

**Coos County
Transportation System Plan**



Ordinances Memorandum

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Prepared for

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INTRODUCTION

This Ordinance Memorandum recommends changes to the Coos County Zoning and Land Development Ordinance of 1985 (CCZLDO) in order to comply with the provisions of the Oregon Transportation Planning Rule (TPR) as codified in OAR 660-012-045 and to implement and accompany the Coos County Transportation System Plan (2010). The following section addresses the changes proposed to the CCZLDO that are specifically required by OAR 660-012-045 and which will provide for the proper application of the TSP by implementing the TSP's five goals: Goal 1: Mobility, Goal 2: Multimodal System, Goal 3: Livability, Goal 4: Safety, Goal 5: Funding.

In summary, the revisions provide additional standards to:

- Protect the safety and capacity of the roadway
- Provide notification to ODOT regarding any potential affects to the state transportation system throughout the development review cycle
- Provide additional access management standards
- Tie building permit issuance to conditions of approval being satisfied
- Update road and street development standards

The document is organized by CCZLDO Chapter and Article. The OAR 660-012 or TSP recommendations addressed is boxed. Revisions are presented with deletions shown ~~strike through~~ and additions shown underlined. Only Chapter VII Streets and Roads Standards is included in its entirety. Other Chapters only have the portions of the articles which have recommended changes.

When updating the CCZLDO, the County should carefully review the recommendations to ensure that proposed language does not conflict with other existing code language. If conflicts are identified, areas of the adopted ordinance may need to be modified to ensure compliance with the TPR and consistency within the CCZLDO.

RECOMMENDED CHANGES

Changes are recommended to the following chapters of the CCZLDO:

- Chapter 1, General Article
- Chapter III, Supplemental Provisions
- Chapter V, Administration
- Chapter VI, Land Divisions
- Chapter VII, Street and Road Standards

Chapter I. General Article

ARTICLE 1.1 INTRODUCTION

Revisions to address OAR 60-12-0045 (2)

SECTION 1.1.200. Purpose. It is the purpose of this Ordinance to implement the Coos County Comprehensive Plan by:

1. Promoting the orderly growth of Coos County,
2. Protecting and enhancing the environment,
3. Conserving and stabilizing the value of property,
4. Reducing excessive traffic congestion,
5. Providing sufficient capacity within the transportation system to accommodate future development while preserving the level of service and safety of the roadway network,
6. Preventing overcrowding of land by establishing standards for proper density,
7. Providing adequate open space for light and air,
8. Conserving natural resources,
9. Encouraging the most appropriate use of land,
10. Preventing water and air pollution,
11. Facilitating fire and police protection,
12. Providing for community facilities,
13. Promoting and protecting the public health, safety, convenience and general welfare.

ARTICLE 1.2. LEGISLATIVE AMENDMENTS

SECTION 1.2.400. Need for Studies and Coordination with Affected Agencies. The Board of Commissioners, Hearings Body, or Citizen Advisory Committee may direct the Planning Director to make such studies as are necessary to determine the need for amending the text

of the Plan and/or this Ordinance. When the amendment is initiated by application, such studies, justification and documentation are a burden of the initiator.

For proposed amendments that may affect the short-term and/or long-term adequacy of the transportation system, ODOT must be consulted to determine any potential impacts to the state transportation system. A Traffic Impact Study (TIS) may be required. Furthermore, amendments must be in compliance with OAR 660-12-060.

ARTICLE 1.3. ENFORCEMENT

Revisions to address OAR 60-12-0045 (2) (e)

SECTION 1.3.200. Building Site Permits.

- A. No permit or verification letter shall be issued by the building official or the County Planning Department for the construction, erection, location, enlargement, or the change of the use of a building, structure, or lot that does not conform to the requirements of this Ordinance, unless otherwise permitted by this Ordinance.
- B. In addition, the building official shall not issue a building permit if special conditions of a required land use permit have not been satisfied.
- C. A permit or verification letter may be issued (subject to A above) even though the permit or verification letter is based on a decision of the Planning Director, Hearings Body or Board of Commissioners. If the decision upon which the verification letter is based is reversed on appeal, the verification letter shall be revoked without further action. The applicant therefore shall recognize and consent to the fact that any improvements made on the property to which the verification letter applies are made at the applicant's own risk, and shall agree that no attempt will be made to hold Coos County responsible in the event that removal of such improvements become necessary due to the revocation of the verification letter or permits.

Chapter III Supplemental Provisions

ARTICLE 3.1. SUPPLEMENTAL PROVISIONS – STRUCTURES

Revision to address OAR 60-12-0045 (2) (e)

SECTION 3.1.150. Building Permit Issuance. Coos County recognizes the State of Oregon Building Codes Agency as the official building permit issuing and enforcing authority, responsible for receiving applications and examining the plans and specifications for proposed construction. A building permit shall not be issued unless such plans and specifications comply with this Ordinance. In addition, the building official shall not issue a building permit if special conditions of a required land use permit have not been satisfied.

ARTICLE 3.2 SUPPLEMENTAL PROVISIONS - USES

Revision to correspond with TSP Update

SECTION 3.2.550. Routine Road Maintenance.

3. As used in this Section, "routine operation, maintenance, and repair" means:
 - a. ~~Project types identified in Section VII of the Coos County Transportation System Plan, for example s~~ Surface treatments like grading, overlays and chip seal, mowing the shoulders, patching pot holes, cleaning culverts, street sweeping, and including in-kind culvert replacements or culvert upgrading.

ARTICLE 3.4 GRANDFATHER PROVISIONS

Revision to address OAR 60-12-0045 (2) (d-f)

SECTION 3.4.100. Use and Alteration of Buildings, Structures or Land Existing Prior to the Enactment of this Ordinance. The lawful use of any building, structure or land at the time of the enactment or amendment of this Ordinance may at the discretion of the owner be continued.

Alteration or change of any use or structure which increases the floor square footage or intensity of use, shall comply with Table 3.4 and the property development standards of the applicable zone, except that the alteration of any such use shall be permitted outright when necessary to comply with any lawful requirement for alteration of the use. With the exception of grandfathered uses in resource zones, conditions shall not be placed upon the continuation or alteration of a grandfathered use when necessary to comply with state or local health or safety requirements or to maintain existing structures associated with the use. (OR-98-01-002PL 5/4/98)

A change of ownership or occupancy shall be permitted. An alteration, replacement or change of a use or structure on land may be permitted subject to an Administrative Conditional Use, and findings which establish that: (1) Any adverse impacts of the proposed use will not be generally more intensive than the use that is or was "grandfathered" on the subject property; and (2) Review Standard #7. If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation during the completeness review period and any conditions of approval recommended by ODOT included in the permit.

Alterations such as re-roofing, installing porches or decks, attaching rain gutters, or improving existing components of a structure shall be permitted provided there is no increase in the floor square footage.

Once a grandfathered use, structure or land is altered to become more in compliance with this Ordinance, said grandfathered use, structure, or land shall not thereafter be altered so as to become or revert into less compliance.

Chapter V Administration

ARTICLE 5.0 ADMINISTRATION AND APPLICATION REVIEW PROVISIONS

Revisions to address OAR 60-12-0045 (2) (d-f)

SECTION 5.0.350. Conditions of Approval.

