I. Introduction

The purpose of this memorandum is to provide the City of Sandy with regulatory language that will implement the updated Transportation System Plan (TSP) pursuant to the provisions of the Oregon Transportation Planning Rule (the “TPR,” as codified in OAR 660-012-0045). Recommendations contained in this memorandum will also be consistent with the policy and implementation measures of the draft Sandy Transit Master Plan, as this document, once adopted, will become an element of the TSP. Specifically, this memorandum contains recommended amendments to the Development Code (Title 17 of the City of Sandy Municipal Code).

The City’s adopted TSP includes recommended changes to the Municipal Code that, now adopted, implement the TSP and are consistent with the TPR (see Appendix E, 1995 City of Sandy Transportation Plan). This memorandum acknowledges existing TPR-compliant code sections, but also includes some recommended refinements to code language, as well as specifies where code sections need to be updated to reflect the latest TSP update.

The discussion of recommended changes is generally organized in this memorandum through references to the applicable section(s) of the TPR that prompt a change in the City’s implementing ordinances, followed by the recommended revisions. The TPR requirements and general recommendations for text changes to the Development Code discussion are presented in text boxes.

Recommendations for specific revisions to existing code language are presented with deletions shown strikethrough and additions shown underlined. Where new code language is suggested in order to better meet TPR requirements, this text also will be shown underlined. In some instances, the Model Development Code & Users Guide for Small Jurisdictions (2005)\(^1\) was used as a reference document for recommended code revisions.

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\(^1\) http://www.oregon.gov/LCD/TGM/modelCode05.shtml
To the extent possible, proposed text is organized using the numbering hierarchy provided by the City’s Development Code. In one instance, NEW SECTION follows a reference in the proposed text; this is an indication that the referenced section is in the body of the memorandum and does not reference an existing code section. If the City decides to use the proposed language, this marker should be deleted before adoption.

The City may find that suggested language is more appropriately placed elsewhere in the Development Code, or may wish to include reference in more than one section. In such cases, the City will need to revise the section and subsection headings and numbering accordingly. The City is advised to review the recommendations carefully to ensure that proposed language does not conflict with existing code language and, where conflicts do exist, to identify additional areas in the adopted ordinance that should be modified to better comply with the TPR. It is also possible that some additional amendments to proposed language may be necessary to more adequately express the City’s needs.
Proposed Amendments to Title 17 Development Code

OAR 660-12-0045 Implementation of the Transportation System Plan (TSP)

(1) Each local government shall amend its land use regulations to implement the TSP.

(a) The following transportation facilities, services and improvements need not be subject to land use regulations except as necessary to implement the TSP and, under ordinary circumstances do not have a significant impact on land use:

(A) Operation, maintenance, and repair of existing transportation facilities identified in the TSP, such as road, bicycle, pedestrian, port, airport and rail facilities, and major regional pipelines and terminals;

(B) Dedication of right-of-way, authorization of construction and the construction of facilities and improvements, where the improvements are consistent with clear and objective dimensional standards;

(C) Uses permitted outright under ORS 215.213(1)(m) through (p) and 215.283(1)(k) through (n), consistent with the provisions of 660-012-0065; and

(D) Changes in the frequency of transit, rail and airport services.

(b) To the extent, if any, that a transportation facility, service or improvement concerns the application of a comprehensive plan provision or land use regulation, it may be allowed without further land use review if it is permitted outright or if it is subject to standards that do not require interpretation or the exercise of factual, policy or legal judgment;

Requirements: Certain transportation facilities and improvements do not need to be subject to land use regulations and may be allowed outright.

Recommendation: Currently, the city’s zoning districts (Chapter 17.30) do not list transportation facilities and improvements specifically. Transportation facilities include public improvements for streets, transit, parking, and bicycle and pedestrian facilities. The City can meet this TPR requirement by including transportation facilities that do not have a significant impact on land use in the “Permitted Uses” section of each land use district chapter.

Another way to meet this requirement is to allow outright only transportation facilities that have been identified in the TSP, with all other projects subject to the city’s conditional use process. Transportation facilities and improvements that are not part of the city’s TSP and are not part of a subdivision or partition subject to site design review should be allowed in all districts as conditional uses. To eliminate the necessity of listing transportation facilities as a conditional use under specific zoning districts, the City should consider including a new subsection, Criteria for Certain Transportation Facilities and Improvements, in Chapter 17.68, Conditional Uses (proposed language below).
17.68.20 REVIEW CRITERIA
The Planning Commission may approve an application, approve with modifications, approve with conditions, or deny an application for a conditional use permit after a public hearing. […]

The following criteria and compatibility factors shall be considered:

A. The use is listed as a conditional use in the underlying zoning district or has been interpreted to be similar in use to other listed conditional uses, or is subject to 17.68.80, Criteria for Certain Transportation Facilities and Improvements.

