width, and shall have an adjacent access aisle (ADAS 502.2). Van parking spaces shall be permitted to be 96 inches wide minimum where the access aisle is 96 inches wide minimum (ADAS 502.2 Exception).	“Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Parking Access Aisles	Access aisles shall adjoin an accessible route. Two parking spaces shall be permitted to share a common access aisle (ADAS 502.3). Access aisles serving car and van parking spaces shall be 60 inches wide minimum (ADAS 502.3.1). Access aisles shall extend the full length of the parking spaces they serve (ADAS 502.3.2). Access aisles shall be marked so as to discourage parking in them (ADAS 502.3.3). Access aisles shall not overlap the vehicular way. Access aisles shall be permitted to be placed on either side of the parking space except for angled van parking spaces which shall have access aisles located on the passenger side of the parking spaces (ADAS 502.3.4).	“Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Parking identification.	Parking space identification signs shall include the International Symbol of Accessibility complying with 703.7.2.1. 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 (ADAS 502.6).	“Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Parallel Parking Spaces	Where the width of the adjacent sidewalk or available right-of-way exceeds 14.0 ft, an access aisle 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	“Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of	N/A

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
	shall not encroach on the vehicular travel lane (PROWAG R309.2.1). 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 (PROWAG R309.2.1.1). 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 14.0 ft. When an access aisle is not provided, the parking spaces shall be located at the end of the block face (PROWAG R309.2.2).	Transportation (WSDOT) (EDCS Sec. 1-0).	
Perpendicular or Angled Parking Spaces	Where perpendicular or angled parking is provided, an access aisle 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 (PROWAG R309.3).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
	Alternative Pedestrian Access Routes		
Alternate Pedestrian Access Route	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 shall be provided. Where provided, pedestrian barricades and channelizing devices shall comply with sections 6F.63, 6F.68, and 6F.71 of the MUTCD (PROWAG R205).	"All traffic control devices, signing, striping, and other pavement delineation shall conform to the Manual on Uniform Traffic Control Devices (MUTCD) (EDCS Sec. 3-7). "Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
		Driveways	
Driveways	The cross slope shall be 2 percent maximum (PROWAG R304.5.3). Cross slope of ramp runs shall not be steeper than 1:48. (ADAS 405.3) The running slope shall be 5 percent minimum and 8.3 percent maximum but shall not require the ramp length to exceed 15.0 ft. (PROWAG R304.2.2).	Driveway cross slope shown as 2% (EDCS Std. Drawings 307, 308, and 309). Driveway running slope shown as 8% max. (EDCS Std. Drawings 308).	Recommend including a desired cross slope of 1.5% or flatter to allow for construction tolerances with 2% as the maximum cross slope. Recommend including a desired running slope of 7.5 percent or flatter to allow for construction tolerances with 8.3 percent as the maximum running slope.

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
	Ramps		
Ramp Width	The clear width of a ramp run and, where handrails are provided, the clear width between handrails shall be 3.0 ft. minimum (PROWAG R407.4 & ADAS 405.5).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Running Slope	Ramp runs shall have a running slope between 5 percent minimum and 8.3 percent maximum (PROWAG R407.2) Ramp runs shall have a running slope not steeper than 1:12. In existing sites, buildings, and facilities, ramps shall be permitted to have running slopes steeper than 1:12 complying with Table 405.2 where such slopes are necessary due to space limitations (ADAS 405.2).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Cross Slope	The cross slope of ramp runs shall be 2 percent maximum (PROWAG R407.3). Cross slope of ramp runs shall not be steeper than 1:48. (ADAS 405.3)	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Rise	The rise for any ramp run shall be 2.5 ft. maximum (PROWAG R407.4 & ADAS 405.6).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Landing Size	Ramps shall have landings at the top and the bottom of each ramp run (PROWAG R407.6 & ADAS 405.7). The landing clear width shall be at least as wide as the widest ramp run leading to the landing (PRWOAG R407.6.2 & ADAS 405.7.2) The landing clear length shall be 5.0 ft. long minimum (PROWAG R407.6.3 & ADAS 405.7.3) Ramps that change direction between runs at landings shall have a clear landing 5.0 ft. by 5.0 ft.	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
	minimum (PROWAG R407.6.4 & ADAS 405.7.4).		
Landing Slope	Landing slopes shall be 2 percent maximum in any direction (PROWAG R407.6.1 & ADAS 405.7.1).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
		Stairways	
Stairway Treads and Risers	All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. Risers shall be 4 in. high minimum and 7 in. high maximum. Treads shall be 11 in. deep minimum (PROWAG R408.2 & ADAS 504.2). Open risers are not permitted (PROWAG R408.3 & ADAS 504.3). The radius of curvature at the leading edge of the tread shall be 0.5 in. 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 1.5 in. maximum over the tread below (PROWAG R408.5 & ADAS 504.5).	Riser height shown as 5"-7 ½" max in tread shape detail (EDCS Std. Drawing 328). Note 1, shows riser height as 5" min. and 7" max. (EDCS Std. Drawing 328). Tread shown as min. 11", max. 12" (EDCS Std. Drawing 328). Note 1, shows tread as 11" min. 12" max. (EDCS Std. Drawing 328). Solid risers shown (EDCS Std. Drawing 328). Radius of leading edge shown as ½" R max (EDCS Std. Drawing 328). Nosing projection shown as ¾" (EDCS Std. Drawing 328).	Revise maximum riser height to 7" max. in the tread shape detail (EDCS Std. Drawing 328).
		Handrails	
Handrails	Stairways shall have handrails (PROWAG R408.6). Handrails are required on ramp runs with a rise greater than 6 in. and on certain stairways (PROWAG R407.8 & ADAS 405.8). Edge protection complying shall be provided on each side of ramp runs and landings (PROWAG R407.9 & ADAS 405.9). Where required handrail shall be provided on both sides of ramps and stairways (PRWOAG R409.2 & ADAS 505.2). Top of gripping surfaces of handrails shall be 2.8 ft. minimum and 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	Note 5 says "Steps with more than 4 risers shall have handrail on both sides" (EDCS Std. Drawing 328). Note 2 says, "Height of railing shall be 34" minimum, 38" maximum top of nosing to top of railing" (EDCS Std. Drawing 328). Distance to edge of ramp from center of railing is to be 3" (EDCS Std. Drawing 328). "Finished height of the railing shall be 42 inches above the pedestrian walking surface (EDCS Sec. 3-16.2).	Revise text in standards to show the height of the railing to be the same as what is shown in the standard plans (EDCS Sec. 3-16.2).

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
	nosings (PROWAG R409.4 & ADAS 505.4). Clearance between handrail gripping surfaces and adjacent surfaces shall be 1.5 in. minimum (PROWAG R409.5 & ADAS 505.5). 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 1.5 in. minimum below the bottom of the handrail gripping surface (PROWAG R409.6 & ADAS 505.6).		
Handrail Extension on Ramps	Ramp handrails shall extend horizontally above the landing for 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. (PROWAG R409.10.1 & ADAS 505.10.1).	"Except where these Standards provide otherwise, design, construction and materials shall conform to the appropriate standards of the current edition of the following publications produced by the Washington State Department of Transportation (WSDOT) (EDCS Sec. 1-0).	N/A
Handrail Extension on Stairways	At the top of a stair flight, handrails shall extend horizontally above the landing for 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 (PROWAG R409.10.2 & ADAS 505.10.2). 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. (PROWAG R409.10.3 & ADAS 505.10.3).	Not mentioned.	Show handrail length extension dimensions (EDCS Std. Drawing 328).
Handrail Cross Section	Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1.25 in. minimum and 2 in. maximum (PROWAG R409.7.1 & ADAS 505.7). Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 in. minimum and 6.25 in. maximum, and a cross-section dimension of	Handrail diameter shown as 1 ½" Std. Pipe (EDCS Std. Drawing 325). Typical post 1 ½" x 1 ½" x 1/8" tublar steel (EDCS Std. Drawing 326).	N/A

Other Pedestrian Areas

Design Element	Requirement	Review	Recommendations
	2.25 in. maximum (PROWAG R409.7.2 & ADAS 505.7).		
		Railways	
Railroad Flangeway Gaps	Flangeway gaps at pedestrian at-grade rail crossings shall be 2.5 in. maximum or non-freight rail track and 3 in. maximum on freight rail track (PROWAG R302.7.4). Where a circulation path serving boarding platforms crosses tracks, it shall comply with 402. Openings for wheel flanges shall be permitted to be 2 1/2 inches maximum (ADAS 810.10).	Not mentioned.	No recommendation as there are no railroad crossings with pedestrian facilities in City of Snohomish.
Detectable Warning Surfaces at 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 6.0 ft. minimum and 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. (PROWAG R305.2.5).	Not mentioned.	No recommendation as there are no railroad crossings with pedestrian facilities in City of Snohomish.
Detectable Warning Surfaces at Rail Boarding Areas	At boarding platforms for rail vehicles, detectable warning surfaces shall be placed at the boarding edge of the platform (PROWAG R305.2.6). 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 (PROWAG R305.2.7).	Not mentioned.	No recommendation as there are no railroad crossings with pedestrian facilities in City of Snohomish.

Attachments:

Attachment A: City of Snohomish Standard Drawing Markups

Attachment A: City of Snohomish Standard Drawing Markups

DRAWING INDEX

	Detached single family, duplex, tri-plex, and four-plex residential.					
PUBLIC STREET CLASSIFICATION	SHORT SUBDIVISION ACCESS (2)	LOCAL ACCESS "A"	LOCAL ACCESS "B"	COLLECTOR ARTERIAL	MINOR ARTERIAL	PRINCIPAL ARTERIAL
Maximum Number of dwelling units serviced (3)	9	40	100	OVER 100	N.A	N.A
Minimum R.O.W	40'	50' (6)	50' (6)	60'	60'	80'
Minimum Pavement Width Curb to Curb	24' (4)	28' (4)	32' (4)	36'	44'	48'
Sidewalks (5)	1 to 4 D.U.-OPTIONAL 5 to 9 D.U.-REQUIRED	Required	Required	Required	Required	Required
Geometrics & Structural Section	Std. Plan # 302	St. Plan # 302	St. Plan # 302	St. Plan # 301	St. Plan # 301	St. Plan # 301
Max. Allowable Grade ***(%) (1)	15%	15%	15%	12%	9%	8%
Utility Easement Beyond R.O.W Req'd	10' Each Side of Public R.O.W.			As Required By City Engineer		

NOTES:

(1) Maximum grade may be exceeded subject to approval by the City Engineer, such approval may be conditional upon the following:

a) No practical alternative exists.
b) Any grade over 15% will be review by the city on a case by case basis.

(2) Can only be used on short plats and cannot be part of a larger development. Must be a permanent dead end.

(3) Maximum potential number of dwelling units served, will include FORECASTED future development of adjacent areas.

(4) 36' wide street section required if less than four(4) off-street parking spaces provided per dwelling unit.
One (1) driveway allowed per lot on "access" streets.

(5) City Engineer may allow sidewalk on one side only in areas of extensive cuts and/or fills and if projected pedestrian volumes are less than normal.

(6) City Engineer may allow variance per Section 1.9

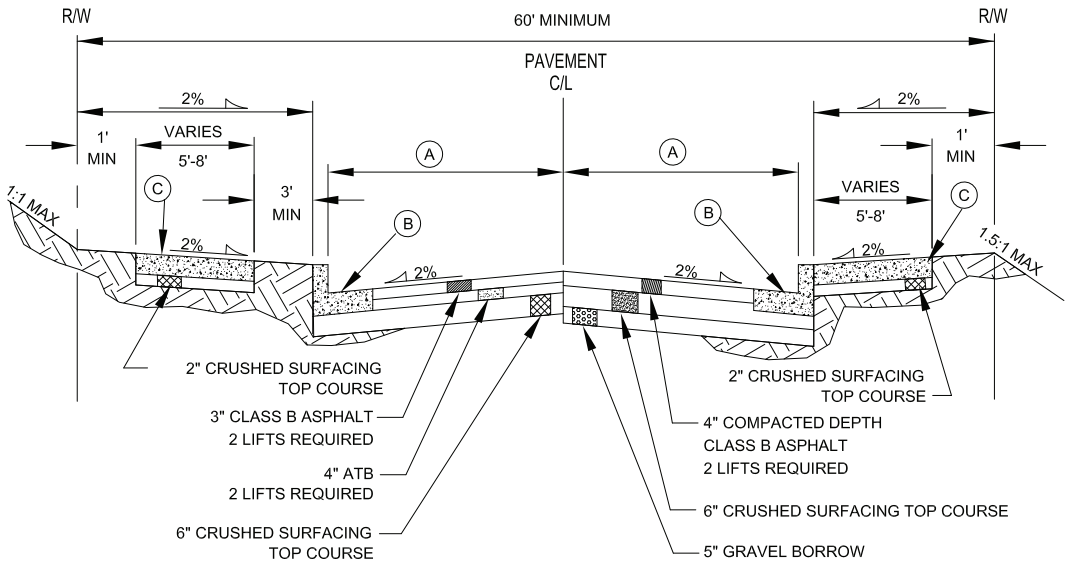
SNOHOMISH WASHINGTON

ROADWAY FUNCTIONAL CLASSIFICATIONS

Approved By:
City Engineer
Date: May 30, 2004

300
Number

City of Snohomish Public Works Department



ALTERNATE ROADWAY SECTION

STANDARD ROADWAY SECTION

(A) PAVEMENT WIDTH

COLLECTOR ARTERIAL = 18'
MINOR ARTERIAL = 22'
PRINCIPAL ARTERIAL = 24+'

(B) CONCRETE CURB AND GUTTER TYPE A-1
SEE STD DWG 305A

(C) CEMENT CONCRETE SIDEWALK
SEE STD DWG 306

NOTES

IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND TOP OF ROCK.

ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.

ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH. COMPACTION SHALL BE AN AVERAGE OF 91% OF RICE DENSITY.

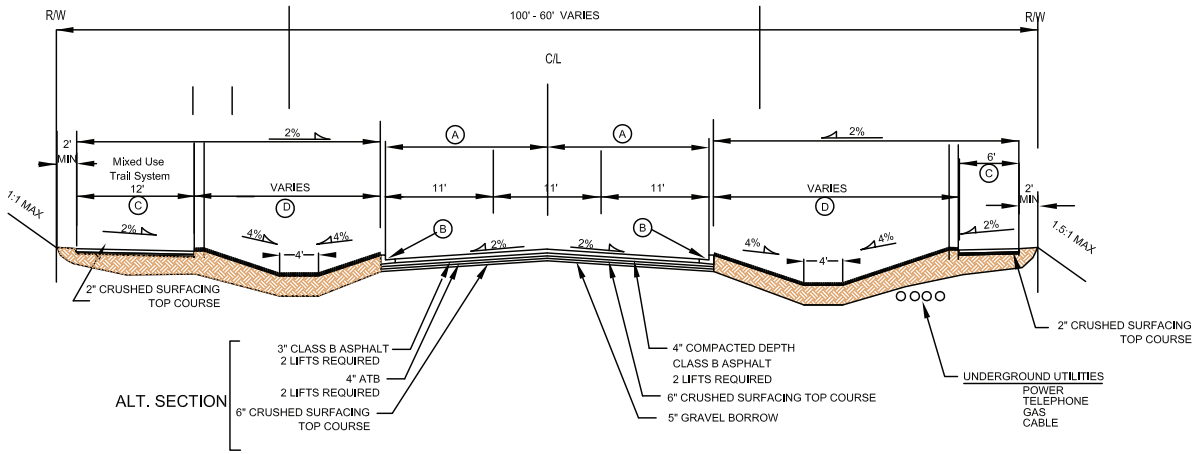
SNOHOMISH
WASHINGTON

TYPICAL ROADWAY SECTION ARTERIALS

Approved By:
City Engineer
Date: May 30, 2004

301
Number

City of Snohomish Public Works Department



BICKFORD AVENUE STANDARD ROADWAY SECTION 1
FACING NORTH

0 5 10

(A) PAVEMENT WIDTH - 16.5'
TRAVELED LANE WIDTH - 11'
CENTER TURN LANE WIDTH - 11'

(B) CONCRETE CURB AND GUTTER TYPE A-1
SEE STD DWG 305A

(C) CEMENT CONCRETE SIDEWALK
SEE STD DWG 306

(D) GRASS SWALED CLEANSING AND INFILTRATION
DRAINAGE AREA

NOTES

IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND TOP OF ROCK.

ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.

ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH.

ALL UTIITIES SHALL BE UNDERGROUND AS PART OF DEVELOPMENT FRONTAGE IMPROVEMENTS

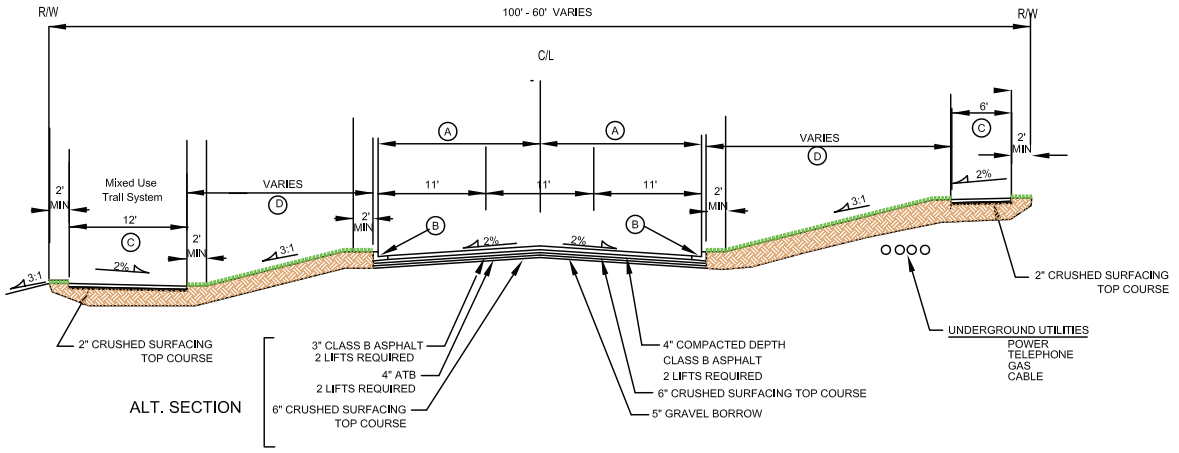
SNOHOMISH
WASHINGTON

Bickford Avenue Roadway Section 1

Approved By: _____
City Engineer
Date: May 30, 2004

301a
Number

City of Snohomish Public Works Department



BICKFORD AVENUE STANDARD ROADWAY SECTION 2
FACING NORTH

0 5 10

(A) PAVEMENT WIDTH - 16.5'
TRAVELED LANE WIDTH - 11'
CENTER TURN LANE WIDTH - 11'

(B) CONCRETE CURB AND GUTTER TYPE A-1
SEE STD DWG 305A

(C) CEMENT CONCRETE SIDEWALK
SEE STD DWG 306

(D) GRASS SWALED CLEANSING AND INFILTRATION DRAINAGE AREA

NOTES

IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND TOP OF ROCK.

ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.

ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH.

ALL UTILITIES SHALL BE UNDERGROUND AS PART OF DEVELOPMENT FRONTAGE IMPROVEMENTS

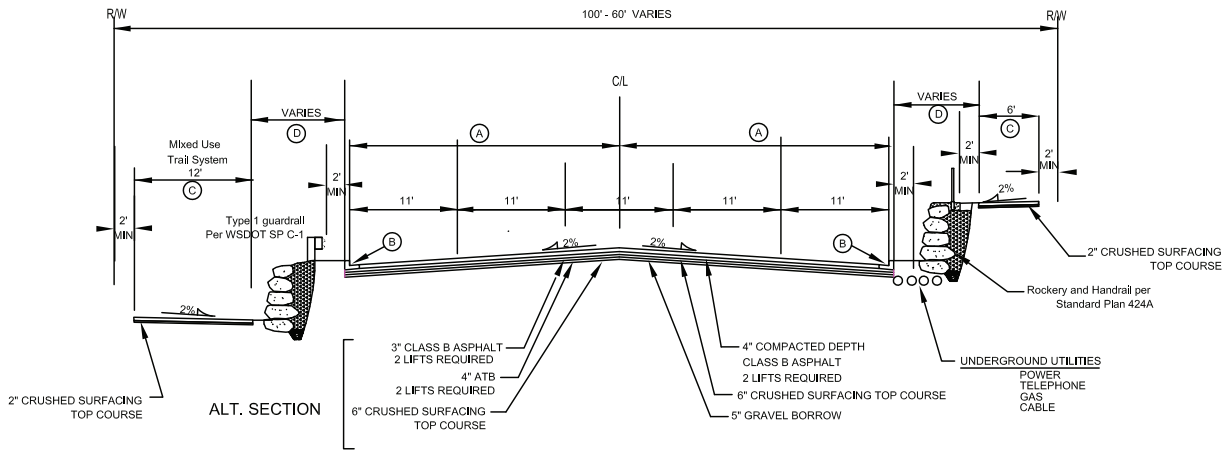
SNOHOMISH
WASHINGTON

Bickford Avenue Roadway Section 2

City of Snohomish Public Works Department

Approved By:
City Engineer
Date: May 30, 2004

301b
Number



BICKFORD AVENUE STANDARD ROADWAY SECTION 3

FACING NORTH

0 5 10

(A) PAVEMENT WIDTH - 27.5'
TRAVELED LANE WIDTH - 11'
CENTER TURN LANE WIDTH - 11'

(B) CONCRETE CURB AND GUTTER TYPE A-1
SEE STD DWG 305A

(C) CEMENT CONCRETE SIDEWALK
SEE STD DWG 306

(D) GRASS SWALED CLEANSING AND INFILTRATION
DRAINAGE AREA

NOTES

IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND TOP OF ROCK.

ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.

ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH.

ALL UTILITIES SHALL BE UNDERGROUND AS PART OF DEVELOPMENT FRONTAGE IMPROVEMENTS

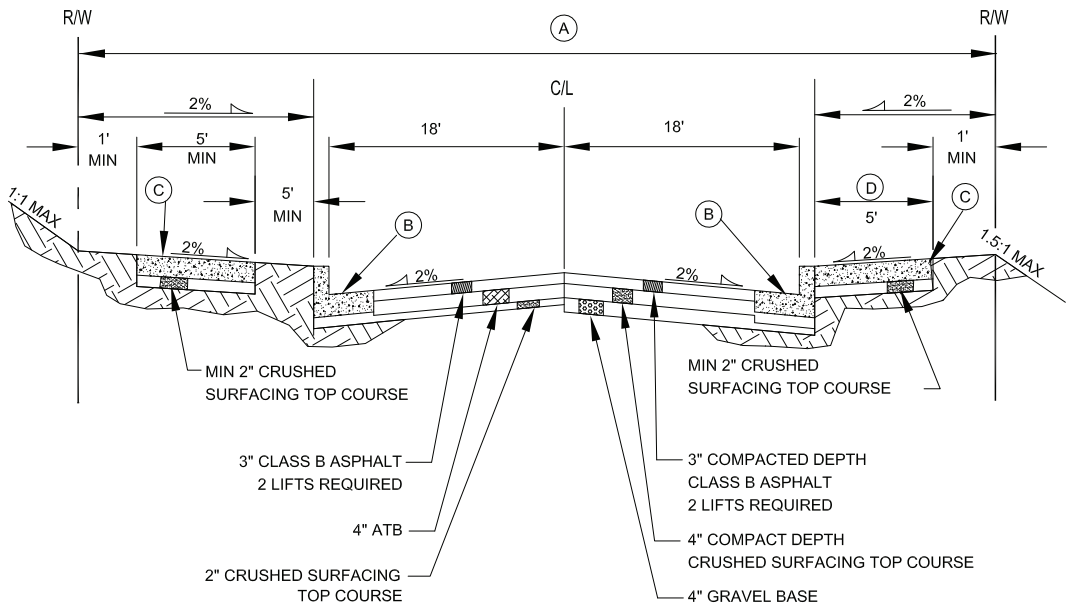
SNOHOMISH
WASHINGTON

Bickford Avenue Roadway Section 3

Approved By:
City Engineer
Date: May 30, 2004

301c
Number

City of Snohomish Public Works Department



ALTERNATE ROADWAY SECTION

(D) VARIANCE MAY BE ADJUSTED FOR A NARROWER RIGHT OF WAY AND THE SIDEWALK LOCATED ADJACENT TO CURB PER SECTION 1.9 IF EXISTING SITE CONSTRAINTS CAUSE EXTREME HARDSHIPS FOR THE WIDER PAVEMENT SECTION AS DETERMINED BY THE PUBLIC WORKS DIRECTOR.

STANDARD ROADWAY SECTION

(A) 60' STANDARD RIGHT OF WAY

(B) CONCRETE CURB AND GUTTER TYPE A-1 SEE STD DWG 305A

(C) CEMENT CONCRETE SIDEWALK SEE STD DWG 306

NOTES:

1 IN WIDENING AREAS, THE EXISTING PAVEMENT EDGE SHALL BE SAW-CUT TO LEAVE A JOIN POINT. ANY TRAFFIC STRIPING REMOVED OR DAMAGED DURING WIDENING WORK SHALL BE REPLACED IN KIND OR AS DIRECTED BY THE CITY ENGINEER.

2 COMPACTION TESTS ON SUBGRADE AND SURFACING SHALL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY INSPECTOR. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY ON BOTH SUBGRADE AND SURFACING.

3 ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENTS CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER.

4 ROADWAY SECTION MAY BE ADJUSTED WITH THE APPROVAL OF THE CITY ENGINEER UPON SUBMISSION OF SUBSTANTIATING ENGINEERING DATA (CBR, ETC) TO SUPPORT THE ADJUSTMENT. FOR DESIGN PURPOSES, THE MINIMUM THICKNESS OF CLASS B ASPHALT SHALL BE 3" COMPACTED DEPTH. COMPACTION SHALL BE AN AVERAGE OF 92% OF RICE DENSITY.

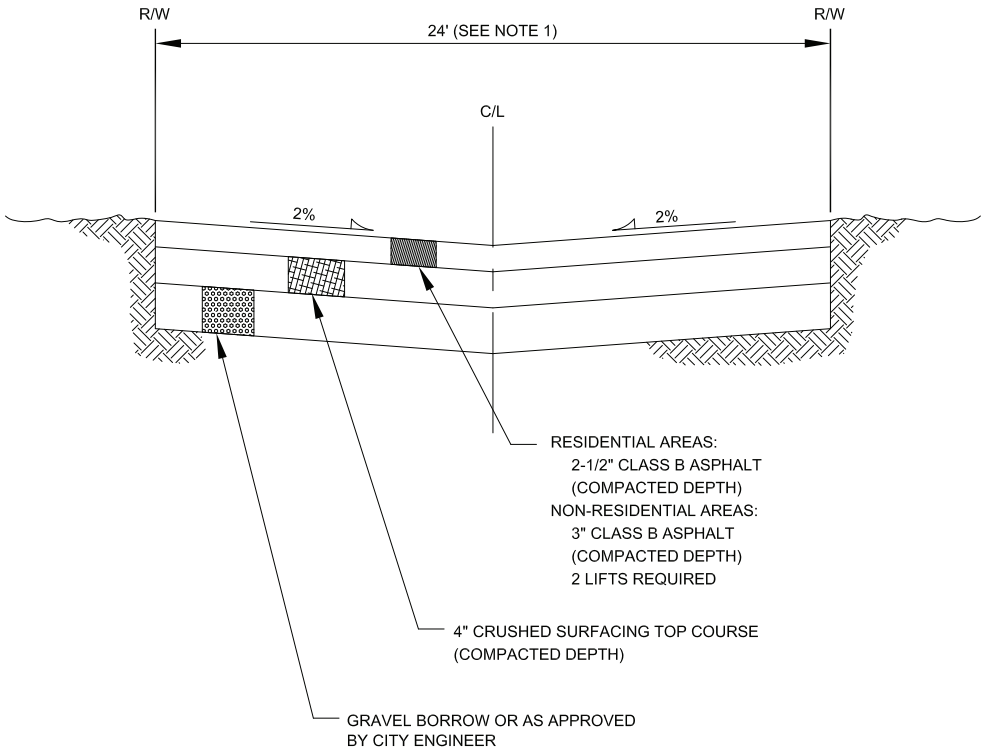
SNOHOMISH WASHINGTON

TYPICAL ROADWAY SECTIONS LOCAL ACCESS STREETS

Approved By: City Engineer
Date: May 30, 2004

302 Number

City of Snohomish Public Works Department



NOTES

1 ALL NEW ALLEYS SHALL HAVE A MINIMUM WIDTH OF 24'. EXISTING ALLEY RIGHT-OF-WAYS MAY VARY FROM 12' TO 24'.

2 DRAINAGE TO BE COLLECTED AT LOW END OF IMPROVED SECTION WITH CATCH BASIN CONNECTED TO STORM DRAINAGE SYSTEM.

3 COMPACTION TESTS ON SUBGRADE AND TOP OF ROCK WILL BE REQUIRED. THE NUMBER OF TESTS SHALL BE AT THE DISCRETION OF THE CITY ENGINEER. ALL TESTING SHALL BE THROUGH A LICENSED TESTING LABORATORY. THE MINIMUM COMPACTION SHALL BE 95% OF MAXIMUM DENSITY OF BOTH SUBGRADE AND TOP OF ROCK.

4 ADJUSTMENT OF CATCH BASIN LIDS OR GRATES, MONUMENT CASES, VALVE BOXES, ETC SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR DEVELOPER AS REQUIRED.

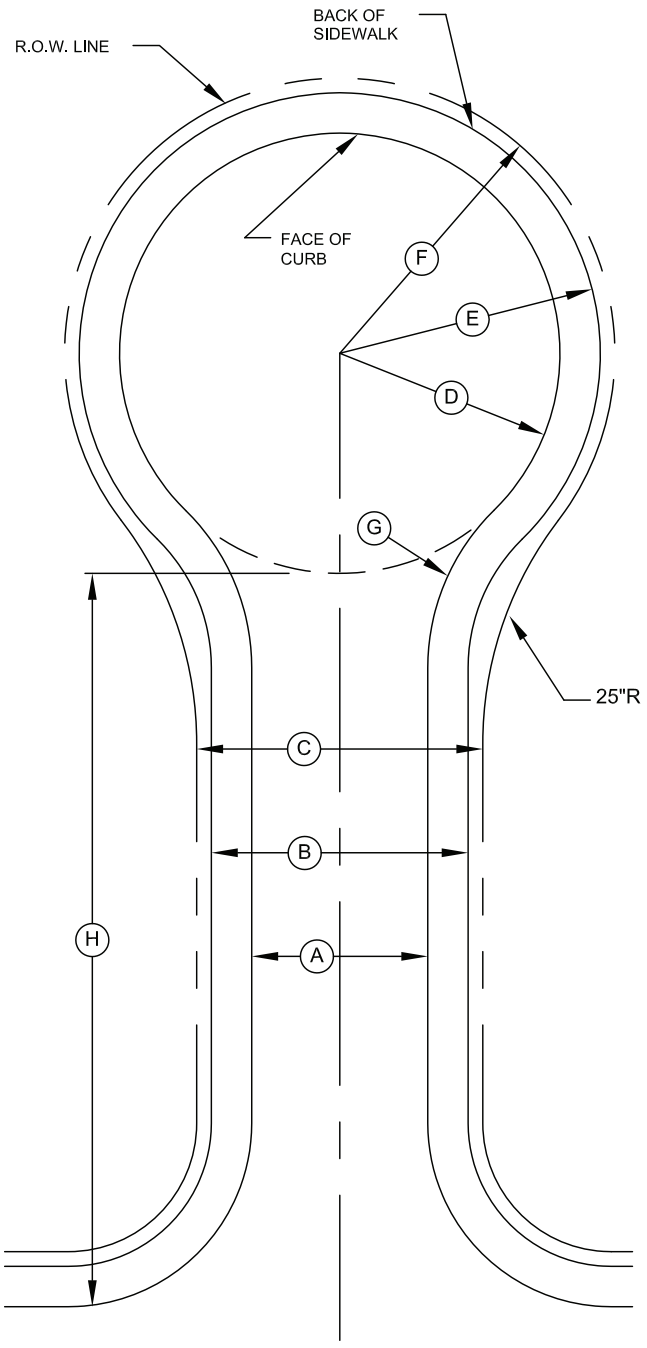
SNOHOMISH
WASHINGTON

TYPICAL ROADWAY SECTION
ALLEY

Approved By:
City Engineer
Date: May 30, 2004

303
Number

City of Snohomish Public Works Department



(A) VARIES 24' TO 48'+
SEE STD PLANS 300, 301 & 302

(B) VARIES 35' TO 59'+
SEE STD PLANS 300, 301 & 302

(C) VARIES 40' TO 80'+
SEE STD PLANS 300, 301 & 302

(D) VARIES 30' TO 45'
PER BELOW:

(H) STREET LENGTH	(D) MIN RADIUS
0'-150'	30'
151'-300'	35'
301'-500'	40'
501'-750'	45'
OVER 750'	SPECIAL APPROVAL REQUIRED

(E) 35.5' MIN. - LOCAL ACCESS STREETS AND SHORT SUBDIVISION STREETS

51.5' MIN. - ARTERIAL CLASSIFICATIONS

(F) 40' MIN. - LOCAL ACCESS STREETS AND SHORT SUBDIVISION STREETS

55' MIN. - ARTERIAL CLASSIFICATIONS

(G) CURB FACE RADIUS TO BE SAME AS RADIUS (D)

NOTE: CENTER LANDSCAPE ISLAND MAY BE ALLOWED. CITY ENGINEER APPROVAL REQUIRED.