- A. Conditions of approval may be imposed on any land use decision when deemed necessary to ensure compliance with the applicable provisions of this Ordinance, Comprehensive Plan, or other requirements of law. Any conditions attached to approvals shall be directly related to the impacts of the proposed use or development and shall be roughly proportional in both the extent and amount to the anticipated impacts of the proposed use or development. If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation. The Planning Director shall incorporate ODOT conditions of approval into the permit conditions of approval, and notify ODOT if the conditions of approval are changed.
- B. An applicant who has received development approval is responsible for complying with all conditions of approval. Failure to comply with such conditions is a violation of this ordinance, and may result in revocation of the approval in accordance with the provisions of Section 1.3.300.
- C. At an applicant's request, the County may modify or amend one or more conditions of approval for an application previously approved and final. Decisions to modify or amend final conditions of approval will be made by the review authority with the initial jurisdiction over the original application using the same type of review procedure in the original review.

ARTICLE 5.1 REZONES

Revisions to address OAR 60-12-0045 (2) (g)

SECTION 5.1.350. Process for Rezones.

1. Valid application must be filed with the Planning Department at least 45 days prior to a public hearing on the matter.
2. The Planning Director shall cause an investigation and report to be made to determine compatibility with this Ordinance and the Comprehensive Plan and any other findings required including consistency review to ensure rezoning is not in conflict with transportation facilities identified in the TSP and coordination with ODOT for potential short-term and long-term impacts to state transportation facilities.
3. The Hearings Body shall hold a public hearing pursuant to hearing procedures at Section 5.7.300.

4. The Hearings Body shall make a decision on the application pursuant to Section 5.1.400.
5. The Board of Commissioners shall review and take appropriate action on any rezone recommendation by the Hearings Body pursuant to Section 5.1.550.
6. A decision by the Hearings Body that a proposed rezone is not justified may be appealed pursuant to Article 5.8.

ARTICLE 5.2 CONDITIONAL USES

Revisions to address OAR 60-12-0045 (2) (d-f)

SECTION 5.2.250. Application Made By Transportation Agencies. A transportation Agency may submit an application to the Planning Department for a permit or zoning authorization required for a transportation project without landowner consent otherwise required by this ordinance. ~~A transportation agency must mail certified notice to the Planning Department and any owner of land upon which the transportation project would be constructed at least ten (10) days before submitting an application to the Planning Department. Said notice shall state the transportation agency's intent to file the application and must include a map, brief description of the proposed transportation project, and a name and telephone number of an official with the transportation agency available to discuss the proposed project.~~

A transportation agency (applicant) must comply with all applicable requirements of this ordinance; however, a property divided by the sale or grant of property for state highway, county road, city street or other right-of-way purposes shall continue to be considered a single unit of land until such time as the property is further subdivided or partitioned.

Notwithstanding any other requirement of this ordinance, approvals granted to a transportation agency for a transportation improvement shall not become effective until the subject property is acquired for the project. Any permit will be effective for two (2) years unless a request for renewal for another two (2) years is received from the transportation agency within the 2 year period, in which case renewal will be automatic to a maximum of 5 renewals. [OR-92-07-012PL]

SECTION 5.2.400. Process for Conditional Uses. A conditional use may be initiated by filing an application with the Planning Department using forms prescribed by the Department.

Upon receipt of a complete application, the Planning Department may take action on a conditional use request by issuing an administrative decision or scheduling a public hearing as determined by the applicable zoning.

Any application that is expected to impact the state highway system must be provided to the Oregon Department of Transportation for their review and comment regarding conformance with state access management and mobility standards and requirements and any conditions of approval recommended by ODOT included in the permit conditions.

The Planning Director, may at his or her discretion, refer any administrative conditional use to the Hearings Body. If such a referral is made the process for review and decision shall be the same as a conditional use otherwise reviewed by the Hearings Body.

ARTICLE 5.6 DESIGN AND SITE PLAN REVIEW

Revisions to address OAR 60-12-0045 (2) and (3)

SECTION 5.6.100. Purpose. The purpose and objectives of site development requirements and the site design review procedure are to:

1. Encourage originality, flexibility and innovation in site planning and development, including the architecture, landscaping and graphic design of said development;
2. Conserve the County's natural beauty and visual character and charm by insuring that structures and other improvements are properly related to their sites, and to surrounding sites and structures, with due regard to the aesthetic qualities of the natural terrain and landscaping, and that proper attention is given to exterior appearances of structures and other improvements;
3. Protect and enhance the County's appeal to tourists and visitors and thus support and stimulate business and industry and promote the desirability of investment and occupancy in marine and industrial properties;
4. Stabilize and improve property values and prevent blighted areas and thus increase tax revenues;
5. Achieve the beneficial influence of pleasant environments for living and working on behavioral patterns and, thus, decrease the cost of governmental services;
6. Foster civic pride and community spirit so as to improve the quality and quantity of citizen participation in local government and in community growth, change and improvement;
7. Sustain the comfort, health, tranquility and contentment of residents and attract new residents by reason of the County's favorable environment;
8. Assure that proposed structures are harmonious with the applicable zoning; and thereby promote and protect the health, safety and welfare of the County; and
9. Protect riparian vegetation which is needed to stabilize the shoreline and to maintain water quality and temperature necessary for the maintenance of fish habitat and spawning areas.
10. Ensure proposed development maintains the level of service and safety of the roadway network and meets all roadway access management and mobility standards and requirements.
11. Assure proposed development incorporates required bicycle and pedestrian provisions as specified throughout this ordinance.

Chapter VI Land Divisions

ARTICLE 6.1 GENERAL PROVISIONS, ENFORCEMENT

Revisions to address OAR 60-12-0045 (2) (a-b)

SECTION 6.1.200. Approval of Partitions, PUD's and Subdivisions Required.

1. No person shall divide land, except after approval of such division pursuant to this Chapter.
2. No person shall sell any lot in any subdivision or convey any interest in a parcel in any partition until the plat of the subdivision or partition or declaration of partition described in Section 6.4.450 has been acknowledged and recorded with the recording officer of Coos County.
 - a. No person shall negotiate to sell any lot in a subdivision until a tentative plan has been approved.
 - b. A person may negotiate to sell any parcel in a partition prior to the approval of the tentative plan.
 - c. In negotiating to sell a lot in a subdivision or convey any interest in a parcel in any partition, a person may use the approved tentative plan for such subdivision or partition. [OR-92-07-012PL]
3. No person shall create a road or street for the purpose of land division without the approval of the County.
4. Coos County shall refrain from issuing any permit or approval for any application other than approval pursuant to this Section, including building permits or verification letters for any parcel of land not complying with this Section. [OR-93-12-017PL 2/23/94]
5. A Traffic Impact Study (TIS) may be required in accordance with Section 6.2.500.

ARTICLE 6.2 DESIGN AND DEVELOPMENT STANDARDS GENERAL PROVISIONS, ENFORCEMENT

Revisions to address OAR 60-12-0045 (2) (g)

SECTION 6.2.250. Access.