17.68.80 CRITERIA FOR CERTAIN TRANSPORTATION FACILITIES AND IMPROVEMENTS

A. Construction, reconstruction, or widening of highways, roads, bridges or other transportation facilities that are (1) not designated in the adopted City of Sandy Transportation System Plan (“TSP”) or (2) not designed and constructed as part of an approved, active, development order are allowed in all zoning districts subject to the Conditional Use provisions of the Development Code and satisfaction of all of the following criteria:

1. The project and its design are consistent with the city’s adopted TSP and consistent with the State Transportation Planning Rule, OAR 660-012 (“the TPR”).
2. The project design is compatible with abutting land uses in regard to noise generation and public safety and is consistent with the applicable zoning and development standards and criteria for the abutting properties.
3. The project design minimizes environmental impacts to identified wetlands, wildlife habitat, air and water quality, cultural resources, and scenic qualities, and a site with fewer environmental impacts is not reasonably available.
4. The project preserves or improves the safety and function of the facility through access management, traffic calming, or other design features.
5. The project includes provisions for bicycle and pedestrian access and circulation consistent with the comprehensive plan, the requirements of this ordinance, and the TSP.

B. State transportation system facility or improvement projects. The Oregon Department of Transportation (“ODOT”) shall provide a narrative statement with the application demonstrating compliance with all of the criteria and standards in Section 17.68.80. Where applicable, an Environmental Impact Statement or Environmental Assessment may be used to address one or more of these criteria.

C. Proposal inconsistent with TSP/TPR. If the city determines that the proposed use or activity or its design is inconsistent with the TSP or TPR, then the applicant shall apply for and obtain a plan and/or zoning amendment prior to or in conjunction with conditional use permit approval. The applicant shall choose one of the following options:

1. If the city’s determination of inconsistency is made prior to a final decision on the conditional use permit application, the applicant shall withdraw the conditional use application; or
2. If the city’s determination of inconsistency is made prior to a final decision on the conditional use permit application, the applicant shall withdraw the conditional permit application, apply for a plan/zone amendment, and re-
apply for a conditional use permit if and when the amendment is approved; or

3. If the city’s determination of inconsistency is made prior to a final decision on the conditional use permit application, the applicant shall submit a plan/zoning amendment application for joint review and decision with the conditional use permit application, along with a written waiver of the ORS 227.178 120-day period within which to complete all local reviews and appeals once the application is deemed complete; or

4. If the city’s determination of inconsistency is part of a final decision on the conditional use permit application, the applicant shall submit a new conditional use permit application, along with a plan/zoning amendment application for joint review and decision.
CHAPTER 17.24 COMPREHENSIVE PLAN AMENDMENT PROCEDURES

17.24.40 APPLICATION REQUIREMENTS
An application may be filed jointly by any or all of the property owners of record or their authorized agents within the area of the proposed Comprehensive Plan amendment. [...] Notice shall be provided to the Land Conservation and Development Commission (LCDC) of any proposed amendment or new regulation as provided by State law. In addition, notice of any proposed amendment that may affect private access to state roads, or that may impact a state transportation facility, shall be provided to the Oregon Department of Transportation (ODOT).
OAR 660-12-0045
(2) Local governments shall adopt land use or subdivision ordinance regulations, consistent with applicable federal and state requirements, to protect transportation facilities, corridors and sites for their identified functions. Such regulations shall include:

(a) Access control measures, for example, driveway and public road spacing, median control and signal spacing standards, which are consistent with the functional classification of roads and consistent with limiting development on rural lands to rural uses and densities;

Requirement: Local governments must adopt land use or subdivision ordinance regulations that protect transportation facilities for their identified functions, including access control.

Compliance Discussion: The Development Ordinance substantially meets this TPR requirement through the requirements of Chapter 17.98, Parking, Loading, and Access Requirements. In addition, Chapter 17.84 includes arterial street spacing consistent with the draft TSP (Table 1) and traffic signal spacing standards (Subsection 17.84.50).

Recommendation: The addition of access spacing standards tables developed for the TSP (Tables 1 and 2) is recommended for inclusion in the development standards. In addition, proposed text language below provides the context for access management, details how the City or a transportation agency with jurisdiction may control access, and specifies standards related to minimizing access points onto arterials and collectors.

Recommended code amendments also include making traffic signal spacing standards consistent with the city block length standards (see Section 17.84.50 below).

17.84.50 STREET REQUIREMENTS
B. Location of new arterial streets shall conform to the Transportation System Plan in accordance with the following:
   1. Arterial streets should generally be spaced in one-mile intervals.
   2. Traffic signals should generally not be spaced closer than 1500 ft. for reasonable traffic progression.

17.98.80 ACCESS TO ARTERIAL AND COLLECTOR STREETS MANAGEMENT
A. Access control standards apply to public, industrial, commercial and residential developments including land divisions. Access shall be managed to maintain an adequate level of service and to maintain the functional classification of roadways as required by the City of Sandy Transportation System Plan. Major roadways, including arterials and collectors, serve as the primary system for moving people and goods within and through the city. Access management is a primary concern on these roads. Local streets and alleys provide access to individual properties. If vehicular access and circulation are not properly designed, these roadways will be unable to accommodate the needs of development and serve their transportation function.
B. Access Spacing. All proposed development shall have access to a public right-of-way. Spacing requirements for access points and intersections is shown in the following two tables:

Table 1: Minimum Access Spacing Standards for City Street Facilities
Table 2: Minimum ODOT Access Spacing Standards
C.A. Location and design of all accesses to and/or from arterials and collectors (as designated in the Transportation System Plan) are subject to review and approval by the City Engineer. Where practical, access from a lower functional order street may be required. Accesses to arterials or collectors shall be located a minimum of 150 ft. from any other access or street intersection. Exceptions may be granted by the City Engineer. Evaluations of exceptions shall consider posted speed of the street on which access is proposed, constraints due to lot patterns, and effects on safety and capacity of the adjacent public street, bicycle and pedestrian facilities.

