TOOLE DESIGN

PLAN AND POLICY REVIEW

CITY OF PORTLAND
PEDESTRIAN DESIGN GUIDE UPDATE

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INTRODUCTION

The City of Portland is currently updating the sidewalk corridor chapter of the Pedestrian Design Guide (the Guide), which serves as the City's primary guidance on how sidewalks should be built throughout Portland to ensure they are context-appropriate and accessible to people of all ages and abilities. The Guide was last updated in 1998, at which time it was considered one of the most forward-thinking pedestrian guidance documents in the country. Since then, the document has remained useful but additional policies and plans have been adopted by the City and within the region that an updated document should reflect and/or address.

This memo summarizes a select set of plans, policies, code, and ordinances that have been adopted or created since the Guide was last updated, otherwise currently inform sidewalk design and/or frontage improvement requirements, or should inform the content of the updated Guide. (Table 1). These documents were reviewed for relevant concepts, areas of conflict or unclear guidance, and key implications for the update of the Guide's sidewalk corridor chapter.

Table 1. List of plans, policies, code, and ordinances reviewed in this document

Plans and Policies	Code and Ordinances
• Portland Pedestrian Design Guide – Section A: Guidelines for Sidewalk Corridors (1998) • PedPDX (2020) • The City of Portland's Transportation System Plan (2020) • 2035 Comprehensive Plan: Urban Design Direction (2014) • Designing Livable Streets and Trails Guide (2019) • Protected Bicycle Lane Design Guide (2018) • "Up Out of the Mud" Street by Street Initiative (2012) • Streets 2035 (ongoing) • Intergovernmental Agreement for Bus Shelter/Bench Siting and Advertising (1997) • Stormwater Management Manual (DRAFT 2020)	• Title 11: Trees • Title 33: Portland Planning and Zoning Code • TRN 1.09: Design Standards for Public Streets • TRN 1.10: Design Guide for Public Street Improvements • TRN 1.22: Infill Development on Streets with an Existing Sidewalk Corridor • TRN8.08: Encroachments in the Public Right-of-Way • TRN 10.09: Bicycle Rack Permits • TRN 10.17: Sidewalk and Driveway Permits (including asphalt approaches) • Title 17, Chapter 17.25: Sidewalk Cafes and Sidewalk Café Permit • Title 17, Chapter 17.26: Street Vendors • Title 17, Chapter 17.46: Publication Boxes • Title 17.88.040 Through Streets • Title 32: Signs • Title 33.654.110 Connectivity and Locations of Right of Way • PBOT Development Review Guide to Creating Public Streets and Connections

PLAN AND POLICY REVIEW

Plans and policies help translate a city's visions into direction for elected officials and staff. For the Pedestrian Design Guide's Sidewalk Corridor chapter, the most applicable plans and policies are related to the built environment and, more specifically, the active transportation system. The documents were reviewed to better understand how the existing 1998 Pedestrian Design Guide should be updated to ensure that it reflects current plans and policies.

This section will review the following documents:

- Portland Pedestrian Design Guide – Section A: Guidelines for Sidewalk Corridors (1998)
- PedPDX (2020)
- The City of Portland's Transportation System Plan (2020)
- 2035 Comprehensive Plan: Urban Design Direction (2014)
- Designing Livable Streets and Trails Guide (2019)
- Protected Bicycle Lane Design Guide (2018)
- "Up Out of the Mud" Street by Street Initiative (2012)
- Streets 2035 (ongoing)
- Intergovernmental Agreement for Bus Shelter/Bench Siting and Advertising (1997)
- Stormwater Management Manual (DRAFT 2020)

PORTLAND PEDESTRIAN DESIGN GUIDE (1998)

The 1998 Pedestrian Design Guide will serve as the baseline document for the update. While the update focuses on the "Sidewalk Corridors" chapter, it should be noted that, often, chapters within the Guide relate to each other and are impacted by another chapters' guidance. The following applicable concepts, guidelines, and implications include guidance that is in both Section A: Guidelines for Sidewalk Corridors and a portion of Section D: Guidelines for Pathways and Stairs.

Applicable Concepts & Guidelines

- **Guidelines for sidewalk corridors:** This section covers general guidance such as attributes of good sidewalk corridors and the role of sidewalk zones (curb zone, furnishings zone, through pedestrian zone, and frontage zone). More specific guidance regarding widths of sidewalk zones and elements (such as benches, transit shelters, and bike parking) will be coordinated through this project to reflect current plans, policies, and conditions.
- **Separated alternative pathways along roadways:** While not part of the 1998 Sidewalk Corridors chapter, this subsection of Section D: Guidelines for Pathways and Stairs, discusses alternatives for locations where it is not possible to build sidewalks to City standards, such as on unimproved rights-of-way or where there are topographic challenges. In general, the guide recommends horizontally separated pathways over vertically separated or widened shoulder pathways. It provides guidance on where to use each type of pathway, widths, plant material, hardscape material, and comparative costs. These pathways are broken into two main categories – separated pathways and widened shoulders – in different configurations such as below or above roadway grade, on walls, on boardwalks, with culverts or swales.
- **Materials appendix.** This appendix summarizes the where types of materials should be used, their respective maintenance life, and approximate cost.

Design Guide Implications

- **Sidewalk widths and elements.** The details of Table A-1, Recommended Widths for Sidewalk Corridor Zones, and Table A-2, Elements in the Right-of-Way, need to be reconciled with current policies and reviewed

for areas that may be unclear to users of the guide. See Summary Table 1 on page 22 of this document for a comparison of the 1998 widths with more recent street plans.

- **Additional guidance on street trees and other ROW uses.** The Guide does note where street trees should be placed and the various ways that the pedestrian zone could be used, such as for street cafes. The updated guide should include additional detail about street trees to provide more context and more choices, as well as more detailed information about the requirements of other ROW uses in order to meet the livability and activation that the City wants in the pedestrian corridor, while still ensuring that it meets pedestrian movement needs.
- **Zone updates to reflect additional curb zone usage.** Sidewalk zone descriptions and elements need to be updated to reflect the increased demand for curb areas with e-commerce deliveries and emerging mobility services (dockless, docked micromobility, smart kiosks, TNCs).
- **Stormwater.** Stormwater treatment and conveyance in the ROW is not addressed in detail, as the guide was produced before this was a policy priority.
- **Materials Appendix.** Since the Pedestrian Design Guide was last prepared, new materials, construction methods, costs, and maintenance practices have emerged. An updated Pedestrian Design Guide update should reflect this new information and incorporate into the sidewalk corridors section, instead of its current placement in an appendix.
- **Alternative pathway coordination.** Guidance for alternative pathways in the Guide needs to be reconciled with PedPDX alternative walkways and the “Up Out of the Mud” Street by Street Initiative (see Summary Table 2 on page 23 of this document).

PEDPDX (2019)

PedPDX is the update of Portland’s 1998 Pedestrian Master Plan. The plan sets priorities and identifies projects for the Portland’s pedestrian network. While PedPDX does not include design guidance, it does outline the broader goals regarding what the pedestrian network should look like, how it should work, and what services it provides. The updated Guide will implement the vision and goals of PedPDX through design guidance. Additionally, several PedPDX Actions will be folded into the updated Pedestrian Design Guide, both within the sidewalk corridors section as well as in future sections related to corners and crossings.

Applicable Concepts & Guidelines

- **Pedestrian Priority Network**. The Pedestrian Priority Network is a network of streets and paths that provide important pedestrian connections to transit and other key destinations. PedPDX uses this network as the basis for identifying where pedestrian infrastructure needs to be to prioritize infrastructure projects.

  Every street identified within the Pedestrian Priority Network was assigned a classification, which reflects the level of pedestrian demand on the streets. The network includes Pedestrian Districts, Major City Walkways, City Walkways, and Neighborhood Walkways. Further descriptions of these classifications can be found in Figure 1.
- **Implementation Toolbox.** The Toolbox outlines a set of strategies and actions to advance the PedPDX vision. Some strategies address guidance that needs improvement, such as “Action 2.5: Clarify design guidance for tree location within the right-of-way.” Other strategies address standard pedestrian concerns regarding lighting, accessibility, safety, and creating an enjoyable walking experience. PedPDX actions that need to be folded into the updated sidewalk corridors section of the Pedestrian Design Guide include:

- Action 4.3. Develop City design guidance for transit station platforms that maximize safety and comfort for people walking, biking, and taking transit.
- Action 5.1. Provide lower-cost pedestrian walkways.
- Action 5.2. Provide interim pedestrian improvements.
- Action 5.6. Improve unimproved rights-of-way for pedestrian travel.
- Action 6.1. Implement new lighting level guidelines in conjunction with capital projects and private development.
- Action 8.6. Update right-of-way design standards to provide sufficient room for trees.
- Action 8.7. Address utility poles creating obstructions in through zone of the sidewalk.
- Action 8.8. Update clear zone requirements for outdoor dining and A-board signage based on new PedPDX pedestrian classifications.
- Action 8.9. Locate utility vaults outside of pedestrian clear zones.
- Action 11.5. Update design guidelines to require pedestrian improvements on unimproved rights-of-way as part of the development review process.