1. The development of land shall be such as to provide each lot or parcel with one of the following alternative means of access:
 - a. a lot or parcel shall abut upon a public street, other than an alley; or
 - b. a lot or parcel shall abut upon a private easement (restricted agricultural, mining, and forestry easements may be used for land divisions, but not for siting dwellings and other development uses); or

2. Any access approval request under this section shall be reviewed to assure that no development occurs in known natural hazard areas without appropriate safeguards. The Planning Director or designee may condition its approval of a request on the provision of such safeguards, or otherwise condition approval of such requests to insure compatibility with the objectives of this ordinance, and the Coos County Comprehensive Plan.
3. Any access approval request under this section that may potentially affect a state transportation facility, shall be given to the Oregon Department of Transportation during the review period and any conditions of approval recommended by ODOT will be included in all applicable permits.
4. Any land division that involves the creation of a public or private road or street or “foot access” will require a partition, planned community or subdivision approval. [OR-92-07-012PL]
5. All private road right-of-way easements shall be part of a lot, parcel or designated common areas. The area within the private easement can only be considered as part of a required minimum lot size pursuant to Section 3.3.500.
6. As used in this section, the following definitions shall apply:
 - a. “foot access” means a private way, other than a street or road, legally created to provide access across the entire parcel or lot of land lying within the shoreland boundary from a waterbody to an “upland” lot or parcel which shall abut the coastal shoreland boundary. Said access shall terminate at the shoreland boundary and shall have an improved permeable surface as deemed appropriate by the Coos County Roadmaster (i.e. sand, gravel, etc.)
 - b. “upland lot or parcel” means a lot or parcel not abutting a waterway and partially or totally outside a coastal shoreland boundary.

SECTION 6.2.400. Improvement Specifications. Improvements shall conform to the following standards:

1. Water supply systems, both public and private, shall conform to the requirements of state law.
2. Sewage disposal systems, both public and private, shall conform to the requirements of state law.
3. Grading shall be performed and drainage facilities installed (i.e. French drains, catch basins, etc.) as is necessary to provide proper drainage within the partitioned area.
4. The Hearings Body may require the installation of storm sewers where necessary to insure proper drainage, to conform with an established or proposed drainage system or to eliminate threat to the public health and safety.
5. Streets or roads shall conform to the improvement standards stated in Chapter VII of this Ordinance. The County may deny, approve or approve with conditions a development proposal in order to minimize impacts to and protect transportation facilities. Any application that is expected to impact the state highway system must be

provided to the Oregon Department of Transportation for their review and comment regarding conformance with state access management and mobility standards and requirements.

~~“(5.5) For developments affecting State road facilities by more than 30 through vehicles in a peak hour or 300 trips per day, as estimated using the most recent edition of the ITE Trip Generation Manual, or where the development causes traffic impacts that bring a State road below acceptable levels of service standards, or impacts a State road that is already operating below acceptable levels of service, or impacts a State road that has a documented safety problem, the applicant shall be required to provide a traffic impact study that identifies traffic impacts attributable to the development and appropriate mitigation measures. Mitigation must be provided in order for the development to be approved. The determination of impact effect, scope of the impact study, scheduling, and funding of improvements shall be coordinated between the developer, the County and the Oregon Department of Transportation.”~~

6. Sidewalks of an all-weather material not less than 5 feet in width, nor more than 8 feet in width shall be constructed as close to the center of pedestrian and bicycle ways as practical, when required. Also see Section 6.2.300.
7. Erosion prevention. When necessary to prevent erosion all cuts and fills and other graded areas shall be protected from erosion by appropriate seeding or planting of grass shrubs, trees or other soil stabilizing vegetation. (OR 98-12-009PL)

Revisions to Address OAR Section 660-12-0045(2)(a-b)
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SECTION 6.2.500. Improvement Specifications –Traffic Impact Study.

1. Purpose. The purpose of this section of the code is to implement Section 660- 012-0045(2)(b) of the State Transportation Planning Rule, which requires the County 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 to determine when a proposal must be reviewed for potential traffic impacts; when a Traffic Impact Study must be submitted with a development application in order to determine whether conditions are needed to minimize impacts to and protect transportation facilities; what information must be included in a Traffic Impact Study; and who is qualified to prepare the Study.
2. Initial scoping. During the pre-application conference, the County will review existing transportation data to determine whether a proposed development will have impacts on the transportation system. It is the responsibility of the applicant to provide enough detailed information for the County to make a determination. If the County cannot properly evaluate a proposed development’s impacts without a more detailed study, a transportation impact study (TIS) will be required to evaluate the adequacy of the transportation system to serve the proposed development and determine

proportionate mitigation of impacts. If a TIS is required, the County will provide the applicant with a checklist to be used when preparing the TIS.

3. Determination. Based on information provided by the applicant about the proposed development, the County will determine when a TIS is required and will consider the following when making that determination.
 - a. Changes in land use designation, zoning designation, or development standard.
 - b. Proposed developments or land use actions where review of the site indicates that operational and/or safety problems exist or are anticipated.
 - c. Changes in use or intensity of use.
 - d. Projected increase in trip generation.
 - e. Potential impacts to residential areas and local streets.
 - f. Potential impacts to priority pedestrian and bicycle routes, including, but not limited to school routes and multimodal street improvements identified in the TSP.
 - g. Potential impacts to intersection level of service (LOS).
4. TIS General Provisions
 - a. All transportation impact studies, including neighborhood through-trip and access studies, shall be prepared and certified by a registered Traffic or Civil Engineer in the State of Oregon.
 - b. Prior to TIS scope preparation and review, the applicant shall pay to the County the fees and deposits associated with TIS scope preparation and review in accordance with the adopted fee schedule. The County's costs associated with TIS scope preparation and review will be charged against the respective deposits. Additional funds may be required if actual costs exceed deposit amounts. Any unused deposit funds will be refunded to the applicant upon final billing.
 - c. For preparation of the TIS, the applicant may choose one of the following:
 - 1) The applicant may hire a registered Oregon Traffic or Civil Engineer to prepare the TIS for submittal to the County. The County Traffic Engineer will then review the TIS and the applicant will be required to pay to the County any fees associated with the TIS review; or
 - 2) The applicant may request that the County Traffic Engineer prepare the TIS. The applicant will pay to the County any fees associated with preparation of the TIS by the County Traffic Engineer.
 - d. The TIS shall be submitted with a concurrent land use application and associated application materials. The County will not accept a land use application for processing if it does not include the required TIS.
 - e. The County may require a TIS review conference with the applicant to discuss the information provided in the TIS once it is complete. This conference would be in

- addition to any required pre-application conference. If such a conference is required, the County will not accept the land use application for processing until the conference has taken place. The applicant shall pay the TIS review conference fee at the time of conference scheduling, in accordance with the adopted fee schedule.
- f. A TIS determination is not a land use action and may not be appealed.
5. TIS Scope. The County shall determine the study area, study intersections, trip rates, traffic distribution, and required content of the TIS based on information provided by the applicant about the proposed development.
- a. The study area will generally comprise an area within a ½-mile radius of the development site. If the County determines that development impacts may extend more than ½ mile from the development site, a larger study area may be required. Required study intersections will generally include (in addition to primary access points) collector/collector and above intersections with an anticipated peak hour traffic increase of five-percent from the proposed project.
- b. If notice to ODOT or other agency is required, the County will coordinate with those agencies to provide a comprehensive TIS scope. ODOT may also require a TIS directly to support approach permit applications.
6. TIS Content. A project-specific TIS checklist will be provided to the applicant by the County once the County has determined the TIS scope. A TIS shall include all of the following elements, unless waived by the County.
- a. Introduction and Summary. This section shall include existing and projected trip generation including vehicular trips and mitigation of approved development not built to date; existing level and proposed level of service standard for County and county streets and volume to capacity for state roads; project build year and average growth in traffic between traffic count year and build year; summary of transportation operations; traffic queuing and delays at study area intersections; and proposed mitigation(s).
- b. Existing Conditions. This section shall include a study area description, including information about existing study intersection level of service.
- c. Impacts. This section should include the proposed site plan, evaluation of the proposed site plan, and a project-related trip analysis. A figure showing the assumed future year roadway network (number and type of lanes at each intersection) also shall be provided. Future analysis shall be for the year of proposed site build-out or if applicable for phased openings. The future analysis year shall be 20 years from the date of the County's adopted TSP, or 15 years, whichever is greater.
- d. Mitigation. This section shall include proposed site and area-wide specific mitigation measures. Mitigation measures shall be roughly proportional to potential impacts. See Subsection 10a, below, for rough proportionality determination.