D.B. No development site shall be allowed more than one access point to any arterial or collector street (as designated in the Transportation System Plan) except as approved by the City Engineer. Evaluations of exceptions shall consider posted speed of street on which access is proposed, constraints due to lot patterns, and effects on safety and capacity of the adjacent public street, bicycle and pedestrian facilities.

E.C. When developed property is to be expanded or altered in a manner that significantly affects on-site parking or circulation, both existing and proposed accesses shall be reviewed under the standards in A and B above. As a part of an expansion or alteration approval, the City may require relocation and/or reconstruction of existing accesses not meeting those standards.

F. The City or other agency with access permit jurisdiction may require the closing or consolidating existing curb cuts or other vehicle access points, recording of reciprocal access easements (i.e., for shared driveways), developing a frontage street, installing traffic control devices, and/or other mitigation as a condition of granting an access permit to ensure the safe and efficient operation of the street and highway system. Access to and from off-street parking areas shall not permit backing onto a public street.

G. Traffic Impact Analysis Requirements. The City or other agency with access jurisdiction may require a traffic study prepared by a qualified professional to determine access, circulation and other transportation requirements. (See also, 17.84.50.A Traffic Impact Analysis.)
17.84.50 STREET REQUIREMENTS

A. Traffic Impact Analysis, evaluations may be required of all development proposals in accordance with the following:

1. A proposal establishing the scope of the traffic evaluation shall be submitted for review to the City Engineer. The evaluation requirements shall reflect the magnitude of the project in accordance with accepted traffic engineering practices. Large projects should assess all nearby key intersections. Once the scope of the traffic evaluation has been approved, the applicant shall present the results with an overall site development proposal. If required by the City Engineer, such evaluations shall be signed by a

OAR 660-12-0045(2)
(b) Local governments shall adopt …Standards to protect future operation of roads, transit ways and major transit corridors;
(e) Local governments shall adopt …A process to apply conditions to development proposals in order to minimize impacts and protect transportation facilities, corridors or sites;

Requirements: Local governments must adopt land use or subdivision ordinance standards to protect the future operations of roadways and transit corridors (OAR Section 660-12-0045(2)(b)).

Local governments must adopt a process that allows conditioning development proposals in order to minimize impacts and protect transportation facilities (OAR Section 660-12-0045(2)(e)).

Compliance Discussion: These sections of the TPR address the need to account for potential development impacts to roadways and to ensure that transportation facilities continue to meet community needs. An effective way to ensure that roadways are protected for their planned function and capacity is to require a transportation impact analysis or impact study as part of a development application. Pursuant to existing code language, the city currently may require a “traffic evaluation” as part of any development proposal (17.84.50.A).

Recommendation: In order to better meet the TPR requirement, the Development Ordinance should require a TIA for all new development that would potentially impact the roadway system. Proposed language below also gives the City the authority to require a TIA when a development application involves a change in zoning or a plan amendment designation, prior to (or concurrently with) a proposal to subdivide the land. The following draft language for Section 17.84.50, would require a traffic study under prescribed conditions and lists the required elements of such a study. Proposed language also makes explicit that transportation-related conditions of approval may be applied to development proposals.

Outstanding Issues:

Are the thresholds suggested in 17.84.50.A.3.c appropriate for the City of Sandy?

Does the City currently accept traffic evaluations prepared by engineering professionals chosen by applicants, or does the city commission these reports and require payment from applicants (see 17.84.50.A.4)?

Does Chapter 17.64, Planned Development, need a cross-reference to the TIA submittal requirement?
Licensed Professional Civil Engineer or Licensed Professional Traffic Engineer licensed in the State of Oregon.

2. If the traffic evaluation identifies level of service conditions less than the minimum standard established in the Transportation System Plan, improvements and funding strategies mitigating the problem shall be considered concurrent with a development proposal.

1. Purpose. The purpose of this section of the code is to implement Section 660-012-0045(2)(e) of the State Transportation Planning Rule that requires the City to adopt a process to apply conditions to development proposals in order to minimize adverse impacts to and protect transportation facilities. This section establishes the standards for when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Analysis must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what must be in a Traffic Impact Study; and who is qualified to prepare the Study.

2. Typical Average Daily Trips. The latest edition of the Trip Generation manual, published by the Institute of Transportation Engineers (ITE) shall be used as standards by which to gauge average daily vehicle trips.