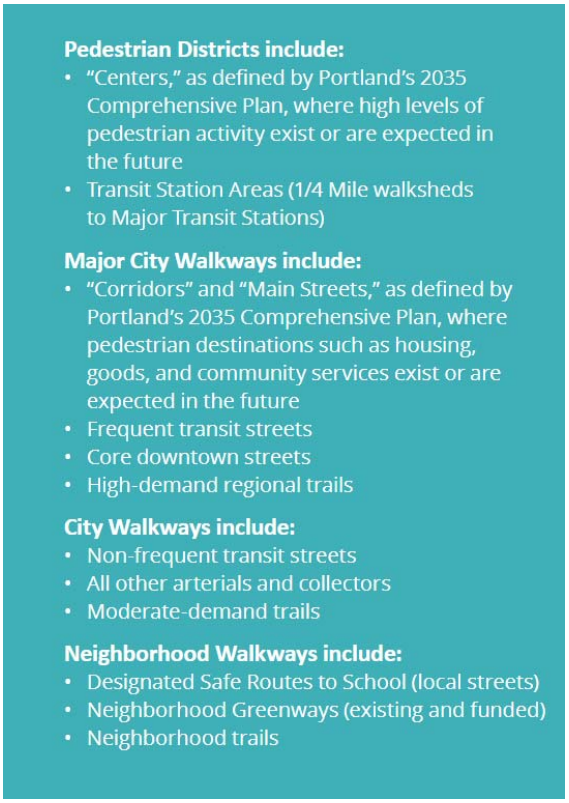

Figure 1. Pedestrian classifications identified in PedPDX (Source: PedPDX, pg. 73)

- **Alternative walkways.** Alternative walkways are described as an alternative to sidewalks when space, geography, topography, or cost do not allow a full sidewalk to be constructed. Presumably, PedPDX reflects the recommendations of the "Up Out of the Mud" Initiative. Each Alternative Walkway outlines dimensions, design elements, considerations, and appropriate context. The Alternative Walkway types are: Pedestrian Shared Streets, Slow Safer Shoulders, Protected Safer Shoulders, Pedestrian Path Connections and Separated Walkways. The 1998 Pedestrian Design Guide included some similar concepts but was more focused on vertical grade challenges and proposed narrower shoulders and less protection for pedestrians (See Summary Table 2.)

Design Guide Implications

- **Update sidewalk zone width applications and recommended configurations.** The recommended sidewalk zone configurations (and widths) from in the 1998 Pedestrian Design Guide are linked to a combination of the TSP Pedestrian Classifications and designated Pedestrian Districts, and/or residential zone density. The new pedestrian classifications within PedPDX render the pedestrian classifications referenced in the 1998 guide inaccurate, so the updated guide will need to change what factors lead to choosing a recommended sidewalk corridor configuration or requirements. These factors may include those referenced in the 1998 guide or additional considerations.
- **Reconcile alternative pathway standards**. The Alternative Walkways concepts within PedPDX need to be integrated into the updated Pedestrian Design Guide to provide sufficient guidance and level of detail so public and private parties may develop capital and public works design plans, including applicable guidance regarding appropriate context and application, walkway delineation, widths, stormwater treatment, accessibility treatments, and other relevant design elements.
- **Reflect new transportation trends.** The Guide should be updated to address the actions highlighted in PedPDX toolbox regarding new mobility, street trees, street lighting, interim improvements, and unimproved rights-of-way, transit stops, and utilities and other uses in the sidewalk corridor, as listed above.

TRANSPORTATION SYSTEM PLAN (2020)

The Transportation System Plan (TSP) is Portland's 20-year plan to guide transportation policies and investments. The TSP is an element of the Comprehensive Plan, which is created to prepare for and manage the effects of population and employment growth through land use and infrastructure strategies. As such, the TSP looks to translate the broader goals and policies from the Comprehensive Plan into sub-policies and implementation strategies.

Applicable Concepts & Guidelines

- **Key pedestrian-relevant policies.** The following policies provide design direction and/or have implications for the city's pedestrian network and sidewalks:
    - "Designate district classifications that give priority to pedestrian access in areas where high levels of pedestrian activity exist or are planned, including the Central City, Gateway Regional Center, Town Centers, Neighborhood Centers, and Transit Station Areas. (Comprehensive Plan Policy 9.2b)"
    - "Transportation strategy for people movement: Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list: Walking bicycling, transit, fleets of electric, fully automated, multiple passenger vehicles; other shared vehicles; low or no occupancy vehicles; and fossil-fueled non-transit vehicles. (Comprehensive Plan Policy 9.6)"
    - "Streets for transportation and public spaces: Integrate both placemaking and transportation functions when designing and managing streets by encouraging design, development, and operation of streets to enhance opportunities for them to serve as places for community interaction, environmental function, open space, tree canopy, recreation and other community purposes. (Comprehensive Plan Policy 9.14)"
    - "Pedestrian transportation: Encourage walking as the most attractive mode of transportation for most short trips, within neighborhoods and to centers, corridors, and major destinations, and as a means for accessing transit. (Comprehensive Plan Policy 9.17)"
    - "Pedestrian network: Create more complete networks of pedestrian facilities and improve the quality of the pedestrian environment. (Comprehensive Plan Policy 9.18)"
    - "Pedestrian safety and accessibility: Improve pedestrian safety, accessibility, and convenience for people of all ages and abilities. (Comprehensive Plan Policy 9.19)
    - "Street environment: Encourage development in centers and corridors to include amenities that create a pedestrian-oriented environment and provide places for people to sit, spend time, and gather. (Comprehensive Plan Policy 4.21)"
- **Pattern areas.** The TSP divides Portland into five pattern areas, based on their development patterns and a suite of characteristics. These areas include the following: Rivers, Central City, Inner Neighborhoods, Western Neighborhoods, and Eastern Neighborhoods. The TSP describes the general transportation characteristics and needs of each areas to provide a generalized and geographically-sensitive overview of the city, showcasing that what may work in one area of the city may not be suited or appropriate for others.
- **Street Design Classifications.** Street Design Classifications provide design guidance based on a what sorts of transportation needs might be tied to the surrounding land use. These classifications, in general, use a "complete streets" vision to accommodate all the modes in an appropriate way.

Design Guide Implications

- **Achieve consistency with pedestrian classifications.** The TSP pedestrian classifications were updated to match PedPDX's Pedestrian Priority Network with the exception of Local Service Walkways. The TSP defines Local Service Walkways as "all streets that allow pedestrian access and are not classified as Major City Walkways, City Walkways or Neighborhood Walkways." They are intended to "serve local circulation needs

for pedestrians and provide safe and convenient access to local destinations." The updated Guide should include guidance for these Local Service Walkways.

Between when the updated classifications were adopted into the TSP (March 2020) and when the Guide update will be completed, the following new classifications will take the place of the classifications referred to in the 1998 Guide.

2020 Classifications (New)	1998 Pedestrian Design Guide Requirements to Apply (Interim):
Pedestrian District	Pedestrian District
Major City Walkway	City Walkway
City Walkway	City Walkway
Neighborhood Walkway	Local Service Walkway
Local Service Walkway	Local Service Walkway

- **Define guidance for Design Classifications.** Major City Walkways include Civic or Neighborhood Corridors (from 2035 Comprehensive Plan) and should "consider special design treatment when also designated as Civic or Neighborhood Main Streets." The TSP defines Civic Main Streets as streets that serve people across the city and "emphasize multimodal access to major activity centers," whereas Neighborhood Main Streets do the same for surrounding neighborhoods and their activity centers. Guidelines and materials for these special design treatments should be included in the updated Guide and will need to be reconciled against the pedestrian classifications.
- **References to Pattern Areas or Street Design Classifications.** Pattern Areas and Street Design Classifications help give context to what should or needs to happen in the ROW and, more specifically, the sidewalk corridor based on area characteristics and land use, respectively. The updated Guide should consider whether Pattern Areas or Street Design Classifications should be considered as factors in assigning a sidewalk configuration or recommendations.

2035 COMPREHENSIVE PLAN: URBAN DESIGN DIRECTION (2014)

As mentioned above, the 2035 Comprehensive Plan works to prepare for and manage the effects of population and employment growth through land use and infrastructure strategies. Urban Design Direction (UDD) is a piece of the Comprehensive Plan that specifically focuses on visions and strategies that shape the city's physical form.

Applicable Concepts & Guidelines

- **UDD Vision.** The most relevant UDD vision to the Guide is that of a vibrant, densely developed network of centers and corridors accommodating future growth in Portland. The UDD lists a series of key issues, including identifying the need for a safer system of connections and pathways to encourage more walking, biking, and transit use.
- **Centers and Corridors.** The overall UDD framework proposes a web of "centers" – the most walkable, active streetscapes with mixed uses. Connecting these centers are two types of corridors: Civic Corridors, the busiest and most distinctive streetscapes, and Neighborhood Corridors, which support local business and infill redevelopment with active street edges.
- **Pedestrian-scaled built environments**. Other relevant framework elements include Transit Station Areas, City Greenways, and Neighborhood Greenways. These elements aim to have a pedestrian-scaled built environment.

