

# OFF-SITE IMPROVEMENTS

## A DEEPER DIVE

August 12, 2021

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Planning and Development Services

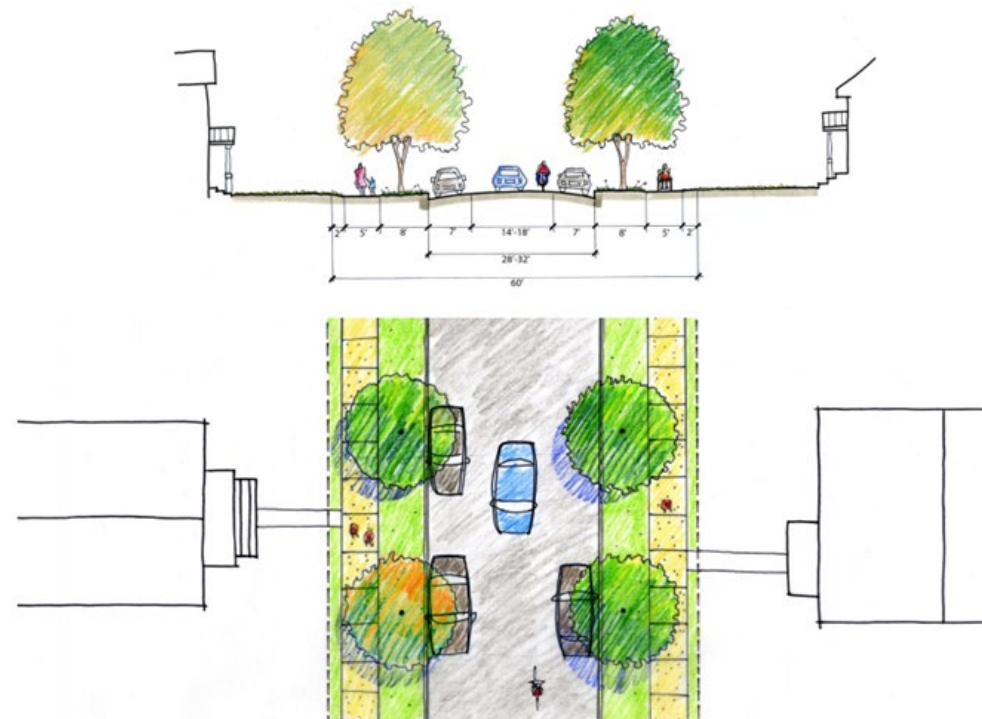
Site and Building

Commercial Site Review

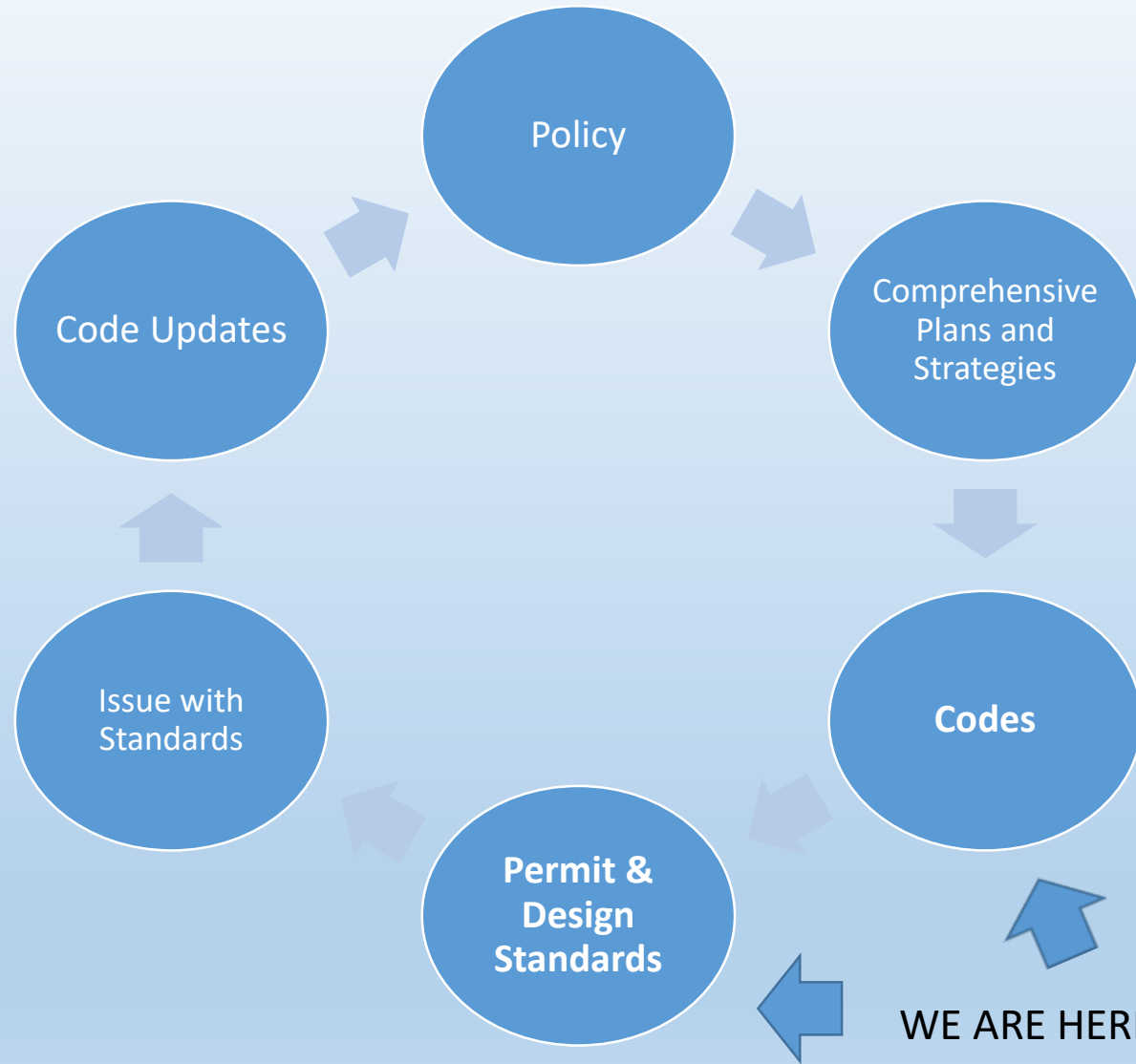
# OFF-SITE IMPROVEMENTS

- **Curb Ramps**
- **Sidewalks**
- Driveways
- Parking
- Alley Paving
- Street Restoration
- New Services (Sewer, Water, Power)
- Trees and Landscaping
- Retaining Walls
- Environmental
  - Stormwater
  - Critical Areas
  - Solid Waste

Figure 2.2: Standard Residential Street



Drawings are for illustrative purposes only.