3. When Required. A Traffic Impact Analysis may be required to be submitted to the City with a land use application, when the development application involves one or more of the following actions:
   a. A change in zoning or a plan amendment designation;
   b. Any proposed development or land use action that ODOT states may have operational or safety concerns along a state highway; or
   c. The development shall cause one or more of the following effects, which can be determined by field counts, site observation, traffic impact analysis or study, field measurements, crash history, Institute of Transportation Engineers Trip Generation manual; and information and studies provided by the City and/or ODOT:
      i. An increase in site traffic volume generation by 250 Average Daily Trips (ADT) or more (or as required by the City Engineer); or
      ii. An increase in site traffic volume generation of 25 or more peak-hour trips; or
      iii. An increase in use of adjacent streets by vehicles exceeding the 20,000 pound gross vehicle weights by 10 vehicles or more per day; or
      iv. The location of the access driveway does not meet minimum intersection sight distance requirements, or is located where vehicles entering or leaving the property are restricted, or such vehicles queue or hesitate, creating a safety hazard; or
      v. The location of the access driveway does not meet the access spacing standard of the roadway on which the driveway is located; or
      vi. A change in internal traffic patterns that may cause safety problems, such as back up onto the highway or a local arterial or collector, or traffic crashes in the approach area.

   a. Preparation. A Traffic Impact Analysis shall be prepared by a professional engineer. The City shall commission the traffic analysis and it will be paid for by the applicant.
   b. Transportation Planning Rule Compliance. See Section 17.27 Transportation Planning Rule Compliance.
c. Pre-application Conference. The applicant will meet with the City Engineer prior to submitting an application that requires a Traffic Impact Application. This meeting will determine the required elements of the TIA and the level of analysis expected.

5. Approval Criteria. When a Traffic Impact Analysis is required, approval of the development proposal requires satisfaction of the following criteria:
   a. The Traffic Impact Analysis was prepared by a professional engineer in accordance; and
   b. If the proposed development shall cause one or more of the effects in Section 17.84.50.A.3, above, or other traffic hazard or negative impact to a transportation facility, the Traffic Impact Analysis includes mitigation measures that meet the City’s Level-of-Service and satisfactory to the City Engineer, and ODOT when applicable; and
   c. The proposed site design and traffic and circulation design and facilities, for all transportation modes, including any mitigation measures, are designed to:
      i. Have the least negative impact on all applicable transportation facilities;
      ii. Accommodate and encourage non-motor vehicular modes of transportation to the extent practicable;
      iii. Make the most efficient use of land and public facilities as practicable;
      iv. Provide the most direct, safe and convenient routes practicable between on-site destinations, and between on-site and off-site destinations; and
      v. Otherwise comply with applicable requirements of the City of Sandy Development Ordinance.

6. Study Area. The study area for the TIA shall include, at a minimum, all site-access points and intersections (signalized and unsignalized) adjacent to the proposed site. If the proposed site fronts an arterial or collector street; the study shall include all intersections along the site frontage and within the access spacing distances extending out from the boundary of the site frontage. Beyond the minimum study area, the transportation impact analysis shall evaluate all intersections that receive site-generated trips that comprise at least 10% or more of the total intersection volume. In addition to these requirements, the City Engineer (or his/her designee) shall determine any additional intersections or roadway links that might be adversely affected as a result of the proposed development. The applicant and the City Engineer (or his/her designee) will agree on these intersections prior to the start of the transportation impact analysis.

7. Conditions of Approval. As part of every land use action, the City of Sandy, Clackamas County (if access to a County roadway is proposed), and ODOT (if access to a state roadway is proposed) will be required to identify conditions of approval needed to meet operations and safety standards and provide the necessary right-of-way and improvements to develop the future planned transportation system. The City may deny, approve, or approve the proposal with appropriate conditions. Conditions of Approval that should be evaluated as part of subdivision and site plan reviews include:
   a. Crossover easement agreements for all adjoining parcels to facilitate future access between parcels.
   b. Conditional access permits for new developments which have proposed access points that do not meet the designated access spacing policy and/or have the ability to align with opposing access driveways.
   c. Right-of-way dedications for future planned roadway improvements.
   d. Half-street improvements along site frontages that do not have full-buildout improvements in place at the time of development.
CHAPTER 17.24 COMPREHENSIVE PLAN AMENDMENT PROCEDURES

17.24.70 REVIEW CRITERIA
Comprehensive Plan amendments shall be reviewed to assure consistency with the purposes of this chapter, policies of the Comprehensive Plan, and any other applicable policies and standards adopted by the City Council. Amendments shall be approved only when the following findings are made:
A. The change being proposed is the best means of meeting the identified public need;
B. Adequate public facilities, services, and transportation networks are in place or are planned to be provided concurrently with the development of the property. A Traffic Impact Analysis, pursuant to Section 17.84.50.A may be required to determine the adequacy of existing or planned transportation facilities and demonstrate compliance with OAR 660-012-0060; and
C. The change conforms to all applicable Statewide Planning Goals.

CHAPTER 17.26 ZONING DISTRICT AMENDMENTS

17.26.30 LEGISLATIVE AMENDMENT PROCEDURES
A zoning district change is considered a legislative act if the change applies uniformly to all properties in the City or to a sufficiently large number of properties as determined by contemporary legal principles.