Design Guide Implications

- **Align with the vision.** The UDD was completed before the TSP was updated and, as such, is not updated to reflect some of the TSP policies. So, while an updated Pedestrian Design Guide should reflect the visions in the UDD, more of the details that need to be addressed are found in the TSP.
- **Centers.** All designated Centers in the UDD are classified as Pedestrian Districts in PedPDX. As such, the guidelines for the Pedestrian District overlays that may be cited in the Guide update will also need to also reflect the urban design vision for Centers.
- **Corridors.** The UDD vision for Civic and Neighborhood Corridors directly informs the TSP Street Design Classifications. As with Centers, design standards in the update guide that may tie to Street Design Classifications will also need to reflect the UDD visions for corridors. Currently, all PedPDX pedestrian classifications include Civic and Neighborhood Corridors and Main Streets as "Major City Walkways" based on pedestrian demand. However, there may be interest in differentiating between these two street types when setting sidewalk design standards.

DESIGNING LIVABLE STREETS AND TRAILS GUIDE (2019)

Metro's Designing Livable Streets and Trails Guide (2019) provides agencies responsible for the transportation system within Metro's jurisdiction with design guidance for streets and trails. The guidelines were created to help these jurisdictions implement the 2040 Growth Concept and Regional Transportation Plan. The 2019 guide is an update of a previous one and looked to address some more recent trends in transportation planning and design, including prioritizing livability, increasing safety, and reducing greenhouse gas emissions.

Figure 2. Sidewalk zone widths from Metro's Designing Livable Streets and Trails Guide (2019, page 57)

Applicable Concepts & Guidelines

- **Regional street design classifications.** The document outlines typical ROW dimensions, roles, and elements for regional and community boulevards, regional and community streets, and industrial streets. Sections and renderings offer guidance on including bike facilities within the curb.
- **Sidewalk design approaches.** The document offers the following on sidewalk dimensions and how amenities should be provided in the pedestrian zone:
    - Minimum of 2' for sidewalk cafes to accommodate a table and chair.
    - There should be a 2-5' buffer. between sidewalk and moving vehicles

  - Minimum of 4' should be provided for street trees and landscaping.
- **Sidewalk design principles and elements**: The guide provides direction on what sidewalk elements should be provided per regional design classifications. If an element is preferred or potential, the guidance recommends a width for the element (Figure 2).

Design Guide Implications

- **Decide whether widths are applicable.** Metro's document is written for roadways throughout the region, so are not specific to Portland, the most urban jurisdiction in the region. As such, Metro's requirements should be compared with those proposed in Portland's other plans and policies and considered for their applicability. They should not, however, supersede other Portland-specific guidance if the Portland-specific guidance makes more sense within the city's boundaries.

PORTLAND PROTECTED BICYCLE LANE DESIGN GUIDE (2018)

Published in 2018, Portland's Protected Bicycle Lane Design Guide provides direction for implementing protected bicycle lanes with a focus on retrofitting streets. The guidance includes detailed cross-section design drawings as well as recommendations on materials to use in specific situations.

Applicable Concepts & Guidelines

- **Sidewalk level infrastructure.** Protected bicycle lanes behind the curb at the sidewalk level are now the City's "preferred design for capital projects for new construction or reconstruction" (Figure 3). For all other retrofits of roadways, this document outlines six categories:
  - Parking-protected,
  - Parking-protected with delineators,
  - Delineator-protected,
  - Traffic separator-protected,
  - Planter-protected, and
  - Concrete-island protected.

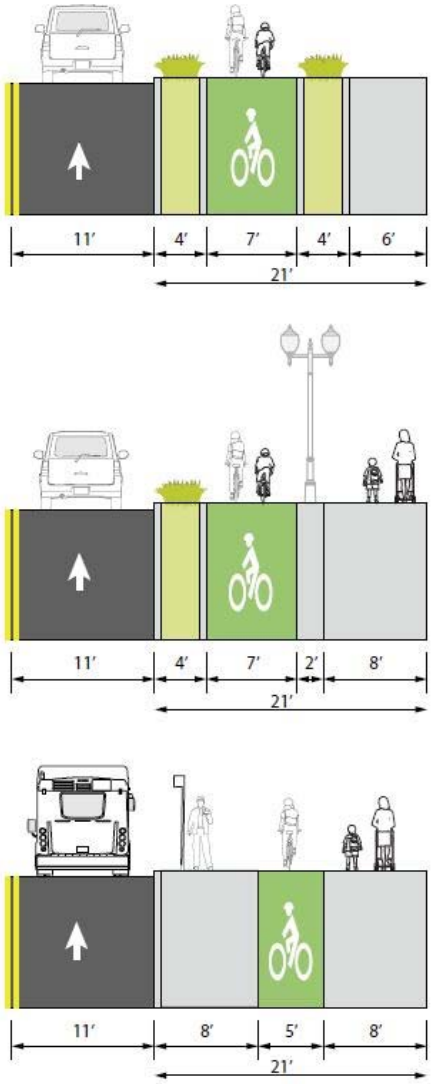

Figure 3. Sidewalk-level protected bicycle lanes (Source: Portland Protected Bicycle Lane Design Guide, 2018)

Design Guide Implications

- **Ensure the updated Pedestrian Design Guide reflects the pedestrian environment's interaction with protected bicycle lanes.** When the 1998 Pedestrian Design Guide was written, protected bicycle lanes had not yet been envisioned by Portland policymakers and, therefore, is not addressed in the design guidance. This will include clarifying permissible dimensional ranges, clarifying vertical and horizontal options for delineation between walking and biking space (including articulating new requirements for longitudinal tactile between pedestrian and bicycle space when located adjacent and at the same grade). The guide must also clarify which elements of the cross section are variable and in what contexts. Finally, drawings within the Guide should be updated to reflect updates width requirements for various zones of the sidewalk when adjacent to bicycle facilities behind the curb (e.g., furnishing zones, pedestrian through zones, building frontage zones).

"UP OUT OF THE MUD" STREET BY STREET INITIATIVE (2012)

To address the problem of Portland's many unpaved streets and the resulting challenges to pedestrians, this 2012 initiative provided two flexible and lower-cost street designs as alternatives to the traditional residential street, thereby encouraging the formation of Local Improvement Districts (LIDs) to build paved streets and get pedestrians "out of the mud." These standards can be utilized to improve streets in areas zoned for single family development and on Local Service Streets as designated in the TSP (except those in Pedestrian Districts).

Applicable Concepts & Guidelines

- **Improvement options**. Two options for street improvement are provided. Both these options include a paved travelway improvement:
    - *Separated Residential Streets* provide a sidewalk corridor on only one side of the right of way. This sidewalk must be a minimum of 6' wide.
    - *Shared Residential Streets* provide no separated sidewalk. Pedestrians, bicyclists, and vehicles share a 16' wide asphalt road area. The Shared Residential Street requires a traffic volume of 500 vehicles per day or less and requires speed bumps and a 15mph speed limit.
- **Sidewalks without streets.** The plan allows the construction of sidewalk without building a street in some cases such as making a critical connection to a school or to a few adjacent properties.

Design Guide Implications

- **Consider the initiative's goals but use PedPDX guidance**. The alternative street standards from "Up Out of the Mud" are superseded by the PedPDX guidelines for design of alternative pathways. PedPDX provides more design options and detail based on current best practices and community conversations, and the updated Guide should reflect this.

STREETS 2035 (ONGOING)

Streets 2035 is an ongoing project that that aims to develop a context-sensitive decision-making framework that guides space allocation in the right-of-way to:

- Better achieve citywide and individual bureau goals
- Reduce situations that require individual interpretation and inter-bureau negotiation
- Increase certainty and clarity for people wishing to develop in and adjacent to the ROW
- Create a consistent starting point for capital projects design development

Currently, the Streets 2035 project team is working with internal stakeholders from bureaus that have an interest and role in managing the right-of-way to determine how existing conflicts over space can be solved in a consistent and transparent way. At the conclusion of Streets 2035, there will be graphics that illustrate the placement (separation/mixing of functions) and dimensions (minimum and preferred) of street elements in the ROW, in varying space constraints and land use contexts.

Another major outcome of Streets 2035 will be an agreement on a maximum ROW delta that will influence the amount of space that the City can request from developers for frontage improvements. This will be a key interaction of Streets 2035 with sidewalk width standards.

Applicable Concepts & Guidelines

- **Identified issues in the ROW.** In the first phase of Streets 2035, the Technical Advisory Group identified the following conflicts that regularly arise in the sidewalk corridor:
    - *Organization of the sidewalk corridor.* Often the needs to have stormwater facilities, trees, and utilities can impact the space available for a pedestrian through zone or organization of the sidewalk corridor.
    - *Utility impacts.* Utility infrastructure such as poles and vaults are often placed in the sidewalk area. Streets 2035 will work to understand whether there is flexibility in the location of this infrastructure and, if so, where that flexibility can happen.
    - *Bike and pedestrian mobility.* In constrained areas, there can be competition between space needs for pedestrians and bicyclists. Streets 2035 will evaluate context and other factors that can determine tradeoffs for allocating constrained space.