- e. Appendix. This section shall include traffic counts, capacity calculations, warrant analysis, and any other information necessary to convey a complete understanding of the technical adequacy of the TIS.
7. TIS Methodology. The County will include the required TIS methodology with the TIS scope.
8. Mitigation. Transportation impacts shall be mitigated as specified in the Conditions of Approval for a development proposal, when the TIS identifies an increase in demand for vehicular, pedestrian, bicycle, or transit transportation facilities within the study area that exceeds governing mobility standards. Mitigation measures may be suggested by the applicant or recommended by ODOT or other jurisdictions in circumstances where a state or other jurisdiction facility will be impacted by a proposed development. The County shall determine if the proposed mitigation measures are adequate and feasible. ODOT must be consulted to determine if improvements to state transportation facilities comply with ODOT standards and are supported by ODOT. The following measures may be used to meet mitigation requirements:
 - a. On- and off-site improvements beyond required standard frontage improvements.
 - b. Development of a transportation demand management program.
 - c. Payment of a fee in lieu of construction, if construction is not feasible.
 - d. Correction of off-site transportation deficiencies within the study area that are substantially exacerbated by development impacts.
 - e. Construction of on-site facilities or facilities located within the right-of- way adjoining the development site that exceed minimum required standards and that have a transportation benefit to the public.
9. Conditions of Approval. The County may deny, approve, or approve with appropriate conditions a development proposal in order to minimize impacts and protect transportation facilities.
 - a. Where the existing transportation system will be impacted by the proposed development, dedication of land for streets, transit facilities, sidewalks, bikeways, paths, or accessways may be required to ensure that the transportation system is adequate to handle the additional burden caused by the proposed use.
 - b. Where the existing transportation system is shown to be burdened by the proposed use, improvements such as paving, curbing, installation or contribution to traffic signals, traffic channelization, construction of sidewalks, bikeways, accessways, paths, or streets that serve the proposed use may be required.
 - c. The County may require the development to grant a cross-over access easement(s) to adjacent parcel(s) to address access spacing standards on arterials and collector roadways or site-specific safety concerns. Construction of shared access may be required at the time of development if feasible, given existing adjacent land use. The access easement must be established by deed.

10. Rough Proportionality Determination. Improvements to mitigate impacts identified in the TIS shall be provided in rough proportion to the transportation impacts of the proposed development.
- a. The TIS shall include information regarding how the proportional share of improvements was calculated, using the ratio of development trips to growth trips and the anticipated cost of the full Coos County Transportation System Plan. The calculation is provided below:

$$\text{Proportionate Share Contribution} = [\text{Net New Trips} / (\text{Planning Period Trips} - \text{Existing Trips})] \times \text{Estimated Construction Cost}$$
 - b. Net new trips means the estimated number of new trips that will be created by the proposed development within the study area.
 - c. Planning period trips means the estimated number of total trips within the study area within the planning period identified in the TSP.
 - d. Existing trips means the estimated number of existing trips within the study area at the time of TIS preparation.
 - e. Estimated construction cost means the estimated total cost of construction of identified improvements in the TSP.

Chapter VII, Street and Road Standards

ARTICLE 7.1 GENERAL PROVISIONS

Revisions to address OAR 60-12-0045 (2) (d-f)

SECTION 7.1.100. Rural and Urban Street and Road Provisions. Road and street development standards shall be divided into two categories:

1. Rural standards (See Article 7.2).
2. Urban road standards (See Article 7.3).

Policy matters regarding required road improvements are set forth throughout this Ordinance and summarized in Table 7.1.

SECTION 7.1.200. Required Dedication of Streets or Roads. When a land division is reviewed by the County, the Board of Commissioners, Hearings Body or TRC may require design and public dedication of streets or roads to ensure the development and continuance of a convenient roadway network in accordance with the transportation system plan. If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation to provide conditions of approval to account for any impacts to the state transportation system. The decision maker shall incorporate ODOT conditions of approval into the permit conditions of approval, and notify ODOT if the conditions of approval are modified.

SECTION 7.1.300. Public and Private Roads. For the purpose of this ordinance, streets and road shall be divided into two major types:

1. Private roads (i.e., private access easements);
2. Public roads (created by public dedication or easement, or by fee title transfer to the public);

NOTE: New public roads created pursuant to this ordinance will not become part of the Coos County road maintenance system without specific action by the Board of Commissioners adopting such new roads into the maintenance system, review by the Oregon Department of Transportation if the action may affect a state transportation facility, and verification the new public road will be consistent with all applicable Coos County Zoning and Land Development Ordinance Standards and the TSP specifically, the Roadway System Plan portion of the TSP.

SECTION 7.1.400. New Private Roads in Conjunction with Land Divisions. New private roads may be created to provide access to proposed land divisions in urban or rural areas only when the Planning Director finds that the private road will not be needed for proper development of the surrounding sub-area. The Planning Director's decision shall be made only after receiving and reviewing a written recommendation from the Roadmaster. The Planning Director's decision to allow or not allow creation of a private road to access proposed new lots or parcels is a land use action that shall be supported by written findings and subject to the notice provisions of Article 5.7. Notice of the decision shall be provided at the same time that notice is given for approval or denial of the tentative partition plat for the proposed land division related to the proposed private road. If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation to provide conditions of approval, if necessary, to account for any impacts to the state transportation system. The decision maker shall incorporate ODOT conditions of approval into the permit conditions of approval, and notify ODOT if the conditions of approval are modified.

SECTION 7.1.500. Special Provisions for New Private Roads. When new private roads may be created to provide access to proposed land divisions in urban or rural areas:

1. The proposed private road shall be clearly designated as a private road on any required map or plat as shall any reservations or restrictions relating to its use and, if named, the private road shall end with the designation "Lane" or "Way";
2. All new lots and parcels proposed to be served by any new private road shall have a non-exclusive easement covering the entire private road to be created, and this easement shall be made a part of the legal description for the new lots or parcels at the time of title transfer;
3. If an existing private road is to be used as access to the proposed land division, then the property to be divided must also enjoy a non-exclusive easement covering the entire existing private road being used to access the property being divided;
4. Road maintenance agreements are required for new private roads;

5. The following notice shall appear in legible print on the face of any proposed final plat containing a lot or parcel to be served by a private road:

"Coos County hereby gives notice to all developers, purchasers, potential purchasers and all third parties whatsoever that the County disclaims any liability whatsoever for any damage which may occur as a result of the failure of the developer to construct, improve or maintain roads in this proposed land division.

In addition, and for all partitions approved after January 1, 1996, the following shall also appear on the face of any proposed final plat containing a lot or parcel to be served by a private road:

"Confirmation is required from the County Roadmaster that all road, access management and driveway requirements of the Coos County Zoning and Land Development Ordinance have been met prior to the issuance of a Zoning Compliance Letter."