B. Review Criteria. Legislative amendments shall be reviewed to:
   1. Determine the effects on City facilities and services. To assure adequacy of public facilities, services, and transportation networks. A Traffic Impact Analysis, pursuant to Section 17.84.50.A may be required to determine the adequacy of existing or planned transportation facilities and demonstrate compliance with OAR 660-012-0060;
   2. To assure consistency with the purposes and intent of this chapter;
   3. To assure consistency with the policies of the Comprehensive Plan;
   4. To assure consistency with the Statewide Planning Goals as may be necessary, and any other applicable policies and standards adopted by the City Council.

17.26.40 QUASI-JUDICIAL AMENDMENT PROCEDURES
All zoning district changes not deemed legislative shall be quasi-judicial.

B. Review Criteria. Quasi-judicial zoning district changes shall be reviewed to:
   1. Determine the effects on City facilities and services. To assure adequacy of public facilities, services, and transportation networks. A Traffic Impact Analysis, pursuant to Section 17.84.50.A may be required to determine the adequacy of existing or planned transportation facilities and demonstrate compliance with OAR 660-012-0060;
   2. To assure consistency with the purposes of this chapter;
   3. To assure consistency with the policies of the Comprehensive Plan;
   4. To assure consistency with the Statewide Planning Goals as may be necessary, and any other applicable policies and standards adopted by the City Council.
CHAPTER 17.27 TRANSPORTATION PLANNING RULE COMPLIANCE

17.27.00 Review of Applications for Effect on Transportation Facilities

When a development application, whether initiated by the City or by a private interest, includes a proposed comprehensive plan amendment, zone change, or land use regulation change, the proposal shall be reviewed to determine whether it significantly affects a transportation facility, in accordance with Oregon Administrative Rule (OAR) 660-012-0060 (the Transportation Planning Rule – “TPR”). “Significant” means the proposal would:

A. Change the functional classification of an existing or planned transportation facility (exclusive of correction of map errors in an adopted plan);
B. Change standards implementing a functional classification system; or
C. As measured at the end of the planning period identified in the adopted transportation system plan:
   1. Allow land uses or levels of development that would result in types or levels of travel or access that are inconsistent with the functional classification of an existing or planned transportation facility;
   2. Reduce the performance of an existing or planned transportation facility below the minimum acceptable performance standard identified in the TSP or comprehensive plan; or

Requirements: This TPR requirement ensures that amendments to the comprehensive plan and land use regulations are reviewed for their impact on transportation facilities identified in the TSP.

Compliance Discussion: The City’s current requirements do not include specific provisions for proposed development and plan or code amendments that impact transportation facilities. To better comply with the TPR, it is recommended that Development Code include clarification that approval of amendments to land use designations, densities, and design standards is contingent on findings of consistency with the planned transportation system, as adopted in the City’s TSP.

Recommendation: Below is a new Chapter 17.27 Transportation Planning Rule Compliance that is recommended for inclusion in the Zone Changes and Plan Amendments section. The purpose of this subsection is to specify how proposed land use amendments and changes in land use designations or zoning are to comply with the TPR. The new subsection also discusses how to ensure that proposed amendments to the comprehensive plan or to the development code are consistent with the TSP when the amendment significantly affects a transportation facility. Please note that, while the proposed language is intended to provide guidance in determining when a code or plan amendment is considered to have an impact on transportation facilities, the Development Code currently does not have section that addresses approval requirements for proposed text amendments.

This proposed code amendment is consistent with OAR 660-12-060, which requires that amendments to functional plans, acknowledged comprehensive plans, and land use regulations that significantly affect an existing or planned transportation facility must ensure that the allowed land uses are consistent with the identified function, capacity, and performance standards of the facility.
3. Worsen the performance of an existing or planned transportation facility that is otherwise projected to perform below the minimum acceptable performance standard identified in the TSP or comprehensive plan.

17.27.10 Amendments That Affect Transportation Facilities

Amendments to the comprehensive plan and land use regulations that significantly affect a transportation facility shall ensure that allowed land uses are consistent with the function, capacity, and level of service of the facility identified in the TSP. This shall be accomplished by one or a combination of the following:

A. Adopting measures that demonstrate allowed land uses are consistent with the planned function, capacity, and performance standards of the transportation facility.

B. Amending the TSP or comprehensive plan to provide transportation facilities, improvements or services adequate to support the proposed land uses consistent with the requirements of Section -0060 of the TPR.

C. Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes of transportation.

D. Amending the TSP to modify the planned function, capacity or performance standards of the transportation facility.

17.27.20 Traffic Impact Analysis

A Traffic Impact Analysis shall be submitted with a plan amendment or land use district change application. (See Subsection 17.84.50.A, Traffic Impact Analysis (TIA)).
OAR 660-12-0045(3)

Local governments shall adopt land use or subdivision regulations for urban areas and rural communities as set forth below. The purposes of this section are to provide for safe and convenient pedestrian, bicycle and vehicular circulation consistent with access management standards and the function of affected streets, to ensure that new development provides on-site streets and accessways that provide reasonably direct routes for pedestrian and bicycle travel in areas where pedestrian and bicycle travel is likely if connections are provided, and which avoids wherever possible levels of automobile traffic which might interfere with or discourage pedestrian or bicycle travel.