Design Guide Implications

- **Consistency with design guidance**. One output of Streets 2035 will be drawings and cross-sections that are context-sensitive to street type and use. The updated Pedestrian Design Guide should be completed prior to Streets 2035 and, as such, should inform Street 2035's sidewalk corridor recommendations. To ensure this consistency, the timelines of the Streets 2035 project and the Pedestrian Design Guide are aligned, and project teams are working collaboratively to make sure the projects work in tandem.
- **Acknowledgement of flexibility**. A key accomplishment of Streets 2035 will be establishing where the City can be flexible in their allocation of space. The Guide update should acknowledge that there are some instances where its guidelines cannot be met and, in so doing, should refer to an exceptions process that ensures the spirit of the design guidelines are met. Furthermore, the updated Pedestrian Design Guide needs to clearly state in which contexts a variance or exception process would be considered for both capital projects and for development review (e.g., when, where, and in what circumstances a curb tight sidewalk is/is not permitted).

INTERGOVERNMENTAL AGREEMENT FOR BUS SHELTER/BENCH SITING AND ADVERTISING (1997)

An Intergovernmental Agreement (IGA) between TriMet and the City of Portland outlines siting criteria for bus shelters and benches, guidelines for advertising on these structures, and a process for reviewing these elements by the standing committee.

Applicable Concepts & Guidelines

- **Bus Shelter and Bench Siting.** Bus shelters and benches are generally subject to the same siting criteria. Exceptions are noted below.
    - On major arterial streets with the bus shelter/bench facing the street and travel lane next to the curb, at least 6' of "pedestrian passby" must be maintained. For other stops, at least 5' should be maintained, but between 5' and 4.5' may be approved by the standing committee.
    - Shelters or benches with their back to the street should be located 2' from the street. 18" may be accepted by the committee if there is no parking lane and buses are not completing a turn.
    - Shelters or benches should not be placed in front of building entrances, driveways, or within the 5'x8' bus stop landing pad per ADA requirements.
    - Shelters or benches should minimize visual blockage for motorists and pedestrians.

- Shelters or benches should not block windows used to display merchandise or advertising. Bus shelters may be no closer than 6" to a building and benches may be no closer than 3" to a building.
- Bus shelters should not block 50% or more of the "main line of sidewalk." Benches should not block the "accessible pedestrian corridor" without committee approval.

Design Guide Implications

- **Update of Table A-2, Elements in the Right-Of-Way.** The current Pedestrian Design Guide references a previous version of this document (1995) which has the same general guidance for minimum pedestrian through zone of 4.5' for "certain cases by agreement." Per the focus group discussions, additional guidance may be needed to ensure the placement of bus shelters and benches does not obstruct the pedestrian through zone in constrained situations. Clarification of terms is needed (accessible pedestrian corridor vs. main line of sidewalk) as well as the conditions when committees will approve exceptions. The IGA does not reference the treatment of bus shelters in curb extensions which may need to be addressed when the street corners chapter of the Guide is updated.

STORMWATER MANAGEMENT MANUAL – CHAPTER 4 PUBLIC FACILITIES IN THE ROW (DRAFT 2020)

The Stormwater Management Manual (SWMM) is currently being updated. The following is a review of Chapter 4 of the draft SWMM manual, which focuses on the design requirements for stormwater facilities in the right-of-way as well as maintenance requirements and submittal criteria. The final SWMM manual should be reviewed once it is released to check for any additional updated or applicability to the Pedestrian Design Guide.

Applicable Concepts & Guidelines

- **Vegetated Stormwater Facilities (Green Streets).** This section outlines the placement, dimensions, slopes, and performance requirements for vegetated stormwater facilities located within the furnishing zone or curb extensions. These facilities are typically separated from pedestrian areas by a 4" curb or 3:1 slope but may require a guardrail in certain situations (e.g. pinched pedestrian corridor, adjacent to transit stops). For maintenance, facilities should be a maximum of 200' from a legal parking space and include a 2' set back from a vehicle or transit travel lane. If the facility is infiltrating stormwater, the setback from buildings is typically 10'.
  - **Curb Extensions.** These facilities are most common on local service streets but may be located on higher classification streets with design adjustments.
    - Minimum length 30' for mid-block curb extension. If longer, include pedestrian crossing
    - Typical width 4'-6' constrained by Fire Bureau requirements for curb-to-curb dimensions
  - **Furnishing Zone/Planting Strip Facilities.** These facilities are swales with side slopes or flat-bottom with planter walls.
    - Length: Include carriage-walk for pedestrian access from sidewalk to parking spaces every 20' in commercial districts and 30' in residential areas
    - Width:
      - For swales, minimum 11'6" from back of curb to sidewalk and 2' flat bottom
      - For planters, minimum 3' from back of curb to face of planter wall
      - For planters with trees, minimum 4' from back of curb to face of planter wall
    - Parking step-out: 2' required in pedestrian or commercial districts, 18" for low traffic areas

    - Swales not allowed in PBOT Pedestrian Districts

- **Pervious Paving.** Requirements and description for these materials are in Chapter 3 of the SWMM. These may be approved on a case-by-case basis in the right-of-way.
- **Guidelines for Stormwater Design.** This section provides design guidance to meet stormwater performance requirements, including sizing of facility, ponding depth, and plant species.

Design Guide Implications

- **Add Stormwater Guidance.** The 1998 Pedestrian Design Guide did not address stormwater facilities in detail. The updated guide should incorporate SWMM guidance on widths, lengths, and locations of stormwater facilities within the furnishing zone or curb extensions. Material guidelines should be updated to incorporate current best practices for stormwater facility design.

CODE, ADMINISTRATIVE RULES & ORDINANCE REVIEW

Policies and plans help to inform City codes and ordinances. These codes and ordinances are usually prepared by Bureau of Planning and Sustainability (BPS) and PBOT and are enforced by the Bureau of Development Services (BDS). The updated Pedestrian Design Guide should be consistent with codes and ordinances in order to give the design guidelines "teeth" and ensure that no enforceable code or ordinances actively prohibit or discourage recommendations from the Pedestrian Design Guide. Some codes or ordinances may need to be updated or sunsetted to reflect updated design guidance once it is complete.

The following sections review existing code, ordinances, and PBOT administrative rules that relate to development and/or use of the sidewalk corridor. It should be noted that while Federal ADA requirements are not included in this review, they are required to be reflected in City practices and will, effectively, override any City codes or practices they may conflict with.

TITLE 11: TREES

Title 11 regulates the preservation and planting of trees in the city to enhance the quality of the urban forest and optimize the benefits that trees provide to residents and visitors.

Applicable Concepts & Guidelines

Sidewalk design is not directly regulated in the Tree Code, but the following standards for tree planting affect sidewalk design.

- **Permitting.** (Chapter 11.40). If replacing a sidewalk, healthy and functioning street trees will not be removed unless determined necessary by the Urban Forester on a case-by-case basis. When improving a partially or fully unimproved street, each tree 12" diameter or larger must be replaced with at least one tree. For other improvements, any tree 6" or larger must be replaced.
- **Street tree planting specifications.** (Chapter 11.50). When planting new street trees, the Urban Forester reviews the location and tree types for suitability. Street trees are not required if the sidewalk corridor cannot accommodate a planting strip 3' wide or more or there is insufficient space to add tree wells.
    - Generally, one street tree is required per 25' linear feet of street frontage.
    - Trees must be planted in the ground (tree wells) except when using raised planters as part of the Bureau of Environmental Services (BES) stormwater management facility requirements

Design Guide Implications

- **Reflect current knowledge.** No elements of Title 11 are in conflict with other sidewalk regulations. However, the Pedestrian Design Guide update could provide more specific guidance about tree pit design based on lessons learned since 1998, especially around designing new sidewalks to preserve existing street trees and current best practices around stormwater management. Is addition, there are often conflicts between the space needed for tree planting and/or preservation and the space needed for the pedestrian through zone which the Guide should acknowledge and address.

TITLE 33: PORTLAND PLANNING AND ZONING CODE

Title 33 is Portland's planning and zoning code. It governs all land use and development in the city in a tiered and interlinked way. The direction in Title 33 begins with the identification of base zones, which cover land uses, and links them to development standards. Overlay Zones and Plan Districts are also covered, which provide additional

direction for specific areas of the city that have unique characteristics or roles in how the city functions and, therefore, ought to be built and/or designed differently to meet those needs.