Finally, the developer is required to post and provide for the maintenance of signs on the road stating that the County does not maintain the facility.

Such signs might say "This road is privately maintained by surrounding property owners. All costs for roadway maintenance and upkeep are assessed to each individual property owner".

Revisions to address OAR 60-12-0045 (2) (a)

SECTION 7.1.550. Access Management.

Section 2. Applicability

This ordinance shall apply to all arterials and collectors within the county and properties that abut these roadways and to all access connections.

Section 6. Access Connection and Driveway Design

1. Requirements in this section shall apply to new driveway and access connections intersections with a County Road. When access is needed to a lot or parcel, if the legal status of a lot or parcel has not been determined, the spacing standards in this section shall apply to all contiguous land in one ownership. Any access connection and driveways that involves access to the State Transportation System shall be reviewed by the Oregon Department of Transportation for conformance with state access management standards and other applicable state standards, before the application is accepted by the County. All access measures ODOT deems necessary shall be made a condition of approval.
2. Shared access connections will be provided for adjacent properties whenever possible.

3. Driveway access will be established to minor collector or local roadways where possible rather than to arterials or major collectors.
4. Driveway approaches must be designed and located to provide an exiting vehicle with an unobstructed view. Construction of driveways along acceleration or deceleration lanes and tapers shall be avoided due to the potential for vehicular weaving conflicts.
5. Driveway and access connections on County Roads shall be located where they do not create undue interference or hazard to the free movement of highway and pedestrian traffic. Locations on sharp curves, steep grades, areas of restricted sight distance or at points that interfere with the placement and proper functioning of signs, lighting, guardrail, or other traffic control devices shall not be permitted.
6. Table 7-2 (see Section 7.2) and 7-3 (see Section 7.3) shall be used in determining spacing between approaches onto County Roads.
7. The application and use of traffic signals shall be guided by the principles, methods and warrants outlined in the *Manual on Uniform Traffic Control Devices Manual*.
8. Sight distance standards shall follow the standards set forth in the AASHTO Geometric Design for Streets and Highways.

Section 10. Shared Access

Subdivisions with frontage on the state highway system shall be designed into shared access points to and from the highway. A maximum of two accesses shall be allowed regardless of the number of lots or businesses served. If access off of a secondary street is possible, then access should not be allowed onto the state highway. If access off of a secondary street becomes available, then the state highway access should be closed and access should be converted to conversion to the secondary street that access is encouraged, along with closing the state highway access.

Section 14. Variance Standards on County Facilities

1. The granting of the variation shall be in harmony with the purpose and intent of these regulations and shall not be considered until every feasible option for meeting access standards is explored, as determined by the County.
2. Applicants for a variance from these standards must provide proof of unique or special conditions that make strict application of the provisions impractical. Applicants shall include proof that;
 - a. Indirect access cannot be obtained;
 - b. No financially reasonable engineering or construction solutions can be applied to mitigate the condition; and
 - c. No alternative access is available from a street with a lower functional classification than the primary roadway.
3. No variance shall be granted where such hardship is self-created.

4. Access Management Plan Required. An applicant requesting an access exception must submit an access management plan. The access management plan shall explain the need for the modification and demonstrate that the modification maintains the classified function and integrity of the facility. An access management plan shall be prepared and certified by a traffic or civil engineer registered in the State of Oregon. Access connections to a state highway, should are required to be coordinated through ODOT and follow state standards. An access management plan shall at minimum contain the following:
- a. The minimum study area shall include the length of the site's frontage plus the distance of the applicable access spacing standard, measured from each property line or access point(s), whichever is greater.
 - b. The potential safety and operational problems associated with the proposed access point. The access management plan shall review both existing and future access for all properties within the study area as defined above.
 - c. A comparison of all alternatives examined. At a minimum, the access management plan shall evaluate the proposed modification to the access spacing standard and the impacts of a plan utilizing the County standard for access spacing. Specifically, the access management plan shall identify any impacts on the operations and/or safety of the various alternatives.
 - d. A list of improvements and recommendations necessary to implement the proposed access modification, specifically addressing all safety and operational concerns identified.
 - e. References to standards or publications used to prepare the access management plan.

Revisions to address OAR 60-12-0060 (2)

SECTION 7.1.555. Plan Amendments Affecting the Transportation System. A plan or land use regulation amendment significantly affects a transportation facility if it:

- a. Changes the functional classification of an existing or planned transportation facility;
- b. Changes standards implementing a functional classification system;
- 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

- 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.

Amendments to the comprehensive plan and land use regulations which significantly affect a transportation facility shall assure that allowed land uses are consistent with the function, capacity, and performance standard of the facility identified in the Transportation System Plan. This shall be accomplished by measures identified in OAR 660.12.60 (2-3).

- a. ~~Limiting allowed land uses to be consistent with the planned function of the transportation facility; or~~
- b. ~~**Amending the Transportation System Plan to ensure that existing, improved, or new transportation facilities are adequate to support the proposed land uses consistent with the requirement of the Transportation Planning Rule; or~~
- c. ~~Altering land use designations, densities, or design requirements to reduce demand for automobile travel and meet travel needs through other modes; or~~

~~Amending the TSP to modify the planned function, capacity and performance standards, as needed, to accept greater motor vehicle congestion to promote mixed use, pedestrian friendly development where multimodal travel choices are provided.~~

~~**Note: The Coos County Planning Commission opposes this requirement as stated in the Transportation Planning Rule.~~

SECTION 7.1.560. Bicycle and Pedestrian Circulation. The Transportation Planning Rule specifies that, at a minimum, sidewalks and bikeways be provided along arterials and collectors within urban growth boundaries and unincorporated communities with pedestrian facilities being appropriate in most residential areas as well.

Definitions:

1. Accessway. A walkway that provides pedestrian and bicycle passage either between streets or from a street to a building or other destination such as a school, park, or transit stop.
 - a. Bikeway. Any road, path, or way that is in some manner specifically open to bicycle travel, regardless of whether such facilities are designated for the exclusive use of bicycles or are shared with other transportation modes. The five types of bikeways are:
 - a. Multi-use Path. A paved way that is physically separated from motorized vehicular traffic; typically shared with pedestrians, skaters, and other non-motorized users.
 - b. Bike Lane. A 4 to 6-foot wide portion of the roadway that has been designated by permanent striping and pavement markings for the exclusive use of bicycles.
 - c. Shoulder Bikeway. The paved shoulder of a roadway that is 4 feet or wider; typically shared with pedestrians in rural areas.
 - d. Shared Roadway. A travel lane that is shared by bicyclists and motor vehicles.

- e. Multi-use Trail. An unpaved path that accommodates all-terrain bicycles; typically shared with pedestrians.
2. Pedestrian Facilities. A general term denoting improvements and provisions made to accommodate or encourage walking, including sidewalks, accessways, crosswalks, ramps, paths, and trails.
3. Neighborhood Activity Center. An attractor or destination for residents of surrounding residential areas. Includes, but is not limited to, existing or planned schools, parks, shopping areas, transit stops, employment areas.
4. Reasonably direct. A route that does not deviate unnecessarily from a straight line or a route that does not involve a significant amount of out-of-direction travel for likely users.
5. Safe and convenient. Bicycle and pedestrian routes that are:
 - a. Reasonably free from hazards, and
 - b. Provide a reasonably direct route of travel between destinations, considering that the optimum travel distance is one-half mile for pedestrians and three miles for bicyclists.
6. Walkway. A hard-surfaced (i.e. rock, concrete, etc.) area intended and suitable for pedestrians, including sidewalks and the surfaced portions of accessways.