(a) Bicycle parking facilities as part of new multi-family residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots;

(b) On-site facilities shall be provided which accommodate safe and convenient pedestrian and bicycle access from within new subdivisions, multi-family developments, planned developments, shopping centers, and commercial districts to adjacent residential areas and transit stops, and to neighborhood activity centers within one-half mile of the development. Single-family residential developments shall generally include streets and accessways. Pedestrian circulation through parking lots should generally be provided in the form of accessways.

(c) Where off-site road improvements are otherwise required as a condition of development approval, they shall include facilities accommodating convenient pedestrian and bicycle travel, including bicycle ways along arterials and major collectors;

(e) Internal pedestrian circulation within new office parks and commercial developments shall be provided through clustering of buildings, construction of accessways, walkways and similar techniques.

Requirements: Local governments must adopt land use or subdivision ordinance regulations that:

- require bicycle parking as part of new multi-family (four units or more), retail, office, and institutional developments.
- provide “safe and convenient” pedestrian and bicycle connections from new subdivisions/multifamily development to neighborhood activity centers; require bikeways along arterials and major collectors; and require sidewalks along arterials, collectors, and most local streets in urban areas (OAR Section 660-12-0045(3)(b)).
- require off-site road improvements as a condition of development approval that accommodate bicycle and pedestrian travel, including facilities on arterials and major collectors (OAR Section 660-12-0045(3)(c)).
- provide internal pedestrian circulation within new office parks and commercial developments (OAR Section 660-12-0045(3)(e)).

Compliance Discussion: The purpose of these sections of the TPR is to ensure that safe and convenient circulation and facilities are provided for pedestrians and bicyclists, within new residential and commercial development and on public streets.

Consistent with TPR requirements, the Development Code requires bicycle parking for multi-family, retail, office and institutional developments (Section 17.98.20, Off-Street Parking Requirements) and specifies its location and design (Section 17.98.160, Bicycle Parking Facilities).
The requirements under Chapter 17.82, Special Setbacks on Transit Streets, also meet -0045(3) requirements. Standards require that all developments must have access and parking area plans that provide efficient sidewalk and/or walkway connections between neighboring developments or land uses (Section 17.82.30.D, Parking, Loading and Service Areas). Pedestrian connectivity and internal orientation are addressed in Section 17.82.40, Access, Egress and Circulation. Because Chapter 17.82 is not limited to just development on designated transit streets (defined in the Sandy Transit Master Plan as “(a)ny street that is currently served by fixed-route transit or planned for future transit service”), it is recommended that the Chapter title be changed to “Pedestrian, Bicycle and Transit Access.”

Subsection 17.84.30 contains the standards for sidewalks and bike lanes.

**Recommendations:** Consistent with existing City policies and the draft Transportation System Plan, Subsection 17.84.30 should include the requirement of bike lanes on all arterial and selected collector streets. Pursuant to Subsection 17.84.30.E, off-site pedestrian facilities may be required as part of development approval; it is further recommended that this requirement be expanded to include bicycle facilities.

**CHAPTER 17.82  SPECIAL SETBACKS ON TRANSIT STREETS PEDESTRIAN, BICYCLE AND TRANSIT ACCESS**

**17.84.30 PEDESTRIAN AND BICYCLIST REQUIREMENTS**

A. Sidewalks shall be required along both sides of all arterial, collector, and local streets, as follows:

1. Sidewalks shall be a minimum of 5 ft. wide on local streets. The sidewalks shall be separated from curbs by a tree planting area that provides separation between sidewalk and curb, unless modified in accordance with Subsection 3 below.

2. Sidewalks along arterial and collector streets shall be separated from curbs with a planting area, except as necessary to continue an existing curb-tight sidewalk. The planting area shall be landscaped with trees and plant materials approved by the City. The sidewalks shall be a minimum of 6 ft. wide.

3. Sidewalk improvements shall be made according to city standards, unless the city determines that the public benefit in the particular case does not warrant imposing a severe adverse impact to a natural or other significant feature such as requiring removal of a mature tree, requiring undue grading, or requiring modification to an existing building. Any exceptions to the standards shall generally be in the following order.

a) Narrow landscape strips
b) Narrow sidewalk or portion of sidewalk to no less than 4 feet in width
d) Narrow on-street improvements by eliminating on-street parking
e) Eliminate sidewalks

4. The timing of the installation of sidewalks shall be as follows:

a) Sidewalks and planted areas along arterial and collector streets shall be installed with street improvements, or with development of the site if street improvements are deferred.
b) Sidewalks along local streets shall be installed in conjunction with development of the site, generally with building permits, except as noted in (c) below.

c) Where sidewalks on local streets abut common areas, drainageways, or other publicly owned or semi-publicly owned areas, the sidewalks and planted areas shall be installed with street improvements.

B. Bike lanes shall be required along both sides of all arterial streets, as well as collector streets if identified in the transportation system plan, as follows:

1. Bike lanes shall be a minimum of 5 ft. wide on arterial and collector streets.
2. Bike lanes shall be striped and otherwise demarcated to distinguish the bicycle travel lanes from the automobile travel lanes.
3. Bike lane improvements shall be made according to city standards, unless the city determines that the public benefit in the particular case does not warrant imposing a severe adverse impact to a natural or other significant feature such as requiring removal of a mature tree, requiring undue grading, or requiring modification to an existing building.