Applicable Concepts & Guidelines

- **Pleasant pedestrian environment.** Sidewalks are not directly regulated or designed in Title 33. The primary applicable sections of Title 33 address how a 'pleasant pedestrian environment' can be created through various methods such as appropriate setbacks, ground floor design, placement of parking, landscaping and screening, and other frontage elements.
    - *Base Zones:* In each of the Base Zones chapters, there are consistent approaches to regulating the frontage of sidewalk level development.
        - The Commercial chapter (33.130) addresses setbacks, ground-floor windows (33.130230), pedestrian connectivity for internal circulation in large sites (33.130.240 and 33.130.292), building entrances on transit streets (33.130.242) and fencing adjacent to sidewalks (33.130.270).
        - In the Multi Dwelling Base Zone chapter (33.120), in addition to rules on setbacks (33.120.220), main entrances (33.120.231), street-facing facades (33.120.232), screening (33.120.250) and internal pedestrian orientation (33.120.255), the code addresses unique urban design elements such as minimum site frontage focused on East Portland (33.120.206) and limits building length to contribute to pedestrian interest (33.120.230)
        - The Single Family Base Zone chapter (33.110) has a similar range of regulations related to setbacks and a home's relationship to the street (33.110.220), how main entrances can help activate sidewalks (33.110.230), and how street-facing garages and associated curb cuts can be placed to minimize impacts to pedestrian safety and comfort.
        - The Industrial Base Zone chapter mainly addresses setbacks from sidewalks and ground floor windows, while the Institutional Base Zone addresses screening and entrances on transit streets.
    - *Additional Use Regulations:* This section includes a range of design considerations linked to a range of land uses, irrespective of base zone. The most relevant sections are listed below:
        - 33.224: Mitigating effects of drive-thru facilities on adjacent sidewalks
        - 33.248: Regulations for landscaping and screening, including adjacent to public sidewalks
        - 33.266: Parking and Loading; this includes regulations on how developments can reduce the number of required parking spaces if a transit-supportive plaza is built, which would likely be placed adjacent to a public sidewalk. This section also regulates where parking should be limited in front of buildings, to enhance the experience for pedestrians on adjacent sidewalks.
        - 33.266.210 E is a noteworthy section, addressing locational and spacing requirements for short-term bicycle racks on sidewalks near building entries
        - Other applicable sections describe how planned developments in certain zones are required to build a park or plaza adjacent to public streets to enhance the public realm (270.200), rules for special setbacks (270.200.288) and how super blocks must include pedestrian walkways
        - connected to adjacent public sidewalks (270.200.293)
- **Sidewalk Widths.** There are few references to sidewalk widths in Title 33; Title 33 mostly directs frontage requirements as a whole. The only specific sidewalk width requirement is in the Cascade Station/Portland International Center Plan District section, which states that all sidewalks within 200 feet of the light rail platform must be at least 12 feet wide. There is additional guidance for sidewalk widths on private streets depending on the roadway dimensions.
- **Overlays:** This section only appears to have one applicable chapter, 33.415, Centers Main Street Overlay Zone, which addresses setbacks, ground-floor activation and building entrances to create a "safe and pleasant pedestrian environment" for a variety of "main streets" throughout the city.

- **Plan Districts**: In general, a plan district adds geographically based regulations for setbacks, and ground-floor windows and entries, taking precedence over those similar regulations that exist for base zones. The following are sidewalk-related rules for various districts:
    - *Cascade Station (508):* Primarily design standards, including sidewalk design, for private streets in the district;
    - *Central City (510):* Setbacks, ground-floor windows, frontage and required building lines. This district also includes bonus rules for new developments to gain additional height by providing public art or fountains, visible from sidewalks
    - *Division (520):* Encourages a unique design element, called "Reinforce the Corner," that encourages new buildings to locate distinctive entries on corners, enhancing adjacent sidewalks
    - *East Corridors (521):* Addresses connectivity for pedestrians in larger blocks in East Portland near MAX stations
    - *The Sandy Blvd District (575)* includes a unique provision for stepping facades along this diagonal street, which could result in unique sidewalk conditions.
    - A range of other districts provide a consistent palette of frontage standards, tailored to specific locations, including required building line standards and rules to avoid and screen parking next to sidewalks (Gateway, Hollywood, Lombard, Northwest)

- **Land Divisions and Planned Development**: This section applies to new development as infill or on the urban fringe. The Rights of Way chapter (33.654) is most applicable to the Pedestrian Design Guide, as it addresses future street extensions, including sidewalks, spacing of pedestrian connections and how walkways relate to common greens The following are notable connectivity requirements from this section:
    - In OS, R, C, E, CI, and IR Zones. In OS, R, C, E, CI, and IR zones, through streets and pedestrian connections are required where appropriate and practicable, and should meet the following standards: (1) pedestrian connections should generally be provided no more than 330 feet apart, and (2) through street and pedestrian connections should generally be at least 200 feet apart;
    - In I zones, there should be connections to any and all Regional Transitways, Major Transit Priority Streets, Transit Access Streets, Community Transit Streets, Off-Street Paths, and recreational trails within 1,300 feet. This section states that the connections should be the most direct route practicable. And users should be able to see the ending of the connection.
- **Approval criterion for width of the right-of-way.** The width of the pedestrian connection right-of-way must be sufficient to accommodate expected users and provide a safe environment, taking into consideration the characteristics of the site and vicinity, such as the existing street and pedestrian system improvements, existing structures, natural features, and total length of the pedestrian connection. As much as is possible, the users should be able to stand at one end of the connection and see the other end.

Design Guide Implications

- **Relating to sidewalk adjacent uses, frontage zones, and driveways.** The updated Guide could provide more detailed guidance or suggestions about sidewalk design based on specific regulations for sidewalk-adjacent uses in a range of zones and districts. In addition, Title 33's A2.3, Frontage Improvements, A3.5 Frontage Zone, and A3.6 Driveways sections should be cross-checked with the Guide's updated sidewalk corridor guidance to ensure that there are no conflicts in direction. There may also be an opportunity within the Guide to consider whether building setback requirements may be used in situations where the widths for other zones cannot be achieved.
- **Aim to enhance the pedestrian experience.** Because Title 33 regulates land uses across the city and is not directly concerned with shaping the public right-of-way, there aren't clear elements in conflict with design guidance. Most of the regulations appear to support the 2035 Comprehensive Plan's Urban Design Direction, with its focus on strengthening corridors with mixed-use development designed to enhance the pedestrian experience.

- **Connectivity Requirements.** The current Guide does not give any recommendations for applying pedestrian connectivity requirements in challenging areas, such as those with steep topography. More details, design requirements and opportunities for flexible design in the updated Guide will be helpful for implementers.

TRN 1.09: DESIGN STANDARDS FOR PUBLIC STREETS AND TRN 1.10: DESIGN GUIDE FOR PUBLIC STREET IMPROVEMENTS

TRN 1.09 (last updated in 2010) and 1.10 (filed for inclusion in 2004) direct the design of public streets to follow the Blue Book and the Pedestrian Design Guide. These rules will need to be updated once the Guide is updated, to ensure that they are referencing the most current standards.

TRN 1.22: INFILL DEVELOPMENT ON STREETS WITH AN EXISTING SIDEWALK CORRIDOR

TRN 1.22 identifies the list of conditions needed in order to be granted an exception from pedestrian corridor design standards.

Applicable Concepts & Guidelines

- **Exception standards (situations where a developer would not need to upgrade a sidewalk to standards).** TRN 1.22 allows for infill development along existing curb-tight sidewalks that are within 1' of the through zone standards or, for curb-tight sidewalks, are at least 6' wide if they meet the following conditions:
  - » utility poles located behind the sidewalk
  - » the street is classified as a Local Service Walkway
  - » the street is not within a Pedestrian District or subject to an adopted street plan.

Design Guide Implications

- The content of this TRN will be revised as needed and incorporated into the updated Guide. The Rule will need to be sunsetted after the completion of the Pedestrian Design Guide update.

TRN 8.08: ENCROACHMENTS IN THE PUBLIC RIGHT-OF-WAY

TRN 8.08 addresses permitting considerations, sizing, and placement criteria for a wide range of encroachments that may be permitted in the right-of-way. Encroachments are defined as major (sky bridges, building projections, underground walkways, etc.) or minor (which are subject to a Revocable Encroachment Permit). In addition, the rule provides specific guidance for the approval process and location requirements for various types of encroachments including benches, bus shelters, bicycle racks, and public art.

Applicable Concepts & Guidelines

- **Locations of encroachments.** Encroachments can be located in the following places:
  - o Outside of Pedestrian Through Zone
  - o Outside of any bus zone
  - o Minimum 2' from curb face
  - o Minimum 5' from fire hydrants
  - o Minimum 3' from utility, light or signal poles, guy wires and driveways
  - o Locations that do not compromise transportation safety, ADA compliance, or City maintenance functions

- **Specific relationship to pedestrian and frontage zones.** Specific guidance relevant to the Pedestrian Design Guide includes:
    - Garbage receptacles can be no greater than 3' W x 4' H and fit within frontage or furnishing zone
    - Planter box requirements include:
        - In frontage zone: no greater than 8' long 3' high and no more than 30% of building frontage
        - In furnishing zone wider than 4': planter boxes located 2' from curb face and 1' from through pedestrian zone, 4' separation between planter boxes
        - In furnishing zone narrower than 4': planter boxes no more than 4' long, 10' separation between adjacent planter boxes
        - For all furnishing zones: planter box no higher than 18", landscaping no higher than 30" within 25' of an intersection, minimum 5' from a utility, not within drip line of street trees
    - Fences, retaining walls, and stairs and handrails –1' away from Pedestrian Through Zones

Design Guide Implications

- **Update of Section A3.5A Encroachments and Table A-2, Elements in the Right-Of-Way.** The updated Pedestrian Design Guide should reflect this TRN8.08 in the placement and widths of various elements in the ROW. This information is in the current Pedestrian Design Guide in Section A3.5A Encroachments and Table A-2, Elements in the Right-Of-Way. The general criteria for location of encroachments can help guide elements not explicitly covered in this document, such as new mobility services.

TRN 10.09: BICYCLE RACK PERMIT

TRN 10.09 provides standards for the design and installation of short-term bicycle racks within the public right-of-way.