Site Plan Elements:

1. The location and design of bicycle and pedestrian facilities shall be indicated on the site plan.
2. Pedestrian Access and Circulation. Internal pedestrian circulation shall be provided in new commercial, office, and multi-family residential developments through the clustering of buildings, construction of walkways, landscaping, accessways, or similar techniques.
3. All site plans (industrial and commercial) shall clearly show how the internal pedestrian and bicycle facilities of the site connect with external existing or planned facilities or systems.
4. Site plans shall comply with Table 7-2 and 7-3.

SECTION 7.1.900. Circumstances Requiring Road Improvements; Extent of Required Road Improvements. Public and private road and street improvements are required by this ordinance when the circumstances set forth in Table 7.1 exist. In addition to the standards in Table 7.1, Table 7.2, and Table 7.3, the County Roadmaster has the authority to require road improvements to meet the road standards and requirements of local fire and ambulance districts.

If and when public or private road improvements are required, then such improvements shall be back to the intersection with an opened public road. This may include road improvements to a series of public roads or streets and private access easements.

If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation. ODOT conditions of approval shall be incorporated into the permit conditions of approval, and ODOT shall be notified if the conditions of approval are changed.

Roads and Streets within a UGB, or City unincorporated area must meet the standards for the city for which they are located in. When road improvements are required within a UGB, or City unincorporated area city urban growth boundaries, including the Coos Bay Area Urban Growth Boundary, road construction shall be required to the extreme point of physical access (i.e., driveway), and not to the furthestmost property line. County roads that fall within a City UGB or City unincorporated community without specified standards, shall follow applicable provisions in this section and the standards in Section 7-3.

"Opened road," as used in this ordinance, means a rocked or paved road which has an all-weather year-round maintained travel surface. The determination of whether a road is "opened" shall be made by the Roadmaster.

SECTION 7.1.1000. Responsibility for Determining Compliance with this Chapter. The Coos County Roadmaster shall be responsible for determining compliance with the provisions of this chapter. When road and driveway improvements are required by this ordinance, the Roadmaster shall provide the Planning Director with written notice when the provisions of this chapter have been satisfied with respect to an application or other matter under review. If the proposed action may affect a state transportation facility, notice shall be given to the Oregon Department of Transportation. ODOT conditions of approval shall be incorporated into the permit conditions of approval, and ODOT shall be notified if the conditions of approval are changed.

SECTION 7.1.1100 Special Provisions for State Highway Facilities. Oregon Highway Plan (OHP) mobility standards are applied to state highway facilities for existing and future no build conditions (no/limited geometric changes). ODOT Highway Design Manual (HDM) mobility standards are applied to state highway facilities in conjunction with any design changes. HDM standards can be found in Table 10-1, 20 Year Design-Mobility Standards (Volume/Capacity [V/C]) Ratio, of the most recent version of the 2003 HDM.

SECTION 7.1.1200 Special Provisions for County-Maintained Intersections. A maximum v/c ratio of 0.85 should be maintained for all County-maintained intersections during a typical weekday peak hour, for existing facilities and design modifications.

Revisions to address OAR 60-12-0045 (2) and to address Goal 1 Mobility and Goal 4 Safety of the TSP.

ARTICLE 7.2 RURAL ROAD STANDARDS (COUNTY ROADS OUTSIDE OF UGBS OR CITY UNINCORPORATED AREAS)

SECTION 7.2.100. Requirements for New Private Roads to be Created in Conjunction with a Partition, Subdivision or Planned Unit Development. The following standards shall apply to any proposed private road that is to be created in conjunction with a rural land division:

1. The provisions of Table 7.2.
2. Intersection angles.

New roads and streets shall be designed to intersect with existing roads and streets at angles as near to right angles (90 degrees) as practicable. Lesser angles shall be permitted where topography limitations do not allow a right angle intersection but in no case may an intersection angle less than 60 degrees be approved without a variance, and in no case may an intersection angle be approved where the intersection has less than a 50-foot tangent intersecting the centerline of the existing road unless the Roadmaster approves a special intersection design needed to provide safety.

3. Control strip.

A "control strip" may be required or authorized, pursuant to Section 6.2.200.

4. Alignment.

Whenever practicable, all new roads and streets shall be in alignment with existing roads and streets by continuation of the centerlines thereof. Staggered road or street alignments resulting in "T" intersections shall leave a minimum distance of 150 feet between the centerlines of roads or streets oriented in approximately the same direction.

SECTION 7.2.200 Requirements for New Public Roads to be Created in Conjunction with a Partition, Subdivision or Planned Unit Development. The following standards shall apply to any proposed public road that is to be created in conjunction with a rural land division:

1. The provisions of Table 7.2
2. Compaction.

All base and finish rock shall be compacted to 95% as per "Method A", AASHTO regulations, or APWA specifications. If requested by the Roadmaster, the developer shall submit compaction test results.

3. Horizontal Curves.

- a. Centerline radii of curves, as constructed, shall be not less than the standards prescribed in the following table:

TYPE OF PUBLIC STREET	CENTERLINE MAXIMUM DEGREE CURVATURE (ARC DEFINITION)	CENTERLINE MINIMUM RADIUS IN FEET
Arterials and Major Collectors	24 degrees	238.73
Minor Collectors Collector streets, and all business streets other than arterials	40 degrees	143.24
Local and Private streets Minor streets and cul-de-sacs	56 degrees	102.31

- b. Conversion formulas for arc definition of curvature are:

$$\text{Degree of curvature} = \frac{5729.58}{\text{radius}}$$

$$\text{Radius} = \frac{5729.58}{\text{degree of curvature}}$$

- c. Each curve shall have a minimum length of 75 feet.
 - d. Whenever the centerline of a road or street changes direction, the tangents of such centerline shall be connected with curves meeting the specifications of this section.
4. Vertical curves.
- a. All tangent grades shall be connected by means of vertical curves.
 - b. Vertical curves shall be at least 100 feet long except as provided in this section.
 - c. Vertical curves at intersections shall be at least 25 feet long and may have unequal tangents; the shortest tangent shall be at least 10 feet long.
 - d. Except under special conditions, vertical curves shall begin at or outside the extended right-of-way lines of intersections.
5. Intersection Angles

New roads and streets shall be designed to intersect with existing roads and streets at angles as near to right angles (90 degrees) as practicable. Lesser angles shall be permitted where topography limitations do not allow a right angle intersection but in no case may an intersection angle less than 60 degrees be approved without a variance.

The intersection of arterial or collector roads or streets with other arterial or collector roads or streets shall have a least 50 feet of tangent adjacent to the intersection of centerlines unless topography requires a lesser distance.

Intersections which are not at right angles shall have a minimum corner radius of 20 feet along the right-of-way lines at the acute angle. Right-of-way at intersections with arterial roads or streets shall have a corner radius of not less than 20 feet.

[GRAPHIC 50' Tangent and 60 degree minimum]

6. Dead End Roads or Streets.

Dead end roads or streets, other than cul-de-sacs, shall not be approved except when such dead end roads or streets are necessary for the effective development of the area. Any approved dead end road or street shall be provided with a turnaround conforming to the provisions of this ordinance.