**Off-site Requirements  
and Plan Review  
Process**

**Manuals and Best  
Professional Practice**



# TMC 2.0 – Building and Development code - Permits Required

## 2.01.050 Administration and Process.

K. Permits. No person, firm, or corporation shall erect, construct, enlarge, alter, repair, move, improve, remove, convert, or demolish any building or structure, or cause or permit the same to be done, **without first obtaining all permits required by the Tacoma Municipal Code** and the laws of the state of Washington. The owner or their agent **shall obtain all required permits prior to the work** being performed. The timeframe of the permits may be conditioned in accordance with the timeframes agreed upon in the negotiated repair schedule.

## 2.19.030 Site Development Standards and Permit Requirements

### B. Permit Requirements.

1. Permit Requirements. Except as specified below, no person shall grade clear, pave, level, alter, construct, repair, remove or excavate, soils, pavement, walkways, vaults, private side sewers, private storm drainage facilities, or other site improvements in the City of Tacoma **without first having obtained a Site Development Permit**. The Director of Planning and Development Services, or designee, shall have the authority to determine if a permit is required for all other activities.

2.22.030 Permit Requirements. A. Permit Requirements. **All construction and maintenance activities shall require a permit** as outlined in TMC 10.22.050.



# Scenario



Find Address, PIN or Doc

Fern Hill Elementary School

R2-STGPD

S 86th St

S 86th St

S 86th St

15,982.7sq ft  
506.8'

App State

Click to restore the map extent and layers visibility where you left off.



# Share Bluebeam Off-site





# Permitting

**Our Why - Ensure Public Health, Safety and General Welfare!**





# International Building Code (IBC) - Preface

“Is a model code that provides the minimum requirements to **safeguard the public health, safety and general welfare of the occupants of new and existing buildings and structures.**”



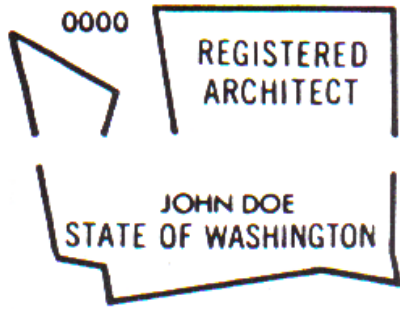


# TMC 2.0 – Building and Development Code

- 2.02.020 Purpose.

The State Legislature has established the State Building Code applicable throughout all cities and counties in the State of Washington for **the purpose of promoting the health, safety, and welfare of the occupants or users of buildings and structures and the general public.** Accordingly, this Chapter is designed to effectuate the following purposes, objectives, and standards of the State Building Code:

- A. To require minimum performance standards and requirements for construction and construction materials, consistent with accepted standards of engineering, fire, and life safety;
- B. To require standards and requirements in terms of performance and nationally accepted standards;
- C. To permit the use of modern technical methods, devices, and improvements;
- D. To eliminate restrictive, obsolete, conflicting, duplicating and unnecessary regulations and requirements which could unnecessarily increase construction costs or retard the use of new materials and methods of installation or provide unwarranted preferential treatment to types or classes of materials or products or methods of construction;
- E. To provide for standards and specifications for making buildings and facilities accessible to and usable by physically disabled persons; and
- F. To consolidate within each authorized enforcement jurisdiction, the administration and enforcement of building codes.



# Professional Licensure



- **RCW [18.08.235](#)**
- **Legislative findings—1985 c 37.**
- The legislature finds that **in order to safeguard life, health, and property and to promote the public welfare**, it is necessary to regulate the practice of architecture.
- **RCW [18.43.010](#)**
- **General provisions.**
- **In order to safeguard life, health, and property, and to promote the public welfare**, any person in either public or private capacity practicing or offering to practice engineering or land surveying, shall hereafter be required to submit evidence that he or she is qualified so to practice and shall be registered as hereinafter provided; and it shall be unlawful for any person to practice or to offer to practice in this state, engineering or land surveying, as defined in the provisions of this chapter, or to use in connection with his or her name or otherwise assume, use, or advertise any title or description tending to convey the impression that he or she is a professional engineer or a land surveyor, unless such a person has been duly registered under the provisions of this chapter.



## 2.22.040 Off-site Improvement Requirements.

### A. Scope and Intent.

1. The intent of this code is to **consider the health, safety and general welfare of the public.** Development shall not impact City Right-of-Way inconsistent with the most applicable current City codes and standards. In addition, development shall not impact adjacent and/or downstream property owners in a detrimental manner.
2. Proposed improvements **shall require the submittal of plans completed by a professional civil engineer and/or surveyors licensed** in the state of Washington consistent with the state licensure requirements and engineering best practice. In addition, all work shall be compliant with the City of Tacoma design requirements and using City of Tacoma benchmarks for surveying.





