



TO: Planning Commission

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SUBJECT: Street Connectivity PP16-0004

DATE: December 29, 2016 **MEETING DATE:** January 9, 2017

ACTION

Conduct a work session on issues related to street connectivity and review of the Street Connectivity standard, LOC 50.06.003.4, for possible amendments that would provide more flexibility in applying the standard.

BACKGROUND

The Planning Commission and City Council met in a joint study session on July 19, 2016 to discuss the Commission's progress in completing 2016 goals. At the study session, the City Council instructed staff and the Commission to evaluate the Local Street Connectivity standard in LOC 50.06.003.4. This was precipitated when the public benefit of requiring a street connection was raised to the City Council during an appeal hearing for a Minor Partition (LU 15-0040; AP 16-02) on a large undeveloped parcel. Although both the Development Review Commission and City Council found that the code required the connection, the Council expressed interest in having more discretion or flexibility for exempting developments where a connection may serve only a small number of future lots, or allowing a multi-use path in-lieu of a street connection.

At the August 8, 2016 work session on proposed amendments needed to implement the Transportation System Plan (TSP), staff introduced the topic of street connectivity to the Planning Commission by providing examples of some of the large undeveloped parcels within the City's planning area where this requirement may apply. The majority of these are concentrated in the Forest Highlands, Hallinan Heights, Palisades, and Lake Forest neighborhoods.

DISCUSSION

In addition to providing even dispersal of traffic, property access and facilitating neighborhood circulation for vehicles, emergency responders, pedestrians, and bicycles, the purpose of the connectivity standard is to support the orderly provision of utilities that are required to serve

development and not preclude redevelopable properties in the vicinity from attaining service.

The standard is applicable where:

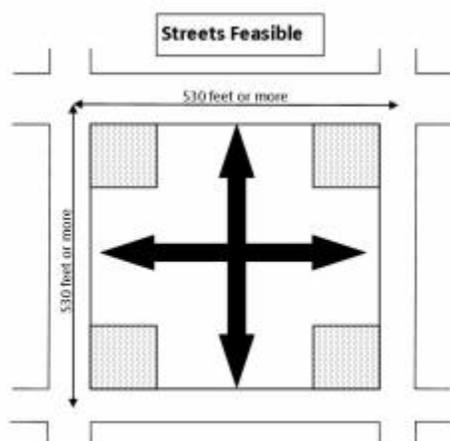
- development results in the construction of a street,
- development is adjacent to another development that has already provided a street 'stub' for future extension, or
- where the development site is at least 1.75 acres and the distance between local street intersections after development would otherwise be more than 530 feet.

A street stub is a **street** segment, usually relatively short in length, which terminates at the boundary of a development. The purpose of **stub streets** is to ultimately connect to abutting property when it is developed. No turn around or cul-de-sac is provided, as it would consume more right-of-way than is needed for future use.

The Minor Partition (LU 15-0040) that was appealed to the City Council is located in the Palisades neighborhood where Sienna Drive had been stubbed to the site boundary in a prior subdivision approval with the intent of extending it to serve adjacent developable parcels in the future. A right-of-way connection through the site was required to be dedicated but because only one new lot was created the developer was not required to construct the street.



Full street connections may be required to mitigate the impacts of development. They are to provide direct and convenient connections for vehicle and pedestrian traffic movement. This maximum spacing of streets (530 feet) is measured between the center of the intersection of two through streets as generally shown by LOC Figure 50.06.003-A), a portion of which is reproduced below:



LOC 50.06.003.4.c.vi allows exceptions to providing the street connection in the following situations:

- where topography, sensitive lands, or other specified obstacles make a connection impracticable; for example, where existing development prevents a street extension from being made or the cost of extending a street through sensitive lands (e.g., by requiring a bridge or special construction techniques) outweighs the public benefit (e.g., direct and convenient access for residents and emergency responders);
- the connection would violate other City/County/State standards or result in a traffic safety issue; or
- the connection would violate provisions of recorded documents or agreements existing as of May 1, 1995 which preclude the connection.

In the above-cited case, the site contains sensitive lands and sloped topography; however, the street extension from the existing stub (the future north-south street alignment) was located outside of the Sensitive Lands area and Engineering analysis found that the topography did not prevent the street from being constructed to meet the Fire code limitation of 15% grade, nor did it preclude reasonable development on the subject property. Even if required to be constructed through a resource area, the Sensitive Lands standard allows an exception for street construction if unavoidable.