7. Alignment.

Whenever practicable, all new roads and streets shall be in alignment with existing roads and streets by continuation of the centerlines thereof. Staggered road or street alignments resulting in "T" intersections shall leave a minimum distance of 150 feet between the centerlines of roads or street oriented in approximately the same direction.

8. Future Extension of Street or Road.

Roads and streets shall be extended across property being divided when necessary to facilitate development or provide future access to adjoining property. When extensions are deemed necessary, roads and streets shall be extended to the boundary of the property being divided. The resulting dead end road or street may be approved without a turnaround, notwithstanding subsection "6", above.

9. Road and Street Names.

Except for extensions of existing roads or streets, no new road or street name shall be used which will duplicate or be confused with the name of existing roads or streets in the County. Road or street names, or numbers, shall conform to established patterns in the surrounding area (whether the area is incorporated or not) and must comply with road naming requirements set forth in the Coos County Code.

10. Slope Easements.

In addition to the minimum right-of-way standards set forth in this ordinance, slope easements may be required for cuts or fills that must necessarily extend beyond right-of-way lines.

11. Grading.

- a. Cut slopes shall be not steeper than one (1) foot vertical rise to one (1) foot horizontal run, except that if the material is blow sand, the cut slope shall be not steeper than one (1) foot vertical rise to two (2) feet horizontal run.
- b. Fill slopes shall be not steeper than one (1) foot vertical rise to one and one-half (1.5) feet horizontal run, except that if the material is blow sand, the fill slope shall be not steeper than one (1) foot vertical rise to two (2) feet horizontal run.

SECTION 7.2.200 Street Hierarchy

Arterials are the highest demand roadways that carry and distribute regional traffic between cities and counties. The emphasis is on serving through traffic will controlled and less frequent property access. The state highway system will continue to serve as the arterial network within Coos County.

Major collectors connect residential neighborhoods with smaller community centers and facilities, as well as providing access to the arterial system. They generally serve higher traffic demands and serve both through traffic as well as providing property access. They tie federal roads, minor collectors, and local roads to the arterial system and also serve as relief routes should an event result in the closure of one of the arterial routes. These roads also provide access to agricultural, forest, and recreational areas.

Minor collectors generally serve lower traffic demands than major collectors. They generally branch off from highway, arterial, or major collector roadways and provide access to agricultural, forest, recreational areas, and residential homes. Property access is generally a higher priority for minor collectors while through traffic movements are served as a lower priority.

Local streets primarily serve residential properties, although they serve commercial and industrial properties as well. Property access is the main priority; through traffic movement is not encouraged. They are designed to carry low traffic volumes. The design of local streets varies depending on the surrounding environment (residential vs. commercial/industrial).

Private streets are primarily roads or driveways on privately-owned property, limited to the use of the owner or a group of owners who share the use and who maintain the road or driveway according to applicable standards.

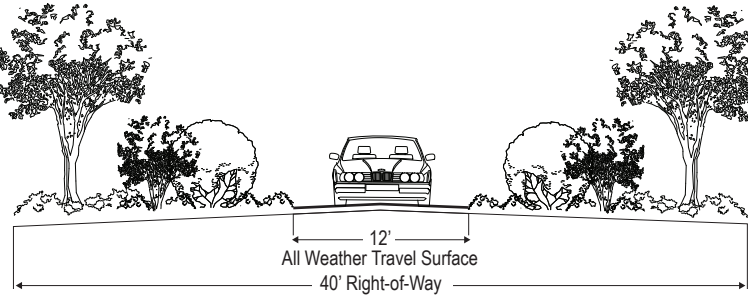
Table 7.2 County Road Rural Design Standards

Roadway Classification	Typical Cross-Section Figure	Average Daily Traffic ¹	Subgrade Width ²	All-Weather Travel Surface ³	Right-of-Way Width ⁴	Compacted Rock Depth Base Aggregate	Asphalt Concrete Depth	Maximum Grade ⁷	Centerline Maximum Degree of Curvature	Vertical Unobstructed Clearance	Minimum Access Spacing
Private Roadways in conjunction with a residential partition ⁸	Figure 7-2	0-12 0-150	16'	12'	50'-40'	5" 3"-8"	2" (suggested)	18%	56 Degrees	13.5'	50'/200' ¹³
Other minor roads and streets (Local)- Local Residential	Figure 1 Figure 7-2	0-600	24'	20'	60'-40'	6" 4"-10"	2"	128%	56 Degrees	13.5'	500' ¹³
Local Commercial/Industrial	Figure 7-2	0-600	36'	32' paved, including two 4' bike lanes/shoulders	60'	12"	4" (two lifts)	10%	56 Degrees	13.5'	500' ¹³
Collector roads and streets Minor Collectors	Figure 2 Figure 7-2	500- 2,500	36'	32' paved, with including two 4' bike lanes/shoulders	60'	6" 4"-12"	3"	120%	56 Degrees	13.5'	500' ¹³
Major Collectors, Local and Arterials ¹²	Figure 7-2	>2,500	36'	32' paved, with including two 4' bike lanes/shoulders	80'-60'	6" 4"-12"	4" (two lifts)	120%	56 Degrees	13.5'	500'/ State Standards ¹³
Driveways ⁹	-	-	-	12' (20' apron if intersects Major Collector or Arterial)	-	Depths necessary to support loads as required by the local Fire Department District		-	-	50'/200' ¹³	-
Turnarounds											
Circular hammerhead	-	-	53' radius ¹⁰	45' radius ¹⁰	60' radius	Same as Type of Road Served		12%	-	13.5'	-
Temporary hammerheads	-	-	66' x 44'	60' x 40'	70' x 50'			12%	-	13.5'	-
At plat lines	-	-	46' x 36'	42' x 32'	50' x 40'			12%	-	13.5'	-