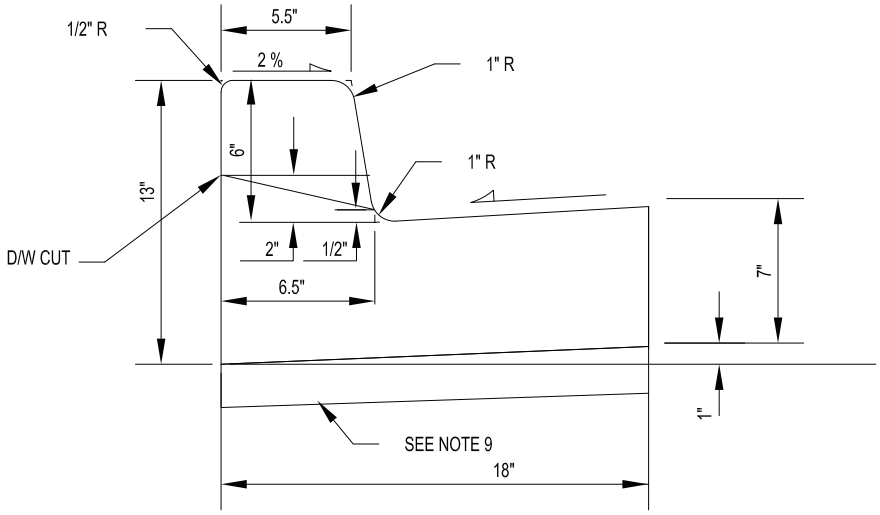
SNOHOMISH
WASHINGTON

TYPICAL CUL-DE-SAC

Approved By:
Yosh Monzaki
City Engineer
Date: Aug 15, 2016

304
Number

City of Snohomish Public Works Department



TYPICAL SECTION

NOTES

1 FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.

2 DUMMY JOINTS SHALL BE PLACED ON 15 FOOT CENTERS. DUMMY JOINTS SHALL BE 1/2" x 1-1/2".

3 THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS AND AT POINTS OF TANGENCY ON STREETS, ALLEY AND DRIVEWAY RETURNS. MAXIMUM SPACING SHALL BE 30 FT. PRE-MOLDED JOINT FILLER SHALL BE 1/2" WIIDE AND CONFORM TO AASHTO DESIGN M213.

4 ALL JOINTS SHALL BE CLEAN AND EDGED W/ 1/2" EDGING TOOL.

5 CONCRETE SHALL BE CEMENT CONCRETE, CLASS 3000.

6 STEEL FORMS ONLY SHALL BE USED ON TANGENT SECTIONS. WOOD FORMS MAY BE USED ON CURVED SECTIONS.

7 FINISH SHALL BE LIGHT BROOM FINISH.

8 THE FINISHED CURB SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND AND COVERED BY WATERPROOF PAPER OR PLASTIC MEMBRANE IN THE EVENT OF RAIN OR OTHER UNSUITABLE WEATHER. CURING TIME SHALL BE A MINIMUM OF 72 HOURS.

9 ALL CURB AND GUTTER SHALL BE PLACED ON A MIN OF 2" OF CRUSHED SURFACING TOP COURSE.

10 DUMMY JOINT 1/2" x 1 1/2" BETWEEN A-1 CURB AND GUTTER AND THE SIDEWALK.

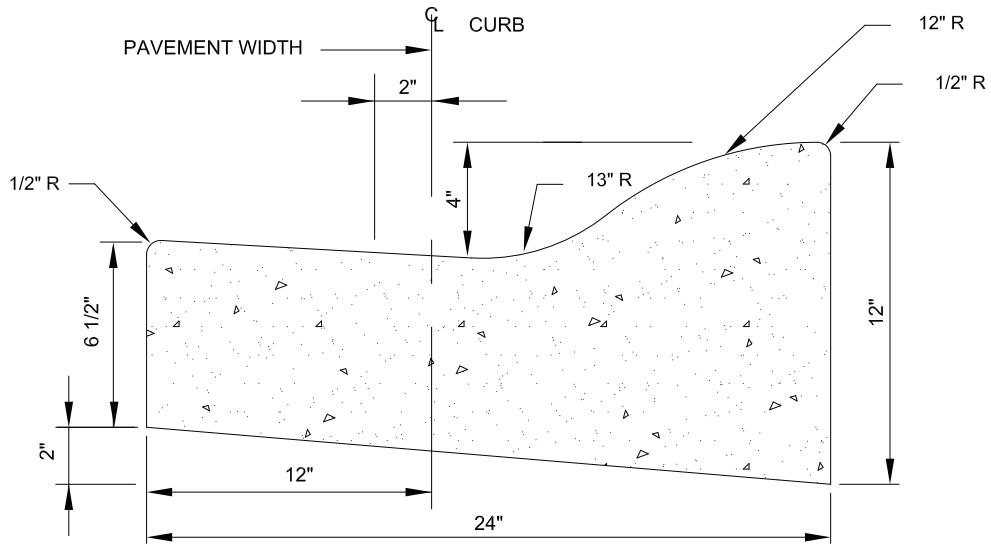
SNOHOMISH WASHINGTON

CEMENT CONCRETE CURB AND GUTTER TYPE "A"

Approved By: City Engineer
Date: May 30, 2004

305a Number

City of Snohomish Public Works Department



INDUSTRIAL USE ONLY

NOTES

1. ROLLED CURB AND GUTTER MAY ONLY BE USED IN HIGHLY INDUSTRIALIZED AREAS AND ONLY WITH WRITTEN APPROVAL OF THE CITY ENGINEER.
2. FORMS SHALL BE TRUE TO LINE AND GRADE AND SECURELY STAKED.
3. THRU JOINTS SHALL BE PLACED ADJACENT TO CATCH BASINS, INLETS, CURB RETURNS, ALLEYS, OR A MAXIMUM SPACING OF 30 FEET.
4. DUMMY JOINTS SHALL BE PLACED EVERY 15 FEET. DUMMY JOINTS SHALL BE 1/2" x 1 1/2".
5. THRU JOINTS SHALL BE 1/2" WIDE PRE-MOLDED JOINT FILLER.
6. ALL JOINTS SHALL BE CLEANED AND EDGED.
7. CONCRETE SHALL BE CEMENT CONCRETE CLASS 3000.
8. STEEL FORMS ONLY MAY BE USED ON TANGENT SECTIONS, WOOD FORMS MAY BE USED ON CURVED SECTIONS.
9. FINISH SHALL BE LIGHT BROOM.
10. CURB IS TO BE SPRAYED WITH TRANSPARENT CURING COMPOUND.
11. ALL SIDEWALKS POURED BEHIND ROLL CURB IN INDUSTRIAL APPLICATIONS SHALL BE SIX INCHES (6") THICK OVER 2" OF CRUSHED SURFACING TOP COURSE WITH TOP OF ROCK COMPACTED TO 95% OF MAXIMUM DENSITY.

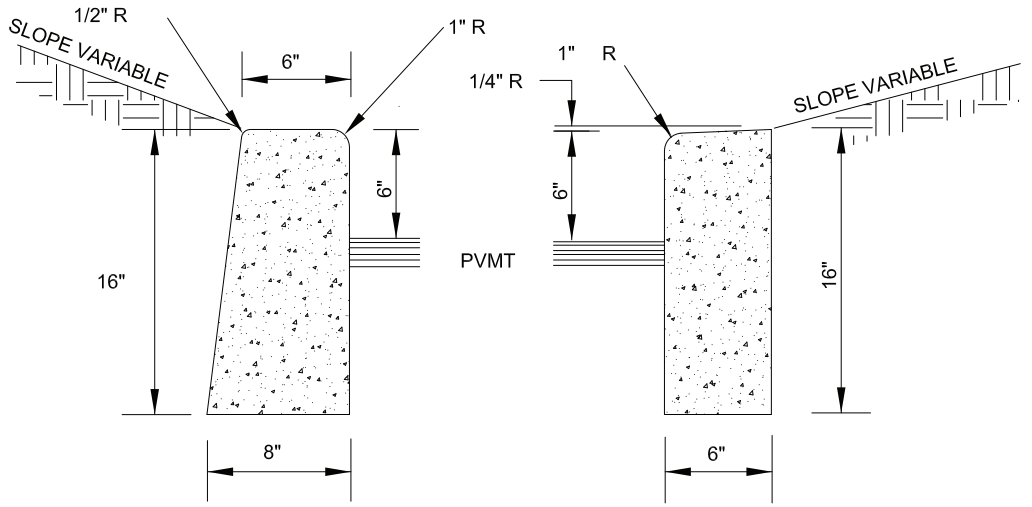
SNOHOMISH WASHINGTON

CEMENT CONCRETE ROLLED CURB AND GUTTER

Approved By:
City Engineer
Date: May 30, 2004

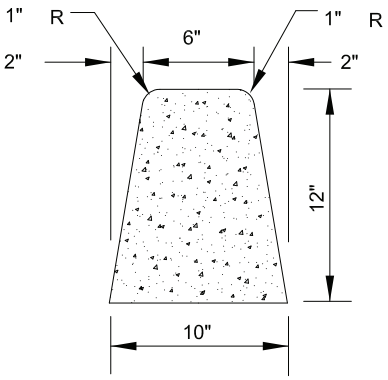
305b
Number

City of Snohomish Public Works Department

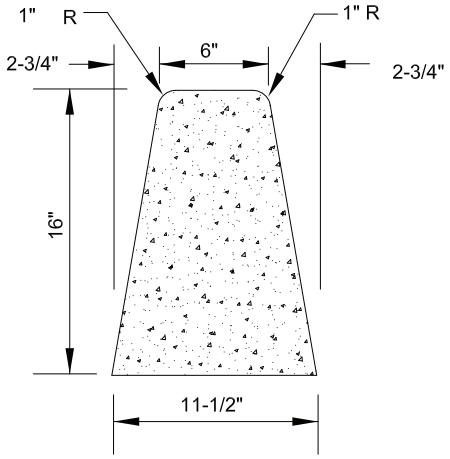


TYPE E-1 CURB

TYPE E-2 CURB



TYPE E-3 CURB



TYPE E-4 CURB

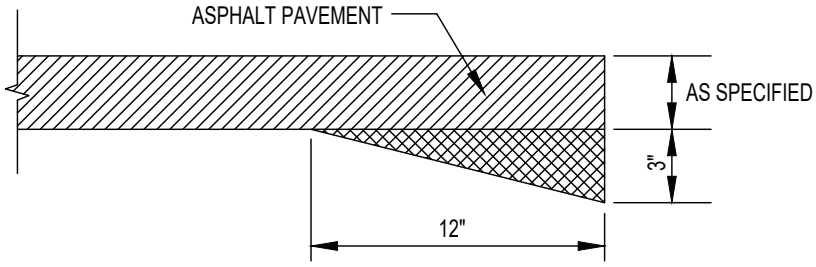
SNOHOMISH WASHINGTON

CEMENT CONCRETE CURB TYPE: E1, E1,E3 AND E4

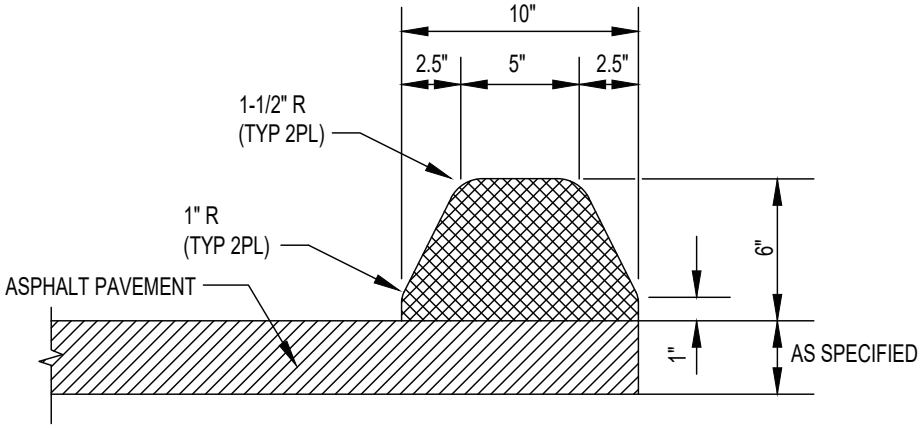
Approved By: City Engineer
Date: May 30, 2004

305c Number

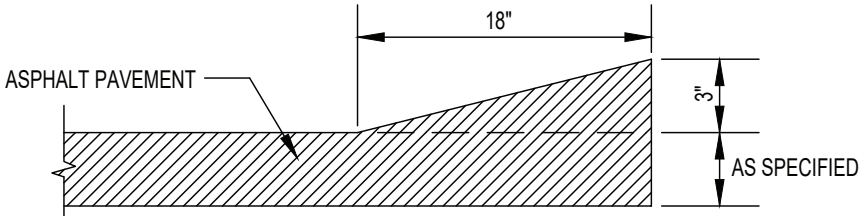
City of Snohomish Public Works Department



THICKER EDGE FOR ASPHALT PAVEMENT



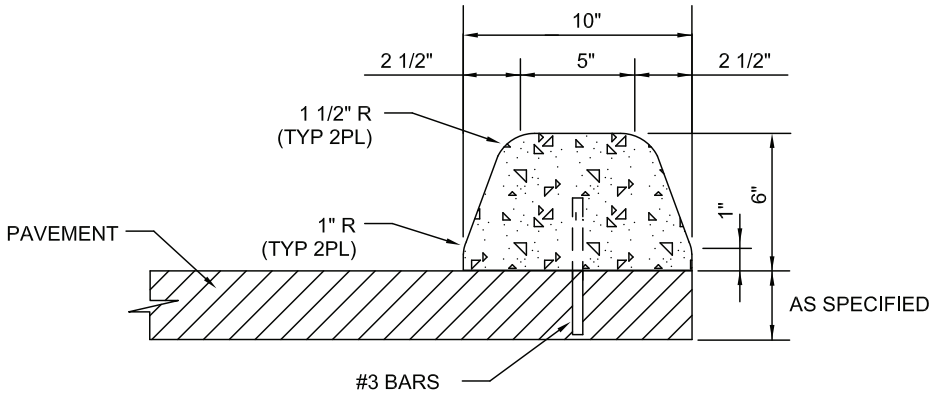
EXTRUDED ASPHALT CONCRETE CURB



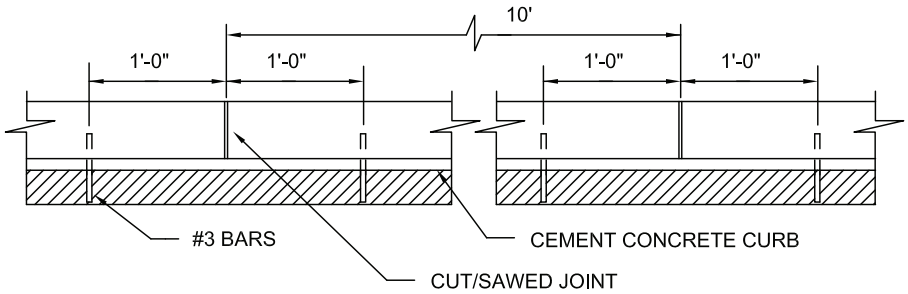
NOTE: PAVING SHOE MUST BE USED. PLACE AND COMPACT CRUSHED ROCK ON BACKSIDE OF THICKENED EDGE AS DIRECTED BY CITY.

ASPHALT THICKENED EDGE

City of Snohomish Washington	**EXTRUDED ASPHALT CONCRETE SECTION**	Approved By: Y. Monzaki City Engineer Date: July 2021	**305D** Number
	City of Snohomish Public Works Department		



EXTRUDED CEMENT CONCRETE CURB

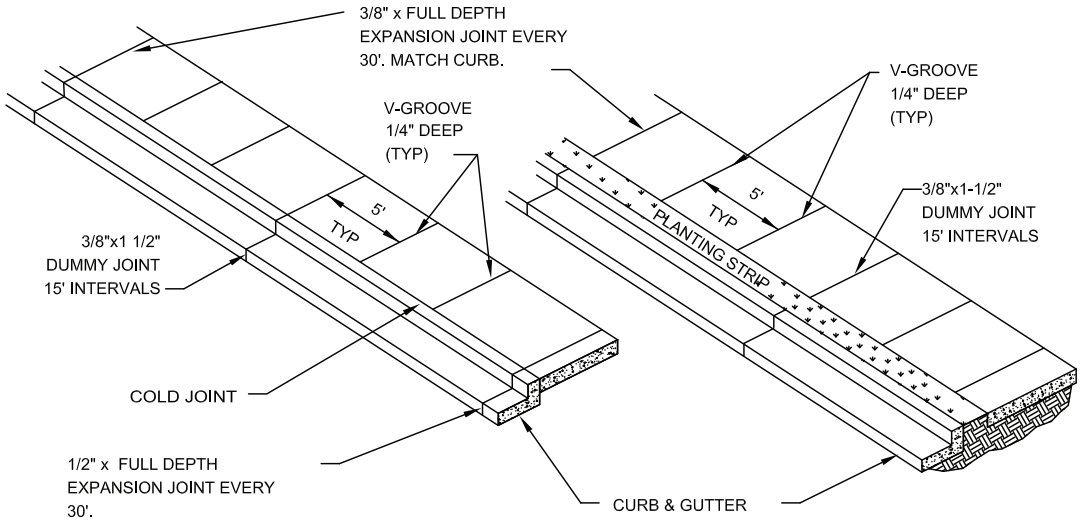


SPACING OF ANCHOR BARS

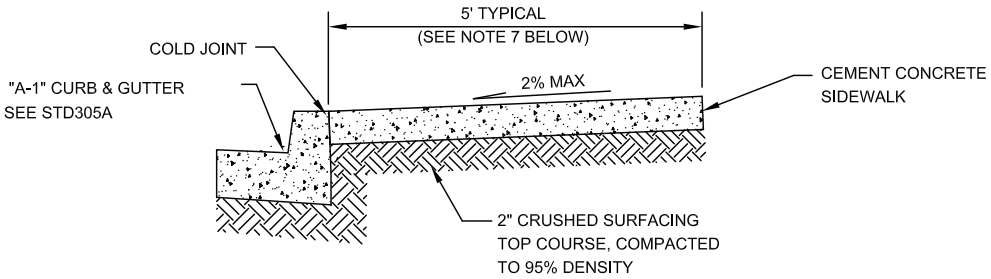
NOTES:

1. DUMMY JOINTS SHALL BE PLACED AT AN INTERVAL NOT TO EXCEED 10'. THRU JOINTS SHALL ONLY BE PLACED AT POINTS OF TANGENCY ON STREET ALLEY AND WHERE THRU JOINTS OCCUR IN THE PAVEMENT SLAB.
2. CONCRETE SHALL BE CLASS 3000 OR COMMERCIAL WITH AIR-ENTRAINMENT.
3. EXTRUDED CEMENT CONCRETE CURBS SHALL BE ANCHORED TO THE EXISTING PAVEMENT BY PLACING STEEL TIE BARS 1 FOOT ON EACH SIDE OF EVERY JOINT AND BY USING AN ADHESIVE. THE ADHESIVE SHALL MEET THE REQUIREMENTS OF SECTION 9-26 OF THE WSDOT/APWA STANDARD SPECIFICATIONS FOR TYPE II EPOXY RESIN.

SNOHOMISH WASHINGTON	EXTRUDED CEMENT CONCRETE CURB	Approved By: Y. Monzaki, City Engineer, Date: Nov 2022	305e Number
	City of Snohomish Public Works Department		



PLAN VIEWS

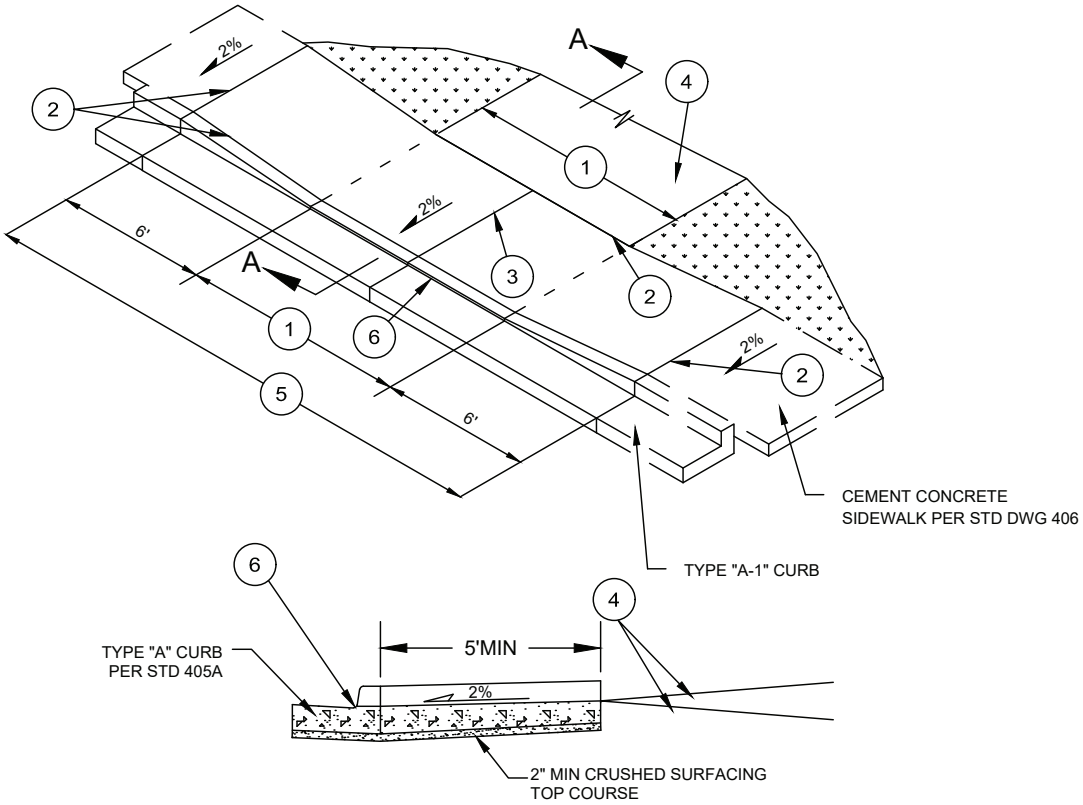


TYPICAL SECTION

NOTES

1. SIDEWALKS SHALL BE A MINIMUM OF 4" THICK, AND SHALL BE CLASS 3000 CEMENT CONCRETE, WITH AIR ENTRAINMENT (MIN 4.5 %, MAX 6.5 %).
2. FULL EXPANSION JOINTS SHALL GENERALLY BE PLACED TO MATCH THOSE PLACED IN ADJACENT CURB & GUTTER, WITH MAXIMUM SPACING OF 30 FEET, FINAL SPACING DETERMINATION SHALL BE DECIDED BY THE INSPECTOR IN THE FIELD.
3. SUBGRADE SHALL BE COMPACTED TO NOT LESS THAN 95% OF MAXIMUM DENSITY.
4. SIDEWALK SHALL BE AT LEAST 6" THICK IN DRIVEWAYS AND BEHIND ROLL-CURB.
5. THE FINISHED SIDEWALK SHALL BE SPRAYED WITH A TRANSPARENT CURING COMPOUND COVERED BY WATERPROOF PAPER OR PLASTIC SHEETING IN THE EVENT OF RAIN OR OTHER INCLEMENT WEATHER. CURING TIME SHALL BE FOR A MINIMUM OF 72 HOURS.
6. ALL JOINTS SHALL BE CLEANED AND EDGED WITH AN EDGER HAVING A 1/4" RADIUS.
7. SIDEWALKS ARE TYPICALLY 5' WIDE, EXCEPT 6' IN COMMERCIAL AREAS, OR AS APPROVED BY THE CITY ENGINEER.
8. POROUS CONCRETE SIDEWALK MAY BE USED SUBJECT TO APPROVAL OF THE CITY ENGINEER.

SNOHOMISH WASHINGTON	**CEMENT CONCRETE SIDEWALK DETAIL**	Approved By: Y. Monzaki City Engineer Date: July 2022	**306** Number
	City of Snohomish Public Works Department		



SECTION A-A

NOTES

1. EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
3. 3/8" WIDE FULL DEPTH EXPANSION JOINT IF (1) IS 15' OR GREATER.
4. DRIVEWAY TO BE SURFACED WITH ASPHALT OR CONCRETE.
5. DRIVEWAY CEMENT CONCRETE SHALL BE A MIN OF 6" THICK INCLUDING WING RAMPS AND PLACED ON A MINIMUM OF 2" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
6. MAINTAIN 1/2" LIP AT GUTTER.

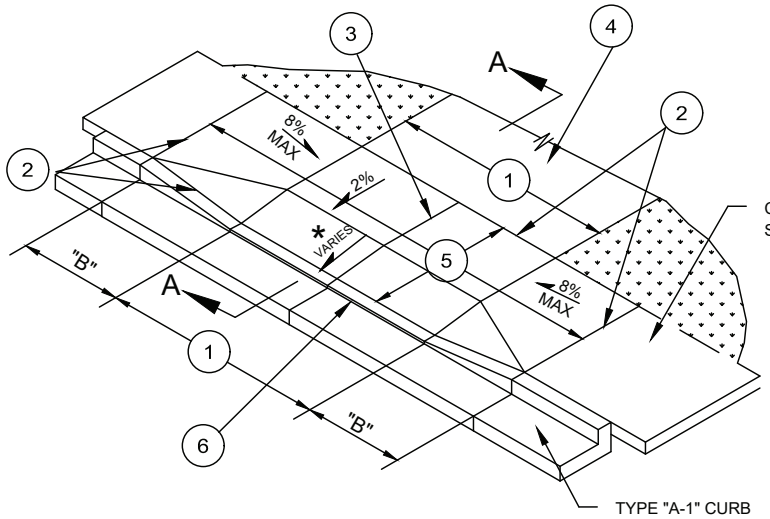
SNOHOMISH
WASHINGTON

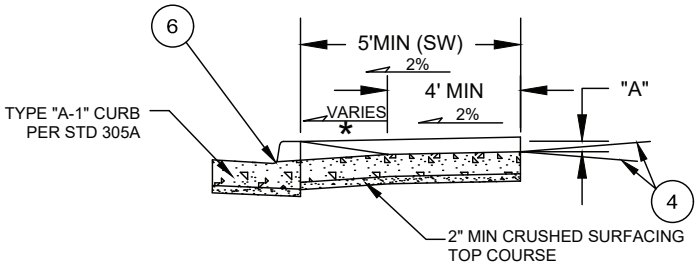
CEMENT CONCRETE DRIVEWAY TYPE 1

Approved By:
Y. Monzaki
City Engineer
Date: July 2022

307
Number

City of Snohomish Public Works Department





SECTION A-A

LOWERING BACK OF SIDEWALK "A" (IN)	LENGTH OF TRANSITION "B" (FT)
3	3
4	4
5	5

* Maximum 8% slope in commercial
Maximum 15% slope in residential

NOTES

1. EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
3. 3/8" WIDE FULL DEPTH EXPANSION JOINT IF (1) IS 15' OR GREATER.
4. DRIVEWAY TO BE SURFACED WITH ASPHALT OR CONCRETE.
5. DRIVEWAY CEMENT CONCRETE SHALL BE A MIN OF 6" THICK INCLUDING WING RAMPS AND PLACED ON A MINIMUM OF 2" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
6. MAINTAIN 1/2" LIP AT GUTTER.