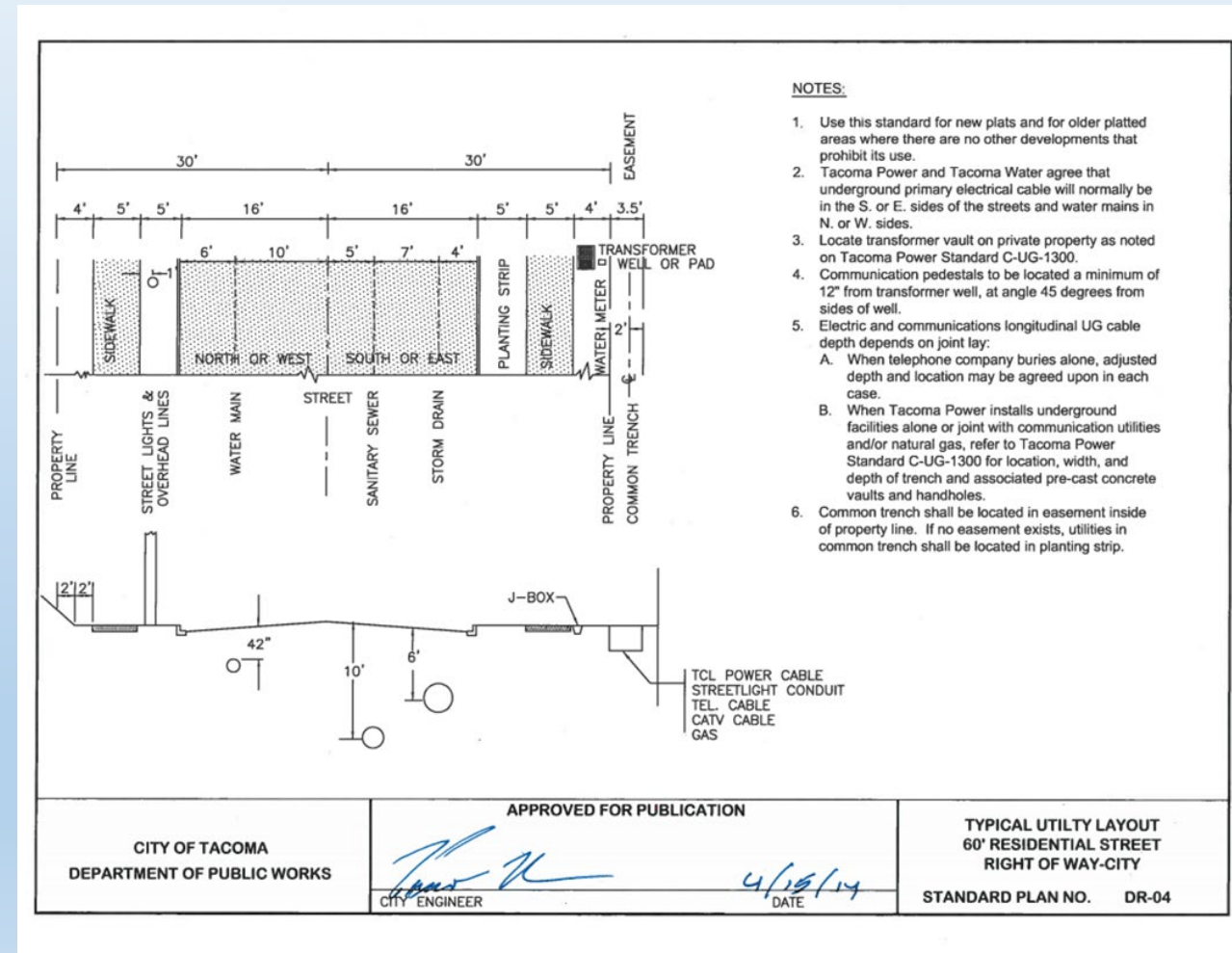
## 2.22.040 Off-site Improvement Requirements.

### B. Off-site Improvements.

1. Off-site improvements **shall be required for all New Construction, Additions, Site Uses, Change of Occupancies** as defined in the International Existing Building Code, Moved Buildings, and Remodels/Alterations to existing buildings. Projects involving more than one project type (New Construction, Additions, Change of Occupancy, and Remodel/Alteration) shall apply the most restrictive criteria in Table 2.22.1.
2. The Director of Planning and Development Services, or designee, is authorized to establish and modify or eliminate the offsite improvement requirements shown in Table 2.22.1 for individual cases where there are practicable difficulties involved in implementation of the requirements of this code. **The Director of Planning and Development Services, or designee, shall determine the order of preference when determining off-site improvement requirements, considering health, safety, and welfare, along with environmental protections as the primary objectives.** Secondary objectives may include considerations for transportation corridors and proximity to schools and parks. Although a maximum level of off-site improvements that may be imposed by project type is shown in Table 2.22.1, this limitation shall not apply to any additional improvements for projects that have requirements imposed by a SEPA, Conditional Use Permit, or other conditioning documents. **Nor does it absolve the property owner of the responsibility to repair any damaged or defective sidewalk.**

## 2.22.040.B Off-site Improvement Requirements.

3. Off-site improvements, as defined in TMC 2.19.020, shall be constructed to conform to **City of Tacoma Standards** as defined by, but not limited to, the City of Tacoma's most current: Right-of-Way Design Manual; Right-of-Way Restoration Policy; Stormwater Management Manual; and/or Side Sewer and Sanitary Sewer Availability Manual.





## 2.22.040.B Off-site Improvement Requirements.

4. The following off-site improvement requirements shall apply to all applicable project types listed in Table 2.22.1.

b. Off-site improvements are dependent on the project type and threshold listed in Table 2.22.1, and shall require the development of cement concrete curb and gutter, **sidewalks, curb ramps**, paving, safety measures, other right-of-way elements and drainage of all dedicated streets along the lot frontages, except, in cases where the topography or other conditions make it impractical

# Table 2.22.1 – Off-site Improvement Determinations

**Table 2.22.1 Off-site Improvement Determinations<sup>(1)</sup>**

Project Type	Threshold	Off-site Improvement Requirement <sup>(2, 4)</sup>
<b>New Construction</b>		
Commercial <sup>(3)</sup>	All new and moved buildings	No limit defined. Off-site improvements pursuant to Section 2.19.040.C.2 and as determined by the Director of Planning and Development Services, plus all utility construction or relocation and installation of safety mitigation measures.
Single family and two family dwellings	All new and moved buildings	No limit defined. Offsite improvements as determined by the Director of the Planning and Development Services. Fee In-lieu available pursuant to Section 2.19.040.D.

Costs for utility construction or relocation and safety mitigation measures shall not be included in the owner's/developer's percentage of off-site improvement requirements. Off-site improvement requirements contributing to the percentage shall include, but not be limited to: street paving, concrete curbs and gutters, asphalt wedge curb, sidewalks, driveways, and curb ramps.

The Remodel Valuation limit shall be defined as the estimated construction cost of the project submitted by the contractor or owner at time of permit submittal as a percentage of the most recent version of the International Code Council Building Valuation Data. The estimate shall detail all major cost elements of the project. The remodel valuation limit shall not apply to projects that have requirements imposed by a SEPA, Conditional Use Permit, or other conditioning document.

Determination of the off-site improvement cost maximum limitation shall be for the finished construction costs not including soft costs (Permitting, Engineering, Inspection, etc.).