B. C. Safe and convenient pedestrian and bicyclist facilities that strive to minimize travel distance to the extent practicable shall be provided in conjunction with new development within and between new subdivisions, planned developments, commercial developments, industrial areas, residential areas, public transit stops, school transit stops, and neighborhood activity centers such as schools and parks, as follows:

1. For the purposes of this section, “safe and convenient” means pedestrian and bicyclist facilities that: are reasonably free from hazards which would interfere with or discourage travel for short trips; provide a direct route of travel between destinations; and meet the travel needs of pedestrians and bicyclists considering destination and length of trip.

2. To meet the intent of “B” above, right-of-ways connecting cul-de-sacs or passing through unusually long or oddly shaped blocks shall be a minimum of 15 ft. wide with 8 feet of pavement.

3. 12 feet wide pathways shall be provided in areas with high bicycle volumes or multiple use by bicyclists, pedestrians, and joggers.

4. Pathways and sidewalks shall be encouraged in new developments by clustering buildings or constructing convenient pedestrian ways. Pedestrian walkways shall be provided in accordance with the following standards:

   a) The pedestrian circulation system shall be at least five feet in width and shall connect the sidewalk on each abutting street to the main entrance of the primary structure on the site to minimize out of direction pedestrian travel.

   b) Walkways at least five feet in width shall be provided to connect the pedestrian circulation system with existing or planned pedestrian facilities which abut the site but are not adjacent to the streets abutting the site.

   c) Walkways shall be as direct as possible and avoid unnecessary meandering.

   d) Walkway/driveway crossings shall be minimized. Internal parking lot design shall maintain ease of access for pedestrians from abutting streets, pedestrian facilities, and transit stops.

   e) With the exception of walkway/driveway crossings, walkways shall be separated from vehicle parking or vehicle maneuvering areas by grade, different paving material, painted crosshatching or landscaping. They shall
be constructed in accordance with the sidewalk standards adopted by the City. (This provision does not require a separated walkway system to collect drivers and passengers from cars that have parked on site unless an unusual parking lot hazard exists).

f) Pedestrians amenities such as covered walk-ways, awnings, visual corridors and benches will be encouraged. For every two benches provided, the minimum parking requirements will be reduced by one, up to a maximum of four benches per site. Benches shall have direct access to the circulation system.

D. Where a development site is traversed by or adjacent to a future trail linkage identified within the Transportation System Plan, improvement of the trail linkage shall occur concurrent with development. Dedication of the trail to the City shall be provided in accordance with 17.84.80.

E. To provide for orderly development of an effective pedestrian network, pedestrian facilities installed concurrent with development of a site shall be extended through the site to the edge of adjacent property(ies).

F. To ensure improved access between a development site and an existing developed facility such as a commercial center, school, park, or trail system, the Planning Commission or Director may require off-site pedestrian and bicycle facility improvements concurrent with development.
OAR 660-12-0045 (4) To support transit in urban areas containing a population greater than 25,000, where the area is already served by a public transit system or where a determination has been made that a public transit system is feasible, local governments shall adopt land use and subdivision regulations as provided in (a)-(g) below:

(a) Transit routes and transit facilities shall be designed to support transit use through provision of bus stops, pullouts and shelters, optimum road geometrics, on-road parking restrictions and similar facilities, as appropriate;

(b) New retail, office and institutional buildings at or near major transit stops shall provide for convenient pedestrian access to transit through the measures listed in (A) and (B) below.

(A) Walkways shall be provided connecting building entrances and streets adjoining the site;

(B) Pedestrian connections to adjoining properties shall be provided except where such a connection is impracticable as provided for in OAR 660-012-0045(3)(b)(E). Pedestrian connections shall connect the on site circulation system to existing or proposed streets, walkways, and driveways that abut the property. Where adjacent properties are undeveloped or have potential for redevelopment, streets, accessways and walkways on site shall be laid out or stubbed to allow for extension to the adjoining property;

C) In addition to (A) and (B) above, on sites at major transit stops provide the following:

(i) Either locate buildings within 20 feet of the transit stop, a transit street or an intersecting street or provide a pedestrian plaza at the transit stop or a street intersection;

(ii) A reasonably direct pedestrian connection between the transit stop and building entrances on the site;

(iii) A transit passenger landing pad accessible to disabled persons;

(iv) An easement or dedication for a passenger shelter if requested by the transit provider; and

(v) Lighting at the transit stop.

(c) Local governments may implement (4)(b)(A) and (B) above through the designation of pedestrian districts and adoption of appropriate implementing measures regulating development within pedestrian districts. Pedestrian districts must comply with the requirement of (4)(b)(C) above;

(d) Designated employee parking areas in new developments shall provide preferential parking for carpools and vanpools;

(e) Existing development shall be allowed to redevelop a portion of existing parking areas for transit-oriented uses, including bus stops and pullouts, bus shelters, park and ride stations, transit-oriented developments, and similar facilities, where appropriate;

(f) Road systems for new development shall be provided that can be adequately served by transit, including provision of pedestrian access to existing and identified future transit routes. This shall include, where appropriate, separate accessways to minimize travel distances;

(g) Along existing or planned transit routes, designation of types and densities of land uses adequate to support transit.
**Requirement:** Because the City is currently served by transit, the Development Code must include regulations to support transit, including requiring new retail, office, and institutional buildings at or near major transit stops to provide convenient pedestrian access to transit (OAR Section 660-12-0045(4)(b)).