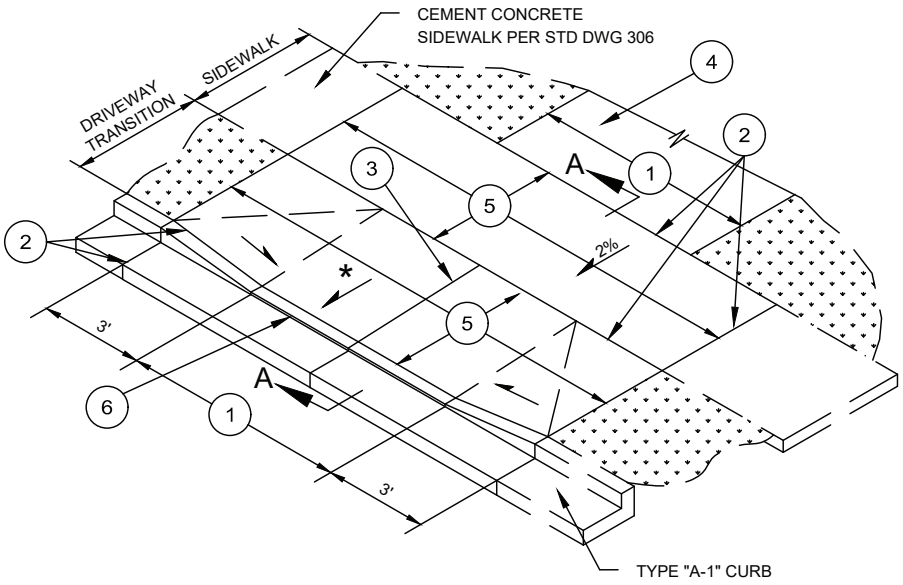
SNOHOMISH WASHINGTON

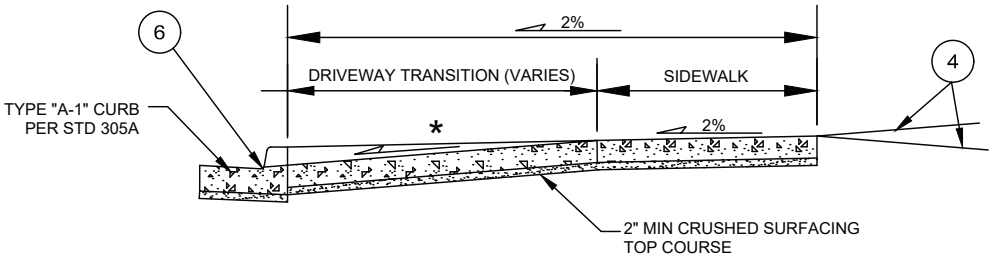
CEMENT CONCRETE DRIVEWAY TYPE 2

Approved By: Y. Monzaki
City Engineer
Date: 3/1/2019

308
Number

City of Snohomish Public Works Department





SECTION A-A

* Maximum 8% slope in commercial
Maximum 15% slope in residential

NOTES

1. EQUALS WIDTH OF DRIVEWAY AT PROPERTY LINE.
2. 3/8" WIDE FULL DEPTH EXPANSION JOINT.
3. 3/8" WIDE FULL DEPTH EXPANSION JOINT IF (1) IS 15' OR GREATER.
4. DRIVEWAY TO BE SURFACED WITH ASPHALT OR CONCRETE.
5. DRIVEWAY CEMENT CONCRETE SHALL BE A MIN OF 6" THICK INCLUDING WING RAMPS AND PLACED ON A MINIMUM OF 2" CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
6. MAINTAIN 1/2" LIP AT GUTTER

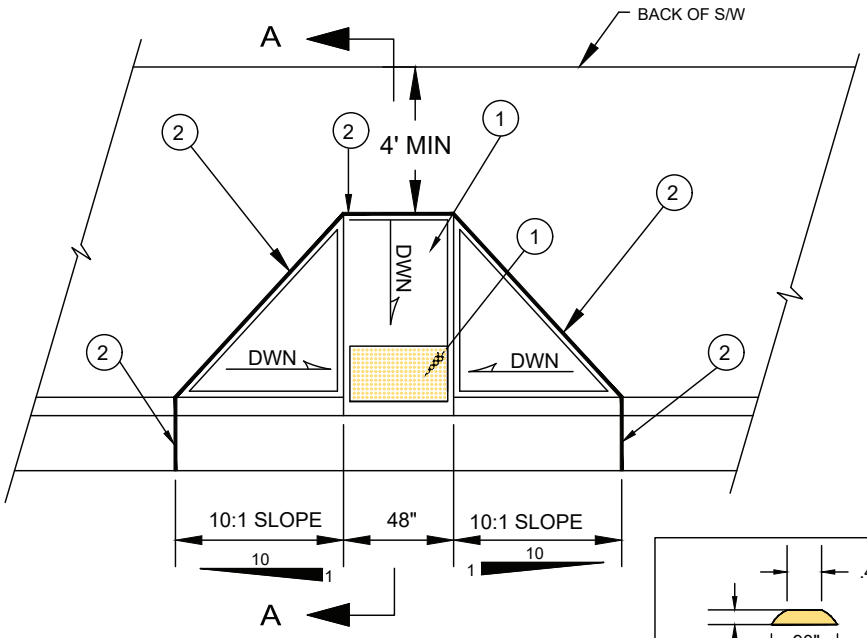
SNOHOMISH
WASHINGTON

CEMENT CONCRETE DRIVEWAY TYPE 3

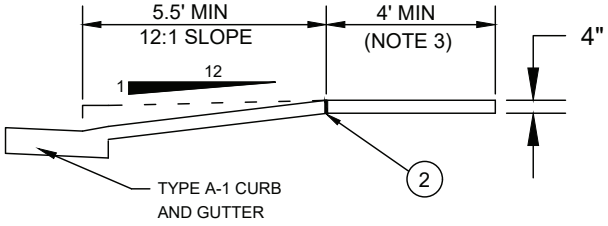
Approved By:
Y. Monzaki
City Engineer
Date: July 2022

309
Number

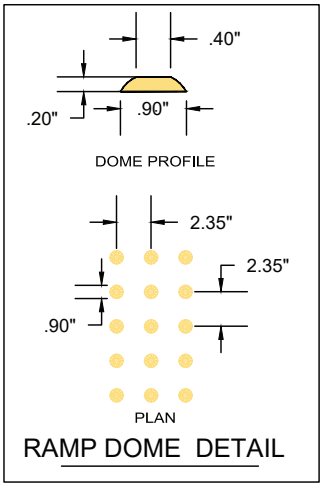
City of Snohomish Public Works Department



PLAN



SECTION A-A



RAMP DOME DETAIL

NOTES:

1. RAMP TEXTURE IS TO BE BROOM FINISHED. TRUNCATED DOME DETECTABLE WARNING DEVICES WILL BE INSTALLED WITHIN 6-8" OF CURB AND 24" DEEP AND PAINTED "SAFETY YELLOW". SPACING AND SIZING AS SHOWN IN DETAIL. PER ADAAG.4.7, CURRENT VERSION. WARNING DEVICE SHALL BE ALIGNED WITH DIRECTION OF PEDESTRIAN TRAVEL.
2. 3/8" EXPANSION JOINT.
3. IF LANDING AREA IS LESS THAN 4' USE TYPE C CURB RAMP (STD DWG 310C)
4. CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

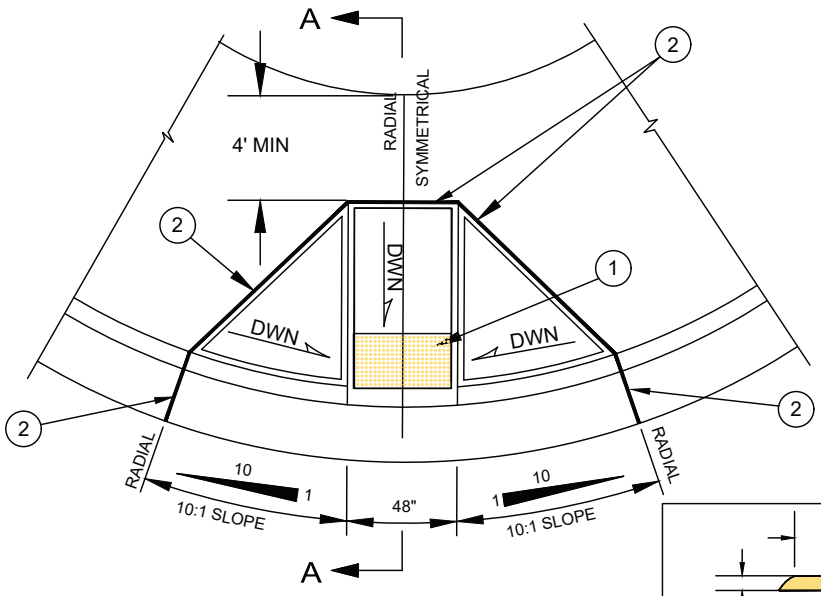
SNOHOMISH WASHINGTON

TYPE A CURB RAMP

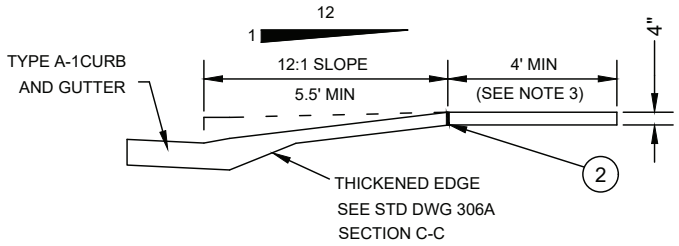
Approved By: Y. Monzaki
City Engineer
Date: July 2022

310a
Number

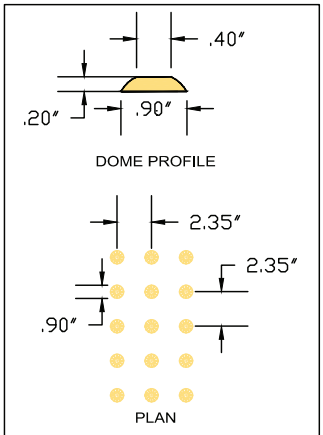
City of Snohomish Public Works Department



PLAN



SECTION A-A



RAMP DOME DETAIL

NOTES:

1. RAMP TEXTURE IS TO BE BROOM FINISHED. TRUNCATED DOME DETECTABLE WARNING DEVICES WILL BE INSTALLED WITHIN 6-8" OF CURB AND 24" DEEP AND PAINTED "SAFETY YELLOW". SPACING AND SIZING AS SHOWN IN DETAIL. PER ADAAG.4.7, CURRENT VERSION. WARNING DEVICE SHALL BE ALIGNED WITH DIRECTION OF PEDESTRIAN TRAVEL.
2. 3/8" EXPANSION JOINT.
3. IF LANDING AREA IS LESS THAN 4' USE TYPE D CURB RAMP (STD DWG 310D)
4. CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

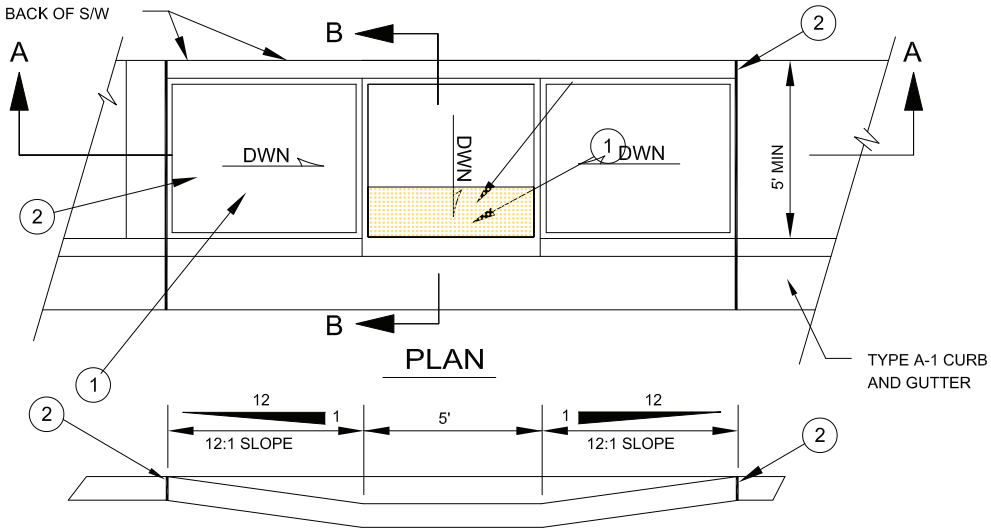
SNOHOMISH WASHINGTON

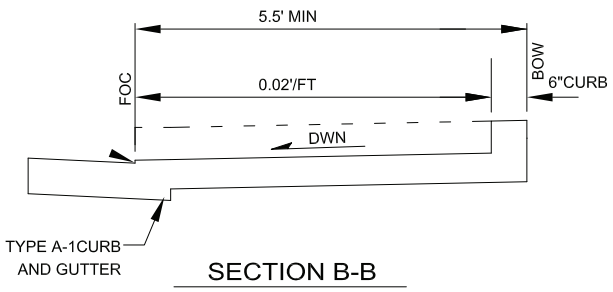
TYPE "B" CURB RAMP

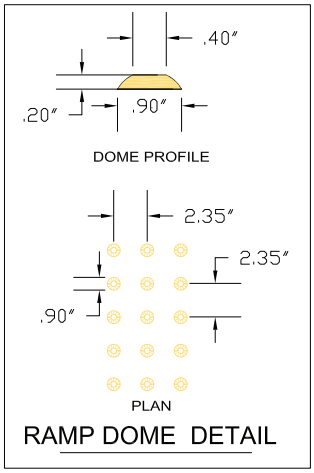
Approved By:
Y. Monzaki
City Engineer
Date: July 2022

310b
Number

City of Snohomish Public Works Department







NOTES:

1. RAMP TEXTURE IS TO BE BROOM FINISHED. TRUNCATED DOME WARNING DEVICES WILL BE INSTALLED 6" FROM CURB AND 24" DEEP AND PAINTED "SAFETY YELLOW". SPACING AND SIZING AS SHOWN IN DETAIL. PER ADAAG.2.9.2, CURRENT VERSION.
2. 3/8" EXPANSION JOINT.
3. CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

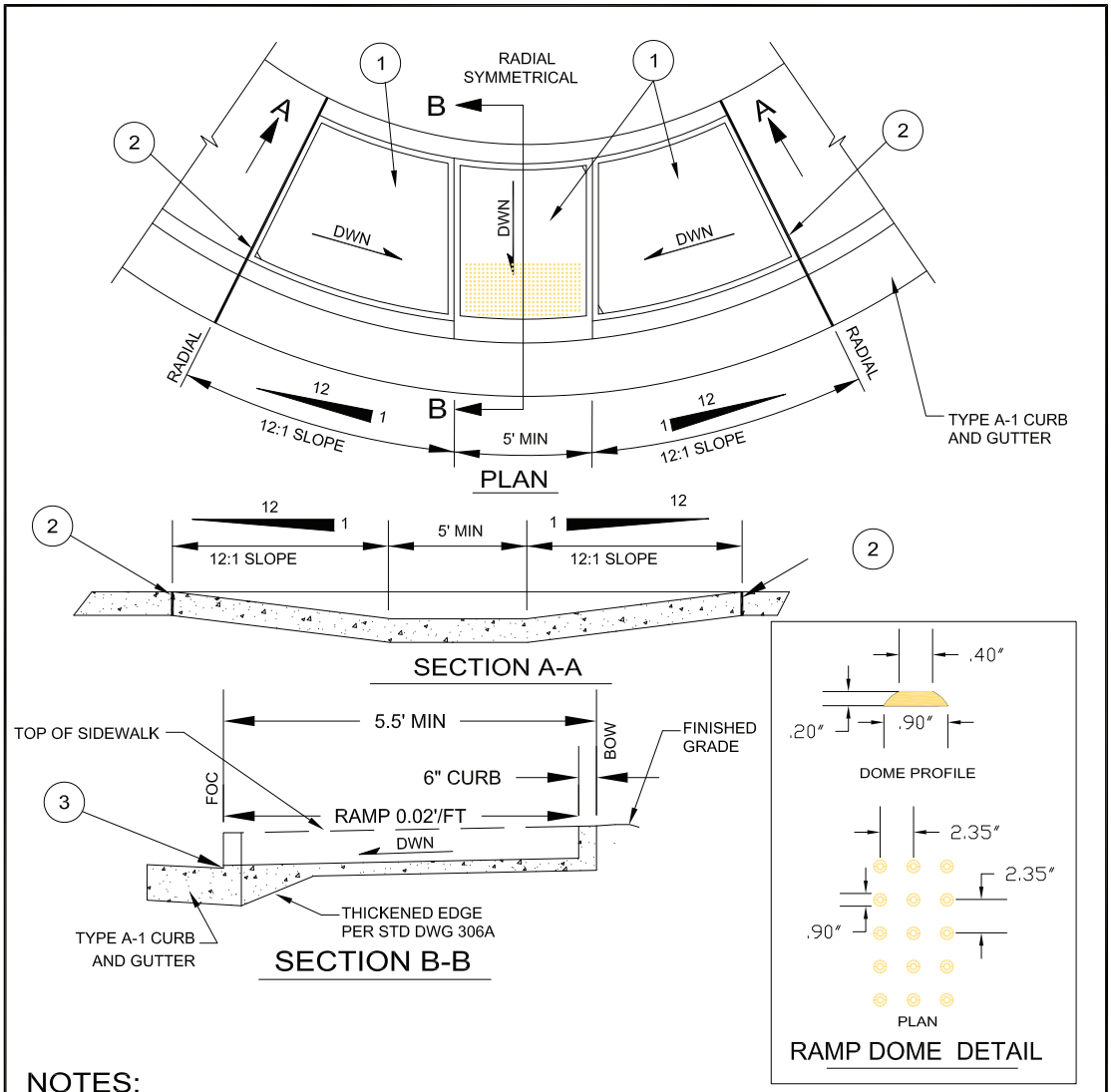
SNOHOMISH WASHINGTON

TYPE "C" CURB RAMP

Approved By:
City Engineer
Date: May 30, 2004

310c
Number

City of Snohomish Public Works Department



NOTES:

1. RAMP TEXTURE IS TO BE BROOM FINISHED. TRUNCATED DOME WARNING DEVICES WILL BE INSTALLED 6" FROM CURB AND 24" DEEP AND PAINTED "SAFETY YELLOW". SPACING AND SIZING AS SHOWN IN DETAIL. PER ADAAG.2.9.2, CURRENT VERSION.
2. 3/8" EXPANSION JOINT.
3. 1/2" MAXIMUM LIP AT GUTTER LINE.
4. CURB RAMPS WILL NOT BE POURED INTEGRAL WITH SIDEWALK AND SHALL BE ISOLATED BY EXPANSION JOINT MATERIAL ON ALL SIDES, BUT NOT AT END OF RAMP ADJACENT TO ROADWAY.

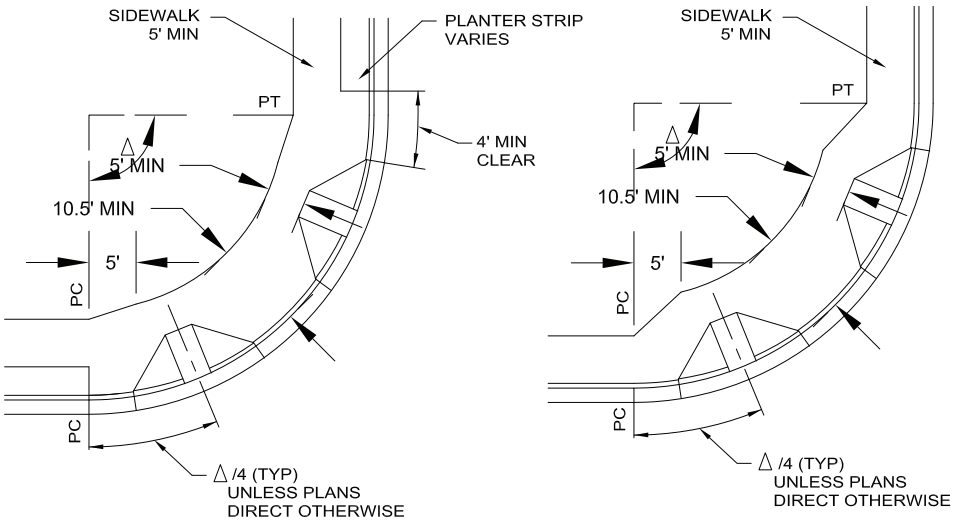
SNOHOMISH WASHINGTON

TYPE "D" CURB RAMP

Approved By:
City Engineer
Date: May 30, 2004

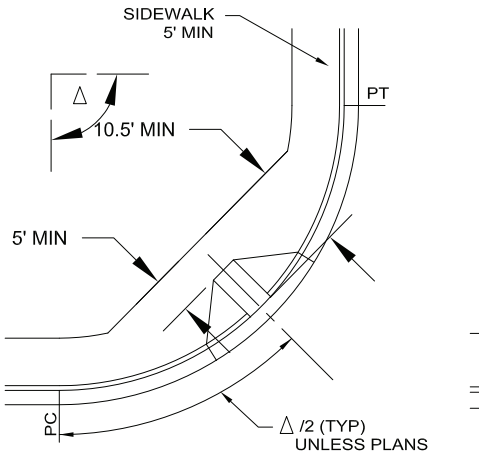
310d
Number

City of Snohomish Public Works Department

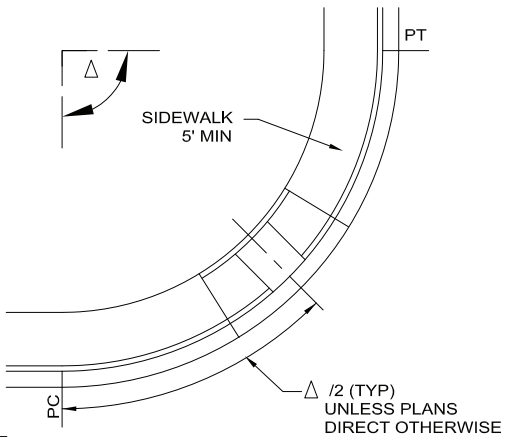


ALTERNATE "A"

ALTERNATE "B"



ALTERNATE "C"



ALTERNATE "D"

NOTES:

1. ALTERNATES "A" & "B" FOR USE AT ARTERIAL/ARTERIAL AND ARTERIAL/LOCAL ACCESS INTERSECTIONS.
2. ALTERNATES "C" & "D" FOR USE AT LOCAL ACCESS/LOCAL ACCESS INTERSECTIONS OR AS APPROVED BY CITY ENGINEER.
3. FOR ALTERNATE "A", "B" AND "C" USE CURB RAMP PER STD DWGS 306A AND 310B.
4. FOR ALTERNATE "D" USE CURB RAMP PER STD DWGS 306A AND 310D.

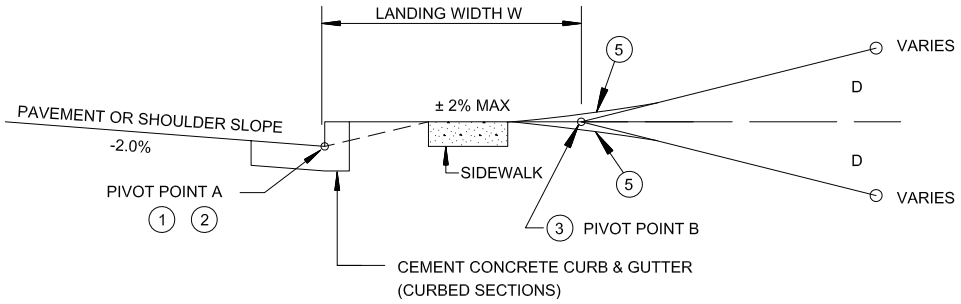
SNOHOMISH
WASHINGTON

TYPICAL CURB RAMP LOCATIONS

Approved By:
City Engineer
Date: May 30, 2004

311
Number

City of Snohomish Public Works Department



NOTES:

1. SEE STD DWG 4-140 FOR CURB DETAILS.

2. WHEN ACCESSING SHOULDERED ROADWAYS, MAINTAIN SHOULDER SLOPE TO PIVOT POINT A.

3. ACCESS POINT GRADE SHALL BE MEASURED FROM PIVOT POINT B.

4. LANDING WIDTH W MAY BE REDUCED SUBJECT TO APPROVAL OF THE ENGINEER IN ACCORDANCE WITH SECTION 1-05 OF THESE STANDARDS.

5. A VERTICAL CURVE SHALL BE CONSTRUCTED TO TRANSITION THE LANDING TO THE ACCESS APPROACH. THE VERTICAL SEPARATION BETWEEN THE CURVE AND A 10-FOOT CHORD OF THE CURVE SHALL NOT EXCEED 3.25 INCHES (WHERE D IS POSITIVE) OR 2.00 INCHES (WHERE D IS NEGATIVE).

TYPE OF ACCESS	ACCESSING	LANDING WIDTH W ④	ACCESS GRADE D
RESIDENTIAL (URBAN)	NON-ARTERIAL	15'	± 15% MAX.
RESIDENTIAL (URBAN)	ARTERIAL	15'	± 7% MAX.
COMMERCIAL/INDUSTRIAL	NON-ARTERIAL	30'	± 8% MAX.
COMMERCIAL/INDUSTRIAL	ARTERIAL	30'	± 5% MAX.

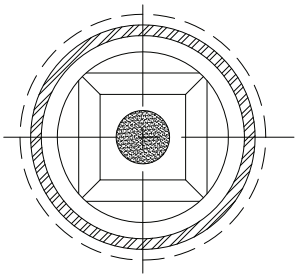
SNOHOMISH
WASHINGTON

ACCESS GRADE POINTS

City of Snohomish Public Works Department

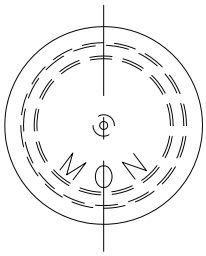
Approved By:
City Engineer
Date: May 30, 2004

312
Number

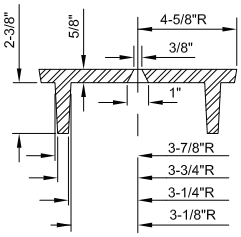


PLAN

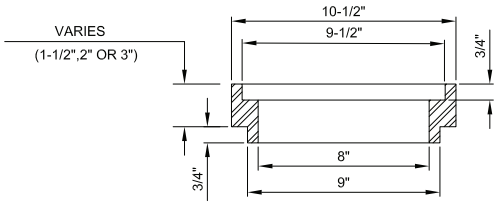
COVER REMOVED



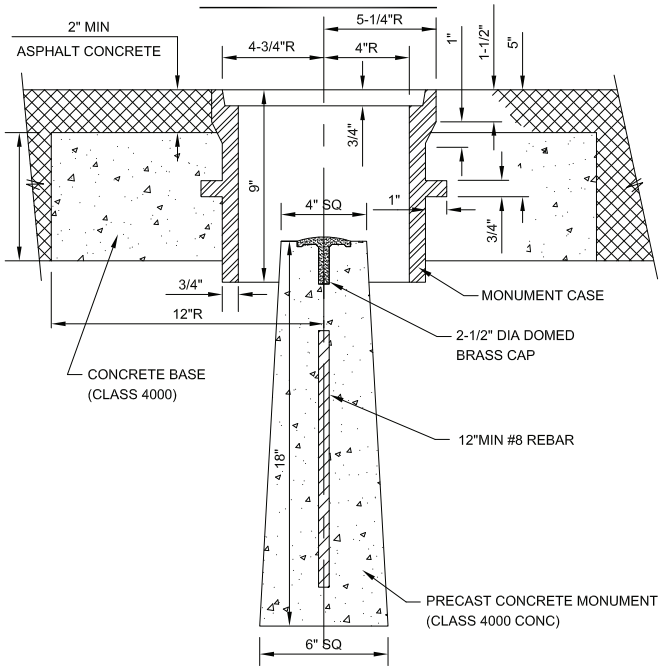
COVER PLAN



COVER SECTION



EXTENSION SECTION



SECTION

NOTES

1. MONUMENTS IN NON PAVED AREAS SHALL BE 3" ABOVE GRADE.
2. ALL MONUMENTS SHALL BE PRECAST CONC WITH REBAR AND 2-1/2" DIA BRASS CAP.
3. MONUMENT CASE AND RISER SECTION SHALL BE CAST IRON PER ASTM-A48, CLASS 30, WITH BITUMINOUS COATING.
4. COVER SHALL BE DUCTILE IRON PER ASTM-A536, GRADE 80-55-06. WITH BITUMINOUS COATING.
5. LEGEND ON COVER SHALL BE 1/8" RAISED INTEGRALLY CAST LETTERS 1" HIGH WITH A MIN FACE WIDTH OF 3/16".

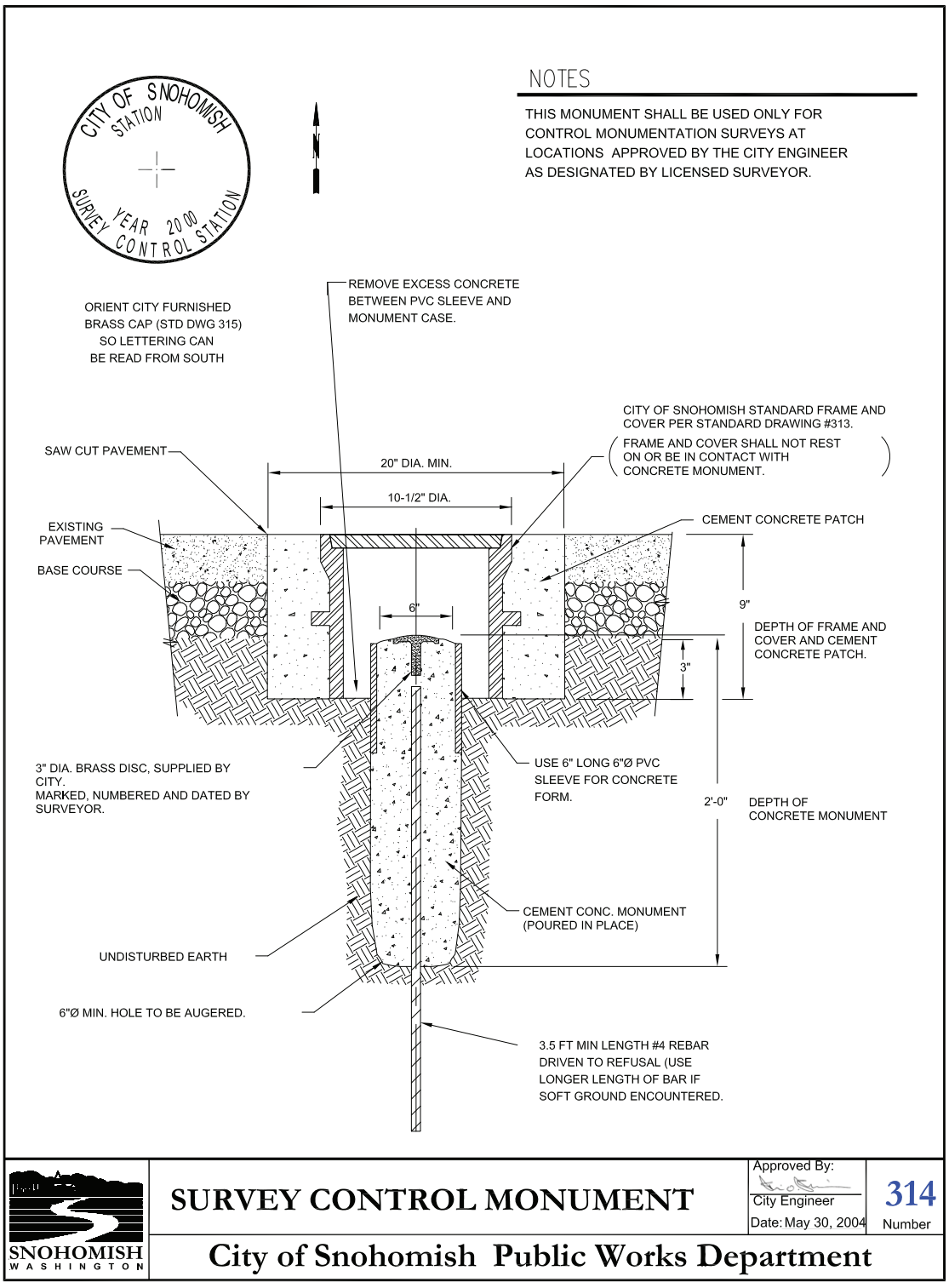
SNOHOMISH
WASHINGTON

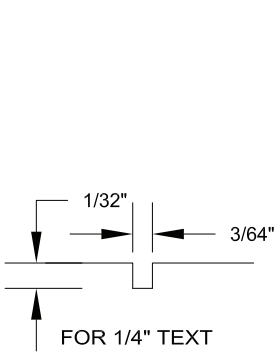
SURVEY MONUMENT

Approved By:
City Engineer
Date: May 30, 2004

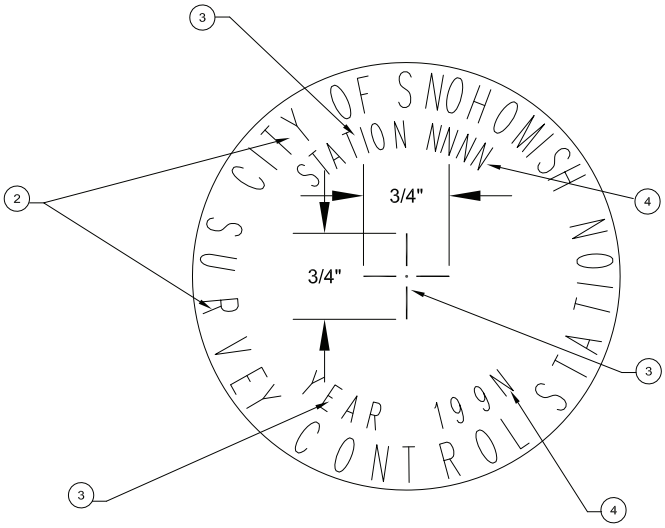
313
Number

City of Snohomish Public Works Department

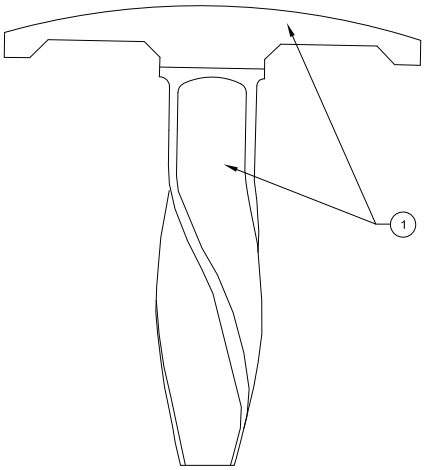

CITY OF SNOHOMISH
STATION
SURVEY CONTROL STATION
YEAR 2000
NOTES
THIS MONUMENT SHALL BE USED ONLY FOR CONTROL MONUMENTATION SURVEYS AT LOCATIONS APPROVED BY THE CITY ENGINEER AS DESIGNATED BY LICENSED SURVEYOR.
ORIENT CITY FURNISHED BRASS CAP (STD DWG 315) SO LETTERING CAN BE READ FROM SOUTH
REMOVE EXCESS CONCRETE BETWEEN PVC SLEEVE AND MONUMENT CASE.
CITY OF SNOHOMISH STANDARD FRAME AND COVER PER STANDARD DRAWING #313.
FRAME AND COVER SHALL NOT REST ON OR BE IN CONTACT WITH CONCRETE MONUMENT.
SAW CUT PAVEMENT
20" DIA. MIN.
10-1/2" DIA.
EXISTING PAVEMENT
BASE COURSE
CEMENT CONCRETE PATCH
6"
9"
DEPTH OF FRAME AND COVER AND CEMENT CONCRETE PATCH.
3"
3" DIA. BRASS DISC, SUPPLIED BY CITY. MARKED, NUMBERED AND DATED BY SURVEYOR.
USE 6" LONG 6"Ø PVC SLEEVE FOR CONCRETE FORM.
2'-0"
DEPTH OF CONCRETE MONUMENT
CEMENT CONC. MONUMENT (POURED IN PLACE)
UNDISTURBED EARTH
6"Ø MIN. HOLE TO BE AUGERED.
3.5 FT MIN LENGTH #4 REBAR DRIVEN TO REFUSAL (USE LONGER LENGTH OF BAR IF SOFT GROUND ENCOUNTERED.
SNOHOMISH
WASHINGTON
SURVEY CONTROL MONUMENT
Approved By:
City Engineer
Date: May 30, 2004
314
Number
City of Snohomish Public Works Department