(Ord. 28701 Ex. A; passed Nov. 17, 2020)

## Tacoma Municipal Code

Project Type	Threshold	Off-site Improvement Requirement <sup>(2, 4)</sup>
Single family and two family accessory structures and garages		None required; Access to property shall be in accordance with Section 2.19.C.2(c).
<b>Additions</b>		
Commercial - Large <sup>(3)</sup>	50% or greater than building area	No limit defined. Off-site improvements pursuant to Section 2.19.040.C.2, and as determined by the Director of Planning and Development Services, plus all utility construction or relocation and installation of safety mitigation measures.
Commercial - Small <sup>(3)</sup>	Less than 50% of building area	Off-site Improvement Requirements up to approximately 10% of Addition Valuation.
Single family and two family dwelling	Additions	None required; Access to property shall be in accordance with Section 2.19.040.C.2(c), and compliance with Section 2.19.040.C.2(d).
<b>Change of Occupancy</b>		
Large <sup>(3)</sup>	Change of Occupancy to 50% or greater of the building area	Off-site Improvement Requirements up to the greatest of either: a. 10% of Remodel Valuation <sup>(3)</sup> b. 10% of the change to the building valuation based on the most current ICC Building Valuation table. Fee In-lieu available pursuant to Section 2.19.040.D.
Small <sup>(3)</sup>	Change of Occupancy to greater than 10% but less than 50% of the building area	Off-site Improvement Requirements up to the greatest of either: a. 5% of Remodel Valuation <sup>(3)</sup> b. 5% of the change to the building valuation based on the ICC Building Valuation. Fee In-lieu available pursuant to Section 2.19.040.D.
Exceptions	Change of use to: a. Live/work occupancy for up to 10 dwelling units; b. Work/live use for buildings less than 30,000 square feet (2787 m2)	None required
<b>Remodel/Alterations</b>		
Large <sup>(3)</sup>	Remodel Valuation 50% or greater than ICC Building Valuation	Off-site Improvement Requirements up to approximately 10% of Remodel Valuation <sup>(3)</sup> Fee In-lieu available pursuant to Section 2.19.040.D.
Small <sup>(3)</sup>	Remodel Valuation greater than 10% but less than 50% of ICC Building Valuation	Off-site Improvement Requirements up to approximately 5% of Remodel Valuation <sup>(3)</sup> Fee In-lieu available pursuant to Section 2.19.040.D.
Exception	Remodel Valuation less than 10% of ICC Building Valuation	Off-site improvements may be required at the discretion of the Director of Planning and Development Services.
Exception	Water or Fire Damages repairs that are valued at less than 50% of the ICC Building Valuation	None required

Limits listed are approximate, and the Director of Planning and Development Services, or designee, may impose additional requirements as needed to protect the health, safety, and general welfare of the public.





# Flow Chart to Table 2.22.1

<https://tacomapermits.org/wp-content/uploads/2018/09/Flowchart-for-off-site-improvements.pdf>



## 2.22.040 Off-site Improvement Requirements.

C. Fee In Lieu of. Upon approval of the Director of Planning and Development Services, or designee, a fee may be paid in lieu of construction of the required off-site improvements. In addition, the Director of Planning and Development Services, or designee, shall determine the eligible off- site improvements and fee in lieu amount. The fees shall be paid at the time of permit issuance and deposited in the Fee In Lieu of Off-site Improvements Fund.

# TMC 10.22 Rights-of-Way

## 10.22.010

B. Objectives. Public and private uses of Rights-of-Way for location of Facilities employed in the provision of public services should, in the interests of the general welfare, be accommodated; however, **the City must ensure that the primary purpose of the Rights-of-Way and passage of pedestrian and vehicular traffic is maintained to the greatest extent possible.** The use of the Rights-of-Way will not unreasonably limit or encroach upon the public's right to travel on said Rights-of-Way or the ancillary right to occupy said Rights-of-Way for utility purposes. In addition, the value of other public and private installations, roadways, Facilities, and properties should be protected; competing uses must be reconciled; and the public safety preserved. The use of the Rights-of-Way corridors by private users is secondary to these public objectives and the movement of traffic. This chapter is intended to strike a balance between the public need for efficient, safe transportation routes and the use of Rights-of-Way for location of Facilities by public and private entities. It, thus, has several objectives:

1. **To ensure that public safety is maintained and that public inconvenience is minimized;**
2. To protect the City's Infrastructure investment by establishing repair standards for the pavement, Facilities, and property in the Rights-of-Way, when Work is accomplished;
3. To facilitate Work within the Rights-of-Way through the standardization of regulations, by establishing clear and nondiscriminatory local guidelines, standards, and time frames for the exercise of local authority with respect to the regulation of the use of Rights-of-Way, and permit and manage reasonable access to the Rights-of-Way on a competitively neutral basis;
4. **To maintain an efficient Permit process** and assure that the City's current and ongoing costs of granting and regulating private access to and use of the Rights-of-Way are fully paid by the Persons seeking such access and causing such costs;
5. To conserve the limited physical capacity of the Rights-of-Way held in public trust by the City;
6. To establish a public policy for enabling the City to discharge its public trust consistent with the evolving federal and state regulatory policies, industry competition, and technological development;
7. To promote cooperation among the Permittees and the City in the occupation of the Rights-of-Way, and Work therein, in order to (a) eliminate duplication that is wasteful, unnecessary, or unsightly; (b) lower the Permittee's and the City's costs of providing services to the public; and (c) minimize street cuts; and
8. To assure that the City can continue to fairly and **responsibly protect the public health, safety, and welfare**

# TMC 13.0 Land Use Code

## 13.04.090 Short plat/short subdivision procedures.

### E. Approval.

The Director or designee shall review the proposed preliminary short subdivision application. The preliminary short plat shall not be approved unless it is found that:

1. Appropriate provisions are made **for the public health, safety, and general welfare;** and for open spaces; stormwater management, streets or roads; alleys; bike routes; other public ways; transit stops; potable water supplies; sanitary wastes; parks and recreation; playgrounds; schools and school grounds; and all other relevant facilities, **including sidewalks and other planning features that assure safe walking conditions** for students who walk to and from school and for transit patrons who walk to bus stops or commuter rail stations.
2. The public use and interest will be served by the platting and dedication of such subdivision and dedication as set forth by the Comprehensive Plan and other adopted City ordinances, manuals, design specifications, plans, goals, policies, and guidelines.