Applicable Concepts & Guidelines

- **Minimum sidewalk width.** Bicycle racks can be located on sidewalks with a minimum total width (property line to curb) of 9'. The following are the minimum sidewalk width zones that must remain clear of obstructions:
    - For a total sidewalk width ≥9' and ≤10': **5'-6"**
    - For a total sidewalk width >10' and <15': **6'**
    - For a total sidewalk width ≥15': **8'**
- **Minimum clearance between rack and street furniture.** Bicycles racks must be located in the furnishing zone. Specific positioning guidance relevant to the Pedestrian Design Guidelines includes:
    - Minimum of 30" between bicycle rack edge and street furniture such as light poles, mailboxes, trash cans, newspaper racks, tree wells, sign poles, etc.
    - Minimum 4' between bicycle rack edge and crosswalks, curb ramps, driveway ramps, transit shelters, and loading zones
    - Minimum 5' between bicycle rack edge and fire hydrants
- **Design and Installation**. Bicycle racks must meet material and dimension requirements to ensure durability, ease of use, and safety. Bicycle racks must be a minimum of 30" tall and 18" wide between two points of contact with a maximum 3" outside diameter. Bicycle racks must be securely mounted (tamper proof bolts, flange mounted) on approved materials (<5% slope, concrete or pavers).
- **"General advice" guidelines.** TRN 10.09 offers placement guidelines to minimize conflicts between other modes (avoid in front of building doors, disabled parking spaces, within 30' of a bus stop) and minimum dimensions for placing racks parallel to the curb, perpendicular to the curb, and angled to the curb.

- **Parallel to curb**
  - Minimum furnishing zone 3.5’
  - Minimum sidewalk corridor width 9’
  - Ideally 3’ from curb, minimum 2’ from curb
  - 6’ minimum distance between multiple racks, end-to-end
- **Perpendicular to curb**
  - Minimum distance from center of rack to curb 4’
  - Minimum sidewalk corridor width 15’
  - Minimum furnishing zone width 7’
  - 3’ minimum distance between multiple racks, side-by-side
- **Racks angled to curb**
  - 60 to 45-degree diagonal
  - Minimum sidewalk corridor width 12’
  - Minimum furnishing zone width 6’
  - 30” minimum distance between racks

Design Guide Implications

- **Update of Table A-2, Elements in the Right-Of-Way.** The updated Pedestrian Design Guidelines should reflect TRN 10.09 and current best practices in bicycle rack design. This information is in the current Pedestrian Design Guide in Table A-2, Elements in the Right-Of-Way. The table should be expanded to include the additional positions relative to the curb which were not included in the previous guide. Minimum clearance between bicycle racks and street furniture may need to be adjusted for new mobility elements (e.g. dockless e-scooter parking areas).

TRN 10.17: SIDEWALK AND DRIVEWAY PERMITS

TRN 10.17 outlines permitting considerations for sidewalks, driveways, and carriage walks, including asphalt approaches.

Applicable Concepts & Guidelines

- **Tree wells.** Tree well length is determined by Sidewalk Through Zone Width and should also equal the furnishing zone width:
  - 8’ sidewalk through zone width = 8’ tree well length
  - 6’ sidewalk through zone width = 9’ tree well length
  - 5’ sidewalk through zone width = 10’ tree well length
- **Furnishing Zones.** Furnishing zones should meet the following criteria:
  - All furnishing zones should be landscaped with the following exceptions: bus loading, less than 2’ wide in residential zones, within design zone overlays.
  - Approved materials in commercial zones are hardscape in front of tree wells. In residential, lawn materials may be softscape or up to 50% hardscape. Hardscape may be Portland cement concrete, bricks, or sand set pavers and match the color of the sidewalk unless granted an exception by the Design Commission.
  - For stormwater facilities within furnishing zones adjacent to street parking, a 3’ wide hard surface step out should be included between curb and stormwater facility.

Design Guide Implications

- The content of this Admin Rule will need to be revised as necessary and integrated into the updated Guide. The TRN will need to be sunsetted upon adoption of the updated Pedestrian Design Guide.

TITLE 17, CHAPTER 17.25: SIDEWALK CAFES

Chapter 17.25 regulates the placement of café seating and tables in the sidewalk corridor.

Applicable Concepts & Guidelines

- **Area of Operation.** Café seating and table placement must comply with the following:
    - Must be on a sidewalk with a minimum 8' width in commercial or employment zones (there are some exceptions for transit malls)
        - Must be placed where a 'Clear Pedestrian Zone' (CPZ) can be established. The minimum CPZ depends on sidewalk width:
            - 8' to 10' sidewalk = 5'6" CPZ
            - 10' to 15' sidewalk = 6' CPZ
            - 15' or wider sidewalk = 8' CPZ
    - The CPZ can meander, but must maintain a continuous 2' straight passage to make a clear visual zone
    - Must keep 2' buffer from curb

Design Guide Implications

- **Update of Pedestrian Clear Zones.** The updated Guide should have clear references to where café seating can be accommodated and which parts of the sidewalk it is allowed. These standards will need to be codified after the Guide is updated.

SIDEWALK CAFÉ PERMIT

The Sidewalk Café Permit explains the placement and furnishing criteria for sidewalk cafes to applicants. The minimum sidewalk widths and Clear Pedestrian Zone widths are consistent with the content in Chapter 17.25 Sidewalk Cafes (reviewed above).

Applicable Concepts & Guidelines

- **Furniture Placement.** Items that are "pertinent to the operation of the Sidewalk Café" are allowed, such as umbrellas, planters, bussing carts, tables, seating. Furniture (with the exception of umbrellas) in the Area of Operation may not be higher than 42" above the sidewalk. Furniture (such as umbrellas) may be allowed in the Clear Pedestrian Zone only when all parts are above 7'. A-Board signs are not covered under the Sidewalk Café Permit.
- **Area of Operations Conflicts.** The Sidewalk Café location cannot encourage waiting customers to obstruct the Clear Pedestrian Zone.

Design Guide Implications

- **Sidewalk Café guidance.** The Guide should offer clear direction on where café seating can be located in the form of text, drawings, or tables. The permit application will be updated to match the updated Guide's content.

TITLE 17, CHAPTER 17.26: STREET VENDORS

Chapter 17.26 regulates the placement of street vending kiosks, on and adjacent to sidewalks

Applicable Concepts & Guidelines

- **Approved locations for kiosks.** All kiosks must comply with the following:
    - Must be located in commercial zones

- Cannot occupy more than 24sf of sidewalk, with a maximum of 6' length
- Not permitted within 10' of sidewalk intersections
- Not permitted within 10' of building entrances or ADA parking space

Design Guide Implications

- **Add kiosk and/or street vendor location guidance.** The 1998 Pedestrian Design Guide only refers to street vendors once, in section B2.2 "No Private Use Area", related to potential obstruction of corners. The advent of food carts in Portland has created a significant new element on and adjacent to city sidewalks that should be addressed in the new document. The updated Guide should clarify which zones of the sidewalk may accommodate street vending and direct placement of the vending infrastructure to ensure that required clear zones are met.

TITLE 17, CHAPTER 17.46: PUBLICATION BOXES

Chapter 17.46 regulates placement of publication boxes (newspapers, commercial brochures) in the sidewalk corridor.

Applicable Concepts & Guidelines

- **Approved locations for publication boxes.** All publication boxes must comply with the following:
  - Must always be on sidewalks
  - May be chained to sign posts, streetlights or utility poles but not benches, trees, public art or bike racks
  - Maximum dimensions: 2'x2'x50" high.
  - No groupings of 10 or more
  - Cannot be placed within 5' of crosswalks, fire hydrants, fountains, public art, driveways or curb cuts, ADA ramps, or loading zones
  - Not allowed on a transit platform
  - Must maintain minimum pedestrian through zone of 8' if they within Pedestrian Districts or City Walkways, as defined by PedPDX (6' on all other sidewalks)

Design Guide Implications

- **Add publication box location guidance**. Similar to street vendors, "news boxes" are only referred to once in the 1998 Pedestrian Design Guide, in section B2.2. Publication boxes are not mentioned in Section A.

TITLE 17.88.040 THROUGH STREETS

This section outlines through street connectivity requirements for new or expanding developments. If through street or partial-width streets are not possible, bicycle and/or pedestrian connections must meet certain spacing criteria.

Applicable Concepts & Guidelines

- **Bicycle and/or Pedestrian Connection Spacing.** In new residential development or development in existing or future mixed-use areas, bicycle and/or pedestrian connections are located no further than 330' apart with exceptions for barriers (e.g. topography, freeways, pre-existing development).
- **Habitat Spacing Exceptions.** When pedestrian or bicycle connections cross protected water features, the average spacing should be no more than 530'. Exceptional habitat quality or length of crossing may prevent a pedestrian or bicycle connection.

Design Guide Implications

- **Incorporate with Alternative Pathways guidance.** The pedestrian connection spacing and habitat exceptions should be incorporated with the Alternative Pathway guidance for Pedestrian Path Connection in PedPDX.

TITLE 32: SIGNS

Title 32 regulates placement of signs, including signs protruding into the public ROW and portable signs within the ROW.