GROOVE DETAIL



PLAN



ELEVATION

NOTES:

1. DIMENSIONS OF CASTING BASE & CAP PER WSDOT/APWA STANDARD PLAN H-6.
2. GROOVE FOR 1/4" HIGH CAST LETTERING ON CAP SHALL BE 1/32 IN DEEP BY 3/64 IN WIDE.
3. GROOVE FOR 3/16" HIGH CAST LETTERING AND LINES ON CAP SHALL BE 1/32 IN DEEP BY 1/32 IN WIDE.
4. FIELD STAMPED LETTERS AND NUMBERS SHALL BE OF SUFFICIENT DEPTH AND WIDTH SO AS TO BE CLEARLY READABLE AND SHALL BE A MIN. OF 3/16 IN. HIGH.
5. THIS BRASS DISC SHALL ONLY BE USED FOR CONTROL MONUMENTATION PER STD DWG 314

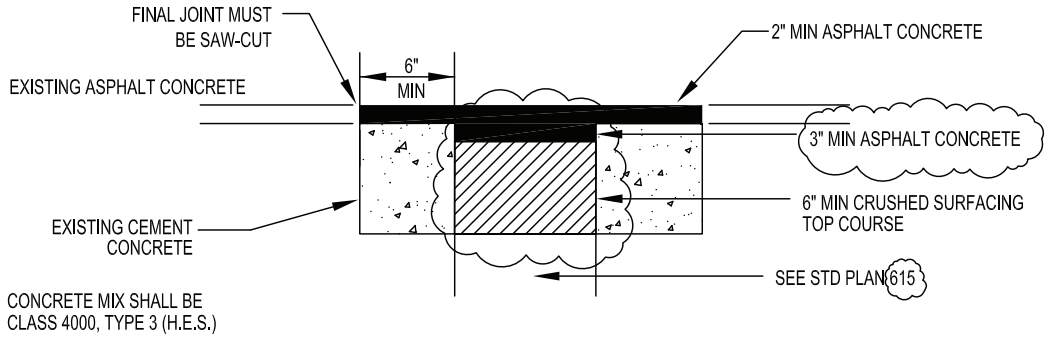
SNOHOMISH WASHINGTON

SURVEY CONTROL MONUMENT
3" BRASS DISC

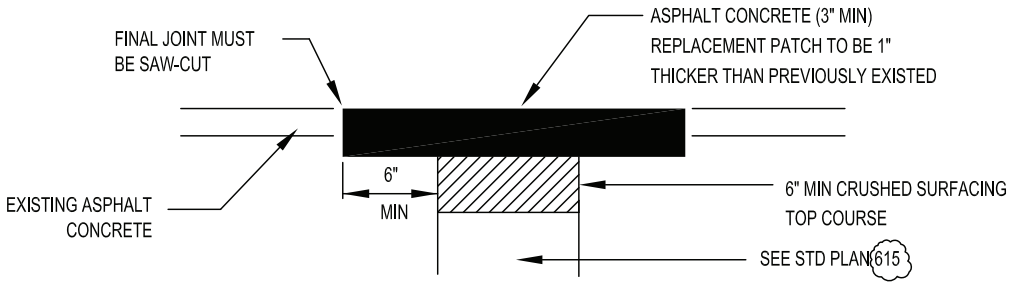
Approved By:
City Engineer
Date: May 30, 2004

315
Number

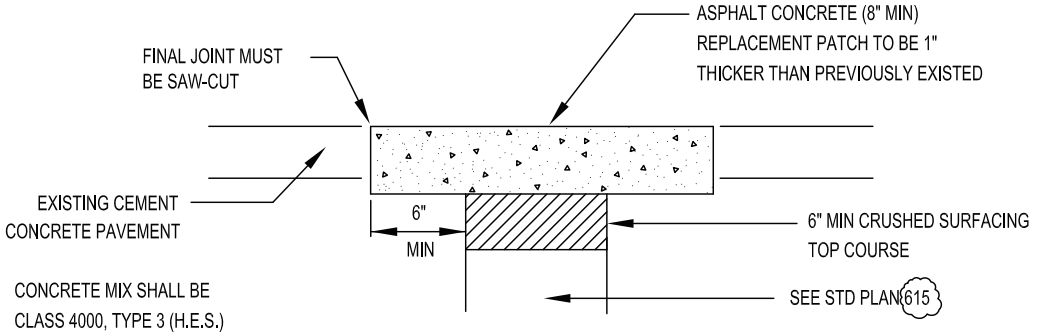
City of Snohomish Public Works Department



EXISTING ASPHALT CONCRETE OVER CEMENT CONCRETE



EXISTING ASPHALT CONCRETE OVER PREPARED GRADE



EXISTING CEMENT CONCRETE OVER PREPARED GRADE

NOTES:

1. ALL TRENCHES IN ROADWAY AREAS SHALL BE BACKFILLED AND PATCHED WITH TEMPORARY ASPHALT AT THE END OF EACH WORK DAY, UNLESS PERMISSION IS GRANTED TO DO OTHERWISE BY THE CITY ENGINEER,
2. ALL TEMPORARY PATCHES ON TRENCHES SHALL BE PERMANENTLY PATCHED WITHIN 2 WEEKS OF COMPLETION OF WORK WITHIN THE ROADWAY AREA.

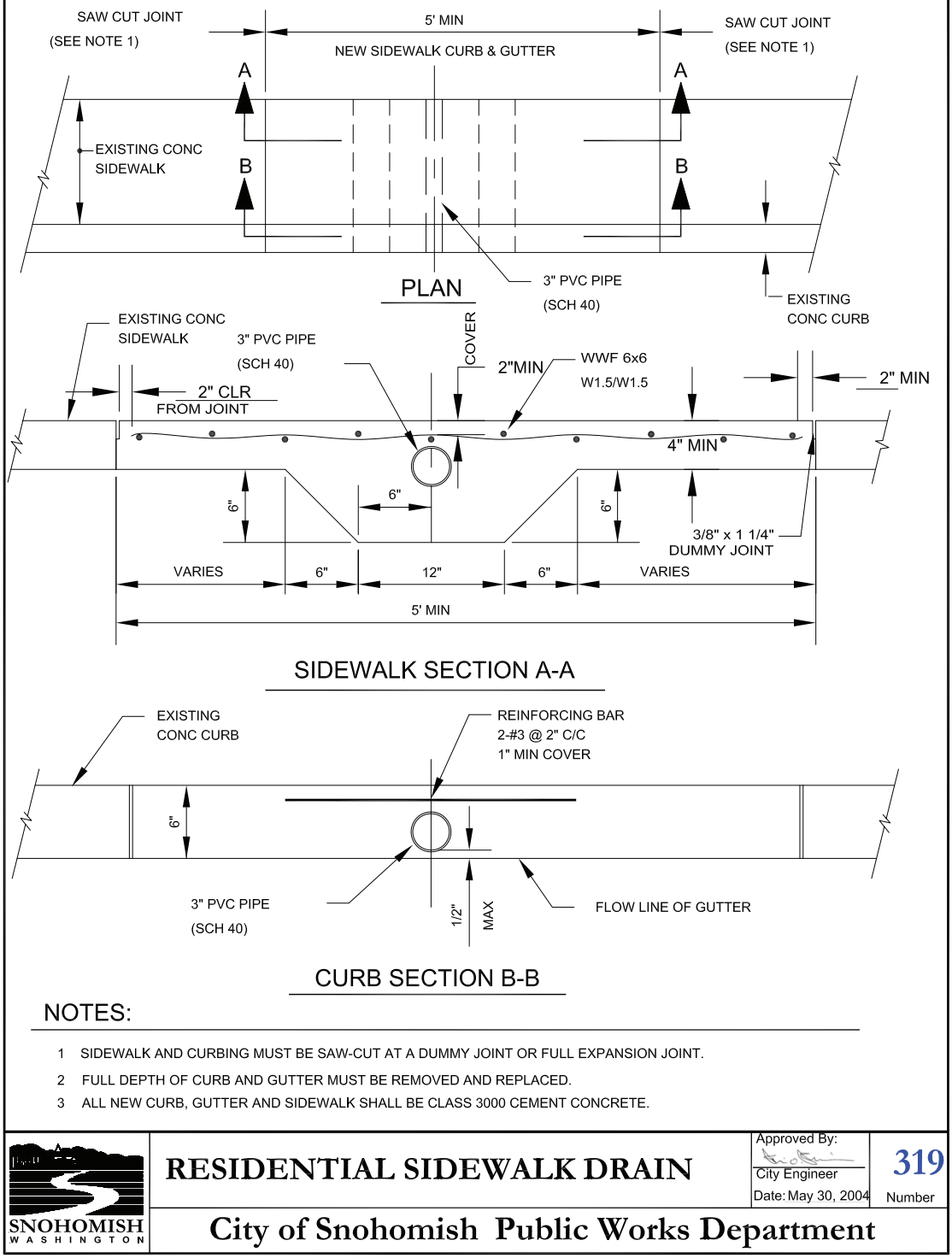
SNOHOMISH
WASHINGTON

PAVEMENT PATCHING DETAILS

Approved By:
Yosh Monzaki
City Engineer
Date: Aug 15, 2016

316
Number

City of Snohomish Public Works Department



NOTES:

1 SIDEWALK AND CURBING MUST BE SAW-CUT AT A DUMMY JOINT OR FULL EXPANSION JOINT.

2 FULL DEPTH OF CURB AND GUTTER MUST BE REMOVED AND REPLACED.

3 ALL NEW CURB, GUTTER AND SIDEWALK SHALL BE CLASS 3000 CEMENT CONCRETE.

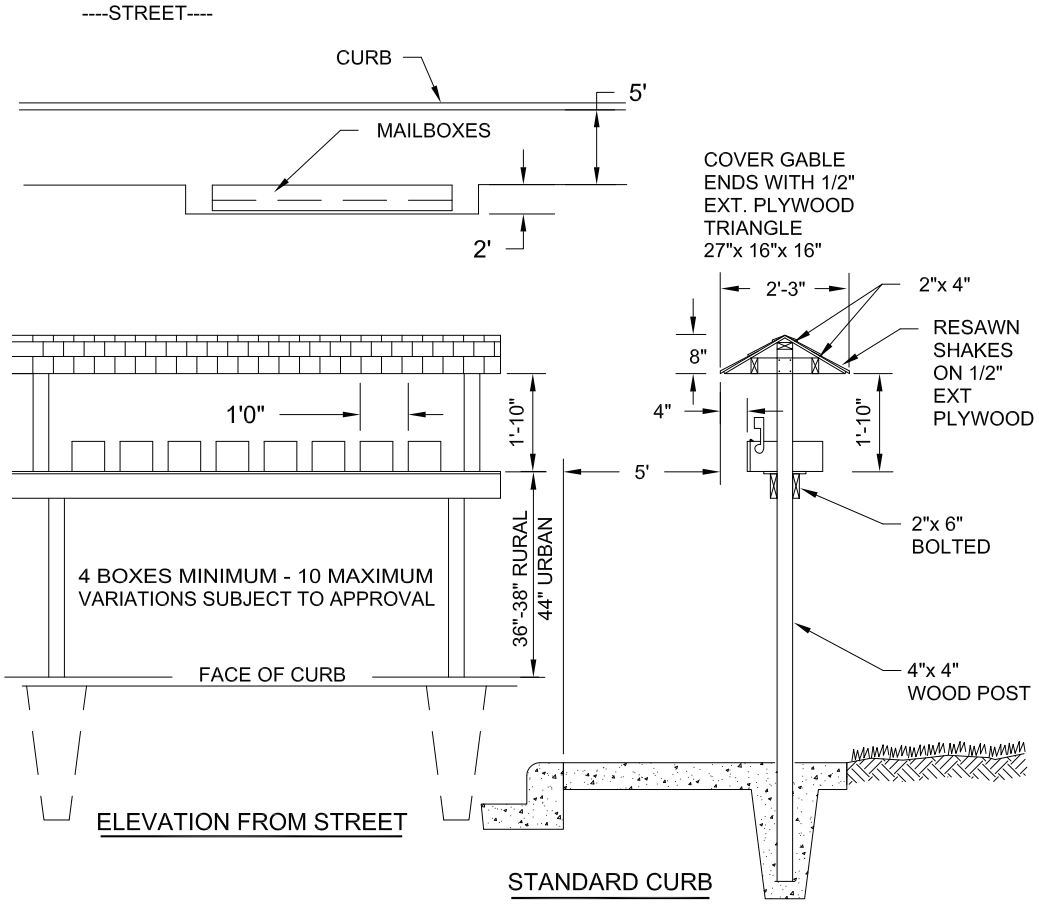
SNOHOMISH
WASHINGTON

RESIDENTIAL SIDEWALK DRAIN

Approved By:
City Engineer
Date: May 30, 2004

319
Number

City of Snohomish Public Works Department



NOTES:

1. MAILBOX MUST BE TYPE "APPROVED BY THE POSTMASTER GENERAL" WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION PER EACH STANDARD.
2. LOCATION IS SUBJECT TO APPROVAL BY THE CITY FOR PROTECTION OF VIEWS AND ACCESS AND IS TO BE SHOWN ON STREET IMPROVEMENT PLANS.
3. THE SKETCH DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD. INNOVATIVE DESIGNS MEETING THE MINIMUM DIMENSIONAL AND STRUCTURAL REQUIREMENTS ARE ACCEPTABLE.
4. ALL WOOD TO BE PRESSURE TREATED FIR OR HEMLOCK.

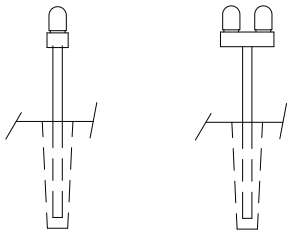
SNOHOMISH WASHINGTON

MAILBOX STRUCTURE INSTALLATION

Approved By: City Engineer
Date: May 30, 2004

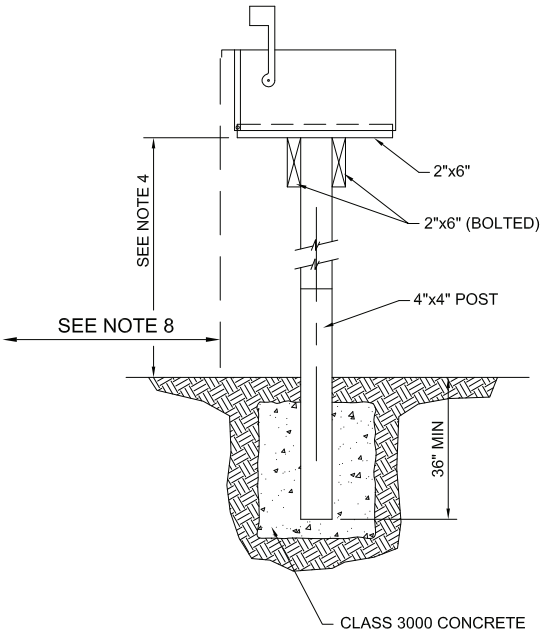
320 Number

City of Snohomish Public Works Department



SINGLE DOUBLE

TYPICAL CONFIGURATIONS



TYPICAL SECTION

NOTES

1. FOR 1 OR 2 MAILBOXES PER STRUCTURE USE SINGLE 4"x4" POST. FOR 3 OR MORE MAILBOXES SEE STD DWG 320 OR 321.
2. ALL WOOD TO BE PRESSURE TREATED FIR OR HEMLOCK.
3. FOR ALTERNATE MAILBOX MOUNTINGS SEE STANDARD DWG 320.
4. MAILBOX HEIGHT VARIES ACCORDING TO THE TYPE OF DELIVERY VEHICLE. WHERE MAIL DELIVERY IS ACCOMPLISHED BY MAIL TRUCKS ("MOUNTED" ROUTES) THE MAILBOX HEIGHTS SHALL BE 44". WHERE MAIL DELIVERY IS ACCOMPLISHED BY PASSENGER VEHICLE ("RURAL" ROUTES) THE MAILBOX HEIGHT SHALL BE 36" TO 38".
5. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
6. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.
7. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD. INNOVATIVE DESIGNS MEETING OR EXCEEDING THIS MINIMUM STANDARD MUST BE APPROVED BY THE CITY ENGINEER.
8. ALL MAILBOX STRUCTURES SHALL BE PLACED BACK OF SIDEWALK WITH NO PORTION OF THE BOX OR STRUCTURE PROTRUDING INTO THE SIDEWALK. IF NO SIDEWALK EXISTS SETBACK WILL BE SET BY THE CITY ENGINEER.

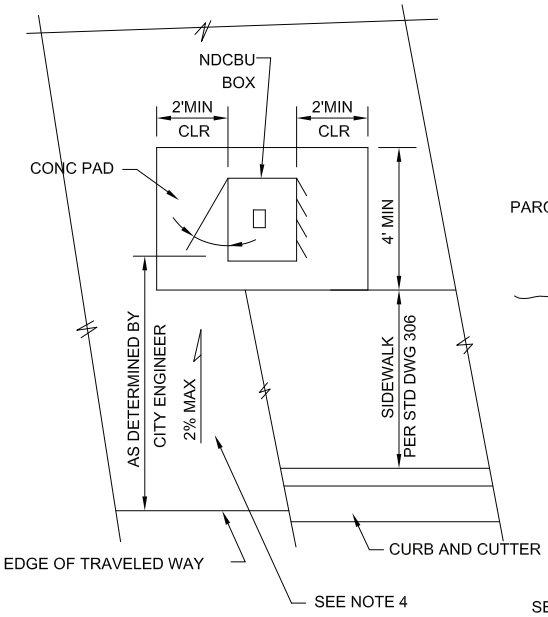
SNOHOMISH WASHINGTON

MAILBOX STRUCTURE FOR ONE OR TWO BOXES

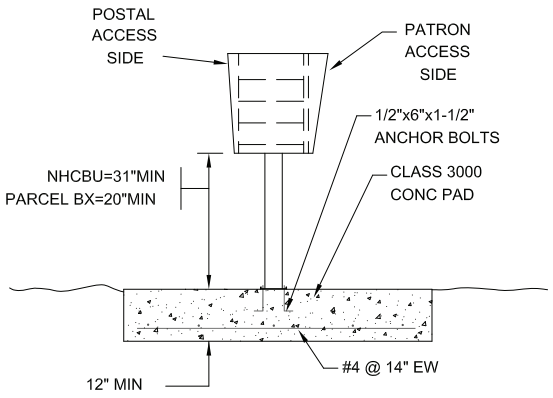
Approved By: City Engineer
Date: May 30, 2004

320a Number

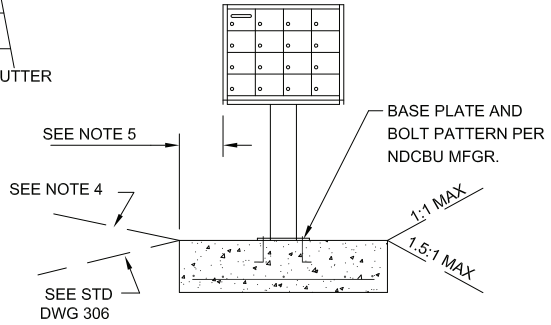
City of Snohomish Public Works Department



SETBACK PLAN



FRONT ELEVATION



SIDE ELEVATION

NOTES:

1. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD DELIVERY & COLLECTION BOX UNIT (NDCBU) AND PADS FOR SPECIFIC POSTAL REQUIREMENTS CONTACT THE POSTMASTER.
2. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
3. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.
4. INSTALLATION OF DRAINAGE CULVERT MAY BE NECESSARY IN AREAS WHERE THERE IS NO CONCRETE SIDEWALK AND THE REQUIRED SETBACK SPANS A ROADSIDE DITCH. ACCESS TO SUCH STRUCTURES WILL HAVE A MAX. SLOPE OF 2%. AND SHALL HAVE A PAD CONSISTING OF A MINIMUM OF 2" OF CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
5. ALL MAILBOX STRUCTURES SHALL BE PLACED BACK OF SIDEWALK WITH NO PORTION OF BOX OR STRUCTURE PROTRUDING INTO THE SIDEWALK. IF NO SIDEWALK EXISTS SETBACK WILL BE SET BY THE CITY ENGINEER.
6. SUGGESTED SOURCE SECURITY MFG CORP (800) 762-6937, 8000 SERIES PEDESTAL BOXES, SALSBURY INDUSTRIES (800) 323-3003 OR POSTAL APPROVED EQUAL.
7. PLACEMENT LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY THE CITY ENGINEER AND THE POSTAL SERVICE.

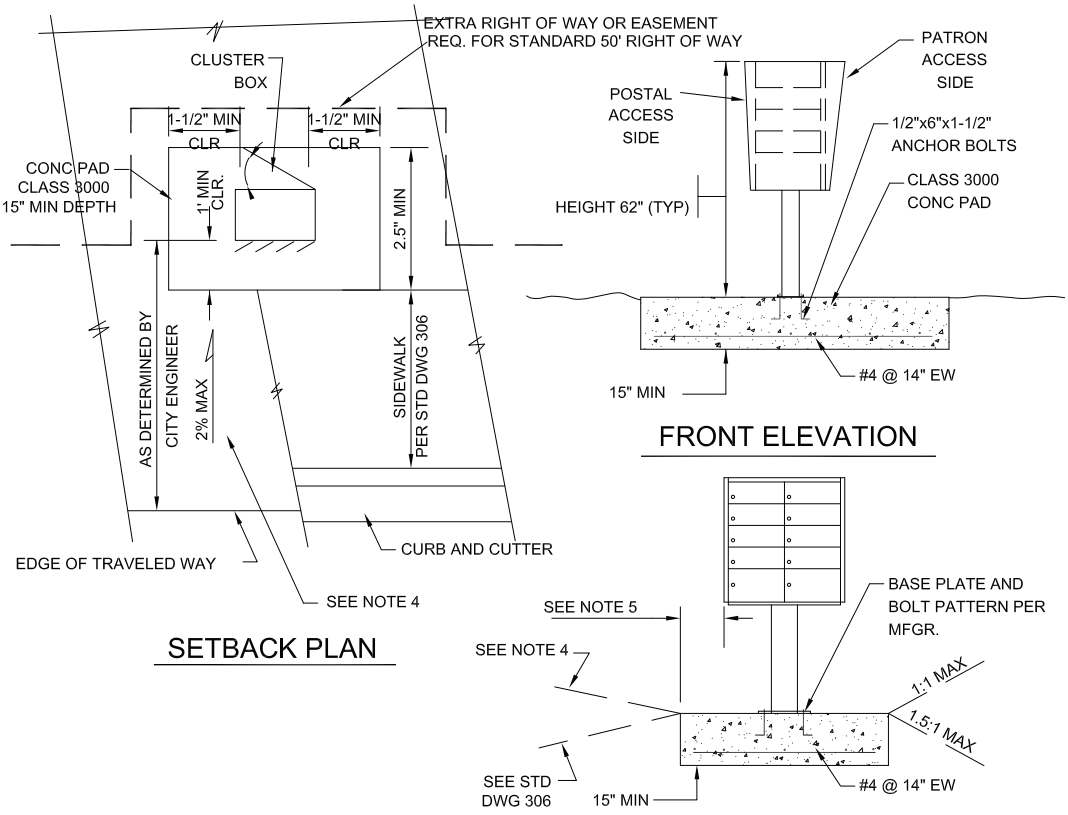
SNOHOMISH
WASHINGTON

NDCBU MAILBOX CLUSTER

Approved By:
City Engineer
Date: May 30, 2004

321a
Number

City of Snohomish Public Works Department



NOTES:

1. THIS DRAWING DEPICTS A MINIMUM STRUCTURAL AND DIMENSIONAL STANDARD FOR NEIGHBORHOOD CLUSTER MAILBOX UNIT AND PADS. FOR SPECIFIC POSTAL REQUIREMENTS CONTACT THE POSTMASTER.
2. MAILBOXES MUST BE POSTMASTER APPROVED WITH A UNIFORM BOX STYLE AND METHOD OF ADDRESS IDENTIFICATION.
3. LOCATIONS OF MAILBOXES ARE SUBJECT TO APPROVAL BY THE CITY ENGINEER FOR PROTECTION OF VIEWS AND ACCESS.
4. INSTALLATION OF DRAINAGE CULVERT MAY BE NECESSARY IN AREAS WHERE THERE IS NO CONCRETE SIDEWALK AND THE REQUIRED SETBACK SPANS A ROADSIDE DITCH. ACCESS TO SUCH STRUCTURES WILL HAVE A MAX. SLOPE OF 2%. AND SHALL HAVE A PAD CONSISTING OF A MINIMUM OF 2" OF CRUSHED SURFACING TOP COURSE COMPACTED TO 95% MAXIMUM DENSITY.
5. ALL MAILBOX STRUCTURES SHALL BE PLACED BACK OF SIDEWALK WITH NO PORTION OF BOX OR STRUCTURE PROTRUDING INTO THE SIDEWALK. IF NO SIDEWALK EXISTS SETBACK WILL BE SET BY THE CITY ENGINEER.
6. SUGGESTED SOURCE SECURITY MFG CORP (800) 762-6937, 800 SERIES CLUSTER BOX UNITS, SALSBURY INDUSTRIES (800) 323-3003 OR POSTAL APPROVED EQUAL.
7. PLACEMENT LOCATION OF PEDESTAL PARCEL LOCKER WILL BE APPROVED BY THE CITY ENGINEER AND THE POSTAL SERVICE.