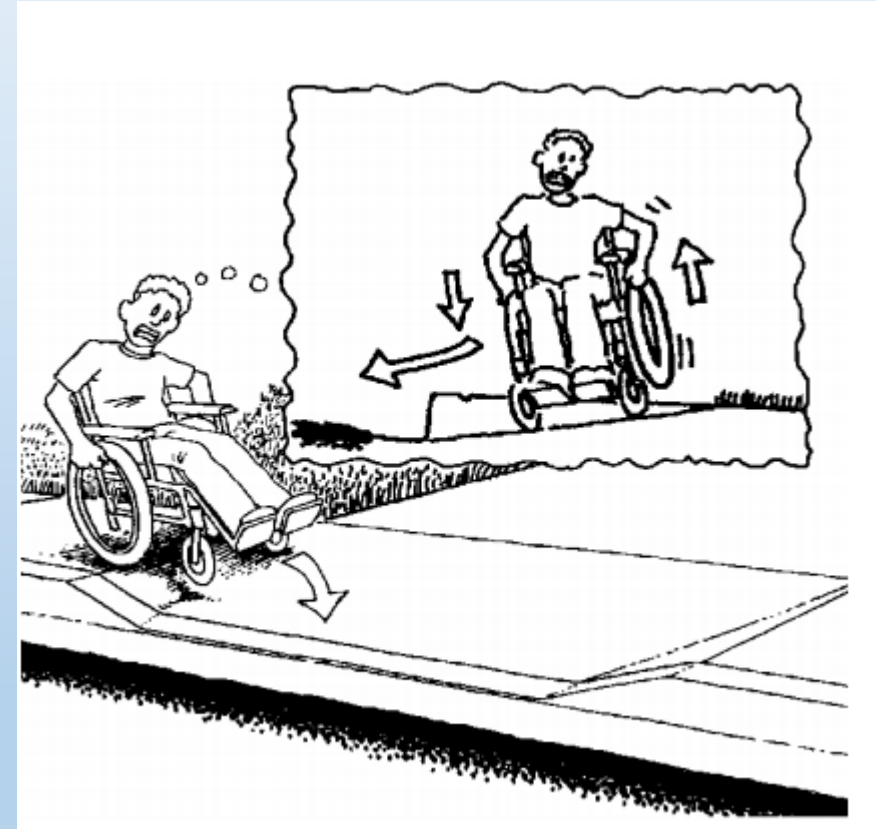


# Americans with Disabilities Act - Ramps

When and Why does the City require new or updated ADA Ramps?

[DOJ DOT Joint Technical Assistance<sup>1</sup> on the Title II of ADA - Civil Rights | Federal Highway Administration](#)

[Public Rights-of-Way Accessibility Guidelines \(PROWAG\)](#)



# Where must curb ramps be provided?

- **Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb.** Curb ramps must be located to ensure a person with a mobility disability can travel from a sidewalk on one side of the street, over or through any curbs or traffic islands, to the sidewalk on the other side of the street. However, the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use. Nor are curb ramps required in the absence of a curb, elevation, or other barrier between the street and the walkway.

Note: Intersections are pedestrian crossing and thereby need curb ramps.

# Curb Ramp Installation Matrix

[ADA Design Guidance - City of Tacoma](#)

## Section 1: Definition of a Curb Ramp

### Definitions: Curb Ramp

**Curb Ramp:** A ramp that cuts through or is built up to the curb. Curb ramps can be perpendicular or parallel, or a combination of parallel and perpendicular ramps.

**Ramp:** A walking surface with a running slope steeper than 20H:1V (5%).

**Running Slope:** A slope measured in the direction of travel, normally expressed as a percent.

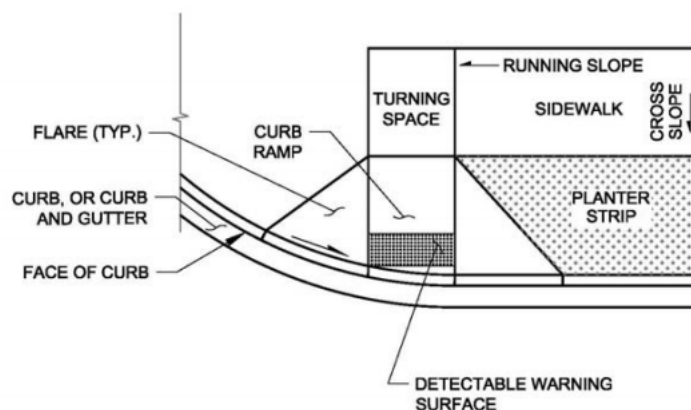
**Cross Slope:** The grade that is perpendicular to the direction of pedestrian travel.

**Turning Space:** A level paved area, within or at top and bottom of a stair or ramp, designed to provide turning and maneuvering space for wheelchair users and as a resting place for pedestrians.

### Detectable

**Warning Surface:** A tactile surface feature of truncated dome material built into or applied to the walking surface to alert persons with visual impairments of vehicular ways.

Federal yellow is the color used on City of Tacoma projects to achieve visual contrast. Colors other than federal yellow that meet the light-on-dark/dark-on-light requirements may be used at the approval of the ADA Coordinator.

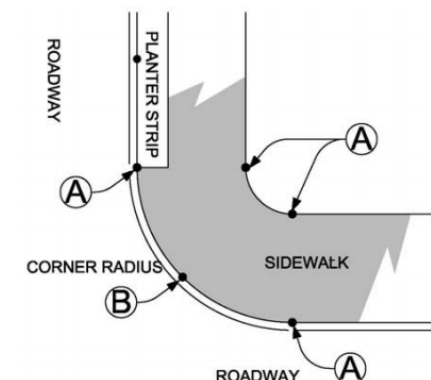


### Definitions: Corner Radius

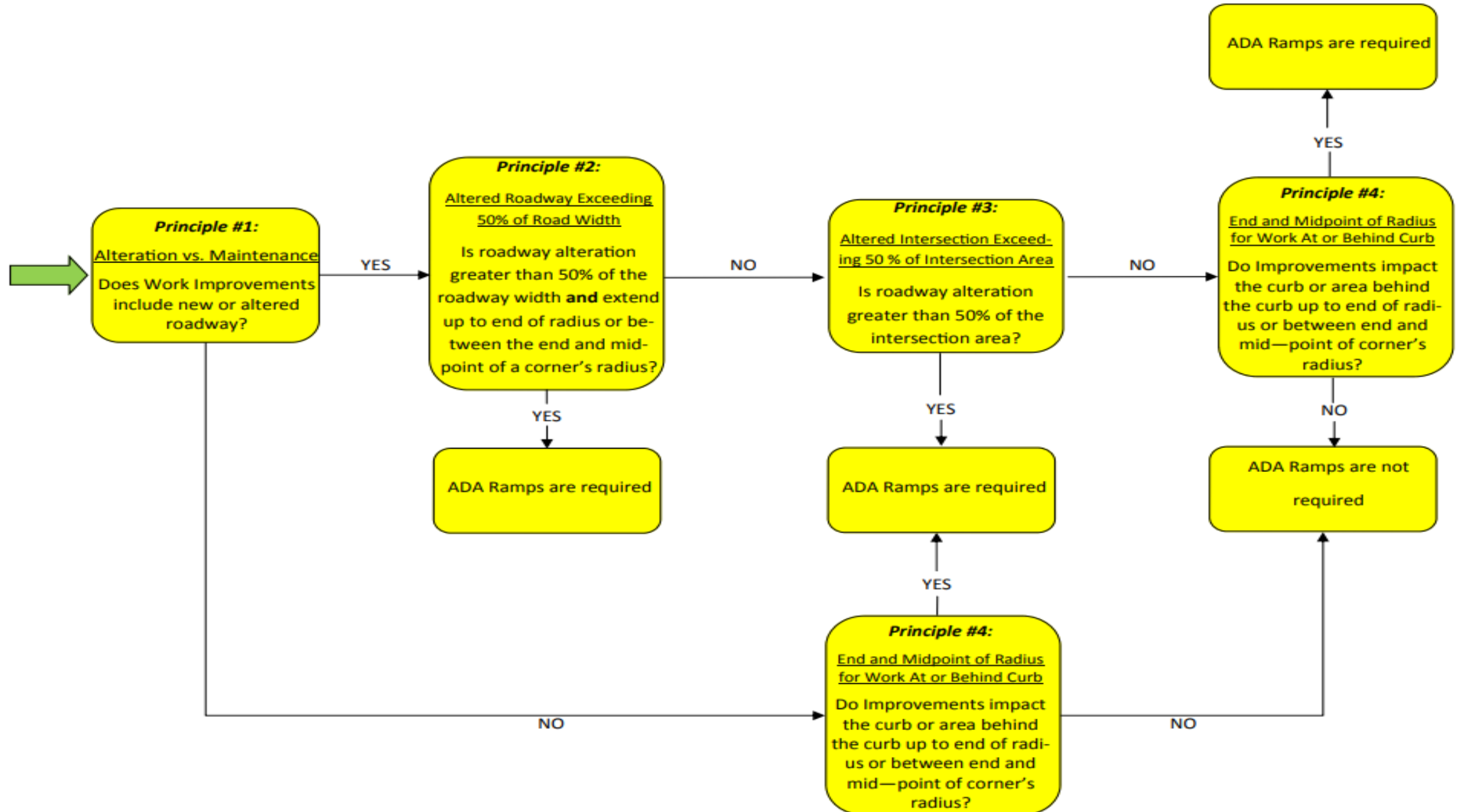
**Corner Radius:** A circular area having an extent determined by the length of the radius from a given or specified central point.