Applicable Concepts & Guidelines

- **Approved locations for signage.** All signage must comply with the following:
  - 32.32.030 C 1: Signs projecting into public ROW
    - Can extend from private property 6'6"' into ROW or 2/3rds distance to roadway, never within 2' of roadway, or with more than 30sf
  - 32.32.030 C 3: Portable Signs (incl A-Boards)
    - Max size 2.5'x4' tall and must remain portable
    - Not allowed at corners
    - Must maintain minimum 6' "continuous pedestrian zone" (vs sidewalk café rule, which uses the term "clear pedestrian zone)
    - Must not obstruct bus stops, accessible parking spaces, curb ramps, or building exits
    - If sidewalk is less than 8', signs are not allowed (this is similar to sidewalk cafes)
  - 32.42.010 C3: Awning clearances
    - When a sign or awning extends over a sidewalk, walkway or other space used by pedestrians, the bottom of the structure must be at least 8' above the ground.
    - C1 also includes rules for vision clearance at corners

Design Guide Implications

- **Update should reflect new codes and types of signage.** While signs are already addressed in Table A2 of the 1998 Pedestrian Design Guide, an updated guide should address the updated information from Title 32, as well as new types of signs.

TITLE 33.654.110 CONNECTIVITY AND LOCATIONS OF RIGHTS-OF-WAY

The section of Title 33 outlines approval criteria for through streets and pedestrian connections in different zones. Pedestrian connections are required "where appropriate and practicable."

Applicable Concepts & Guidelines

- **Pedestrian Connection Spacing.** In zones OS, R, C, E, CL and IR, pedestrian connections should generally be between 200' and 330' apart. In I zones, pedestrian connections are required to regional transitways, major transit priority streets, transit access streets, community transit streets, off-street paths, and recreational trails within 1,300 ft.
- **Pedestrian Connection Characteristics.** Pedestrian connections should take the most direct route possible. Users should be able to see the ending of the connection from the entrance. Pedestrian connections should

take into account natural context (tree groves, special flood hazard areas, etc.) and consider alternative routes to avoid existing dwelling units.

Design Guide Implications

- **Ensure consistency between Alternative Pathways guidance.** The pedestrian connection guidance in the updated Guide should be consistent with PedPDX, which was completed after Title 22.654.110 was last updated.
- **Incorporate with Title 33**. Title 33 addresses similar conditions in 33.130.215 (Commercial Mixed Use Zones) for internal accessways through large retail sites and in 33.266.30 F 5c regarding internal access through large parking lots. These sections discuss sidewalk widths for accessways and setbacks.

PBOT DEVELOPMENT REVIEW GUIDE TO CREATING PUBLIC STREETS AND CONNECTIONS (BLUE BOOK)

The Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process document, internally known as the “Blue Book,” is a reference manual for improving existing streets or creating new ones triggered by private development. It summarizes and clarifies applicable City policies, such as the TSP. It is currently being updated and, as such, the below content reflects the January 2020 draft.

Applicable Concepts & Guidelines

- **Standard street improvements and right-of-way width for public streets**. The Blue Book has a summary table of required sidewalk corridor width according to zoning, pedestrian classification, traffic classification, and stormwater facility. Sidewalk corridors are illustrated with cross-sections.

Design Guide Implications

- **Coordinate with the current update.** Any update to the Pedestrian Design Guide should be reflected in the Blue Book.

SUMMARY

This plan and policy review demonstrates that there have been significant changes in Portland area plans, policies, codes, and ordinances since the 1998 Pedestrian Design Guide was adopted. These documents are the City's records of how their best practices have evolved regarding sidewalk design, materials, and bicycle lanes and how they are addressing new challenges including the climate crisis, new mobility, and equitable design. Figure 4 shows the interconnection between these documents and the Pedestrian Design Guide and helps visualize how guidance should flow from one plan, policy, code, or ordinance to another.

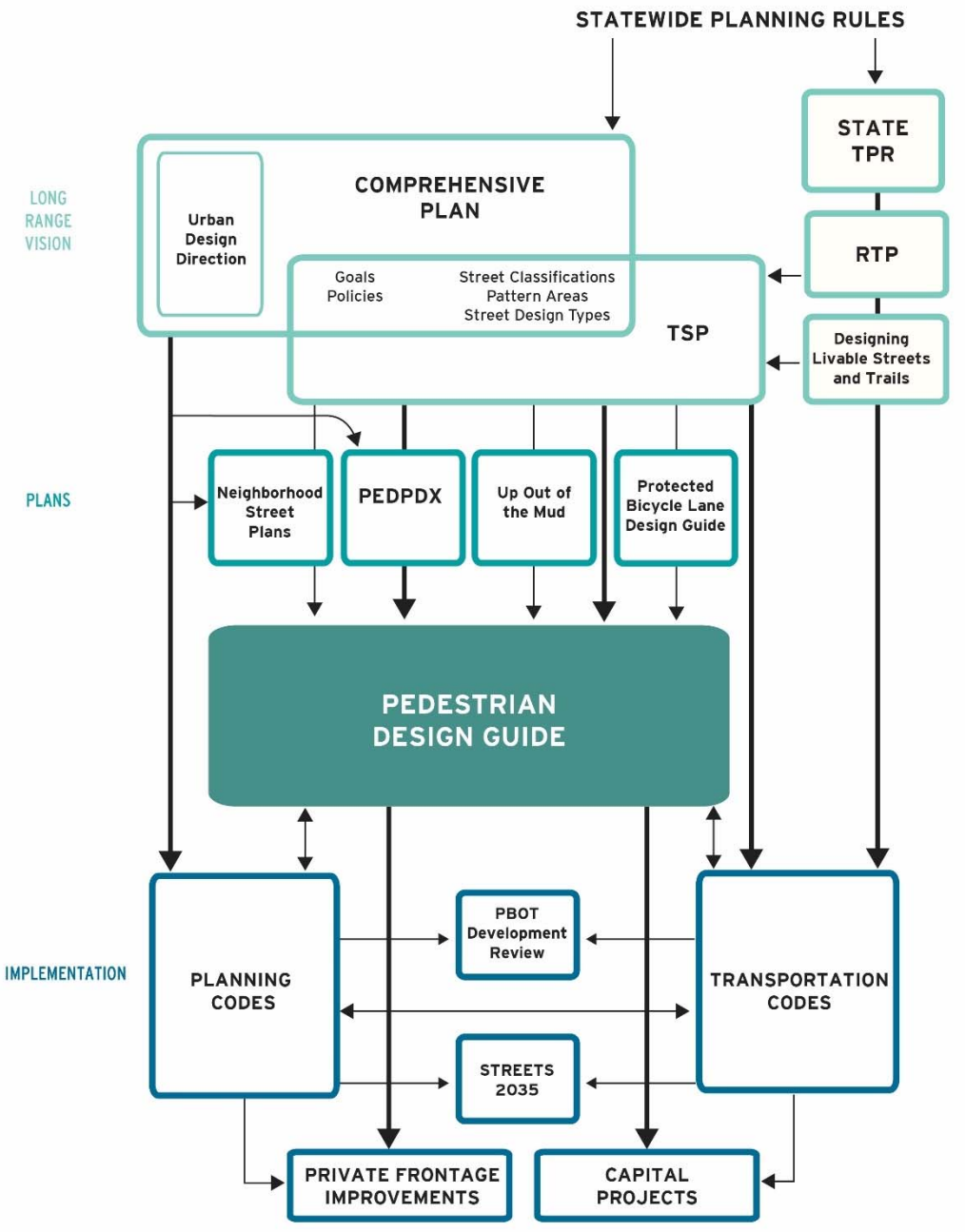

Figure 4. Inter-relationship of plans, visions, and implementation tools that impact the Pedestrian Design Guide

As discussed in previous sections, the documents listed in Figure 4 all are at different levels of being updated – some have been updated within the last year and others are 20 years old. As a result, some may not reflect currently industry standards or trends. The Pedestrian Design Guide update gives the City an opportunity to ensure that the Guide is up to date; reflects the most modern direction of policies, plans, codes, and ordinances; and gives the project team a chance to identify other codes that may need to be modernized.

KEY THEMES ADDRESSED

The current Pedestrian Design Guide Sidewalk Corridor chapter covers a variety of topics. In reviewing applicable plans, policies, code, and ordinances, themes were identified to help understand what existing plans, policies, code, and ordinances will need to be reflected in the updated chapter.

Figure 5 illustrates these themes and shows which reviewed documents fall under each topic areas.