Where the public benefit of the Sensitive Lands road crossing does not warrant the cost of constructing it (i.e., the criteria for an exception are met), a pedestrian-bicycle access way is required in lieu of a street. That access way must comply with the requirement that spacing between bicycle and pedestrian connections is no more than 330 feet measured from the nearest bike/pedestrian connection intersection, with the cross street. A multi-use path is typically considered to be 10-feet wide with 2-4 feet of shoulder space for landscaping needs or to blend the topography/ground surface to the abutting property. The policy intent is to require a public access way in lieu of a public street; however, the City has not established a clear and consistent policy on maintenance of these paths.

A reduction in the number of pedestrian/bike connections is allowed if:

- reducing the number or location of pedestrian connections would not significantly add to travel time/distance to activity centers;
- the development pattern on abutting properties precludes logical connection; or
- the traffic impacts from development/redevelopment are low and do not provide reasonable justification for the estimated costs of a pedestrian access way.

An exception to the connectivity standard was approved for The Reserve at Westlake Planned Development (LU 13-0064), located between Fosberg Road (now Westlake Road) and Rogers Road. The applicant proposed a closed-end street system in this Planned Development due to the presence of Sensitive Lands that bisected the site, prohibiting a through-street connection. The criteria for an exception for vehicular connectivity were met due to the site's steep topography and the significant cost of constructing a bridge crossing over sensitive lands.



The alternative, a pedestrian/bike connection through the sensitive lands district, was also found to be significantly costly relative to the public benefit. In this case, although the proposal would add approximately 180 trips to the existing street system (10 trips per day per dwelling unit), a residential access way through the site would have had to cross the stream corridor that bisects the site, and the exemption did not result in significant out-of-direction travel for drivers or pedestrians. An accessway must also meet American with Disabilities Act (ADA) slope and cross slope requirements if practicable. It was found that to meet this federal standard, the pedestrian access way would require a complex system of switchbacks and extensive development within the Resource Protection (RP) District, an expensive and unnecessary impact given that alternate pedestrian routes existed on Rogers and Fosberg Roads via Southwood and Suncreek Drives.

Planning Commission Comments

At the August 8, 2016, work session, the Planning Commission began to consider where through-street connections can be made in the city. The largest properties are in the Forest Highlands and Palisades neighborhoods; but even those are not large by subdivision standards and there are not very many of them. Furthermore, most of them contain Sensitive Lands. However, additional redevelopable properties in these and other neighborhoods (e.g., Lake Forest) if assembled by developers into larger sites could warrant street connections under the current standard.

Other Considerations

The street connectivity standard in LOC 50.06.003.4 implements the City's Transportation System Plan. The standard also complies with the Metro Urban Growth Management Functional Plan, which requires local governments to maintain street connectivity standards. However, Metro code only prescribes local connectivity standards for developments of five acres and larger; Lake Oswego code currently meets those requirements. For redevelopment projects smaller than five acres, the Metro Regional Transportation Functional Plan (RTFP) defers to the local government in establishing their own standards. See Attachment 1: RTFP Street System Design Standards [Metro Code 3.08.110].

In the appeal case cited above (LU 15-0040), raising the minimum acreage for applicability of the standard would not have affected its applicability to this site because there is a street stubbed to the site. A policy issue is whether the code should provide for exemptions in locations where streets are already stubbed, the extension is feasible, and granting an exemption only makes the property more developable, while at the same time potentially making an abutting property more difficult to develop – as might have been the case in LU 15-0040.

Concepts for Potential Amendments

The Commission may want to discuss the following concepts, to help inform staff's work in developing a proposal for public hearing:

1. Allow additional exceptions if the public benefit from a prospective street connection is minimal.

- Example 1: when a connection can only be minimally/partially fulfilled due to existing development or non-dividable lots of record adjacent to the street.
 - Example 2: when the existing roadway to which a street would connect, or the roadway to be extended, does not meet engineering standards (e.g., right-of-way or roadway dimensions, sight distance, clear vision at intersections, etc.) and the City is unlikely to achieve standard street improvements due to existing development patterns or other physical constraints.
2. Another option is to increase the development size criteria (applicability) for the connectivity standard itself; for example, by making it consistent with the Metro minimum standard of 5 acres. Street connections would also be required where street access or utilities need to be stubbed to an abutting property. The in-lieu pathway option for properties of 5 acres or larger with sensitive lands or topography that makes a street connection impracticable would be retained, consistent with Metro Code.

One consideration under both concepts is whether the in-lieu pathway option (which exists only where sensitive lands or topography make a street connection impracticable) should be available in other circumstances. If so, where should a multi-use pathway be acceptable in lieu of a street?

CONCLUSION

Staff requests input from the Commission on the concepts discussed above and on a possible approach to amending the code.