**A End of Radius (ER):** the beginning or ending of a radius.

**B Mid-Point of Radius (MP):** The middle of a radius central between two End of Radius points.



## Section 4: ADA Curb Ramp Matrix Flow Chart







# Section 3: The Four Guiding Principles

- **Principle #1: Alterations vs. Maintenance**
- Principle #2: Altered Roadway Exceeding 50% of Road Width
- Principle #3: Altered Intersection Exceeding 50% of Intersection Area
- **Principle #4: End and Midpoint of the Radius for Work At or Behind the Curb**

**What is the difference between Alteration and Maintenance Activities? Here are some examples:**

Alteration vs. Maintenance	
Alteration	Maintenance
<ul style="list-style-type: none"><li>• HMA Resurfacing<ul style="list-style-type: none"><li>• Overlay</li><li>• Mill and Fill</li><li>• Thin lift overlays</li></ul></li><li>• Reconstruction<ul style="list-style-type: none"><li>• Full depth reclamation</li><li>• Cold-in-Place Recycling</li></ul></li><li>• Rehabilitation<ul style="list-style-type: none"><li>• Full slab jacking</li><li>• Slab jacking</li><li>• widening</li></ul></li><li>• Open Graded Friction Course</li><li>• Microsurfacing</li><li>• Cape Seal (chip seal in comb. w/ either slurry seal or microsurface applied on top)</li><li>• In-Place asphalt recycling</li></ul>	<ul style="list-style-type: none"><li>• Crack Sealing</li><li>• Surfacing sealing w/ liquid asphalt</li><li>• Chip Seal (by itself, not a cape seal)</li><li>• Slurry Seal (by itself, not a cape seal)</li><li>• Fog seal</li><li>• Scrub sealing</li><li>• Joint crack seals (routing prior to crack seal)</li><li>• Dowel bar retrofits</li><li>• Spot high friction treatments</li><li>• Diamond Grinding</li><li>• Pavement patching (either full or partial depth)</li></ul>

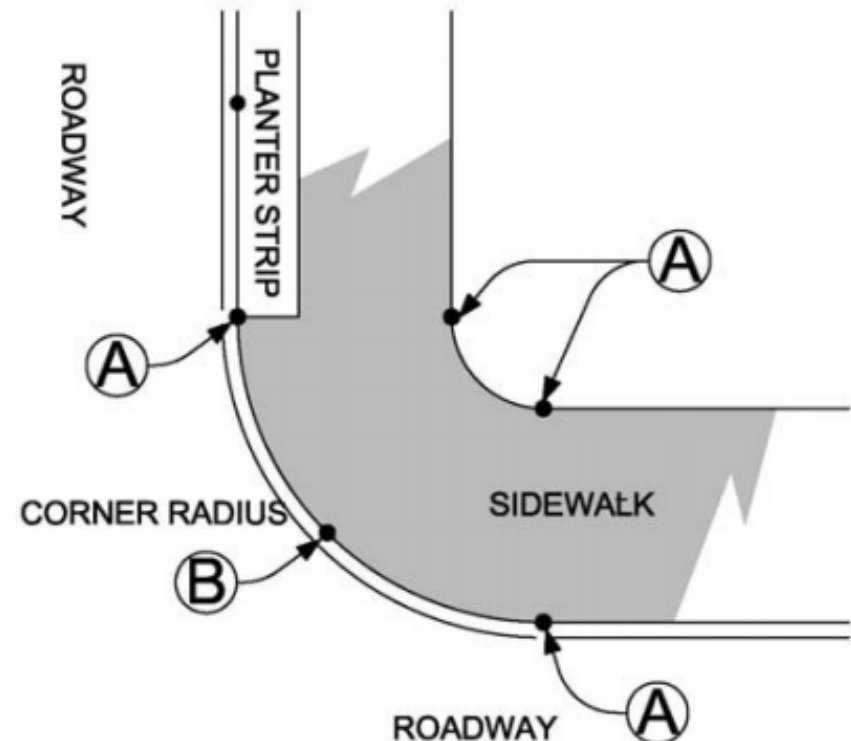
Source: Department of Justice/Department of Transportation Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing. This document as well as a glossary of terms can be found on the City of Tacoma Project Development website.