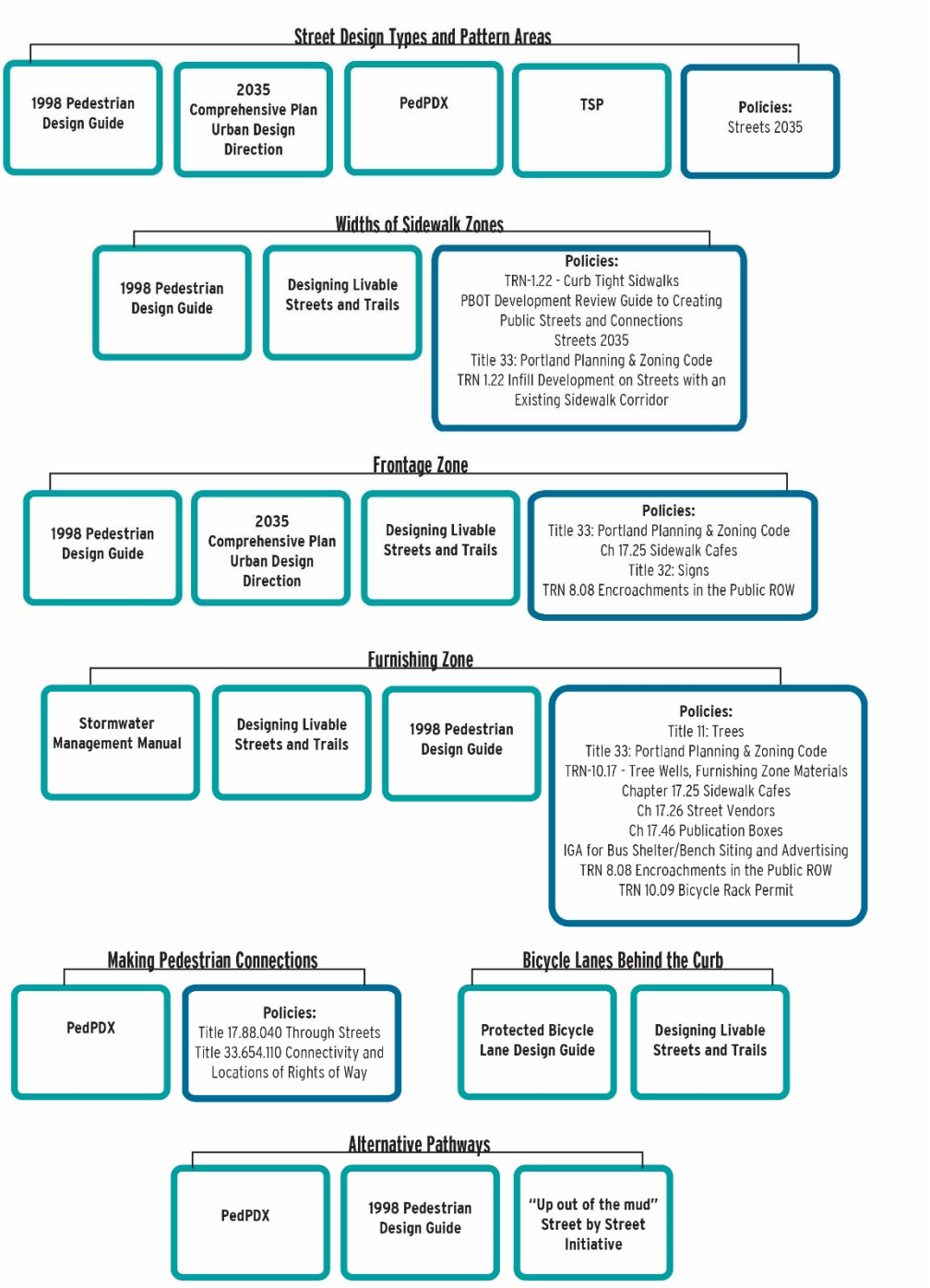

Figure 5. Key themes addressed in reviewed plans and policies

RECONCILIATION OF ZONES

In reviewing the plans, policies, code, and ordinances, it became clear that there is conflicting information and guidance around how the sidewalk corridor should be designed. The following details four of the most prevalent instances of conflicting guidance –sidewalk zones, alternative walkways, bicycle facilities, and sidewalk café guidance. As the Pedestrian Design Guide is updated, it will be important to identify and address these inconsistencies.

Reconciling Varied Sidewalk Zones

The 1998 Pedestrian Design Guide, Metro's Designing Livable Streets and Trails Guide, and the City's Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process document all outline sidewalk corridor width requirements. It is important to note that the 1998 Pedestrian Design Guide does not account for stormwater, and the updated version will need to consider recent plans and policies which will then by incorporated into the Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process document.

Summary Table 1: Sidewalk Zone Widths (Feet)

	Sidewalk Corridor	Furnishing Zone	Pedestrian Through Zone	Frontage Zone
1998 Pedestrian Design Guidelines (City of Portland)				
Pedestrian Districts	15	4	8	2.5
City Walkways, local streets in Pedestrian Districts, 60' ROW streets	12	4	6	1.5
Local Service Walkways with 50' ROW (accepted for City Walkways 50' ROW)	11	4	6	0.5
Local Service Walkways in R-7 or less dense where ROW is less than 50'	10	4	5	0.5
Not recommended, accepted in existing constrained conditions	9	3	5.5	0
Not recommended, accepted in existing constrained conditions	< 9	2	5.5	0
Designing Livable Streets and Trails Guide (Metro)				
Regional boulevard	N/A	4-8 preferred	greater than 8 preferred, 6-8 potential treatment	N/A
Community boulevard	N/A	4-8 preferred	greater than 8 preferred, 6-8 potential treatment	N/A
Regional street	N/A	4-8 preferred	6-8 preferred	N/A
Community street	N/A	4-8 preferred	6-8 preferred	N/A
Creating Public Streets and Pedestrian Connections through the Land Use and Building Permit Process (City of Portland)				
Local Service Street that is not a City Walkway or in a Pedestrian District (RF-R7 zone)	10[1]	-	-	-
Local Service Street that is not a City Walkway or in a Pedestrian District (any other zone)	11	-	-	-
Local Service Street that is a City Walkway or in a Pedestrian District (any zone)	12	-	-	-
Streets in Pedestrian Districts with a traffic classification other than a Local Service Street	15			

[1] In general, an additional four feet would be needed in the sidewalk corridor if a stormwater facility is required.

RECONCILING ALTERNATIVE WALKWAYS

Guidance for Alternative Walkways has shifted over time to offer more protection and space for pedestrians. The 1998 Guide accepted narrower pedestrian through zones, unpaved buffers, and shoulders than PedPDX or Up Out of the Mud recommends. The updated Guide should aim to widen the required widths to reflect the guidance in PedPDX.

Summary Table 2: Alternative Walkways

	Furnishing Zone	Pedestrian Through Zone	Shoulder
1998 Pedestrian Design Guidelines			
Separated Pathways	4’ min for most, varies for some swales or steep grades	5’ min.	N/A
Widened Shoulder, Widened Shoulder with Culvert	N/A	N/A	4’ min.
Widened Shoulder with Ditch or Swale	N/A	N/A	5’ min.
PedPDX			
Protected Safer Shoulder	N/A	N/A	6’-8’, plus separation options in 1’-3’
Slow Safer Shoulder	N/A	N/A	6’-8’, plus painted buffer
Pedestrian Shared Street			4’-7’ without parking, 7’+ with parking
Separated Walkway	4’-7’ unpaved separation buffer	6’ min, 8’ preferred	N/A
Up Out of the Mud			
Separated Residential Street	N/A	6’ min. on one side	7’
Shared Residential Street	N/A	N/A	7’

RECONCILING VARIED BICYCLE FACILITIES

Guidance for ‘Bicycle Facilities Behind the Curb’ was not part of the 1998 Pedestrian Design Guide. Recent guidance from Metro’s Designing Livable Streets and Trails Guide and Portland’s Protected Bicycle Lane Design Guide will need to be reflected in the Pedestrian Design Guide Update and should consider the guidance’s’ different recommended widths for planted buffers for bike through zones located on the sidewalk.

Most critical to this section will be defining what the buffer space between pedestrians and bicyclists can/should look like, what minimum separation treatments are required, and when and where you should provide wider versus narrower facilities within permissible ranges.

Summary Table 3: Bicycle Facilities Behind the Curb (feet)

	Sidewalk Corridor	Furnishing Zone	Bike Through Zone	Pedestrian Through Zone
Designing Livable Streets and Trails Guide				
Regional Boulevard	29	4 + 8 (frame bike zone)	6	11
Regional Street	22	9	5	8
Community Street	24	3 + 5 (frame bike zone)	10	6
Community Street	18	2	6	10
Protected Bicycle Lane Design Guide				
	21	4 + 4 (frame bike zone)	7	6
	21	4 + 2 (frame bike zone)	7	8
	21	8	5	8
	21	4 + 4 (frame bike zone)	7	6

RECONCILING VARIED SIDEWALK CAFÉ GUIDANCE

Sidewalk café guidance was minimal in the 1998 Pedestrian Design Guide. More recent policies and plans address minimum space for seating, a hierarchy of pedestrian through zones needed, and allow for curbside seating. The updated Guide should clearly state the minimum clear zones per street type (or other designated factors) and clarify where sidewalk cafes can be placed in the sidewalk corridor.

Summary Table 4: Sidewalk Cafés

	Sidewalk Corridor	Sidewalk Café Space	Pedestrian Through Zone	Curbside Seating
1998 Pedestrian Design Guidelines				
Sidewalk Cafes	N/A	N/A	6’ min.	N/A
Ch 17.25 Sidewalk Cafes				
Commercial or Employment Zone	8'-10'	N/A	5'-6'	Allowed 2’ from curb
Commercial or Employment Zone	10'-15'	N/A	6'	Allowed 2’ from curb
Commercial or Employment Zone	15'+	N/A	8'	Allowed 2’ from curb
Designing Livable Streets and Trails Guide				
Regional Blvd	N/A	Potential treatment, min 2'	Preferred treatment, >8'	N/A
Community Blvd	N/A	Preferred treatment, min 2'	Preferred treatment, >8'	N/A
Regional St	N/A	Potential treatment, min 2'	Preferred treatment, 6'-8'	N/A
Community St	N/A	Potential treatment, min 2'	Preferred treatment, 6'-8'	N/A