ATTACHMENTS

1. Regional Transportation Functional Plan Street Design Standards, pages 1 through 6 [Metro Code 3.08.110]

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CHAPTER 3.08¹

REGIONAL TRANSPORTATION FUNCTIONAL PLAN²

SECTIONS	TITLE
3.08.010	Purpose of Regional Transportation Functional Plan
TITLE 1:	TRANSPORTATION SYSTEM DESIGN
3.08.110	Street System Design
3.08.120	Transit System Design
3.08.130	Pedestrian System Design
3.08.140	Bicycle System Design
3.08.150	Freight System Design
3.08.160	Transportation System Management and Operations
TITLE 2:	DEVELOPMENT AND UPDATE OF TRANSPORTATION SYSTEM PLANS
3.08.210	Transportation Needs
3.08.220	Transportation Solutions
3.08.230	Performance Targets and Standards
TITLE 3:	TRANSPORTATION PROJECT DEVELOPMENT
3.08.310	Defining Projects in Transportation System Plans
TITLE 4:	REGIONAL PARKING MANAGEMENT
3.08.410	Parking Management
TITLE 5:	AMENDMENT OF COMPREHENSIVE PLANS
3.08.510	Amendments of City and County Comprehensive and Transportation System Plans
TITLE 6:	COMPLIANCE PROCEDURES
3.08.610	Metro Review of Amendments to Transportation System Plans
3.08.620	Extension of Compliance Deadline
3.08.630	Exception from Compliance
3.08.640	Exemptions
TITLE 7:	DEFINITIONS
3.08.710	Definitions

¹ Metro Code Chapter 3.08 formerly called Affordable Housing Technical Advisory Committee (Repealed Ord. 00-860A § 2).

² Metro Code Chapter 3.08 now called The Regional Transportation Functional Plan (Ordinance No. 10-1241B, § 5, adopted 06/10/10, effective 09/08/10).

3.08.010 Purpose of Regional Transportation Functional Plan

- A. The Regional Transportation Plan establishes an outcomes-based framework that is performance-driven and includes policies, objectives and actions that direct future planning and investment decisions to consider economic, equity and environmental objectives. The principal performance objectives of the RTP are improved public health, safety and security for all; attraction of jobs and housing to downtowns, main streets, corridors and employment areas; creating vibrant, livable communities, sustaining the region's economic competitiveness and prosperity; efficient management to maximize use of the existing transportation system; completion of the transportation system for all modes of travel to expand transportation choices; increasing use of the transit, pedestrian and bicycle systems; ensuring equity and affordable transportation choices; improving freight reliability; reducing vehicle miles traveled and resulting emissions; and promoting environmental and fiscal stewardship and accountability. Metro and its regional partners will continue to develop a regional data collection and performance monitoring system to better understand the benefits and impacts of actions required by this functional plan relative to the RTP performance objectives. Local plan updates and amendments should rely on Metro data and tools or other locally-developed data and tools, when practical. Through performance evaluation and monitoring the region can be a responsible steward of public funds and be more accountable and transparent about local and regional planning and investment choices.
- B. The Regional Transportation Functional Plan (RTFP) implements the Goals and Objectives in section 2.3 of the Regional Transportation Plan (RTP) and the policies of the Regional Transportation Plan (RTP) and its constituent freight, high-capacity transit and transportation system management and operations plans which cities and counties of the region will carry out in their comprehensive plans, transportation system plans (TSPs), other land use regulations and transportation project development. Local implementation of the RTP will result in a more comprehensive approach for implementing the 2040 Growth Concept, help communities achieve their aspirations for growth and support current and future efforts to achieve the principal objectives of the RTP and address climate change.

- C. The RTFP is intended to be consistent with federal law that applies to Metro in its role as a metropolitan planning organization, the Oregon Transportation Plan, and Statewide Planning Goal 12 (Transportation) and its Transportation Planning Rule (TPR). If a TSP is consistent with this RTFP, Metro shall deem it consistent with the RTP.

(Ordinance No. 10-1241B, § 5)

TITLE 1: TRANSPORTATION SYSTEM DESIGN

3.08.110 Street System Design

- A. To ensure that new street construction and re-construction projects are designed to improve safety, support adjacent land use and balance the needs of all users, including bicyclists, transit vehicles, motorists, freight delivery vehicles and pedestrians of all ages and abilities, city and county street design regulations shall allow implementation of:
1. Complete street designs as set forth in *Creating Livable Streets: Street Design Guidelines for 2040* (2nd Edition, 2002), or similar resources consistent with regional street design policies;
 2. Green street designs as set forth in *Green Streets: Innovative Solutions for Stormwater and Street Crossings* (2002) and *Trees for Green Streets: An Illustrated Guide* (2002) or similar resources consistent with federal regulations for stream protection; and
 3. Transit-supportive street designs that facilitate existing and planned transit service pursuant subsection 3.08.120B.
- B. City and county local street design regulations shall allow implementation of:
1. Pavement widths of less than 28 feet from curb-face to curb-face;
 2. Sidewalk widths that include at least five feet of pedestrian through zones;