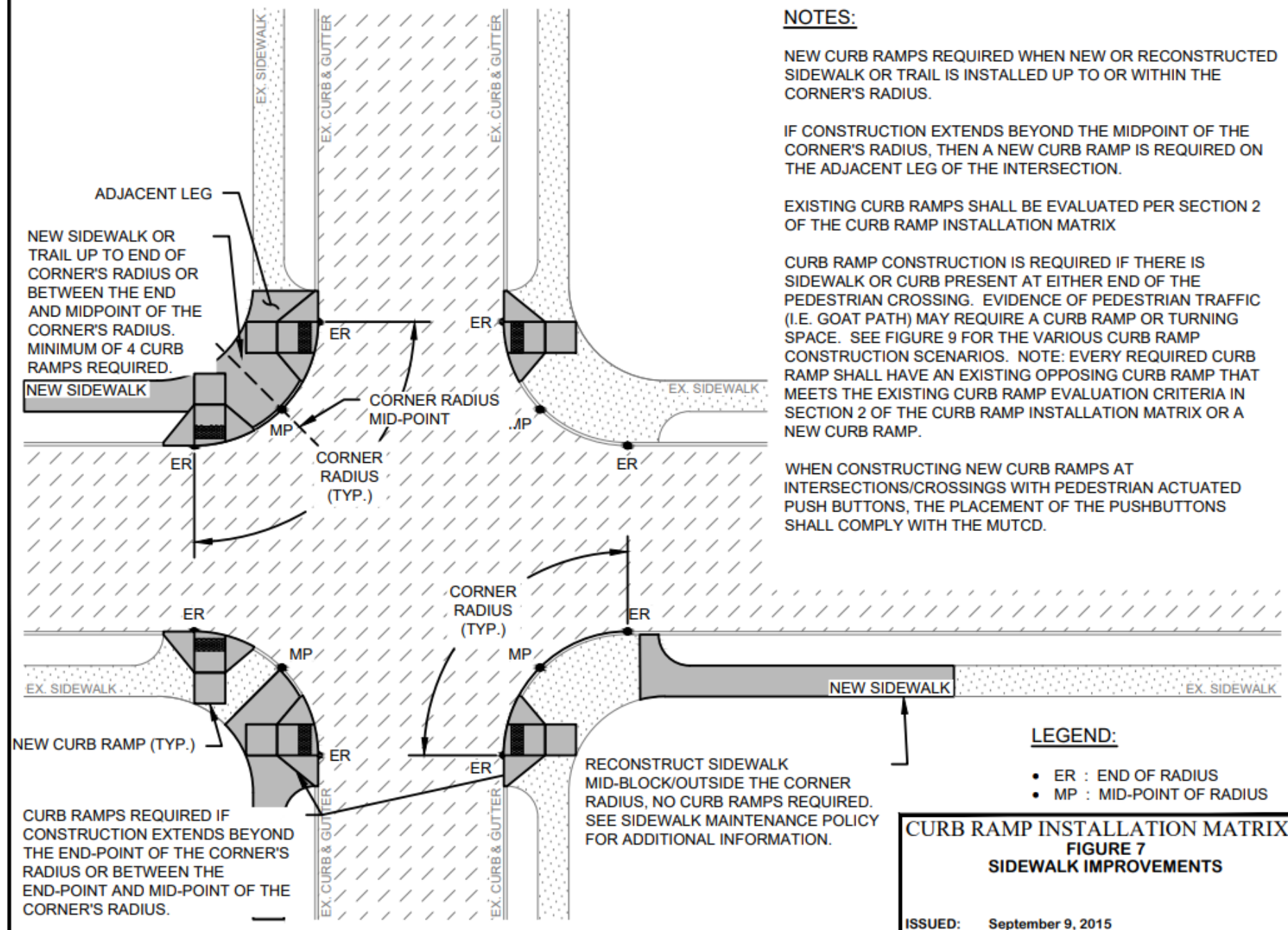
# Principle #4 - End and Midpoint of the Radius for Work At or Behind the Curb

## *Definitions: Corner Radius*

**Corner Radius:** A circular area having an extent determined by the length of the radius from a given or specified central point.

- A End of Radius (ER):** the beginning or ending of a radius.
- B Mid-Point of Radius (MP):** The middle of a radius central between two End of Radius points.









# Section 2: Existing Curb Ramp Evaluation Criteria

Existing curb ramp barriers—if one or more of these barriers exist, a new curb ramp is required:

- A curb ramp with a longitudinal slope greater than 10%; or
- A curb ramp cross-slope exceeding the gutter slope; or
- A curb ramp with no turning space/landing.; or
- Vertical surface discontinuities greater than 1/2 inch.

Existing curb ramp barriers—if more than two (2) barriers exist, a new curb ramp is required:

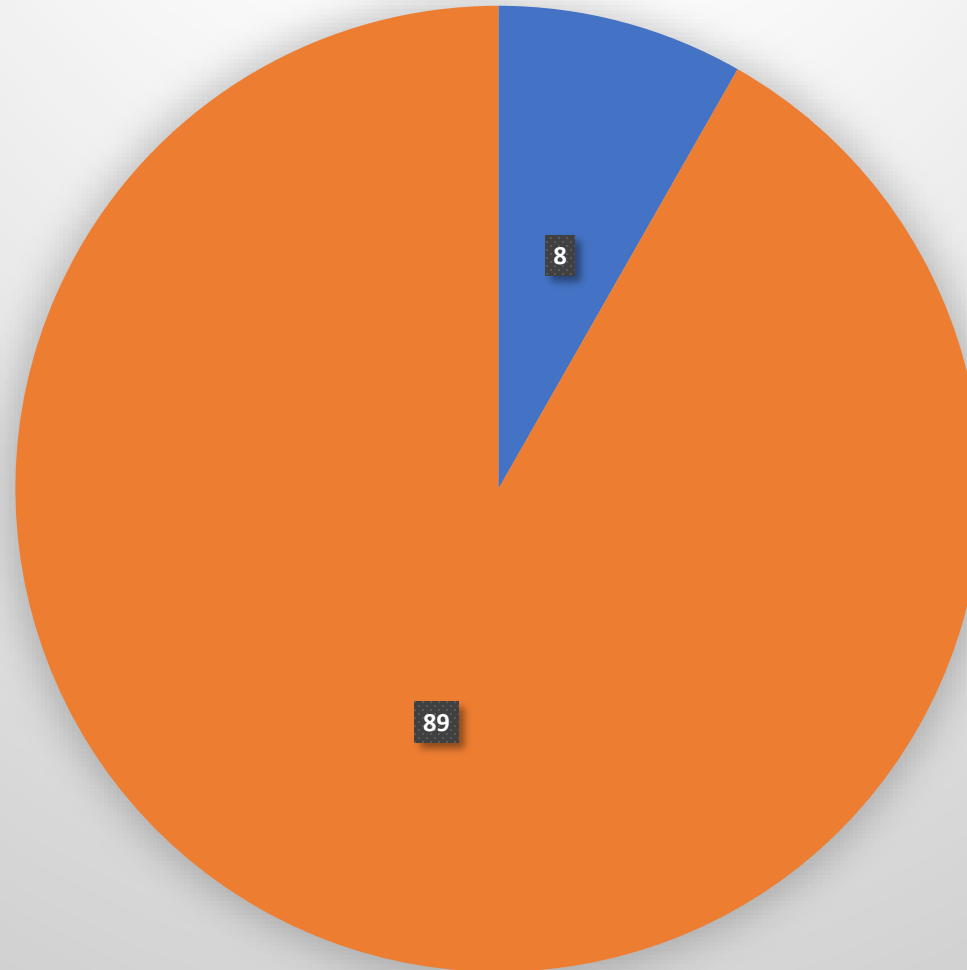
- A longitudinal slope greater than 8.3%, but less than or equal to 10%.
- Non-compliant turning space/landing (running and/or cross-slope greater than 2%)
- Change in level (not flush) at grade breaks.
- Non-compliant or missing detectable warning
- Ramp or turning space/landing are cracked, broken, or damaged
- Out of alignment with opposing curb ramp (more than 1/2 ramp width from opposing ramp)