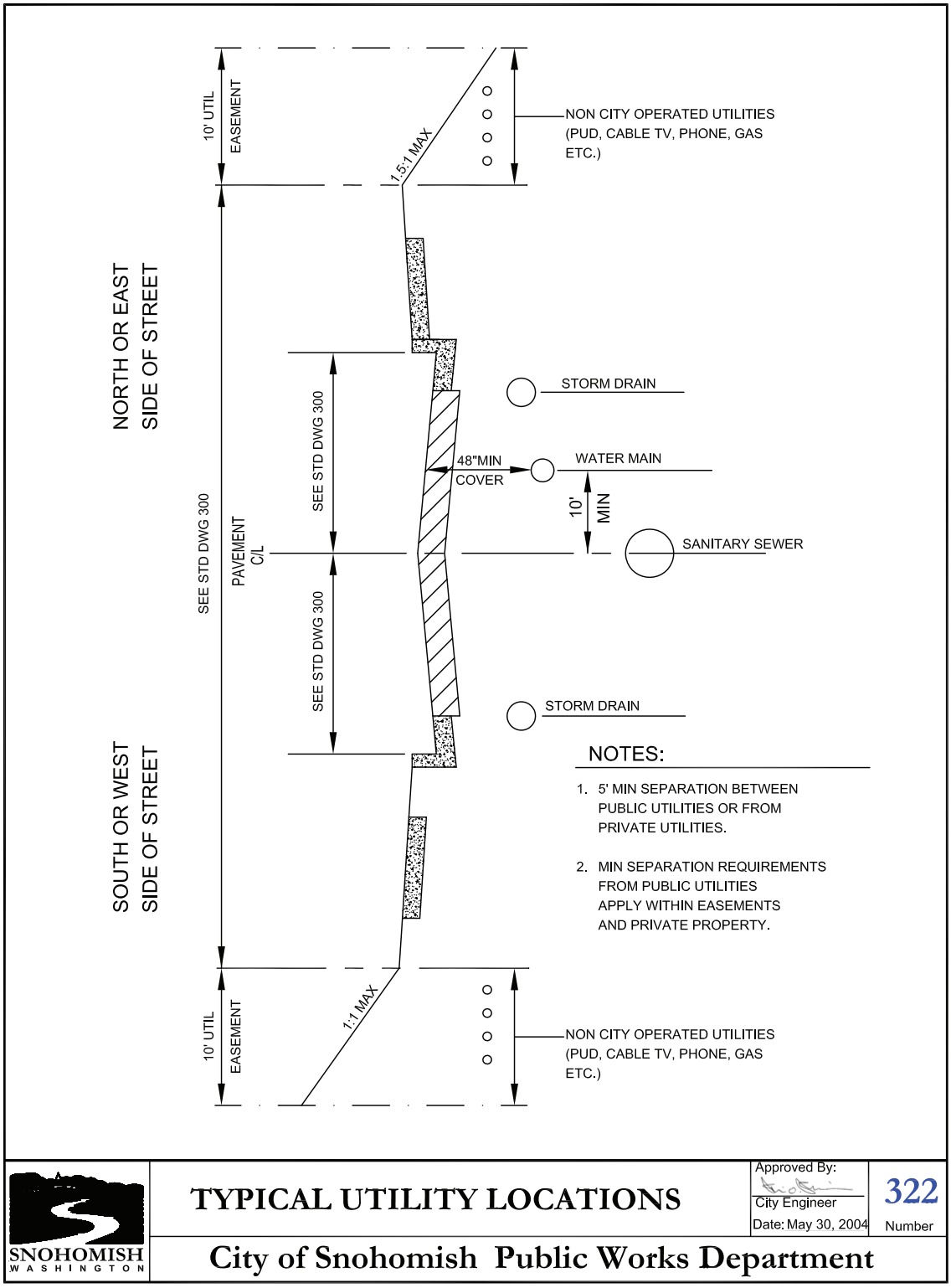
SNOHOMISH
WASHINGTON

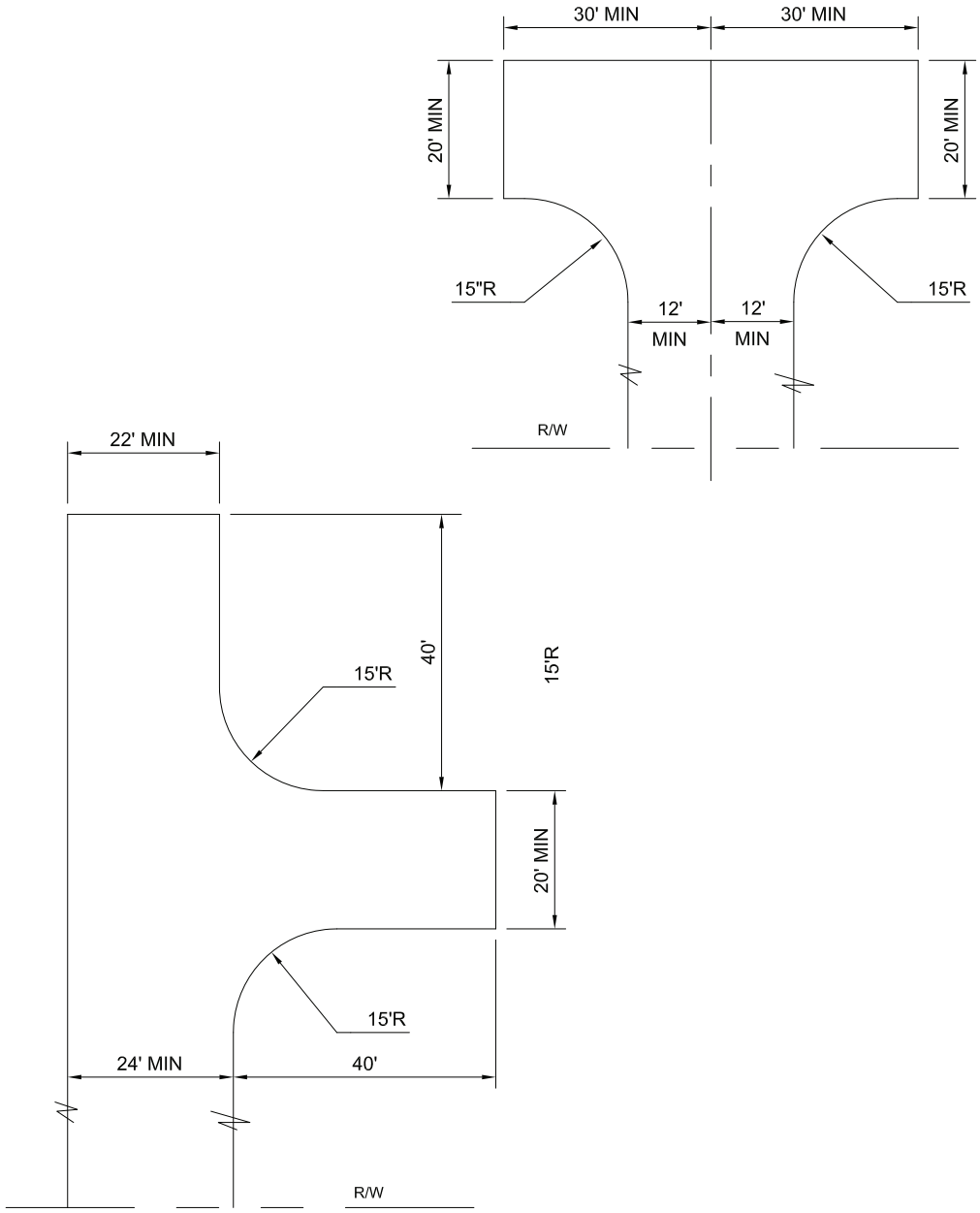
CLUSTER MAILBOX UNITS FRONT OPENING ONLY

Approved By:
City Engineer
Date: May 30, 2004

321b
Number

City of Snohomish Public Works Department


10' UTIL EASEMENT
1.5:1 MAX
NON CITY OPERATED UTILITIES (PUD, CABLE TV, PHONE, GAS ETC.)
NORTH OR EAST SIDE OF STREET
SEE STD DWG 300
STORM DRAIN
48"MIN COVER
WATER MAIN
10' MIN
SEE STD DWG 300
PAVEMENT C/L
SANITARY SEWER
SEE STD DWG 300
STORM DRAIN
SOUTH OR WEST SIDE OF STREET
NOTES:
1. 5' MIN SEPARATION BETWEEN PUBLIC UTILITIES OR FROM PRIVATE UTILITIES.
2. MIN SEPARATION REQUIREMENTS FROM PUBLIC UTILITIES APPLY WITHIN EASEMENTS AND PRIVATE PROPERTY.
10' UTIL EASEMENT
1:1 MAX
NON CITY OPERATED UTILITIES (PUD, CABLE TV, PHONE, GAS ETC.)
SNOHOMISH WASHINGTON
TYPICAL UTILITY LOCATIONS
Approved By:
City Engineer
Date: May 30, 2004
322
Number
City of Snohomish Public Works Department



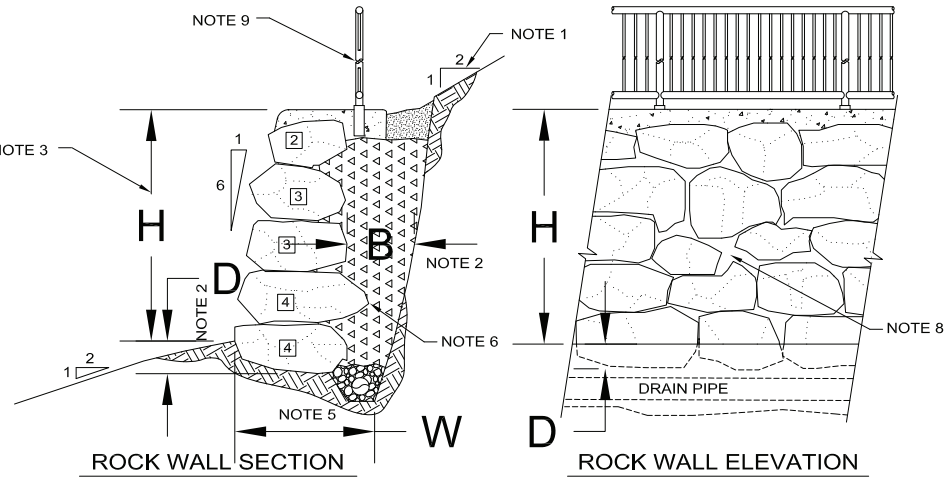
SNOHOMISH
WASHINGTON

TEMPORARY TURNAROUNDS

Approved By:
City Engineer
Date: May 30, 2004

323
Number

City of Snohomish Public Works Department



NOTES

1. MAXIMUM INCLINATION OF THE SLOPES ABOVE AND BEHIND ROCK WALL SHALL BE 2:1 (HORIZONTAL:VERTICAL)
2. MINIMUM THICKNESS OF ROCK FILTER LAYER B=12 INCHES. MINIMUM EMBEDMENT D=12 INCHES.
3. MAXIMUM ROCK WALL HEIGHT H=8 FEET. ROCK WALLS GREATER THAN 8 FEET IN HEIGHT SHALL BE DESIGNED BY A CIVIL ENGINEER LICENSED IN THE STATE OF WASHINGTON.
4. ROCK SHALL BE PLACED TO GRADUALLY DECREASE IN SIZE WITH INCREASING WALL HEIGHT.
5. MINIMUM WIDTH OF KEYWAY EXCAVATION W, SHALL BE EQUAL TO THE THICKNESS OF THE BASE ROCK PLUS B (ROCK FILTER)
6. THE LONG DIMENSION OF THE ROCKS SHALL EXTEND BACK TOWARDS THE CUT OR FILL FACE TO PROVIDE MAXIMUM STABILITY.
7. WHENEVER POSSIBLE EACH ROCK SHALL BEAR ON TWO OR MORE ROCKS BELOW IT, WITH GOOD FLAT-TO-FLAT CONTACT.
8. WHERE VOIDS OF GREATER THAN 6 INCHES IN DIMENSIONS EXIST IN THE ROCK FACE AND THERE IS NO ROCK CONTACT WITHIN THE ROCK WALL THICKNESS, THE VOID SHALL BE CHINKED WITH SMALL PIECES OF ROCK.
9. ROCKERIES WHICH ARE MORE THAN 30 INCHES ABOVE GRADE OR FLOOR BELOW SHALL BE PROTECTED BY GUARDRAIL SUCH AS A ORNAMENTAL OR PEDESTRIAN RAIL. TYPE TO BE DETERMINED BY THE CITY ENGINEER, SEE DWGS 325 & 326
10. FOR DESIGN LOCATION AND UNDERGROUND UTILITY LIMITATIONS REFEER TO STD DWG 324B.

NOTES (CONT)

11. THE DENSITY OF ROCK MATERIAL SHALL BE A MINIMUM OF 155 PCF. THE SIZE CATEGORIES FOR ROCK SHALL BE AS FOLLOWS:

SIZE	APPROXIMATE WEIGHT - LBS.	APPROXIMATE DIAMETER-INCHES
1 MAN	50 -200	12 - 18
2 MAN	200 -700	18 - 28
3 MAN	700 - 2000	28 - 36
4 MAN	2000 - 4000	36 - 48
5 MAN	4000 - 6000	48 - 54
6 MAN	6000 - 8000	54 - 60

LEGEND

- DRAINAGE MATERIALS TO CONSIST OF CLEAN 4"-2" ANGULAR SPALLS.
- NO. 2 COARSE AGGREGATE PER WSDOT/APWA 9-03.1(3)C (6" ABOVE PIPE MIN)
- CONCRETE ROCKERY CAP. REQUIRED IN R.O.W., OPTIONAL ON PRIVATE PROPERTY.
- UNDISTURBED FIRM NATIVE SOIL
- SEED OR SOD ON 12" OF TOPSOIL WITH UNDERLAYER OF FILTER FABRIC.
- 4 INCH DIAMETER, HDPE OR SDR35 PVC, PERFORATED OR SLOTTED, WITH SMOOTH INTERIOR PIPE. SET SLIGHTLY LOWER THAN THE BASE ROCK TO PREVENT DAMAGE. LAY WITH A POSITIVE SLOPE TO DISCHARGE AWAY FROM ROCKERY.
- [4] DESIGNATES SIZE OF ROCK, I.E. 4 MAN. SEE NOTE 11.

SNOHOMISH WASHINGTON

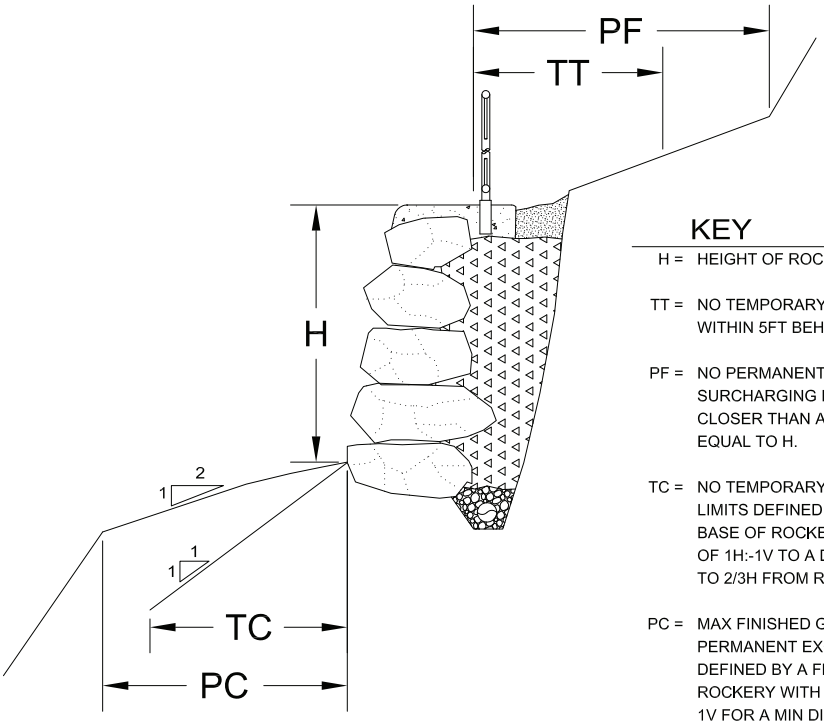
ROCKERY

(DESIGN AND CONSTRUCTION REQUIREMENTS)

Approved By: City Engineer
Date: May 30, 2004

324a Number

City of Snohomish Public Works Department



KEY

H = HEIGHT OF ROCK WALL.

TT = NO TEMPORARY EXCAVATION WITHIN 5FT BEHIND ROCKERY.

PF = NO PERMANENT EXCAVATION OR SURCHARGING BEHIND ROCKERY CLOSER THAN A DISTANCE EQUAL TO H.

TC = NO TEMPORARY EXCAVATION BELOW LIMITS DEFINED BY A LINE FROM BASE OF ROCKERY WITH A SLOPE OF 1H:-1V TO A DISTANCE EQUAL TO 2/3H FROM ROCKERY BASE.

PC = MAX FINISHED GRADE OR PERMANENT EXCAVATION DEFINED BY A FROM BASE OF ROCKERY WITH A SLOPE OF 2H:-1V FOR A MIN DISTANCE EQUAL TO H FROM ROCKERY BASE.

DESIGN AND POST CONSTRUCTION LIMITATIONS

NOTES

1. ALL NEW ROCKERY DESIGN AND PLACEMENT WILL FOLLOW TO CONSTRUCTION LIMITATIONS DESCRIBE ABOVE, AND FOLLOW THE GUIDELINES ESTABLISHED BY THE ASSOCIATED ROCKERY CONTRACTORS "STANDARD ROCK WALL CONSTRUCTION GUIDELINES" DATED 12/2/92 INCLUDING ANY AND ALL REVISIONS.

2. MODIFICATIONS TO OR PLACEMENT OF SUBSEQUENT UNDERGROUND UTILITIES WILL ALSO FOLLOW LIMITATIONS DESCRIBED ABOVE.

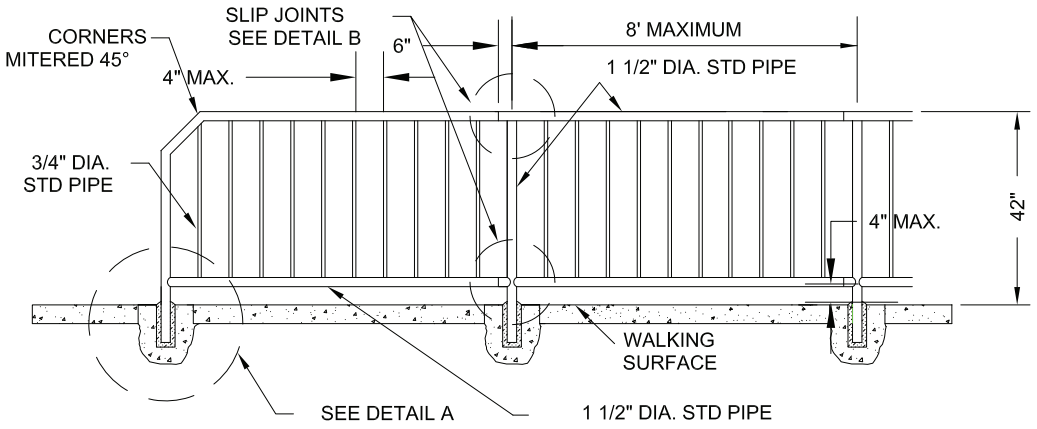
SNOHOMISH WASHINGTON

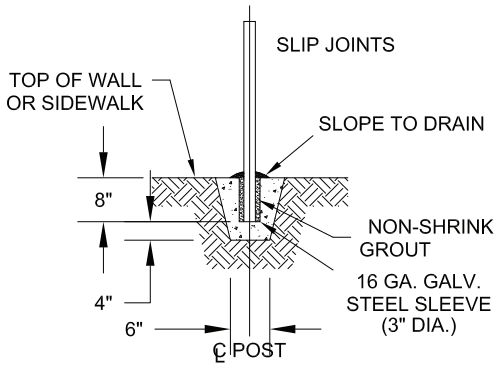
ROCKERY
(PLACEMENT & POST CONSTRUCTION LIMITS)

Approved By:
City Engineer
Date: May 30, 2004

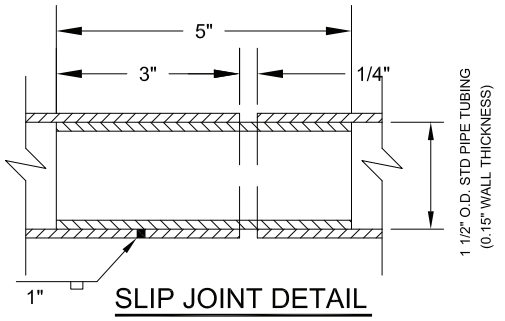
324b
Number

City of Snohomish Public Works Department



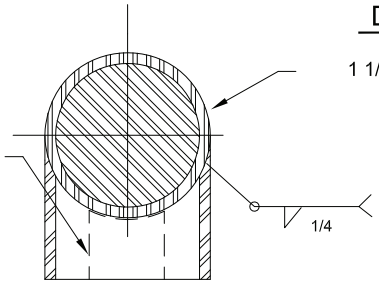


DETAIL A



SLIP JOINT DETAIL

DETAIL B



3/4" SCH 40 (STD PIPE)
BALUSTERS INSERTED
IN HOLE AND TACK
WELDED OPPOSITE
TRAFFIC

TYP. @ EACH POST
FOR ALL RAIL
SECTIONS

NOTES:

1. MATERIAL FOR PEDESTRIAN HANDRAIL SHALL BE ALUMINUM (ASTM B-429) OR GALVINIZED STEEL (ASTM 120) AS APPROVED BY THE CITY ENGINEER.
2. SEE STANDARD DRAWING No. 325A FOR ADDITIONAL FABRICATION AND SPECIFICATION REQUIREMENTS.
3. PROVIDE SLIP JOINTS AT STAIRWAY EXPANSION JOINTS AND AT EVERY 24 FEET ON CENTER MAXIMUM.

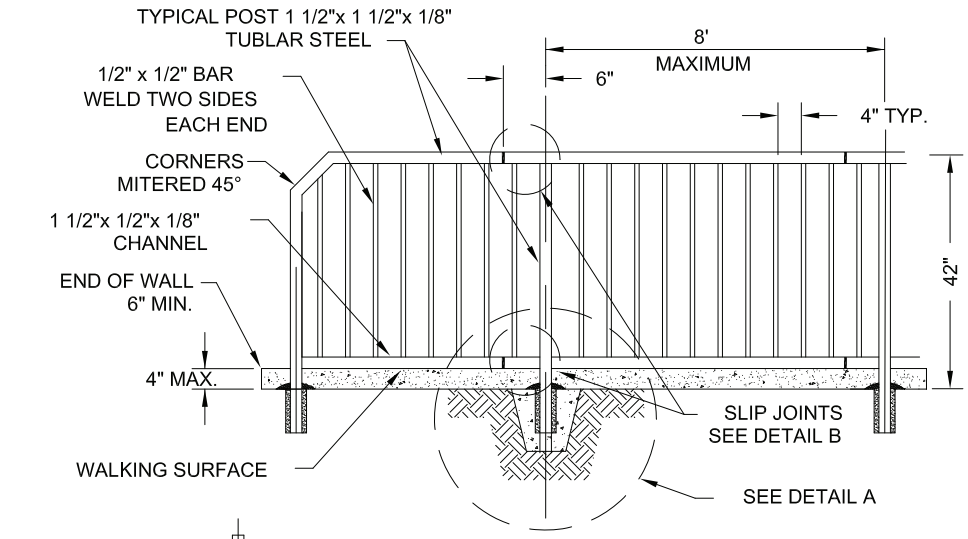
SNOHOMISH
WASHINGTON

PEDESTRIAN HANDRAIL

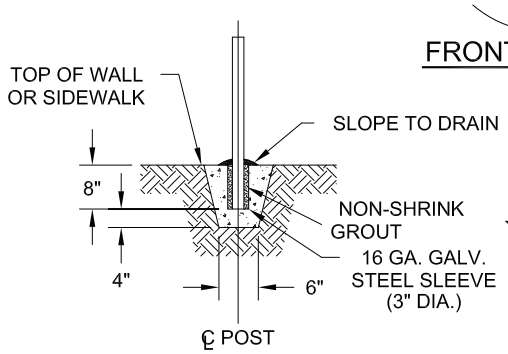
Approved By:
City Engineer
Date: May 30, 2004

325
Number

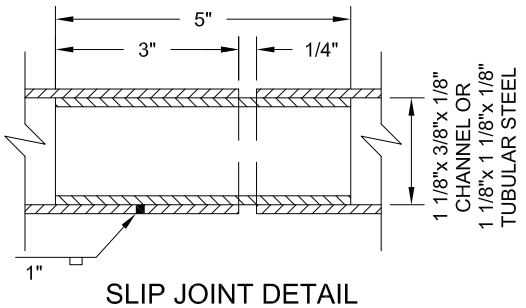
City of Snohomish Public Works Department



FRONT VIEW



DETAIL A



SLIP JOINT DETAIL

DETAIL B

NOTES:

1. ORNAMENTAL RAILING SHALL BE CONSTRUCTED OF STEEL CONFORMING TO ASTM A-120.
2. WELDING SHALL CONFORM TO THE REQUIREMENTS OF THE "STRUCTURAL WELDING CODE" AWS D 1.1.
3. PROVIDE SLIP JOINTS AT STAIRWAY EXPANSION JOINTS AND AT EVERY 24 FEET ON CENTER MAXIMUM.
4. MAXIMUM SPACING OF POSTS SHALL BE 8 FEET ON STRAIGHT ALIGNMENT AND 6 FEET ON CURVED ALIGNMENT LESS THAN 30 FEET RADIUS.
5. AFTER FABRICATION, ALL BURRS AND SHARP EDGES SHALL BE REMOVED.
6. APPLY RUST PROOF METAL PRIME AND ONE COAT OF BLACK ORNAMENTAL IRON METAL PAINT.

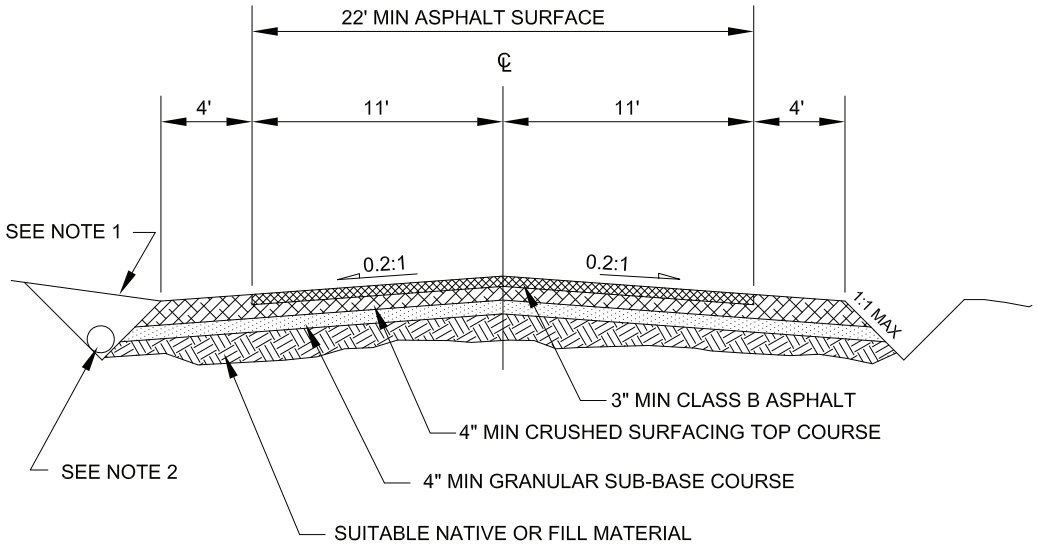
SNOHOMISH
WASHINGTON

ORNAMENATL HANDRAIL

Approved By:
City Engineer
Date: May 30, 2004

326
Number

City of Snohomish Public Works Department



NOTES:

1. DRIVE GRADE AT RIGHT-OF-WAY LINE SHALL CONFORM TO SECTION 3 UNLESS OTHERWISE APPROVED BY CITY ENGINEER.

2. A 12 INCH MINIMUM CONCRETE OR CORRUGATED POLYETHYLENE SMOOTH INTERIOR PIPE IS REQUIRED UNDER ALL DRIVEWAYS.

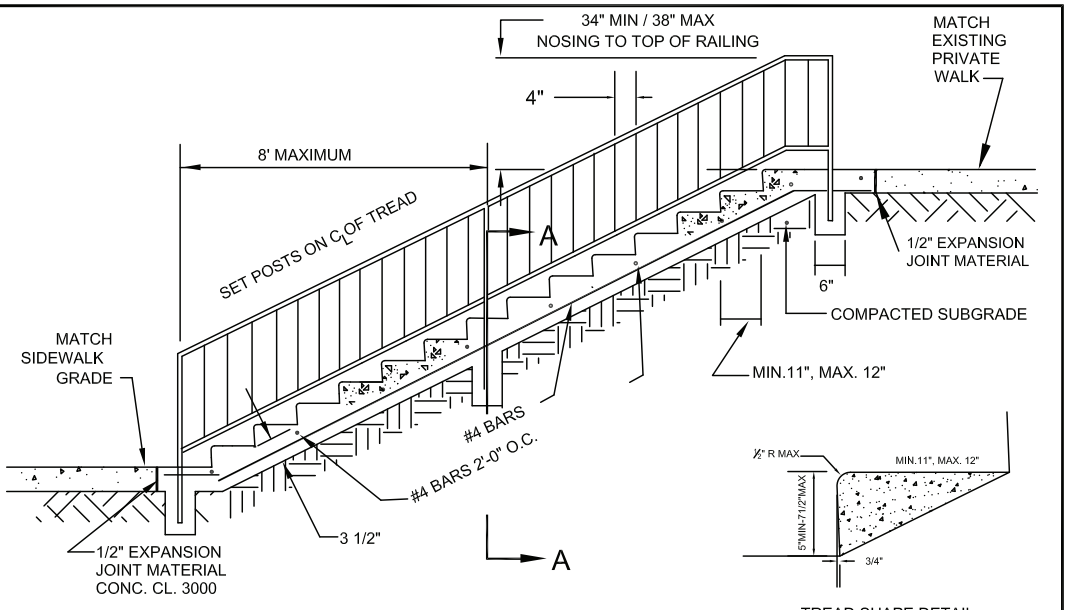
SNOHOMISH WASHINGTON

TYPICAL ROADWAY SECTION
SPECIAL INTERIM STREET

Approved By:
City Engineer
Date: May 30, 2004

327
Number

City of Snohomish Public Works Department



NOTES:

1. CEMENT CONCRETE STEPS SHALL BE 4' WIDE, RISERS SHALL BE 5" MIN., 7" MAX. TREAD SHALL BE 11" MIN. 12" MAX.
2. HEIGHT OF RAILING SHALL BE 34" MINIMUM, 38" MAXIMUM TOP OF NOSING TO TOP OF RAILING.
3. USE PEDESTRIAN OR ORNAMENTAL HANDRAIL AS DIRECTED BY THE CITY ENGINEER. SEE STANDARD DRAWING NOS. 325, 325A, AND 326.
4. CLEAR SPACE BETWEEN BALUSTERS SHALL BE A MAXIMUM OF 4".
5. STEPS WITH MORE THAN 4 RISERS SHALL HAVE HANDRAIL ON BOTH SIDES.

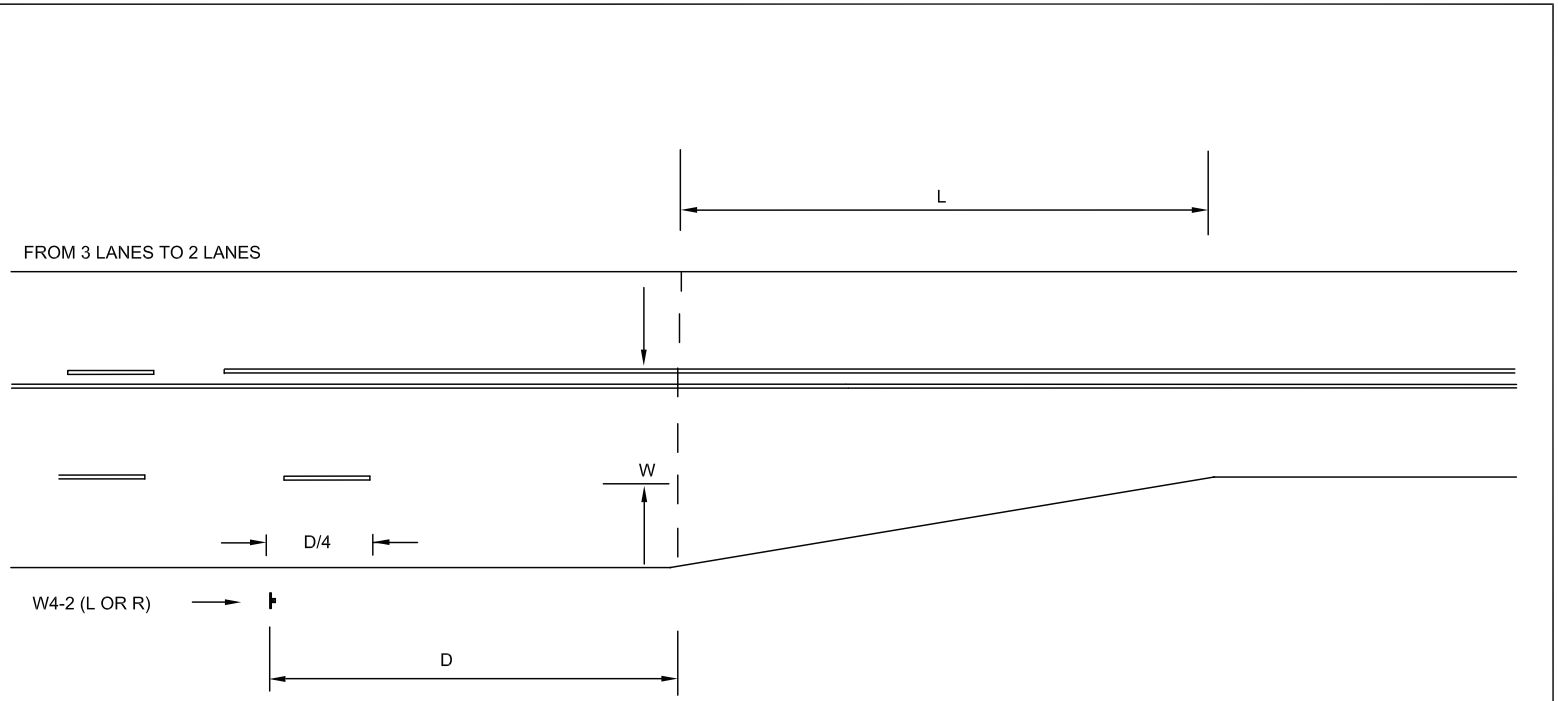
SNOHOMISH
WASHINGTON

CEMENT CONCRETE STAIRWAY CONSTRUCTION DETAILS

Approved By:
City Engineer
Date: May 30, 2004

328
Number

City of Snohomish Public Works Department



STANDARD:

THE MINIMUM TAPER LENGTH SHALL BE 100 FEET IN URBAN AREAS AND 200 FEET IN RURAL AREAS.

FORMULA WHEN POSTED SPEED IS:

>45 MPH, L=WS.
<45 MPH, L=WS²/60.

VARIABLE LEGEND:

L=LENGTH IN FEET

S=POSTED SPEED OR 85th-PERCENTILE SPEED, WHICHEVER IS GREATER.

W=OFFSET IN FEET

D=ADVANCE WARNING DISTANCE. SEE SECTION 2C.05 OF MUTCD FOR PLACEMENT.