3. Landscaped pedestrian buffer strips, or paved furnishing zones of at least five feet, that include street trees;
 4. Traffic calming devices, such as speed bumps and cushions, woonerfs and chicanes, to discourage traffic infiltration and excessive speeds;
 5. Short and direct right-of-way routes and shared-use paths to connect residences with commercial services, parks, schools, hospitals, institutions, transit corridors, regional trails and other neighborhood activity centers; and
 6. Opportunities to extend streets in an incremental fashion, including posted notification on streets to be extended.
- C. To improve connectivity of the region's arterial system and support walking, bicycling and access to transit, each city and county shall incorporate into its TSP, to the extent practicable, a network of major arterial streets at one-mile spacing and minor arterial streets or collector streets at half-mile spacing considering the following:
1. Existing topography;
 2. Rail lines;
 3. Freeways;
 4. Pre-existing development;
 5. Leases, easements or covenants in place prior to May 1, 1995; and
 6. The requirements of Titles 3 and 13 of the Urban Growth Management Functional Plan (UGMFP).
 7. Arterial design concepts in Table 2.6 and Figure 2.11 of the RTP.
 8. Best practices and designs as set forth in Green Streets: Innovative Solutions for Stormwater, Street Crossings (2002) and Trees for Green Streets: An Illustrated Guide (2002), Creating Livable Streets: Street Design Guidelines for 2040 (2nd Edition, 2002), and state or locally-adopted plans and best

practices for protecting natural resources and natural areas.

- D. To improve local access and circulation, and preserve capacity on the region's arterial system, each city and county shall incorporate into its TSP a conceptual map of new streets for all contiguous areas of vacant and re-developable lots and parcels of five or more acres that are zoned to allow residential or mixed-use development. The map shall identify street connections to adjacent areas to promote a logical, direct and connected system of streets and should demonstrate opportunities to extend and connect new streets to existing streets, provide direct public right-of-way routes and limit closed-end street designs consistent with subsection E.
- E. If proposed residential or mixed-use development of five or more acres involves construction of a new street, the city and county regulations shall require the applicant to provide a site plan that:
1. Is consistent with the conceptual new streets map required by subsection D;
 2. Provides full street connections with spacing of no more than 530 feet between connections, except if prevented by barriers such as topography, rail lines, freeways, pre-existing development, leases, easements or covenants that existed prior to May 1, 1995, or by requirements of Titles 3 and 13 of the UGMFP;
 3. If streets must cross water features protected pursuant to Title 3 UGMFP, provides a crossing every 800 to 1,200 feet unless habitat quality or the length of the crossing prevents a full street connection;
 4. If full street connection is prevented, provides bicycle and pedestrian accessways on public easements or rights-of-way spaced such that accessways are not more than 330 feet apart, unless not possible for the reasons set forth in paragraph 3;
 5. Provides for bike and pedestrian accessways that cross water features protected pursuant to Title 3 of the UGMFP at an average of 530 feet between accessways unless habitat quality or the length of the crossing prevents a connection;

6. If full street connection over water features protected pursuant to Title 3 of the UGMFP cannot be constructed in centers as defined in Title 6 of the UGMFP or Main Streets shown on the 2040 Growth Concept Map, or if spacing of full street connections exceeds 1,200 feet, provides bike and pedestrian crossings at an average of 530 feet between accessways unless habitat quality or the length of the crossing prevents a connection;
 7. Limits cul-de-sac designs or other closed-end street designs to circumstances in which barriers prevent full street extensions and limits the length of such streets to 200 feet and the number of dwellings along the street to no more than 25; and
 8. Provides street cross-sections showing dimensions of right-of-way improvements and posted or expected speed limits.
- F. For redevelopment of contiguous lots and parcels less than five acres in size that require construction of new streets, cities and counties shall establish their own standards for local street connectivity, consistent with subsection E.
- G. To protect the capacity, function and safe operation of existing and planned state highway interchanges or planned improvements to interchanges, cities and counties shall, to the extent feasible, restrict driveway and street access in the vicinity of interchange ramp terminals, consistent with Oregon Highway Plan Access Management Standards, and accommodate local circulation on the local system to improve safety and minimize congestion and conflicts in the interchange area. Public street connections, consistent with regional street design and spacing standards in this section, shall be encouraged and shall supercede this access restriction, though such access may be limited to right-in/right-out or other appropriate configuration in the vicinity of interchange ramp terminals. Multimodal street design features including pedestrian crossings and on-street parking shall be allowed where appropriate.

(Ordinance No. 10-1241B, § 5)