NOTE: Every required curb ramp shall have an existing opposing curb ramp that meets the Existing Curb Ramp Evaluation Criteria or a new curb ramp shall be constructed.

# 2019 SFR New ADA Ramp(s) Required

ADA Ramp Required

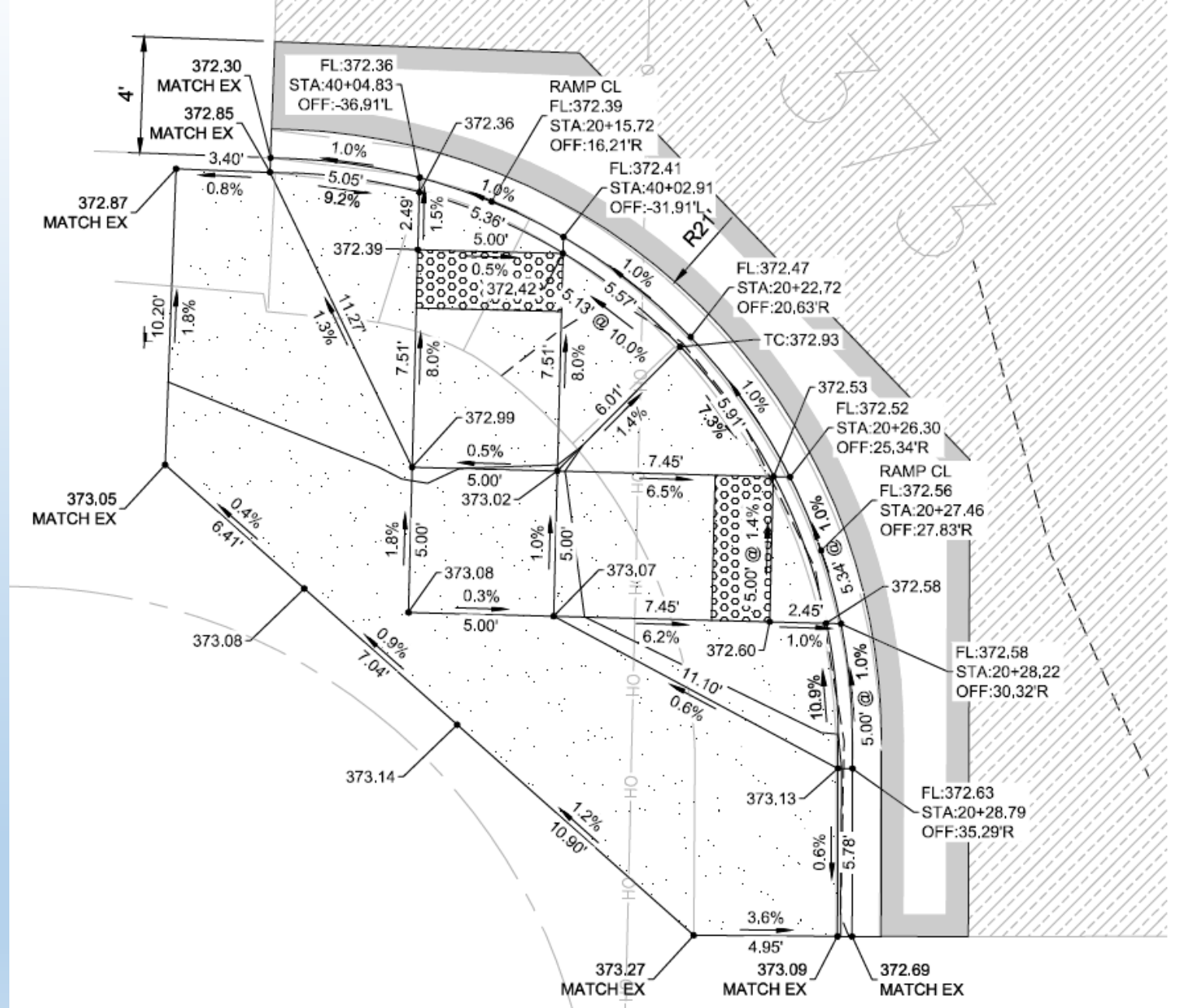
■ Yes ■ No



Yes	8
No	89
Total	97

# A LOT OF DESIGN

- Work Order and PE Required
- Survey Information and curb line established
- Max 2%, 8.33%. Designs often result in missing construction tolerances and rework.
- Many design professionals don't fully understand the nuances for the best fit.
- Requires some back and forth with reviewers.



S. 10TH ST. AND MILDRED ST.-SW CORNER

SCALE: SHOWN

# When might we not require off-site?

We follow the Curb Ramp Installation Matrix, BUT there are factors we may consider in our analysis that would result in no requirement:

- Future CIP project
- The ramp would actual create an unsafe crossing condition.
- Utility relocations (poles, transforms, vaults)
- Significant topographic challenges.
- Drainage extensions or other improvements outside of the frontage of the proposed project.





# Process Improvements

- Off-site decision tree flow chart with linked code and design manual references for the detail.
- Link of Off-Site and Scoping documents to Curb Ramp Installation Matrix
- Curb Ramps – Tip Sheet – Link Flow Chart to Principles and Examples
  - Link to variance request form. Make Variance Form Electronically Fillable
  - Common Ramp Design Mistakes
  - Additional Maximum Extent Feasible Guidance
- Updates to Standard Details
- In-lieu of Fee for non-adjacent curb ramps/City program coordinated installation. Help for corner lot feasibility for non-compliant opposing ramps.

# Thank you

- Discussion
- Next up?
  - SIDEWALKS – 9/9/21
  - DRIVEWAYS AND PARKING 10/14/21