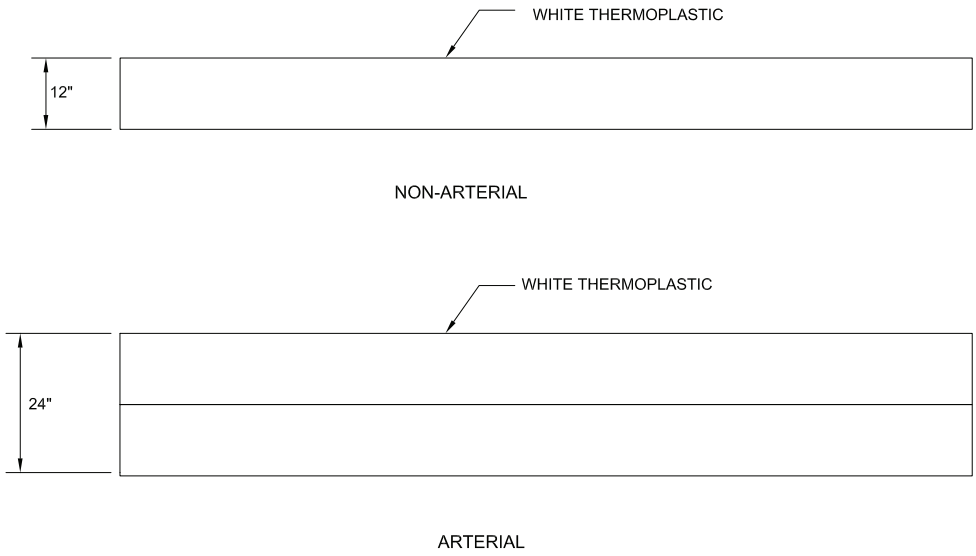
SNOHOMISH
WASHINGTON

TYPICAL LANE REDUCTION TRANSITION

Approved By:
City Engineer
Date: May 30, 2004

329
Number

City of Snohomish Public Works Department



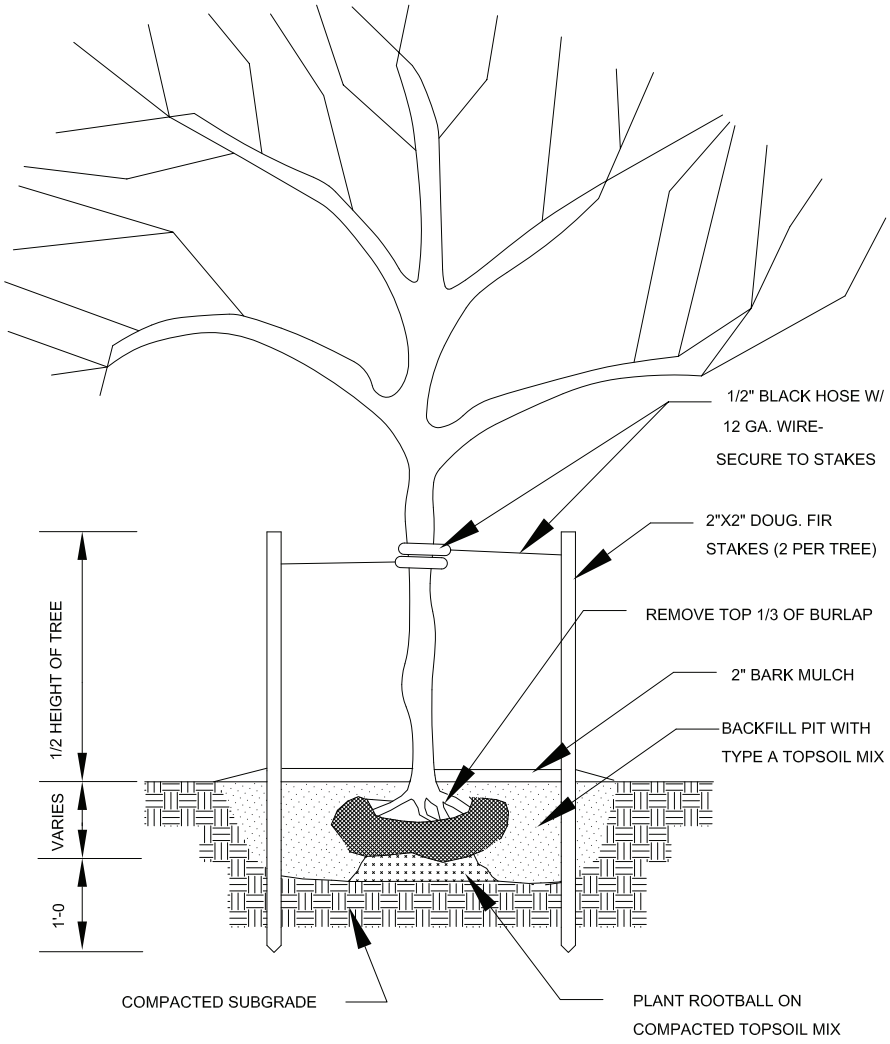
SNOHOMISH WASHINGTON

STOP BARS

Approved By:
City Engineer
Date: May 30, 2004

330
Number

City of Snohomish Public Works Department



TREE PLANTING AND STAKING DETAIL

NTS

TREE PLANTING SHALL CONFORM TO THE
REQUIREMENTS OF SECTION 8-02 OF
THE WSDOT / APWA STANDARD SPECIFICATIONS.

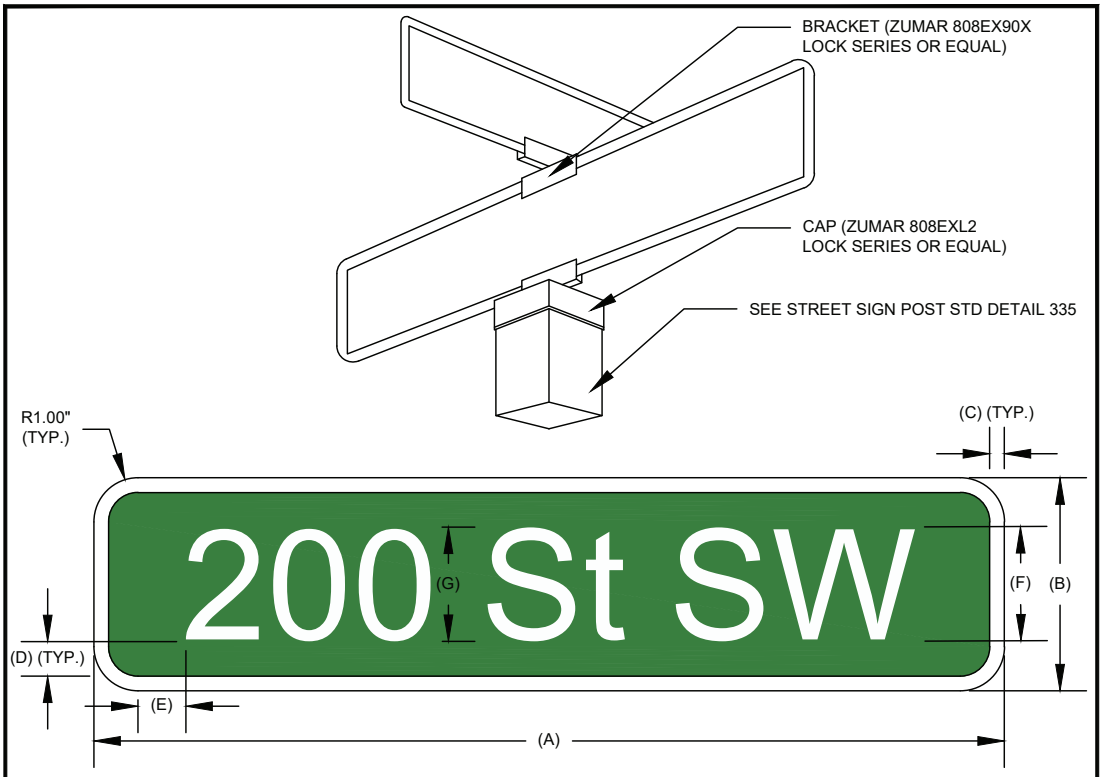
SNOHOMISH
WASHINGTON

TYPICAL TREE PLANTING

Approved By:
City Engineer
Date: May 30, 2004

333
Number

City of Snohomish Public Works Department

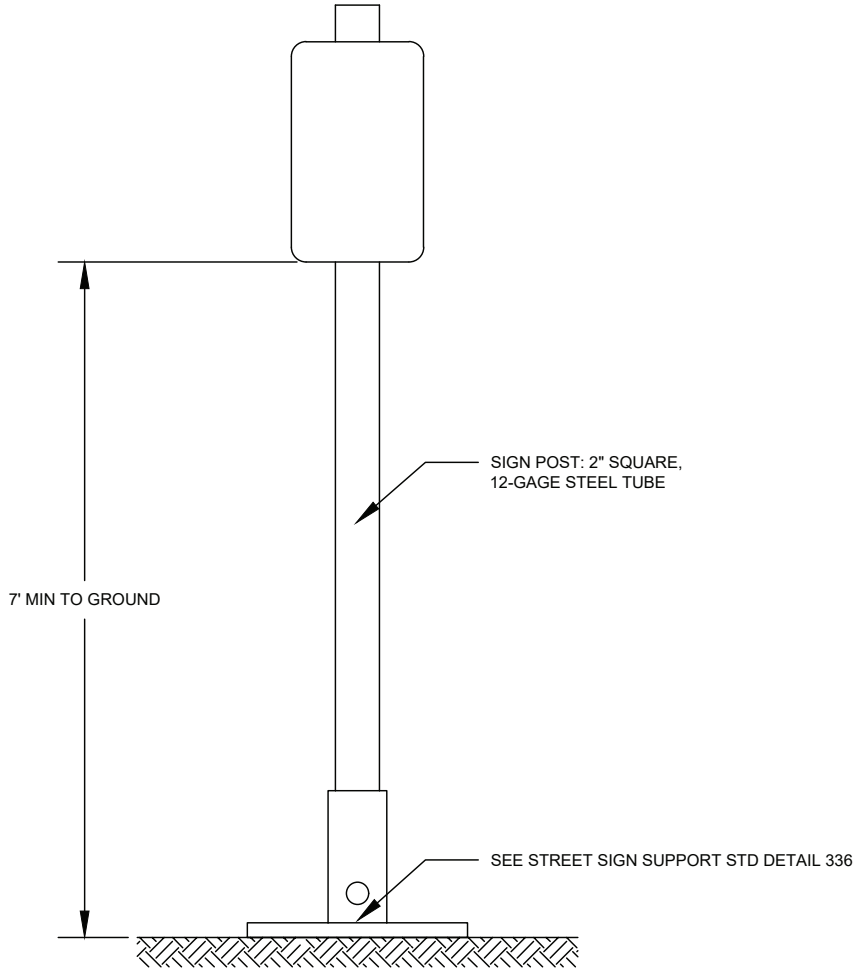


SIGN TYPE	A	B	C	D	E	F	G
30 MPH OR LESS	24" MIN	6"	0.5"	1.5"	1.5" MIN	4"	4"
35 MPH OR GREATER	24" MIN	8"	0.5"	2.5"	4" MIN	6"	6"

NOTES:

1. MATERIAL: 0.080 FLAT ALUMINUM WITH HIGH INTENSITY PRISMATIC GRADE SHEETING WITH ROUNDED CORNERS.
2. COLOR: GREEN BACKGROUND WITH WHITE LETTERS, NUMBERS, AND BORDER FOR PUBLIC STREETS. BLUE BACKGROUND WITH WHITE LETTERS, NUMBERS, AND BORDER FOR PRIVATE STREETS AND ADDRESSES.
3. SIGN SHALL BE DOUBLE FACED.
4. TEXT SHALL BE FHWA D SERIES FONT AND LAID OUT AS PER THE STANDARD HIGHWAY SIGNS AND MARKING (SHSM) BOOK.
5. ALL LETTERING SHALL BE COMPOSED OF A COMBINATION OF LOWER-CASE LETTERS WITH INITIAL UPPER-CASE LETTERS EXCEPT FOR GEOGRAPHIC DELINEATORS WHICH SHALL BE COMPOSED OF UPPER CASE LETTERS ONLY ABBREVIATED. FOR STREETS DESIGNATED AS AVENUES THE SPELLING OF THE GEOGRAPHIC DELINEATOR SHALL BE USED.
6. NUMBERED STREET NAMES SHALL USE THE ORDINAL FORM OF THE NUMBER SUCH AS ST, ND, RD, OR TH. FIRST ST THROUGH TENTH ST SHALL USE THE SPELLING OF THE NUMBERS.
7. NEW STREET NAMES SHALL BE SUBMITTED TO THE CITY FOR REVIEW AND DETERMINATION OF LETTERING AND SIZE.

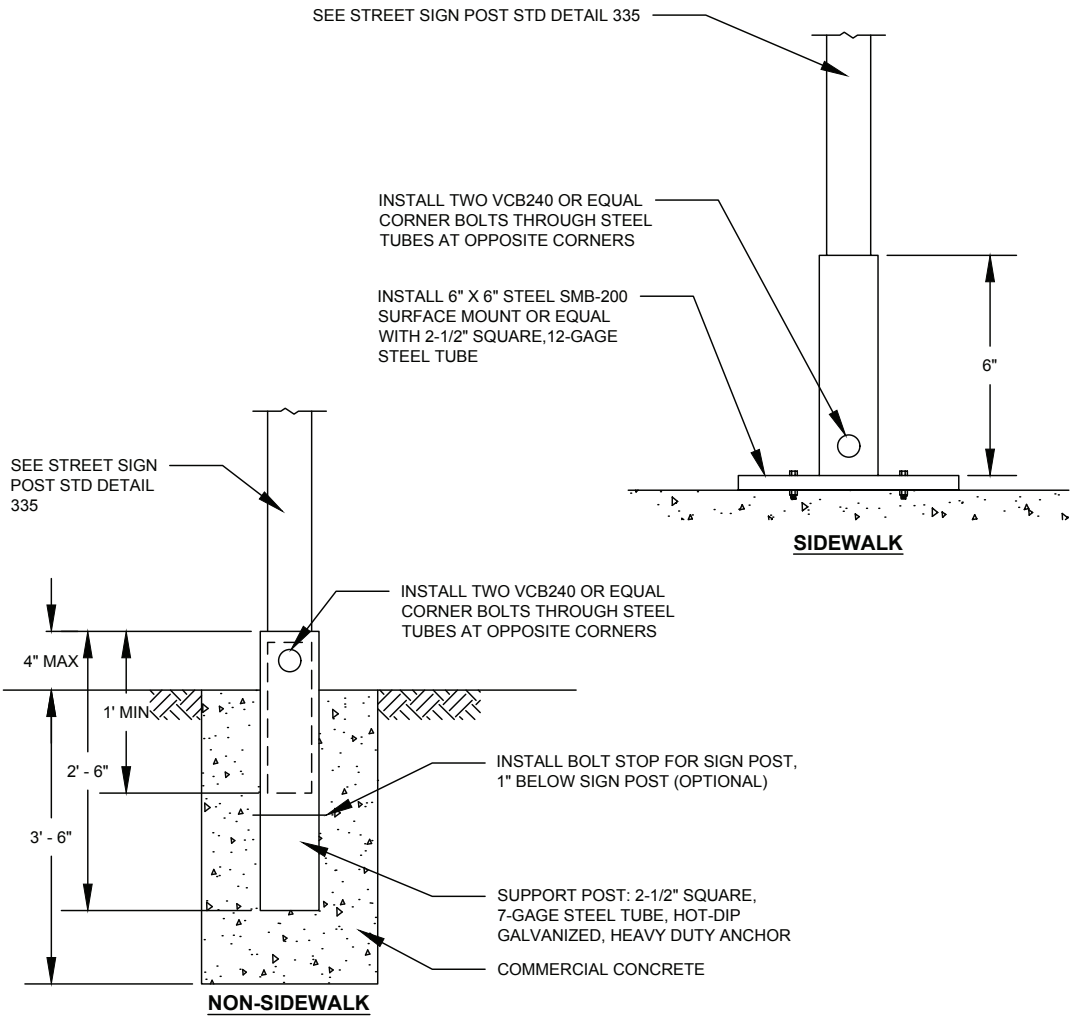
City of Snohomish Washington	**STREET SIGN**	Approved By: Yosh Monzaki City Engineer Date: Dec 20, 2018	**334** Number
	City of Snohomish Public Works Department		



NOTES:

1. STREET SIGNS SHALL SATISFY ALL MUTCD REQUIREMENTS.
2. SIGN MATERIAL: 0.080 FLAT ALUMINUM WITH HIGH INTENSITY PRISMATIC GRADE SHEETING.
3. ALL SIGNS SHALL HAVE ANTI-GRAFFITI SIGN COATING CONSISTING OF 3M-1160 PREMIUM PROTECTIVE OVERLAY OR EQUAL.
4. SIGNS DIRECTLY ATTACHED TO POST SHALL BE RIVETED USING VCR231 JUMBO HEAD DRIVE STEEL RIVET OR EQUAL.
5. SIGN POST SHALL BE PERFORATED SQUARE STEEL POST AND SATISFY THE REQUIREMENTS OF WSDOT STANARD SPECIFICATION 9-06.
6. NO PORTION OF SIGN SHALL OVERHANG THE CURB.

City of Snohomish Washington	**STREET SIGN POST**	Approved By: Yosh Monzaki City Engineer Date: Nov 05, 2018	**335** Number
	City of Snohomish Public Works Department		

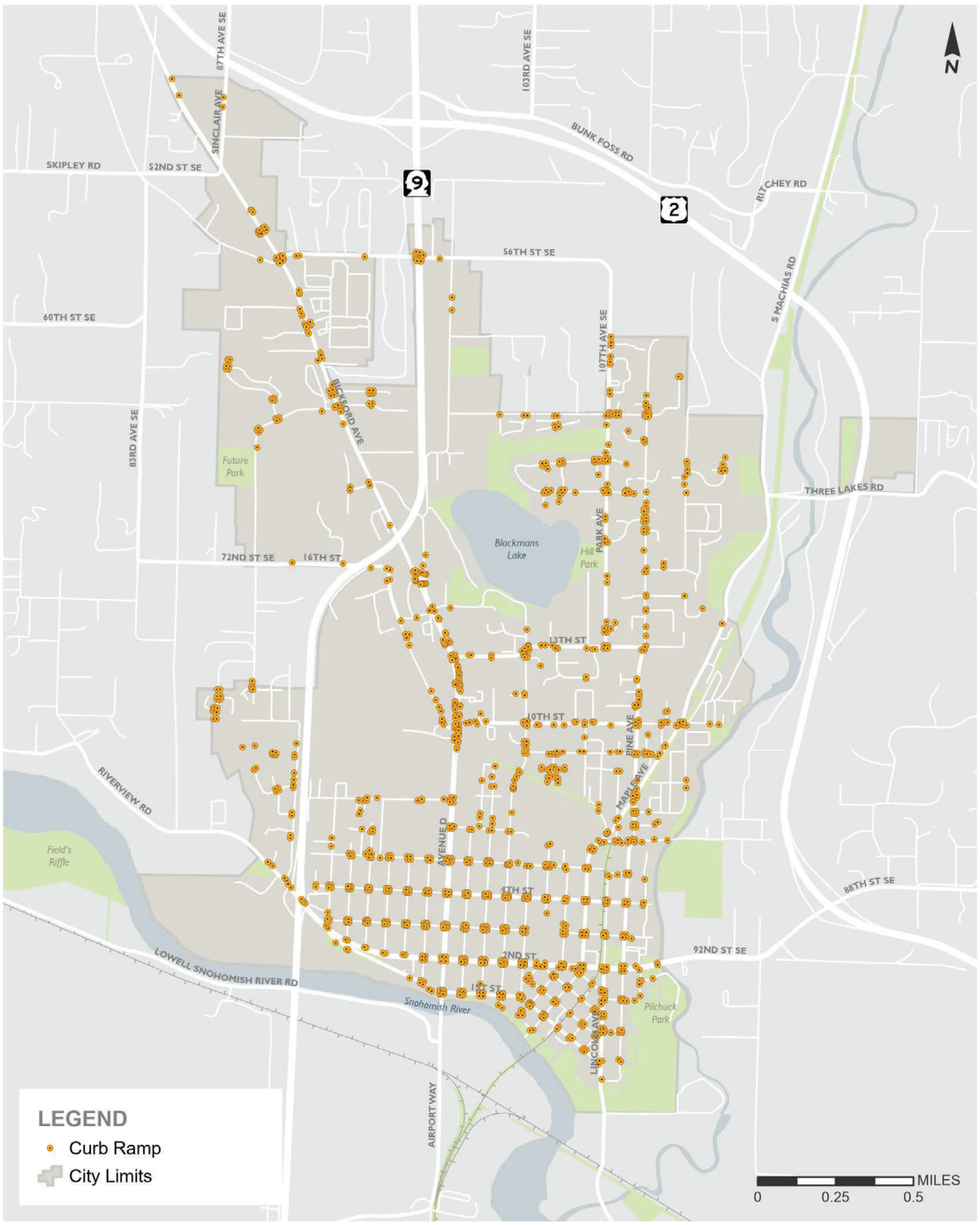


NOTES:

1. SIGN POST SHALL BE PERFORATED SQUARE STEEL POST AND SATISFY THE REQUIREMENTS OF WSDOT STANDARD SPECIFICATION 9-06.
2. SUPPORT POST FOR NON-SIDEWALK AREA SHALL NOT BE PERFORATED.
3. INSTALL SURFACE MOUNT WITH MANUFACTURER SUPPLIED CONCRETE ANCHOR BOLTS (4 EACH).
4. ALL POSTS SHALL BE TWO-WAY PLUMB.
5. LOCATION OF SIGN AND SIGN SUPPORT SHALL BE DETERMINED BY THE CITY.

City of Snohomish Washington	**STREET SIGN SUPPORT**	Approved By: Yosh Monzaki City Engineer Date: Nov 05, 2018	**336** Number
	City of Snohomish Public Works Department		

Appendix B: Existing Data Inventory



Inventory Curb Ramp

City of Snohomish ADA Transition Plan

FIGURE

I-1

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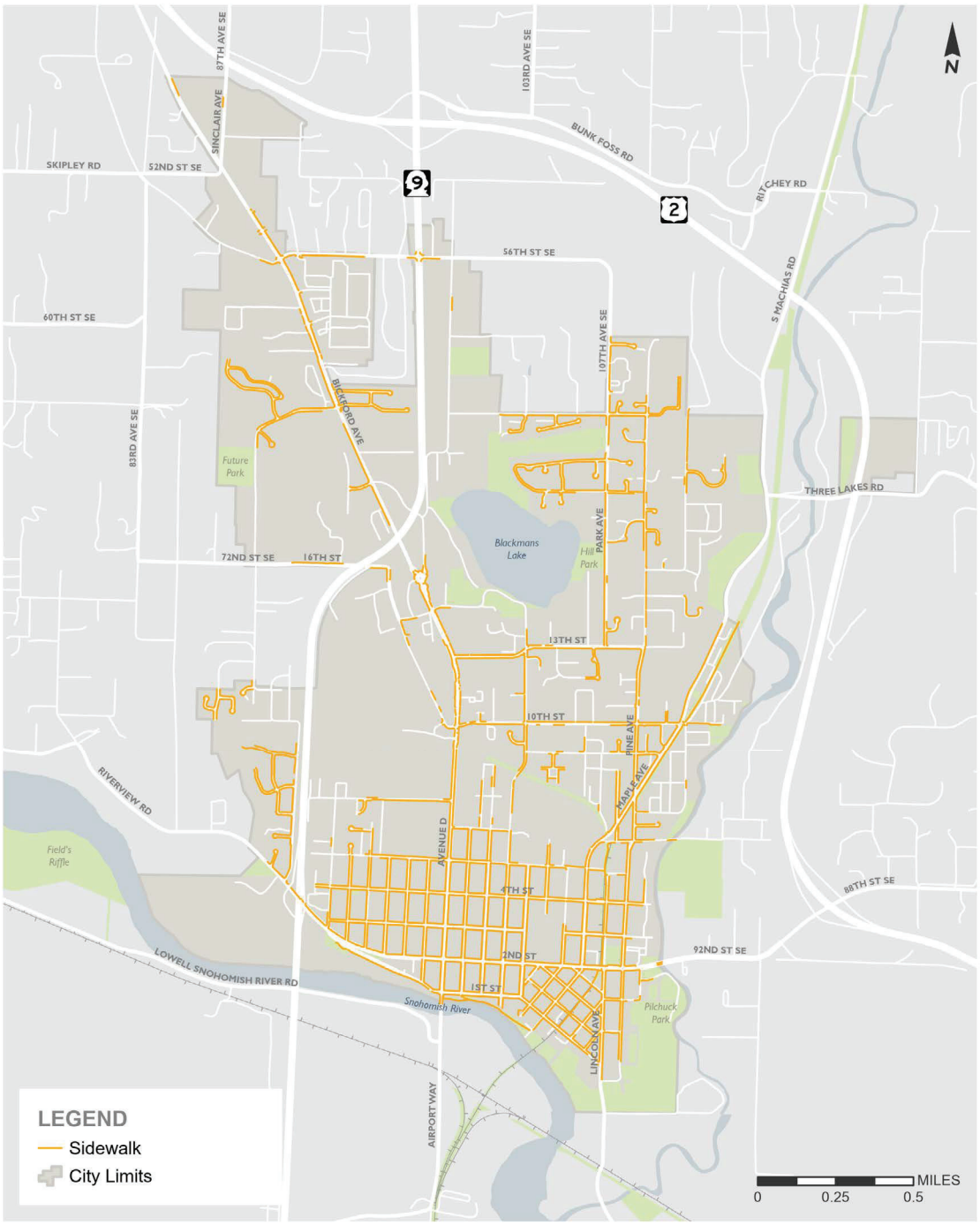

Inventory Sidewalk

City of Snohomish ADA Transition Plan

FIGURE

I-2

transpogroup

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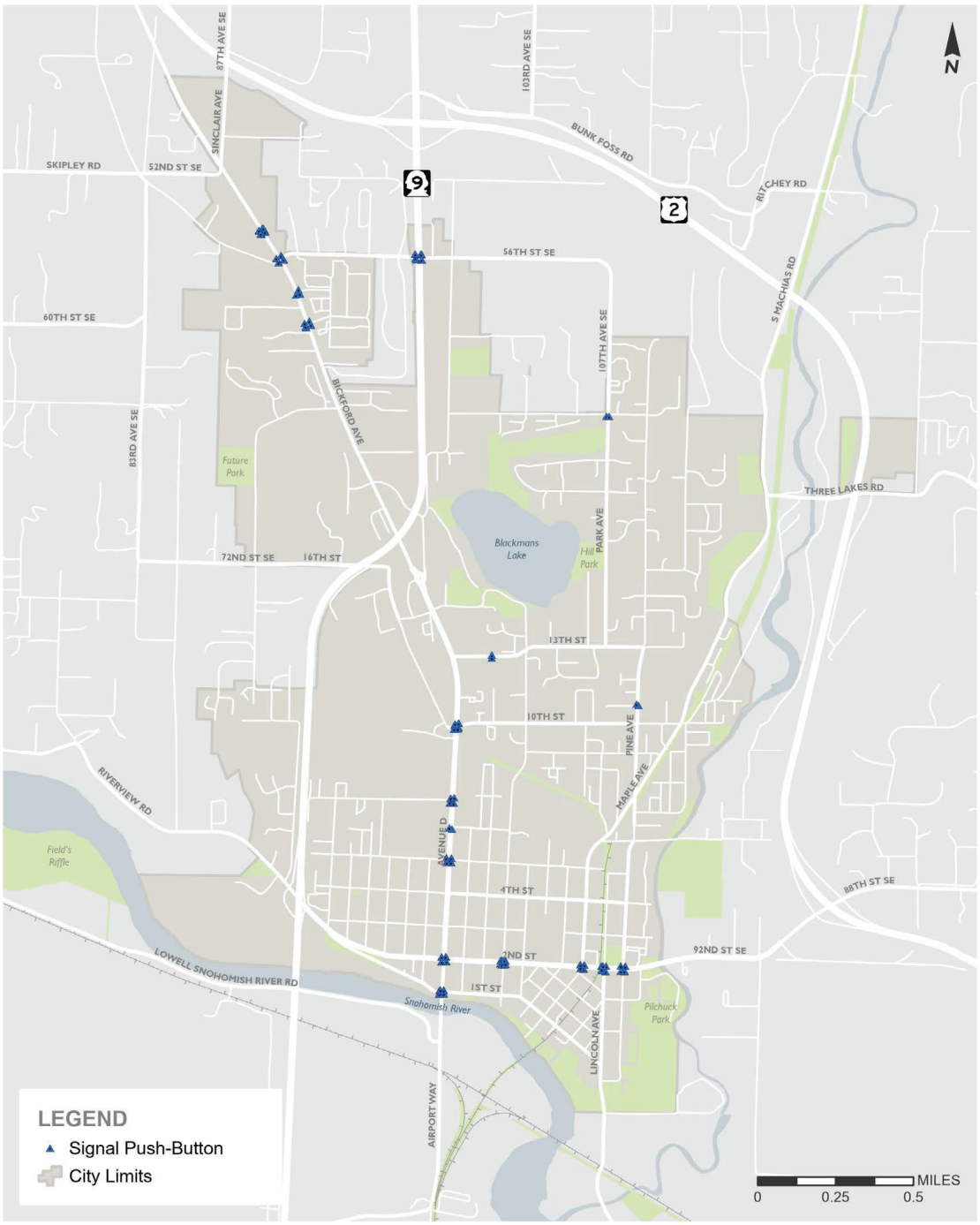


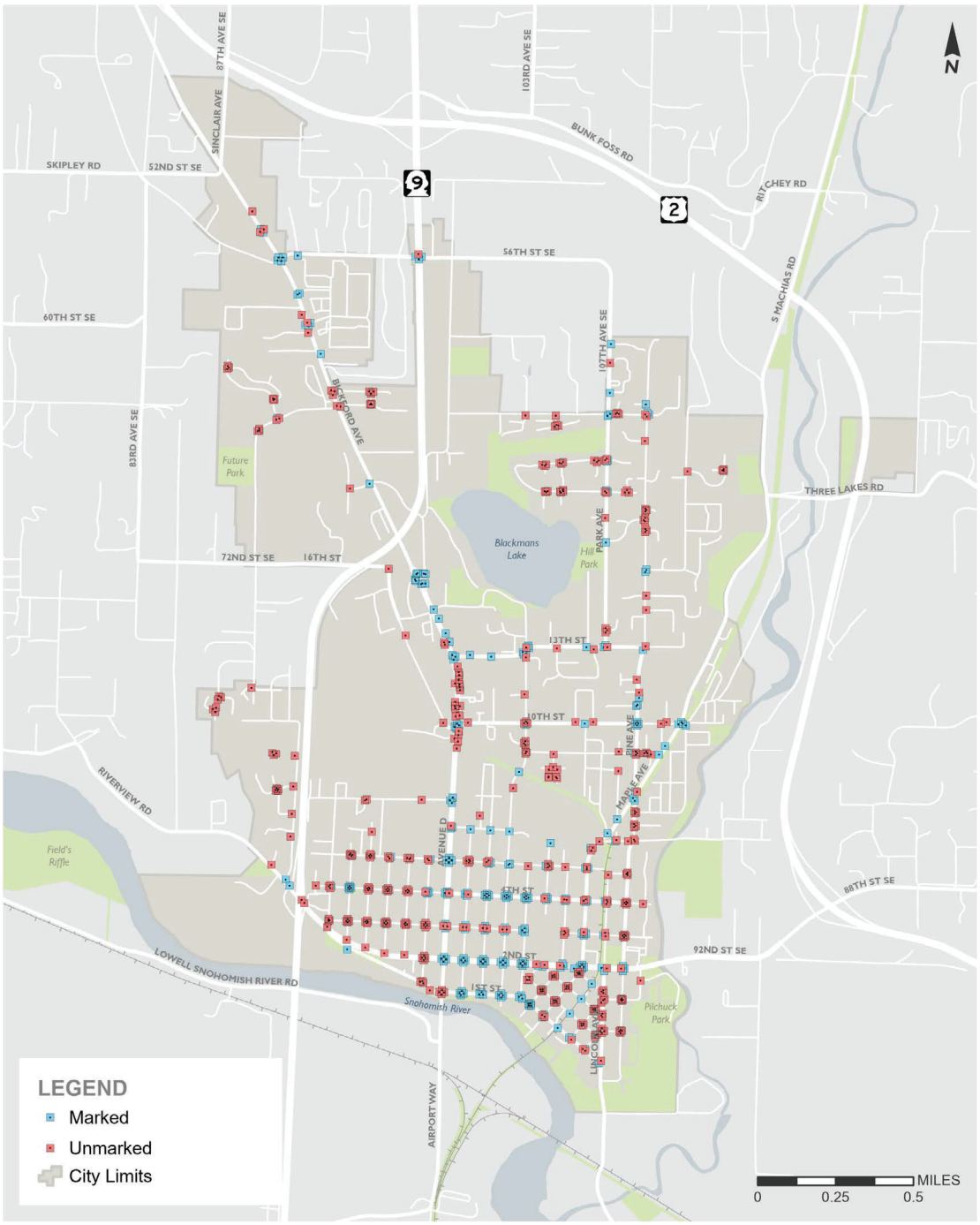
Inventory Signal Push-Button

City of Snohomish ADA Transition Plan

FIGURE

I-3

M:\21\1.21325.00 - Snohomish ADA Transition Plan\GIS\ArcGISPro\SnohomishADA\SnohomishADA_Figures.aprx