**Compliance Discussion:** The Development Code currently includes provisions for building orientation and special setbacks on transit streets (Section 17.82). Development sites located along existing or planned transit routes are required to incorporate bus pull-outs and/or shelters into the site design and to provide safe and convenient access to the transit system (Subsection 17.84.40). A reduction in required parking is also available to developers who provide transit amenities (Subsection 17.98.30). To encourage car and vanpooling, all new industrial, commercial, and community service uses with more than 50 employees must designate and sign carpool/vanpool parking spaces (Subsection 17.98.180).

Subdivision requirements include providing a transportation system that demonstrates that proposed street or street extensions are located to provide direct access to existing or planned transit stops and existing or planned neighborhood activity centers, such as schools, shopping areas and parks (Subsection 1700.100.100.E).

As highlighted in the draft Sandy Transit Master Plan, the City of Sandy Urbanization Study (ECOnorthwest, 2008) forecasts an average residential density of 6.8 residential dwelling units per acre in 2029 and an average household size of 2.7. Sandy is expected to have just over 18 people per acre. While the Transit Master Plan notes that this does not represent a population density conducive to high levels of transit use, there are existing areas of Sandy where population densities approach 26 people per acre. Consistent with TPR requirement -0045(4)(g), planned land uses along existing and future transit routes consist of employment, commercial and higher density residential. Industrial, Commercial, and High Density Residential zones are the predominant zone districts along the Sandy Area Metro routes (Estacata and Sandy-Gresham) within the City of Sandy's city limits. Future high-density and intensity uses, as allowed by the existing zoning, are expected to add to existing transit demand.

**Recommendation:** No code amendments necessary to meet TPR requirements.
OAR 660-12-0045(6)
In developing a bicycle and pedestrian circulation plan as required by 660-012-0020(2)(d), local governments shall identify improvements to facilitate bicycle and pedestrian trips to meet local travel needs in developed areas. Appropriate improvements should provide for more direct, convenient and safer bicycle or pedestrian travel within and between residential areas and neighborhood activity centers (i.e., schools, shopping, transit stops). Specific measures include, for example, constructing walkways between cul-de-sacs and adjacent roads, providing walkways between buildings, and providing direct access between adjacent uses.

Requirement: Local governments must establish identify improvements to facilitate bicycle and pedestrian trips in developed areas and codify development requirements to provide pedestrian access within and between developments and uses.

Compliance Discussion: The City of Sandy’s TSP update includes a recommended bicycle network that builds upon the system of bike lanes and shoulder bikeways already in place and a Pedestrian Plan that “focuses on pedestrian infrastructure improvements for improving walking attractiveness and the viability of walking as a mode of travel in Sandy.” (See Chapter 3 in the 2009 draft TSP). The Development Code includes development standards that require connectivity for non-motorized modes of transportation. As explored elsewhere in this memorandum, and summarized below, requirements related to bicycle and pedestrian circulation include:

- All new construction within a Commercial or Industrial Zoning District or a non-residential use in a Residential Zoning District requires a Design Review Permit; Type II and Type III Design Review applications require the submittal of a Site Plan that shows the location and dimensions of entrances and exits to the site for pedestrian and bicycle access, as well as pedestrian and bicycle circulation areas, including “sidewalks, internal pathways, pathway connections to adjacent properties, and any bicycle lanes or trails (17.90.100).”
- Downtown and Village Commercial (C-1 and C-3) Design Standards that require and specify the design of pedestrian crossings within parking areas, pedestrian connections to adjacent properties, and building orientation and entrances (17.90.110).
- Subdivision standards generally limit block length for both residential and commercial to 400 feet; any block in a residential or commercial district that exceeds 600 feet in length must have an improved pedestrian and bicycle access way (17.100.120).

Recommendation: No code amendments necessary to meet TPR requirements.
OAR 660-12-0045(7)
Local governments shall establish standards for local streets and accessways that minimize pavement width and total right-of-way consistent with the operational needs of the facility. The intent of this requirement is that local governments consider and reduce excessive standards for local streets and accessways in order to reduce the cost of construction, provide for more efficient use of urban land, provide for emergency vehicle access while discouraging inappropriate traffic volumes and speeds, and which accommodate convenient pedestrian and bicycle circulation. Not withstanding subsection (1) or (3) of this section, local street standards adopted to meet this requirement need not be adopted as land use regulations.

Requirement: Local governments must establish standards for local streets and accessways that minimize pavement width and total ROW consistent with the operational needs of the facility.

Compliance Discussion: The Development Code meets this requirement by providing a narrow local street option (28 foot pavement; 50 foot right-of-way) in Section 17.100.110.

Recommendation: No code amendments necessary to meet TPR requirements.