Inventory Crosswalk

City of Snohomish ADA Transition Plan

FIGURE I-4

transpogroup

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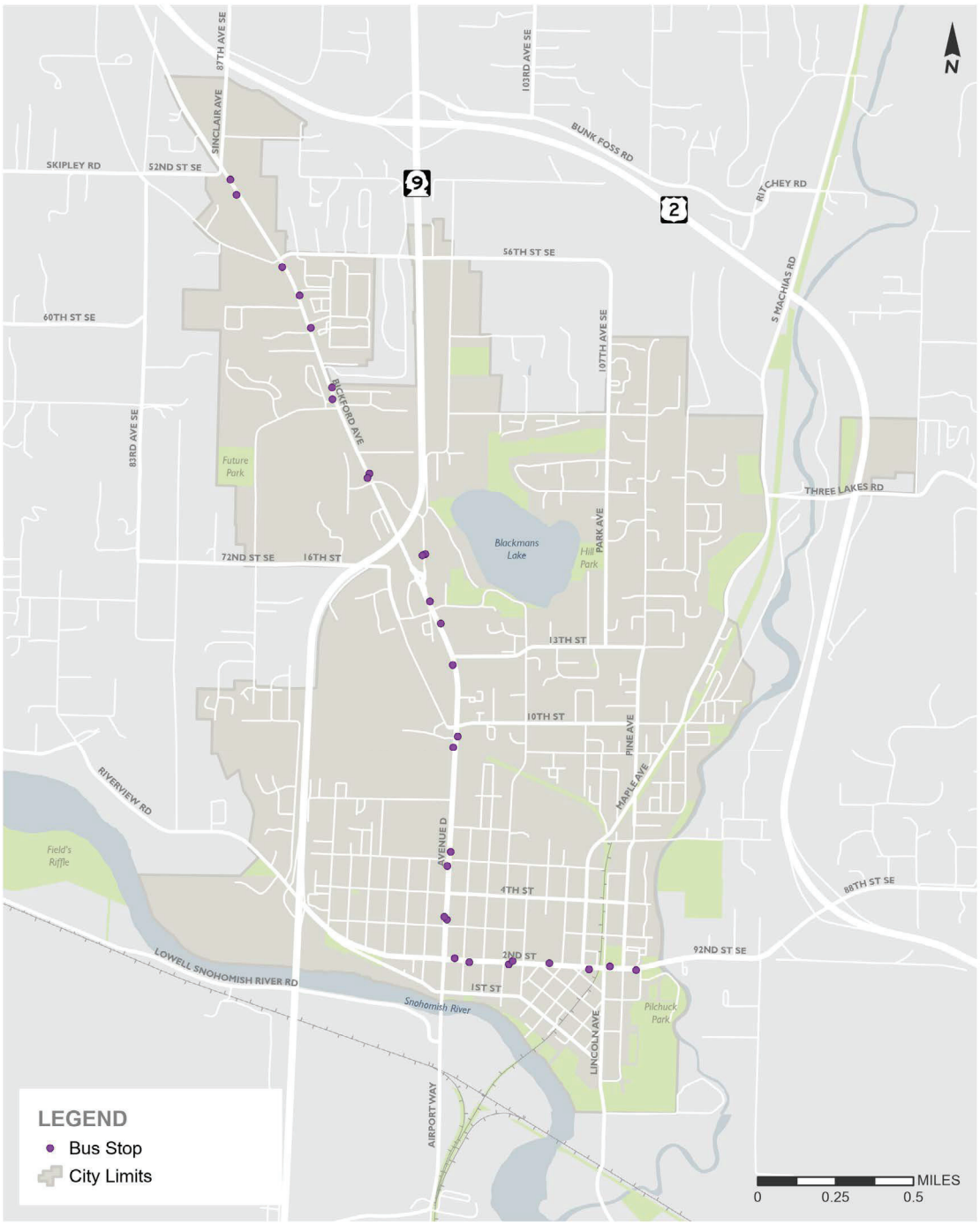


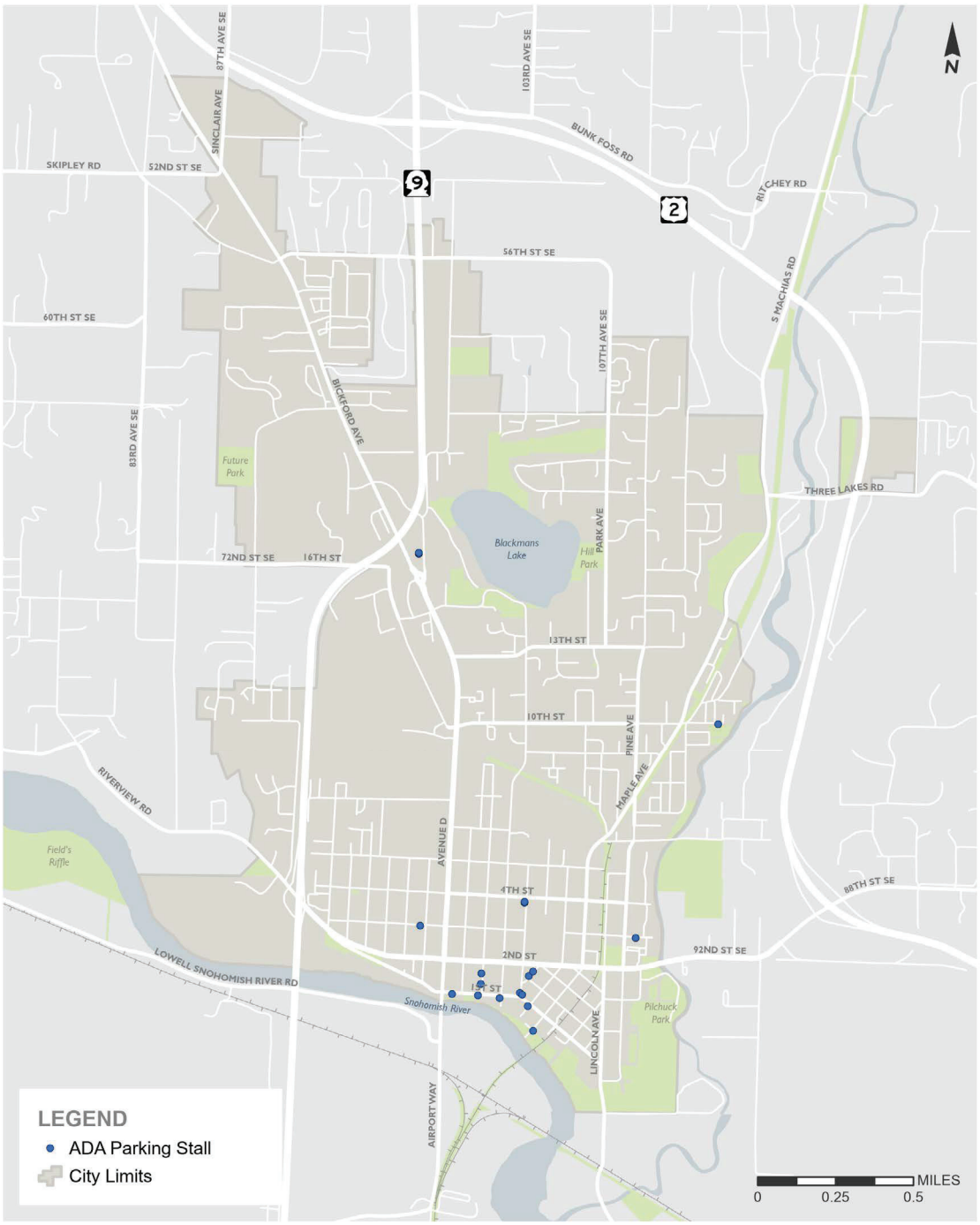
Inventory Bus Stop

City of Snohomish ADA Transition Plan

FIGURE

I-5

M:\21\1.21325.00 - Snohomish ADA Transition Plan\GIS\ArcGISPro\SnohomishADA\SnohomishADA_Figures.aprx



Inventory ADA Parking

City of Snohomish ADA Transition Plan

FIGURE

I-6

transpogroup

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Appendix C: Prioritization Criteria

ADA Transition Plan Prioritization Process

Public Right-of-Way

To focus efforts toward facilities that pose the largest barrier within the public right-of-way, an analysis of the accessibility of each pedestrian facility and its proximity to public destinations such as schools, libraries, parks, transit, and city buildings will be completed. The result of this analysis is a prioritized list of projects, with the highest benefit projects identified for removal first.

To complete this assessment, a multi-criteria analysis is conducted to determine which facilities do not meet existing sidewalks and curb ramp standards. Each attribute collected in the field is compared against PROWAG requirements.

If the facility does not meet PROWAG criteria or is located near public destinations, points are assigned, with the number of points dependent on the relative importance or proximity. Sidewalks or curb ramps with poor PROWAG compliance and a number of proximate destinations receive a high score and are prioritized for removal while PROWAG compliant ramps far from public destinations have a score of zero. Missing curb ramps are assigned the greatest number of points.

Accessibility Prioritization (aka Accessibility Index Score)

A number of criteria are used to establish the extent to which each pedestrian facility did or did not present a barrier to accessible mobility. Table shows these criteria, the threshold used to identify them as a barrier, and the score used to indicate the severity of each barrier relative to each other. Pedestrian facilities with a higher Accessibility Index Score (AIS) presented a large accessibility barrier and have a higher score. Facilities with fewer or no barriers have a lower score.

Below is an example of typical weighted values to equal a total possible score of 30

ACCESSIBILITY INDEX SCORE	CRITERIA	THRESHOLD	SCORE	MAX. POSSIBLE SCORE
Sidewalks	Width	In ROW, < 48 inches or >= 48 - < 60 inches w/ out pullouts. On-Site, < 36 inches	4	4
	Run Slope	> 5% (and not similar to roadway grade if in ROW)	3	3
	Cross Slope	> 2%	1	3
	Cross Slope	> 2.4%	1	
	Cross Slope	> 3%	1	
	Surface Condition	< Average	2	2
	Vertical Discontinuity > ¼ inch and <= ½ inch without bevel or >½ inch	Barriers Present >= 1	1	3

ACCESSIBILITY INDEX SCORE	CRITERIA	THRESHOLD	SCORE	MAX. POSSIBLE SCORE
	Vertical Discontinuity	Barriers Present >= 5	1	
	Vertical Discontinuity	Barriers Present >= 10	1	
	Horizontal Discontinuity > ½ inch	Barriers Present >= 1	1	3
	Horizontal Discontinuity	Barriers Present >= 5	1	
	Horizontal Discontinuity	Barriers Present >= 10	1	
	Fixed Obstacles	Barriers Present >= 1	1	3
	Fixed Obstacles	Barriers Present >= 2	1	
	Fixed Obstacles	Barriers Present >= 3	1	
	Moveable Object	Barriers Present >= 1	1	3
	Moveable Object	Barriers Present >= 2	1	
	Moveable Object	Barriers Present >= 3	1	
	Protruding Object	Barriers Present >= 1	1	3
	Protruding Object	Barriers Present >= 2	1	
	Protruding Object	Barriers Present >= 3	1	
	Non-Compliant Driveway Non-Compliant >2% cross-slope, and/or Non-Concurrent Grade Break and/or >8.3% Running Slope	Barriers Present >= 1	1	3
	Non-Compliant Driveway	Barriers Present >= 2	1	
	Non-Compliant Driveway	Barriers Present >= 3	1	
	Maximum Sidewalk (AIS) Score			**30**
Curb Ramps (Max. Score)	Ramp Width	< 48 inches	30	30
	Run Slope	> 8.3% (less than 15 feet) or > 5% (Blended)	30	30
	Cross Slope	> 2% - <= 3%	20	30
	Cross Slope	> 3%	10	
	Curb Ramp Type	Non-Compliant Type	30	30
Curb Ramps	Accessible Path	No	2	2
	Turning Space	None or width < full width of ramp or length < 48 inches	5	5
	Turning Space Cross Slope	> 2%	3	3
	Truncated Domes (DWS)	No	3	3
	Truncated Domes (DWS) Placement	Other than Back of Curb	1	3
	Truncated Domes (DWS) Depth	< 2 feet	1	
	Truncated Domes (DWS) Width	Less than Full Width	1	
	Flare Slope	> 10%	2	2
	Grade Break	Not Concurrent	2	2
	Counter Slope	> 5%	2	2

ACCESSIBILITY INDEX SCORE	CRITERIA	THRESHOLD	SCORE	MAX. POSSIBLE SCORE
	Lip	> ¼ inch	2	2
	Roadway Clear Space	< 4ft x 4ft	2	2
	Receiving Ramp	No	2	2
	End inside of Marked Crosswalk if present	No	2	2
	Maximum Curb Ramp (AIS) Score			**30**
Signal Pushbuttons	Pushbutton is <= 10 feet from Curb in Direction of Travel	No	2	2
	Pushbutton is <= 5 feet from Extension of Crosswalk Width Edge	No	2	2
	Force to Activate Pushbutton is <= 5 lbs.	No	2	2
	Pushbutton Includes Vibe Feedback during "Walk" Phase	No	2	2
	Pushbutton is >= 2 inches in Diameter and Includes Visual Contrast from Housing	No	2	2
	Tactile Arrow Present on Pushbutton	No	2	2
	Nearest Pushbutton > 10 feet Away or Pushbutton Includes Audible Speech Indicating "Walk" Phase	No	2	2
	Level Clear Space at Pushbutton that Includes Minimum 30 inch x 48 inch Landing Area and < 2% Slope in Any Direction	No	2	2
	Reach Depth from Landing to Pushbutton is <= 10 inches	No	2	2
	Mounting Height of Pushbutton	Mounting height of pushbutton from landing area is < 42 inches or > 48 inches	2	2
	Directional Arrow Exists on Pushbutton Face, Housing, or Mounting and is Parallel to Crossing	No	2	2
	Audible Tone indicating "Walk" Phase or Audible Speech indicating "Walk" Phase Present	No	2	2
	Locator Tone during "Don't Walk" Phases Present	No	2	2
	Street Name in Braille Present on Pushbutton	No	2	2
	APS-Style Pushbutton Housing	No	2	2
	Maximum Signal Pushbutton (AIS) Score			**30**

ACCESSIBILITY INDEX SCORE	CRITERIA	THRESHOLD	SCORE	MAX. POSSIBLE SCORE
Crosswalks	Width	< 6 feet	6	6
	Run Slope	> 5%	12	12
	Cross Slope	> 5% at Non-Stop/Yield Controlled Intersections or > 2% at any other type except for mid-block crossings	12	12
	Maximum Crosswalk (AIS) Score			**30**
Bus Stops	Boarding Area Dimensions	< 5'x8' or no boarding area	8	8
	Condition	Poor	5	5
	Boarding Area Cross Slope	> 2%	5	5
	Boarding Area Run Slope	> 5% and not similar to roadway grade	4	4
	Accessible Route Slope	> 5% and not parallel roadway grade (if separation between boarding area and shelter)	4	4
	Shelter Cross Slope	> 2% if shelter exists	4	4
	Maximum Bus Stop (AIS) Score			**30**
Parking Stalls	Stall Width	If regular stall, < 96 inches. If van accessible stall, < 132 inches and adjacent aisle is < 96 inches.	4	4
	Stall Turning Slope	> 2%	4	4
	Stall Pavement Marking	No Marking	3	3
	Sign Present	No Sign	2	2
	Sign Height	< 60 inches	1	1
	Wheelstop or Curb Present	No Wheelstop/Curb (and not a parallel stall)	2	2
	Vertical Clearance	< 98 inches and a van accessible parking stall	2	2
	Adjacent Walkway Width	For parallel on-street parking with a sidewalk <= 14 feet wide nearby, stall is not at end of block. If sidewalk is > 14 feet wide, no access aisle provided in road parallel to stall or access aisle is < 5 feet wide.	2	2
	Connected to Access Aisle (Max. Score)	**No Access Aisle**	**10**	10
	Connected to Accessible Path	Not Connected	2	
	Access Aisle Width	< 60 inches	3	

ACCESSIBILITY INDEX SCORE	CRITERIA	THRESHOLD	SCORE	MAX. POSSIBLE SCORE
	Access Aisle Turning Slope	> 2%	3	
	Pavement Marking	No Hatching	2	
	Maximum Parking Stall (AIS) Score			**30**

Location Prioritization (aka Location Index Score)

A number of destinations are used to identify high priority pedestrian facilities within the City. This is done by identifying public destinations such as public buildings, transit and parks and identifying pedestrian facilities within close proximity of one or more of these destinations.

Pedestrian facilities within the identified proximity were assigned points based on each destination they were close to, as shown in Table. This measure is called the Location Index Score (LIS), which identifies high pedestrian generating overlapping areas. Ultimately the more pedestrian generating areas an asset is within, the higher number. Community Defined Destinations criteria is added to the Location Index Score (LIS) following comments and results received from open house attendees, City staff, other stakeholders during engagement and public outreach. This assists in factoring in what's important to the citizens and community to help with the overall prioritization.

Below is an example of typical weighted values to equal a total possible score of 45

LOCATION CRITERIA	RATING CRITERIA	POSSIBLE SCORE
Schools		
Proximity to Schools	Within 1/8-mile radius of school	5
Walk-To-School Route Proximity	Within 1/2-mile radius of school	5
Parks	Within 1/8-mile radius of park	5
Transit		
Park and Ride	Within 1/8-mile of park and ride	5
Bus Stops	Within 1/8-mile of transit stop	5
Traffic Signal/Roundabout	Within 1/8-mile of signal or roundabout	5
Public Buildings	Within 1/8-mile of location	5
Downtown / Urban / Commercial Business Centers	Within 1/4-mile radius of Downtown, Urban and Commercial Business Center Zoning	5
Community Defined Destinations (defined by Stakeholder/Public Engagement*)	Within 1/16-mile of location	5
TOTAL LOCATION INDEX SCORE (LIS)		45

* Note: Community Defined Destinations to be identified based on public outreach, ADA surveys, etc. on what locations are more important, thus giving extra weight to those community defined destinations. (To be determined)

Barrier Removal Priorities (Combined Composite Index Score)

By combining the Accessibility Index Score and Location Index Score, a Combined Composite Index Score was developed. Together, these measures prioritize barrier removal at locations where pedestrian facilities present a barrier and where pedestrians would be expected.

Facilities with the highest score should be addressed first (46+ points) and represent facilities that present a clear physical barrier and are in high-demand areas. Facilities with lower scores should be address last (0 to 15 points), have minor barriers, and are in locations where pedestrian demand would be expected to be lower. These scores are relative, comparing one facility to the other. The ranges for medium and high priority were defined based on review of the identified barriers and assessment of the relative barrier they present. It should be noted that while some barriers have a lower priority, they still should be removed.

Appendix D: Stakeholder Engagement

MEMORANDUM

Date:	January 19, 2023	**TG:**	1.21325.00
To:	Yoshihiro Monzaki – City of Snohomish Cory Morton – City of Snohomish		
From:	Patrick Lynch, AICP – Transpo Group Francesca Liburdy, PE – Transpo Group		
Subject:	Snohomish ADA Transition Plan Stakeholder Engagement		

The following document summarizes the Snohomish ADA Transition Plan stakeholder engagement process and identifies trends and priorities based on the community's responses.

Public and stakeholder input is an essential element in the transition plan development and self-evaluation processes. ADA implementation regulations require public entities to provide an opportunity to interested persons, including individuals with disabilities or organizations representing individuals with disabilities, to participate in the self-evaluation process and development of the transition plan by submitting comments (28 CFR 35.105(b) and 28 CFR 35.150(d)(1)). The City's three primary goals for conducting public outreach activities prior to adopting the plan include the following:

- Inform the public about the City's plan and processes regarding removal of barriers to accessibility within the rights-of-way. Provide information to assist interested parties to understand the issues faced by the City, alternatives considered and planned actions.
- Obtain public comment to identify any errors or gaps in the proposed accessibility transition plan for the public rights-of-way, specifically on prioritization and grievance processes.
- Meet Title II requirements for public comment opportunity.

Engagement Survey

The engagement survey was promoted by the City of Snohomish between late July 2022 and late October 2022 to request responses via the City's virtual open house website and social media channels, including a Facebook post on the City's page and an article in the City's quarterly newsletter in July 2022. In addition, the City promoted the engagement survey through flyers to local residents. The City also promoted the survey during an in-person meeting of the Senior Center members.

An online survey was made available to residents through the City of Snohomish's website, https:// https://www.snohomishada.com/survey. The online open house provides context on the City's ADA Transition Plan process and allows viewers to respond to the feedback survey. The feedback survey asked respondents to provide input on their disability status, travel modes, barriers to travel that they experience, and priorities for improving ADA facilities. The survey contained several sections that asked the responder to comment on the following subtexts:

1. Whether they have a disability or support someone with one;
2. Which type of accessibility barriers they currently experience;
3. How they rate the accessibility conditions of existing right-of-way facilities; and,
4. What facility types they believe should be prioritized when removing accessibility barriers.

A full account of the survey findings can be found in Attachment A. In addition to the online survey, an interactive map was available for respondents to identify areas of concern.

The online survey received 39 respondents. Out of the 39 responses, 87 percent were residents of Snohomish. Other respondents either worked or frequented Snohomish for school, recreation, medical appointments, social or community services, or shopping. Of all respondents, 31 percent (12 respondents) indicated they have a disability that impacts the way they travel and 18 percent (7

respondents) reported supporting someone with a disability. Two of these respondents reported that they both have a disability and support someone with a disability. A summary of respondents' disability status is shown on Figure 1.

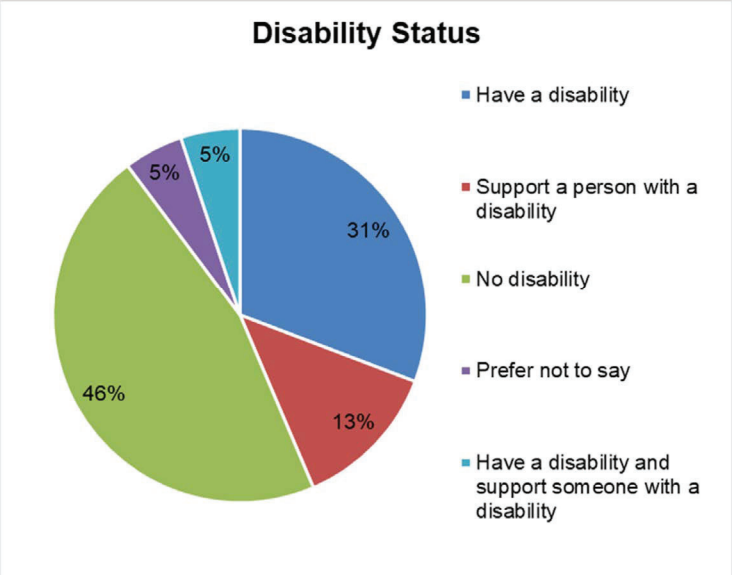

Figure 1 Disability Status

The survey asked respondents to evaluate their use of frequent travel modes through the city, including driving, transit or paratransit shuttle, wheelchair, bike, or walk. Respondents were able to indicate if they use multiple travel modes.

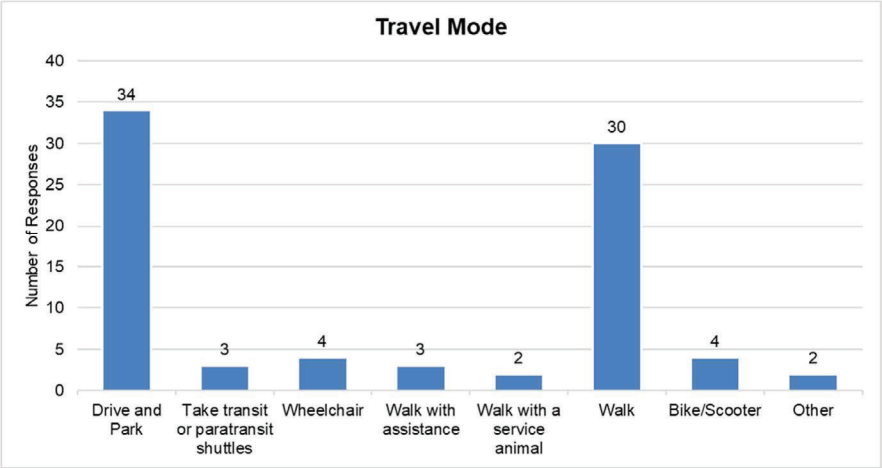

Figure 2 Travel Mode

As shown in Figure 2, the survey respondents predominantly drive and walk, with 34 of the 39 total respondents (87 percent) indicating that they drive, 30 respondents (77 percent) indicating that they walk. A smaller number of respondents use other modes, with 4 respondents using a wheelchair or using a bike/scooter and three respondents taking transit or paratransit shuttles. Three respondents walk with assistance, and two walk with a service animal.

Survey respondents were asked to identify barriers in the public right-of-way that limit participation and access to services in the City of Snohomish. As shown on Figure 3, several barriers received significant response from the survey, with lack of sidewalk, sidewalk barriers, and curb ramp barrier issues being selected 22, 16, and 14 times, respectively. In addition, pedestrian crosswalk issues, lack of ADA parking, and access to push-buttons were identified as challenges.

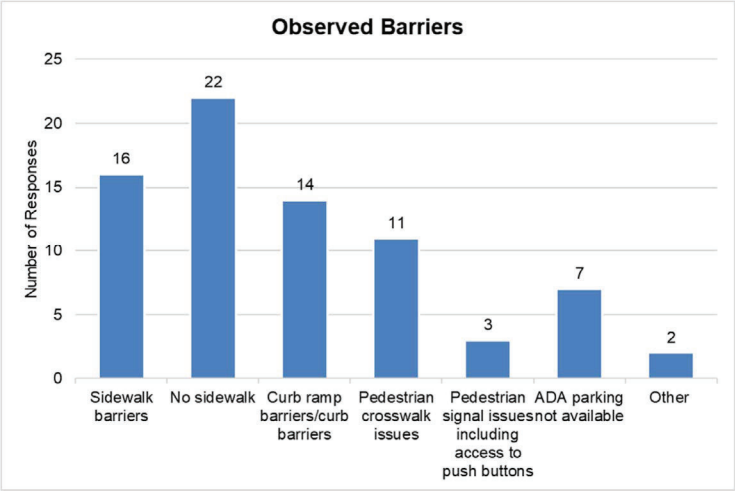

Figure 3 Observed Barriers in Public Right-of-Way

Improvement Priorities

The survey respondents both identified and ranked their accessibility priorities within the City's public right-of-way. Respondents ranked areas within City right-of-way as first and second priority. Ranking an item as a first priority improvement was given a greater weight than second priority to emphasize the improvement's importance. A first priority ranking scored 3 points in the weighted scoring system, while a second priority ranking scored one point. The first and second priority survey responses are shown in Figure 4.

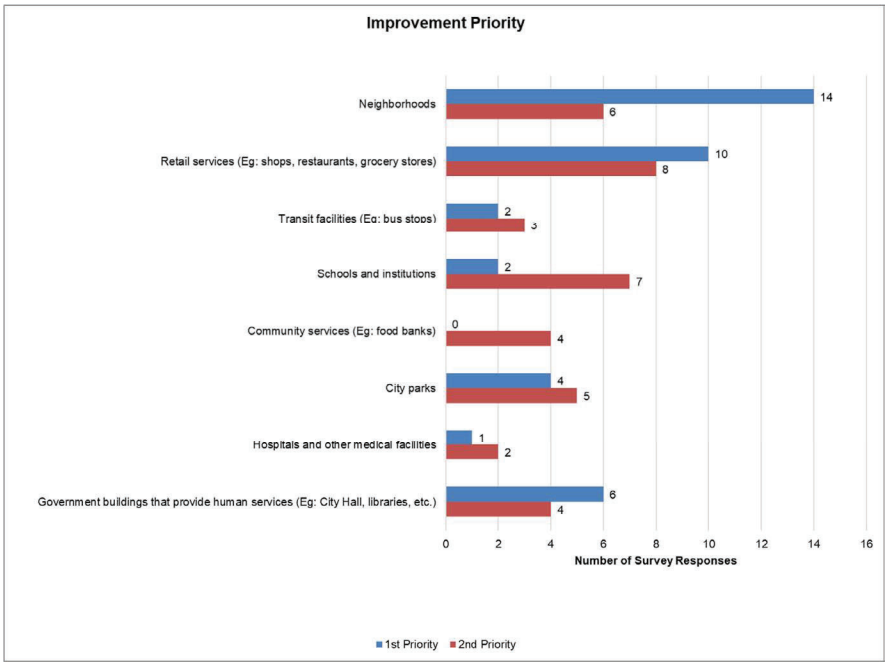

Figure 4 Unweighted First and Second Improvement Priority Ranking

When considering weighted scores, the top three priorities among survey respondents were neighborhoods, all areas equally, and transit facilities. A summary of the weighted ranked priority locations is included in Figure 5. These weighted ranked priorities were utilized in the prioritization of barrier removal in the City's transition plan.

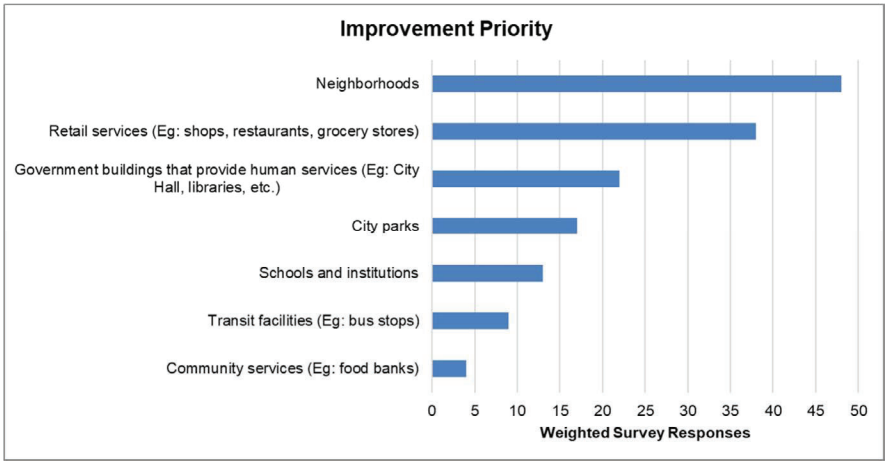

Figure 5 Weighted Improvement Priority Ranking

As shown Figure 5, neighborhoods, retail services, and City-owned buildings ranked in the three highest weighted priorities for improvement.

Respondents were also given the opportunity to identify locations where they have experienced mobility or accessibility challenges in the City of Snohomish. Locations were identified via written survey responses. Key locations identified via written survey results and the online mapping tool are summarized in Table 1. Lack of sidewalk or uneven sidewalks were identified as the most common barriers among the locations identified in Table 1. Many acknowledgements were given to the lack of sidewalk or uneven sidewalk along Pine Avenue, Terrace Avenue, 1st Street, Avenue D, and on the Bickford Bridge.

Table 1. Identified Accessibility Barriers

City Locations and/or Landmarks	City Roadways or Roadway Segments
Pilchuck Park	Avenue E
Bickford Bridge	Avenue J
Downtown area	1st Street between Avenue A and Avenue B
Citywide intersections (lack of ADA ramps)	Pine Avenue
Citywide roadways (pothole barriers)	Terrace Avenue
Farmers Market	1st Street
Pine Avenue/Maple Avenue intersection	Avenue A
Park Avenue/13th Street intersection	Ford Avenue
Terrace Avenue/16th Street intersection	Avenue D
Avenue D/Lake Avenue intersection	16th Street
Pine Avenue/2nd Street intersection	Park Avenue
	13th Street
	2nd Street
	Emerson Street

In addition to the online survey, locations with mobility and accessibility barriers were identified by respondents via an online mapping and reporting tool.

Meeting ADA Standards

Per 28 CFR 35.150(d)(1), public involvement is required as follows: A public entity shall provide an opportunity to interested persons, including individuals with disabilities or organizations representing individuals with disabilities, to participate in the development of the transition plan by submitting comments. A copy of the transition plan shall be made available for public inspection.

The City has engaged with the public for feedback on developing the ADA transition plan in a manner that meets Title VI of the Civil Rights act. Title VI of the Civil Rights Act of 1964 is a Federal statute and provides that no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. This includes matters related to language access or limited English proficient (LEP) persons.

Additional Outreach

A draft version of the ADA transition plan will be made available for public comment. Notice will be sent out via a mailer to all address in the City, City e-news, and the City newsletter that will inform people how to view the plan and provide any comments.

Attachment A: Survey Response Data

Snohomish ADA Survey Response Data Summary

1. Why do you travel in Snohomish?

Answer	Count
I live in Snohomish	34
I work in Snohomish	8
Attend school/college	0
Recreation/recreational activities	13
Medical appointments	11
Shopping	18
Other community or social services	12
Other value (Church)	1
	39

2. Please tell us about yourself (select all that apply)

Answer	Count
I have disabilities that impact how I travel (please describe in Question #3)	12
I support a person with disabilities (please describe in Question #3)	5
I have no disability	18
I prefer not to say	2
Have a disability and support someone with a disability	2
Subtotal	*39*

3. Please describe your disability/disabilities or those of the person you support (select all that apply)

Answer	Count
Physical, mental, or emotional condition that limits learning, memory, or concentration	5
Blindess or serious difficulty seeing when wearing glasses	2
Condition that substantially limits one or more physical activities such as walking, climbing stairs, reaching, lifting, or carrying	15
Deafness or hearing difficulty	1
Use mobility device(s)	7
Use a wheelchair	5
Use assistive software technology such as a screen-reader	0
Use hearing aids or hearing assistive devices	2
Use a service animal	1
Other	3

4. What resources do you use to find information on ADA issues? (select all that apply)

Answer	Count
Washington State Department of Social and Health Services (DSHS)	11
Washington State Department of Services for the Blind (DSB)	0
City of Snohomish	12
Transit Service	7
Department of Veterans Affairs	2
Other	2

5. Please Provide your five-digit zip code.

Answer	Count
98290	36
98201	1

6. How often do you travel in the City of Snohomish? (pre-pandemic)

Answer	Count
Less than weekly	1
1-2 days per week	2
3-4 days per week	7
5-7 days per week	29

7. How do you travel within the City of Snohomish?

Answer	Count
Drive and Park	34
Take transit or paratransit shuttles	3
Wheelchair	4
Walk with assistance	3
Walk with a service animal	2
Walk	30
Bike/Scooter	4
Other	2
Subtotal	*39*

8. If you use transit, how often do you use it in a typical week?

Answer	Count
Less than weekly	12
1 day per week	2
2-4 days per week	0
5 or more days per week	0

9. If you walk, how far are you willing/able to walk to your destination?

Answer	Count
Less than 1/2 mile	9
1/2 mile	6
1 mile	5
2 miles	7
More than 2 miles	8

10. Are you now or were you ever unable to participate in an event or obtain services in the City of Snohomish?

Answer	Count
No	20
Yes	18

11. Which of the following barriers in the public right-or-way are reasons you could not participate?

Answer	Count
Sidewalk barriers	16
No sidewalk	22
Curb ramp barriers/curb barriers	14
Pedestrian crosswalk issues	11
Pedestrian signal issues including access to push buttons	3
ADA parking not available	7
Other	2

12. What areas would be your first priority in improving pedestrian facilities?

Answer	Count
Government buildings that provide human services (Eg: City Hall, libraries, etc.)	6
Hospitals and other medical facilities	1
City parks	4
Community services (Eg: food banks)	0
Schools and institutions	2
Transit facilities (Eg: bus stops)	2
Retail services (Eg: shops, restaurants, grocery stores)	10
Neighborhoods	14

13. What areas would be your second priority in improving pedestrian facilities?

Answer	Count
Government buildings that provide human services (Eg: City Hall, libraries, etc.)	4
Hospitals and other medical facilities	2
City parks	5
Community services (Eg: food banks)	4
Schools and institutions	7
Transit facilities (Eg: bus stops)	3
Retail services (Eg: shops, restaurants, grocery stores)	8
Neighborhoods	6

Snohomish ADA Online Open House Survey Responses
August 18, 2022

Question 14: Please list up to three locations where you have experienced (or noticed) mobility challenges, accessibility challenges, trip hazards, etc. in the City of Snohomish*.

*For these open-ended questions, please provide the location/s where you have experienced challenges with pedestrian facilities as well as a description of the problem/s you encountered. For example:

Location: sidewalks on 1st Avenue, to the east of A Street.

Description: Sidewalk is raised creating a trip hazard

Location	Description
1800 pine	No sidewalk
bickford bridge	there is no pedestrian path across bickford bridge. you need to cross right against the cars and it's dangerous for anyone not in a car.
Bickford bridge	There is no pedestrian path across bickford bridge, there is the shoulder, but it is unsafe with cars traveling past
Ave A between about 5th and 10th	The sidewalks are inconsistent, sometimes on one side of the street sometimes on the other.
1st Ave sidewalk	Too uneven to maneuver electric wheelchair
Neighborhood sidewalks	Sidewalks are jagged, several have only driveways for ramp usage. More sidewalks needed along park Ave .
1st Street	Sidewalks are extremely uneven and difficult to navigate.
Ford Ave,	My wife and I have to walk/roll on the street because we have no sidewalks And no shoulder on the street we have to be in the street.
Downtown	Not enough parking. Ada or otherwise.
Bickford bridge	No safe pedestrian sidewalk/bridge to get over highway 9 to services
Sidewalks on 1st st and other locations	Tripping hazards on a lot of uneven side walks. Not level. The wheel chair ramp near the PIe place leads to tree roots. Duh.
Terrace Ave	My daughter cannot walk to school and taking the bus adds over 1.5 hours to her day. (35 min + bus ride each way, accounting for loading and waiting and we live less than 1.5 miles from her school, Emerson Elementary)
First Street sidewalks	They're a nightmare for the disabled.
13th St sidewalk, E side of entrance to Haggen parking	Too steep. Cars cut in front as I'm trying to navigate it. Several neighbors walk in street to avoid the steep transition.
Sidewalks between 18th and 22nd of Pine.	East side of street has no sidewalks or gaps in sidewalks between old and new developments
Bickford bridge over SR9	There is a lack of safe space to walk, bicycle, or guide a wheelchair in either direction. I is quite dangerous and a limiting factor for pedestrians

Snohomish ADA Online Open House Survey Responses
August 18, 2022

Location	Description
	trying to access business and services north or south of that bridge.
2000 pine	No sidewalks
west side of Ave D north of 13th	The sidewalk extends aways north of 13th, but then ends. If I want to get to businesses beyond that, I have to go clear up to the roundabout and back.
1st Ave curbs	Too high to get electric wheelchair up and down
1st Street	Not enough disabled parking, unsafe conditions for entering/exiting vehicle (rear-entry wheelchair ramp).
Corner	There are quite a few corners that don't have cut outs for wheelchair accessibility
Downtown	Stores have a raised threshold at the main entrance. This is a trip hazard and means wheelchairs cannot enter.
Ave D/Lake Ave by new roundabout at hey 9	Needs sidewalk or asphalt path w curb. Dangerous and many walk to access Ferguson park via ave D or lake mount drive
Farmers Market on Thursday.	Big hole around some kind of pipe right in the middle of the road where we walk.
Pine & Maple Intersection	Trail users do not heed their stop signs and the vehicle stop line on Pine headed north is too far back - right-of-waybecomes imposing and frustrating with added trail traffic.
crosswalk on 13th near Bartell	I'm one of the few neighbors who use the crosswalk. Most cross by sidewalk behind Haggen. I know if one death and one person with serious injuries crossing by the sidewalk.
Pine, between Christ the King and St. Michaels	No sidewalks on west side, walking trail hard to maneuver with wheelchair. Pedestrian access will become harder due to future density of Walsh Hills project. Longtime resident who remains frustrated that neither church were required to improve their stretch of road when building bigger structures. Both churches bring much more traffic to residential neighborhood more than just Sundays as one church has a weekly preschool and the other has a private school.
Crosswalks between 6th and 1st on Avenue D, and along 2nd St	The crosswalks between 6th and 1st on Ave D, as well as along 2nd St, are dangerous to use. Cars rarely stop.
Park between 17th and 19th	No sidewalks
intersection of Second and Pine	If I want to cross from The Everett Clinic to the north side of the street, I have to go indirectly, through 3 crosswalks, increasing my risk of being hit.
1st Ave shops	Entry into shops too high with no ramps to gain access
1st & 2nd Street	Unsafe crosswalks (low visibility on 1st due to parked cars), traffic is too fast and/or not paying attention (on both 1st & 2nd), not enough

Snohomish ADA Online Open House Survey Responses
August 18, 2022

Location	Description
	protection (lights or other alerts for inattentive drivers) at crosswalks.
1st street	A lot of businesses have steps to go up into them and doors not wide enough for a wheelchair
Klahaya days	I preferred the event at the field. There was enough parking. If it is in downtown again, Please bring back the shuttle. I was unable to attend this year because I couldn't park close enough
Ave d by military national guard	Needs sidewalk on military side to access food bank and Ferguson park from bus stop
Near the trailer park on Ave D.	No cross walk over to the shopping area - Hagens
Pilchuck Park	Cannot access the bathrooms (when open)
sidewalk asking 13th from Ave A to Lake View	Sidewalk is not contiguous. Hard to traverse. Also people at NW corner of A and 13th do not keep the sidewalk cleared.
16th Street between Pine and Holly Vista	No sidewalks. Impact of Walsh Hills will make this section more dangerous due to traffic volume with no sidewalks
Intersection at Maple and Pine	Hands-down, the most dangerous intersection for vehicles or pedestrians to use. Needs a light or something better.

15. What is your age? (optional)

Answer	Count
under 18	0
18 to 24	2
25 to 34	1
35 to 44	7
45 to 54	4
55 to 64	7
over 65	18

16. How do you identify yourself? (optional)

Answer	Count
African American/Black	1
Asian	1
Caucasian/White	34
Native American	2
Native Hawaiian/Pacific Islander	0
Other	0

17. Are you of Spanish, Hispanic, or Latino origin or descent? (optional)

Answer	Count
No	37
Yes	0

Appendix E: Funding Sources & Planning Cost Estimate

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Planning Level Cost Estimate - Right-of-Way

PROJECT NAME: City of Snohomish ADA Transition Plan

TG PROJECT NUMBER: 1.21325.00

NOTE: This cost estimate is planning level in nature. It should be considered preliminary and for planning purposes only. It specifically excludes structural impacts to buildings and parking structures, inflation, and sales tax. Potential items such as retaining walls, earthwork, etc., are assumed to be included in the planning level estimate contingency unless otherwise indicated.

When features require multiple improvements, the cost of the smaller component is included in the larger task. (i.e. detectable warning surface is included with curb ramp reconstruction.)

Item No.	ADA Deficiency	Improvement Type	Quantity	Unit	Unit Price	Total Price
		Sidewalk Improvements				
1	Non-compliant sidewalk (width, condition, slope, etc.)	Reconstruct existing sidewalk/paved shoulder walkway	54,067	SY	$ 150	$ 8,111,000
2	Non-compliant driveway (slope, grade break, etc.)	New driveway with sidewalk	836	EA	$ 2,900	$ 2,425,000
					Subtotal	**$ 10,536,000**
		Maintenance/Miscellaneous				
3	Non-compliant vertical discontinuity (>1/4in - <=1/2in w/out bevel)	Sidewalk grinding (5 LF of sidewalk).	848	EA	$ 250	$ 212,000
4	Non-compliant vertical discontinuity (>1/2in)	Replace two adjacent sidewalk panels (5ft x 5ft panels)	883	EA	$ 850	$ 751,000
5	Non-compliant horizontal discontinuity	Sidewalk crack sealing/grouting (5LF per occurrence)	17,455	LF	$ 10	$ 175,000
6	Fixed Obstacles	Relocation of obstacles including utility pole, mailbox, tree trunk, etc.	160	EA	$ 3,000	$ 480,000
7	Moveable Obstacles	Relocation of obstacles including tree/bush (prunable), message boards, parked cars, etc.	171	EA	$ 200	$ 35,000
8	Protruding Obstacles	Relocation of obstacles including of bush/tree, signs, awnings etc.	1,140	EA	$ 500	$ 570,000
					Subtotal	**$ 2,223,000**
		Curb Ramp Improvements				
9	Missing curb ramps	Install new curb ramp.	320	EA	$ 6,000	$ 1,920,000
10	Non-compliant ramp (running slope, cross slope, ramp width, flare slope, lip, grade break, etc.)	Remove and reconstruct existing ramp.	701	EA	$ 7,000	$ 4,907,000
11	Curb ramps without detectable warning surface (DWS), non-compliant DWS placement, non-compliant DWS depth, or non-compliant DWS Width	Install/replace detectable warning surface.	23	EA	$ 1,100	$ 26,000
					Subtotal	**$ 6,853,000**
		Pushbutton Improvements				
12	Non-APS pushbutton and pushbutton is located incorrectly.	Install new APS pushbutton AND Install new pole.	72	EA	$ 5,900	$ 425,000
13	APS pushbutton that has non-compliant dimensions and/or programming and located incorrectly.	Reprogram pushbutton, reorient pushbutton, and/or install tactile arrow AND Install new pole and relocate pushbutton.	25	EA	$ 3,700	$ 93,000
14	APS pushbutton located incorrectly.	Install new pole and relocate pushbutton.	10	EA	$ 3,500	$ 35,000
					Subtotal	**$ 553,000**

Bus Stop Improvements						
16	Non-compliant bus shelter turning space cross slope	Replace bus shelter pad (7.5 SY per occurrence).	38	SY	$ 180	$7,000
17	Non-compliant bus stop boarding area (running slope, cross slope, size, and/or condition)	Replace/construct boarding area (8ftx5ft) and two transition panels (5ftx5ft) - 10 SY per occurrence.	240	SY	$ 150	$36,000
					Subtotal	**$ 43,000**

Accessible Parking Improvements						
18	Non-compliant parking stall/parking aisle slope.	Grind surface and/or add asphalt lift.	19	EA	$ 2,000	$38,000
19	Non-compliant accessible parking stall/parking aisle width or pavement marking.	Install parking stall accessible symbol/aisle pavement markings or resize and restripe stall/aisle.	9	EA	$ 200	$2,000
20	Non-compliant sign height or no sign indicating accessible stall.	Install new sign or adjust existing sign.	11	EA	$ 100	$1,100
					Subtotal	**$ 42,000**

Total	**$ 20,250,000**
Contingency @ 20%	**$ 4,050,000**
Design @ 12%	**$ 2,430,000**
Mobilization @ 8%	**$ 1,620,000**
TESC + Traffic Control @ 12%	**$ 2,430,000**
Construction Management @ 20%	**$ 4,050,000**
Right-of-Way @ 20%	**$ 4,050,000**
Grand Total 2023 Dollars	**$ 38,880,000**

Planning Level Cost Estimate - Right-of-Way
PROJECT NAME: City of Snohomish ADA Transition Plan
TG PROJECT NUMBER: 1.21325.00
NOTE: This cost estimate is planning level in nature. It should be considered preliminary and for planning purposes only. It specifically excludes right-of-way acquisition and all associated costs, structural impacts to buildings and parking structures, and sales tax. Potential items such as retaining walls, earthwork, etc., are assumed to be included in the planning level estimate contingency unless otherwise indicated.

This planning cost estimate covers only the pedestrian features within the first stage of data collection.

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Quantity by Priority

	Low		Medium		High		Very High		
Feature	**1-15 (0-10 hazards)**	**%**	**16-30 (11-20 hazards)**	**%**	**31-45 (21-30 hazards)**	**%**	**46+ (31+ hazards)**	**%**	**Total**
Sidewalks (SY)	2,600	5%	27,730	51%	21,456	40%	2,282	4%	54,067
Driveways (EA)	308	37%	353	42%	114	14%	61	7%	836
Non-compliant vertical discontinuity (EA)	180	10%	668	39%	573	33%	310	18%	1,731
Non-compliant horizontal discontinuity (LF)	4,940	28%	6,295	36%	3,950	23%	2,270	13%	17,455
Fixed Obstacles (EA)	24	15%	58	36%	34	21%	44	28%	160
Moveable Obstacles (EA)	45	26%	65	38%	27	16%	34	20%	171
Protruding Obstacles (EA)	188	16%	536	47%	291	26%	125	11%	1,140
Curb Ramps (EA)	31	3%	134	13%	463	44%	416	40%	1,044
Pushbuttons (EA)	9	8%	8	7%	57	53%	33	31%	107
Bus Stops (SY)	10	4%	80	29%	170	61%	18	6%	278
Parking (EA)	0	0%	3	18%	9	53%	5	29%	17

Cost by Priority

	Low		Medium		High		Very High		
Feature	**1-15 (0-10 hazards)**	**%**	**16-30 (11-20 hazards)**	**%**	**31-45 (21-30 hazards)**	**%**	**46+ (31+ hazards)**	**%**	**Total**
Sidewalks (SY)	$ 390,006	5%	$ 4,159,456	51%	$ 3,218,367	40%	$ 342,261	4%	$ 8,111,000
Driveways (EA)	$ 893,200	37%	$ 1,023,700	42%	$ 330,600	14%	$ 176,900	7%	$ 2,425,000
Non-compliant vertical discontinuity (EA)	$ 91,111	10%	$ 368,667	40%	$ 299,361	32%	$ 164,167	18%	$ 924,000
Non-compliant horizontal discontinuity (LF)	$ 24,700	28%	$ 31,475	36%	$ 19,750	22%	$ 11,350	13%	$ 88,000
Fixed Obstacles (EA)	$ 72,000	15%	$ 174,000	36%	$ 102,000	21%	$ 132,000	28%	$ 480,000
Moveable Obstacles (EA)	$ 9,000	26%	$ 13,000	37%	$ 5,400	15%	$ 6,800	19%	$ 35,000
Protruding Obstacles (EA)	$ 94,000	16%	$ 268,000	47%	$ 145,500	26%	$ 62,500	11%	$ 570,000
Curb Ramps (EA)	$ 146,240	2%	$ 784,120	13%	$ 2,723,330	44%	$ 2,496,000	41%	$ 6,150,000
Pushbuttons (EA)	$ 31,500	6%	$ 29,400	5%	$ 296,700	54%	$ 194,700	35%	$ 553,000
Bus Stops (SY)	$ 1,450	3%	$ 11,600	28%	$ 25,700	61%	$ 2,800	7%	$ 42,000
Parking (EA)	$ -	0%	$ 300	1%	$ 21,500	52%	$ 19,100	47%	$ 41,000

	Low 1-15	Medium 16-30	High 31-45	Very High 46+	Total
Total	$ 1,754,000	$ 6,864,000	$ 7,189,000	$ 3,609,000	$ 19,416,000
Contingency @ 20%	**$ 351,000**	**$ 1,373,000**	**$ 1,438,000**	**$ 722,000**	**$ 3,884,000**
Design @ 12%	**$ 211,000**	**$ 824,000**	**$ 863,000**	**$ 434,000**	**$ 2,331,000**
Mobilization @ 8%	**$ 141,000**	**$ 550,000**	**$ 576,000**	**$ 289,000**	**$ 1,554,000**
TESC + Traffic Control @ 12%	**$ 211,000**	**$ 824,000**	**$ 863,000**	**$ 434,000**	**$ 2,331,000**
Const. Management @ 20%	**$ 351,000**	**$ 1,373,000**	**$ 1,438,000**	**$ 722,000**	**$ 3,884,000**
Right-of-way @ 20%	**$ 351,000**	**$ 1,373,000**	**$ 1,438,000**	**$ 722,000**	**$ 3,884,000**
Grand Total	$ 3,370,000	$ 13,181,000	$ 13,805,000	$ 6,932,000	**$ 37,287,000**

Appendix F: Accessible Pedestrian Signal (APS) Policy

City of Snohomish - Policy for Installation of Accessible Pedestrian Signals and Pushbuttons

Intent:

It is the City's intention to be consistent with the most current version of the Public Right of Way Access Guidelines (PROWAG) in the provision of and location of accessible pedestrian signals and pushbuttons (APS) at traffic signals. Further guidance is available in 28 CFR Part 35 and Manual on Uniform Traffic Control Devices (MUTCD) section 4E.08 through 4E.13.

Purpose:

The purpose of this plan is to establish a reasonable and consistent policy for installing APS.

Scope:

1. *Requests*: Requests for APS systems from the public will be responded to in a timely manner and the consideration for installation will be done in accordance with applicable sections of the ADA.

2. *New construction*: New construction of traffic signal projects requires installation of APS and associated accessible features when pedestrian signals are installed.

3. *Alterations:* When the signal controller and software are altered, the pedestrian signal head is replaced, or pedestrian detectors are replaced, the existing pedestrian signals shall be upgraded to APS on poles in accessible locations.

4. *Curb ramp replacement at traffic signals*: Altering or replacing curb ramps does not require installation of APS unless the curb ramp cannot be altered or replaced without the alteration, installation or replacement of any pole to which a pedestrian pushbutton is attached. Then, installation of APS on poles in accessible locations is required.

5. In addition to the above conditions, APS will be installed through fulfillment of the City's obligations to complete its ADA Transition Plan.

Installation of APS is not required, unless otherwise noted, under the following conditions, but is recommended when inclusion in the project scope is possible:

1. *Minor work and routine maintenance at traffic signals:* Projects including but not limited to: emergency repairs, vehicular detection installation and repairs, installation and repair of CCTV or other cameras, vehicular signal head upgrades and repairs, and repair of pedestrian detection do not require installation of APS and associated accessible features.

2. *Signal timing changes:* Updating signal timing including cycle length, splits, offsets, and pedestrian clearance times do not require installation of APS and associated accessible features.

Appendix G: Grievance Procedure

ADA Grievance Procedure

It is the intent of the City of Snohomish to expediently and equitably resolve issues concerning barriers to persons with disability or alleged discrimination toward persons with disability, in employment practice or in the provision of services provided by the City.

City Administrator

The City Administrator is responsible to hear and/or cause investigation of any question or concern by a member of the public or employee regarding discriminatory practices in the provision of services, barriers to accessibility to services or employment practices. A decision of the City Administrator will be rendered within 15 working days of receipt of complaint.

Review Board

The City Administrator may, at his/her discretion, request a review board to be convened, for the purpose of hearing and investigating any issue of accessibility or discriminatory practices filed with the City Administrator. The City Administrator will determine on a case-by-case basis when the City Review Board will be convened, and shall forward the issue to the Board for their investigation and recommendation.

The City Review Board will consist of two Department Directors, two employee representatives and the Human Resources Manager. All members will be appointed by the City Administrator, with the exception of the standing appointment of the Human Resources Manager. The investigation and written recommendation of the City Review Board will be completed within 15 days of receipt of the complaint by the City Administrator.

ADA Compliance Committee

If the complaint cannot be resolved to the satisfaction of the City Administrator, the City Administrator may request advice from a committee comprised of members of the disabled community, business or non-profit sectors, educators or health/medical professionals.

Alternative Remedies

The individual's right to prompt and equitable resolution of the complaint must not be impaired by his/her pursuit of other remedies, such as the filing of a complaint with the U.S. Department of Justice or other appropriate federal or state agency. Furthermore, the filing of a lawsuit in state or federal district court can occur at any time. The use of this complaint resolution procedure is not a prerequisite to the pursuit of other remedies.

Recordkeeping and Public Proceedings

A record of action taken on each request or complaint must be maintained as part of the record or minutes at each level of the investigation and resolution process. Hearings for the purposes of investigation of the facts of the complaint shall be conducted in accordance with all applicable public meeting requirements, including reasonable notice to the complainant of the date, time and location of the hearing.

Appendix H: Maximum Extent Feasible (MEF) Documentation Template

Maximum Extent Feasible (MEF) Template

Project Description

Highway/Building Parameters

- Roadway Classification:
- Design Speed/Posted Speed:
- Design Year ADT:
- Truck Percentage:
- Access Control:
- Building Type:
- Facilities Provided in Building:

Existing Pedestrian Facilities – general description (for new construction projects include a summary of the project pedestrian study)

Pedestrian Design Standards – cover the following subjects

- Discuss the criteria that apply to the pedestrian elements on the project that will be built to the Maximum Extent Feasible
- Include reference(s) to the appropriate PROWAG/ADA section(s) and City Public Works Standards [including revision date]

Alternative(s) analysis - needed for new construction projects only

Proposal – cover the following subjects

- What features will remain that meet guidelines
- What features are being built to guidelines
- What is being built to the maximum extent feasible

Justification

- Discussion of what constraints/challenges there are to meet full design level
- See worksheet

Additional Benefits – new construction projects

Attachments

MEF Template – Public Right-of-Way Alteration Project Example

Project Description

This Alteration project will mill & fill SR "A" (from edge line to edge line) with 0.15' HMA (Class 1/2" PG 64-22) from MP 4.03 to 4.45 and from MP 4.71 to 6.89. This project will overlay the roadway (from edge of pavement to edge of pavement) with 0.20' HMA (Class 1/2" PG 64-22) from MP 4.45 to 4.71. There is no proposed paving on the County Roads.

Highway Parameters

- Roadway Classification: Non-NHS, U-1, Urban Principal Arterial.
- Funding Program: P1 – Paving
- Posted/Design Speed: Mainline - 55/60 mph
- Average Daily Traffic: 25,000 (per Project Definition)
- Truck %: 9% (per Traffic Operations)
- Access Management Classification: Currently classified as Managed Access Class 3. On Master Plan for Modified Limited Access

Existing Pedestrian Facilities

There are five curb ramps and eight sidewalk ramps (from sidewalk to shoulder) located along SR "A" within the paving limits of this project. All five curb ramps and seven of the eight sidewalk ramps do not meet current ADA standards. One sidewalk ramp is located north of the "X" Street intersection (east side – E1, meets guidelines) at the north end of the sidewalk.

There are curb ramps and sidewalk ramps located at the four corners of the "Y" Avenue signalized intersection. Pedestrians can cross this intersection via six curb ramps and four marked crosswalks.

There are curb ramps and sidewalk ramps located at the southwest and northwest corners of the "Z" Way signalized tee intersection. Pedestrians can cross this intersection via three curb ramps and two marked crosswalks. There is one unmarked crossing on SR "A" located at the north side of this intersection. The unmarked crossing meets ADA standards, but the curb ramp located at the west side of the unmarked crossing does not meet ADA standards. This curb ramp is for the marked crosswalk on "Z" Way, is outside of our paving limits, and will not be addressed.

Pedestrian Design Standards

<u>Curb Ramps – Landing, PROWAG 2005 R303.2.1.3</u>

The cross slopes of a curb ramp landing shall be 2% maximum.

This also implies that the gutter slope adjacent to a curb ramp landing shall be 2% maximum.

Proposal

<u>Curb Ramps and Ramps (from sidewalk to shoulder)</u>

North of the "X" Street intersection (west side - W4)

This sidewalk ramp will be upgraded to meet City standards.

"Y" Avenue Intersection

Three of the four proposed curb ramps and all four proposed sidewalk ramps at the "Y" Avenue intersection meet current City standards. Proposed curb ramp "Y" Avenue SW2, located at the southwest corner, is designed to the maximum extent feasible.

Proposed curb ramp "Y" Avenue SW2 will maintain its current landing location to accommodate two crosswalks. All curb ramp elements will meet current City standards, except for the proposed gutter slope (4.4%) and landing cross slope (5.0%). These two elements will maintain the existing gutter slope >2%.

"Z" Way Intersection

The two proposed sidewalk ramps at the "Z" Way intersection meet current City standards. Proposed curb ramp "Z" Way SW2, located at the southwest corner, is designed to the maximum extent feasible.

Proposed curb ramp "Z" Way SW2 will maintain its current landing location to minimize the gutter slope and landing cross slope. All curb ramp elements will meet current City standards, except for the proposed gutter slope (7.4%) and landing cross slope (7.9%). These two elements will maintain the existing gutter slope >2%.

Justification

To construct the curb ramps to be 100% compliant would require re-profiling the existing roadway. This type of major reconstruction is not feasible in this type of Alteration project.

To construct the curb ramps while maintaining the existing profile of the roadway would require rebuilding the roadway adjacent to the proposed curb ramps. The rebuilt roadway would not eliminate the transition from the 2% cross slope of the curb ramps as it matches into the steeper cross slopes of the existing crosswalks but would simply move the transition further into the active traveled roadway. The result would be a grade change transition within the driving lane that would be undesirable.

Attachments

Vicinity Map

Spreadsheet

Curb Ramp Geometrics

Plan Sheets

Appendix I: Terminology

ADA Terminology

Accessible Pedestrian Signals. A device that communicates information about pedestrian signal timing in non-visual format such as audible tones, speech messages, and/or vibrating surfaces.

Barrier. Obstacle that prevents movement or access.

Cross Slope. The slope that is perpendicular to the direction of travel (see running slope).

Curb Ramp. A short ramp cutting through a curb or built up to it.

Detectable Warning. A standardized surface feature built in or applied to walking surfaces or other elements to warn of hazards on a circulation path. Also known as "truncated domes".

Fixed Obstacles. Obstacles in pathways that cannot be moved without significant changes to the existing infrastructure.

Grade Break. Location where a pathway's slope changes.

Hazard. Miscellaneous barrier along a pedestrian circulation route.

Maximum Extent Feasible. The situation in which the nature of an existing building or facility makes it virtually impossible to comply fully with accessibility standards.

Moveable Obstacles. Obstacles in pathways that can be moved without significant changes to the existing infrastructure.

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.

Ramp. A walking surface that has a running slope steeper than 1:20.

Running Slope. The slope that is parallel to the direction of travel (see cross slope).

Ramp Flare. Transitions the curb line to the elevation of the street.

Stakeholder. Focused group of the general public with interest in outreach efforts.

Turning Space. Area that provides maneuvering space at the top/bottom of a ramp.

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