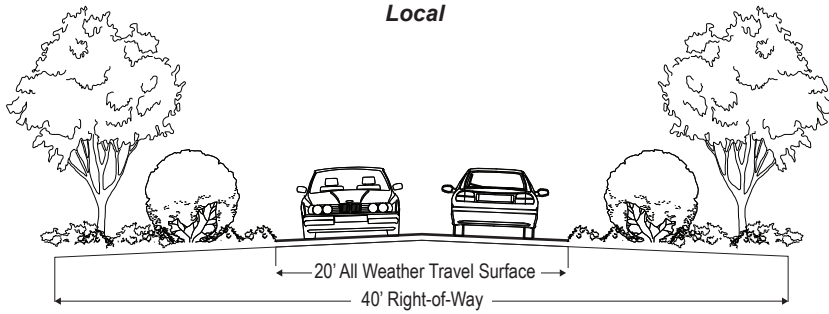
FOOTNOTES FOR TABLE 7.2

1. Average Daily Traffic (ADT) is computed by using trip generation rates as defined in the most recent version of the Institute of Transportation Engineers Trip Generation Manual.
2. Subgrade width is that grade upon which surfacing materials will be placed. Sloped roadside ditches will be required in cuts outside of slated subgrade widths.
3. All accesses shall have an unobstructed horizontal clearance not less than the width of the all-weather travel surface. In addition, to the maximum extent practicable, vegetation shall be trimmed along the edge of the all-weather travel surface. Gates on roads, streets and driveways leading to a structure shall have a minimum clearance of 12 feet for the safe passage of emergency vehicles.
4. Additional slope easements are required where slopes are constructed outside the normal right-of-way.
5. ~~Base rock shall consist of 1-1/2" minus crushed rock, except that other base rock specifications may be accepted where the Roadmaster finds that 1-1/2" minus base rock is not practical. Additional rock depth may be required if rock other than 1-1/2" minus crushed rock is proposed.~~
6. ~~Finish rock shall consist of 3/4" minus crushed rock, except that other base rock specifications may be accepted where the Roadmaster finds that 3/4" minus finish rock is not practicable. Additional rock depth may be required if finish rock other than 3/4" minus crushed rock is proposed.~~
7. Road grades shall not exceed an average of 125%, with a maximum of 18% on short pitches. Variances may be granted when topographical conditions make these standards impractical. For "minor" roads or streets serving more than ten dwellings, any grade exceeding 16% shall have the following conditions imposed: (a) no intersections, driveways or other access shall be permitted, (b) no horizontal curves greater than 16 degrees shall be permitted and (c) no superelevations of curves greater than 0.02-foot rise per 1.0-foot run shall be permitted. Roads intersecting a State Highway must not exceed a 3% uphill or a 6% downhill grade, at the intersection and must meet County standards for having the road at the same level as the intersection for at least 20 feet.
8. Notwithstanding requirements for "Local Streets", as set forth in this table, the standards of this category of new roadways shall apply; (a) to private roadway easements not offered for public dedication, and (b) where the new private access roadway is to serve not more than three parcels intended for residential use, except that the new private roadway may serve more than three parcels if it is brought into full compliance with the applicable standards set forth in this table and elsewhere in this ordinance. Where new private roadways approved under this provision exceed 1000 feet in length, turnouts 100 feet in length shall be provided every 600 feet.
9. "Driveway", pursuant to Section 2.1.200, means "a private vehicular travel surface accessing a single residence." Driveways over 150 Linear Feet must provide a turnaround for emergency vehicles.
10. Roads or streets within a partition shall have a subgrade width not less than 44' and an all-weather travel surface of 36'.
11. ~~Roads or streets within a partition shall have subgrade width not less than 44' and an all-weather surface of 36'.~~
12. County Roadmaster has the authority to require additional road improvements to meet the road standards and requirements of local fire and ambulance districts.
13. The Standards for Major Collectors apply to Industrial sites which also must improve their roadways back to Major Collectors.
14. The access spacing standards for public street intersections on County roads is 500 feet, for both collectors and local roads. The access spacing standard for private driveway intersections on major and minor collector roads is 200 feet and on local roads is 50 feet. Where feasible, private accesses to major and minor collector roadways should be minimized or combined to increase access spacing and minimize conflict points.

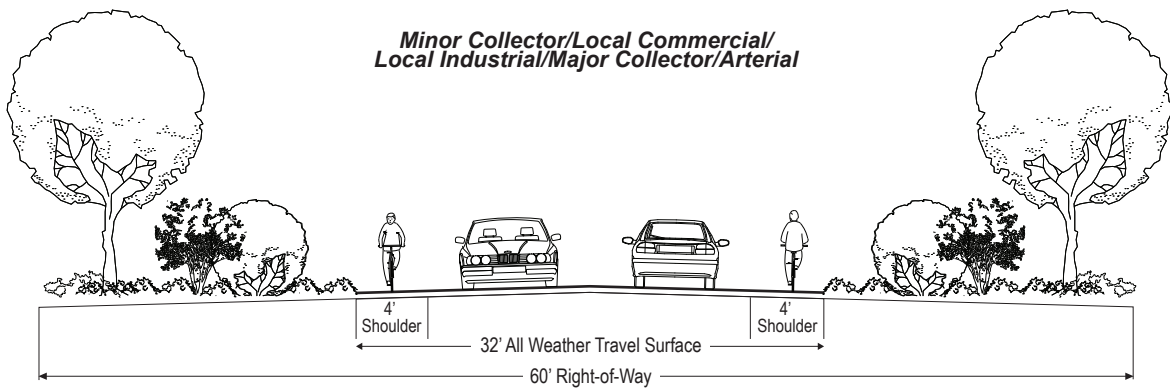
Private



Local



**Minor Collector/Local Commercial/
Local Industrial/Major Collector/Arterial**



Not to Scale

Figure 7-2
County Roads Typical Cross-Sections

ARTICLE 7.3 URBAN ROAD STANDARDS (~~CITY UGB'S~~) (COUNTY ROADS WITHIN UGB OR CITY UNINCORPORATED COMMUNITY)

Revisions to address OAR 60-12-0045 (2) and to address Goal 1 Mobility and Goal 4 Safety of the TSP.

SECTION 7.3.100 Requirements for New Roads to be Created in Conjunction with a Partition, Subdivision or Planned Unit Development. The following standards shall apply to any proposed road that is to be created in conjunction with a land division within an area that falls within a City UGB or City unincorporated community without specified standards.

1. Roads created inside of City UGBs should follow the local jurisdiction’s applicable road standards in order to facilitate a potential jurisdictional transfer in the future. For areas that fall within a City UGB or City unincorporated community without specified standards, the standards identified below and in Table 7-3 and Figure 7-3 apply. ~~The provisions of Table 7.3 are applicable within the City UGB or Urban Unincorporated Communities.~~ The minimum road standards of Table 7.3 may be modified ~~in~~ by the discretion of the County Roadmaster.

2. Compaction.

All base and finish rock shall be compacted to 95% as per "Method A", AASHTO regulations, or APWA specifications. If requested by the Roadmaster, the developer shall submit compaction test results.

3. Horizontal Curves.

- a. Centerline radii of curves, as constructed, shall be not less than the standards prescribed in the following table:

TYPE OF PUBLIC STREET	CENTERLINE MAXIMUM DEGREE CURVATURE (ARC DEFINITION)	CENTERLINE MINIMUM RADIUS IN FEET
Arterials and Major Collectors	24 degrees	238.73
Minor Collectors Collector streets, and all business streets other than arterials	40 degrees	143.24
Local and Private streets Minor streets and cul-de-sacs	56 degrees	102.31

- b. Conversion formulas for arc definition of curvature are:

$$\text{Degree of curvature} = \frac{5729.58}{\text{radius}}$$

$$\text{Radius} = \frac{5729.58}{\text{degree of curvature}}$$

- c. Each curve shall have a minimum length of 75 feet.

- d. Whenever the centerline of a road or street changes direction, the tangents of such centerline shall be connected with curves meeting the specifications of this section.
4. Vertical curves.
 - a. All tangent grades shall be connected by means of vertical curves.
 - b. Vertical curves shall be at least 100 feet long except as provided in this section.
 - c. Vertical curves at intersections shall be at least 25 feet long and may have unequal tangents; the shortest tangent shall be at least 10 feet long.
 - d. Except under special conditions, vertical curves shall begin at or outside the extended right-of-way lines of intersections.

5. Intersection Angles

New roads and streets shall be designed to intersect with existing roads and streets at angles as near to right angles (90 degrees) as practicable. Lesser angles shall be permitted where topography limitations do not allow a right angle intersection but in no case may an intersection angle less than 60 degrees be approved without a variance.

The intersection of arterial or collector roads or streets with other arterial or collector roads or streets shall have a least 50 feet of tangent adjacent to the intersection of centerlines unless topography requires a lesser distance.

Intersections which are not at right angles shall have a minimum corner radius of 20 feet along the right-of-way lines at the acute angle. Right-of-way at intersections with arterial roads or streets shall have a corner radius of not less than 20 feet.

[GRAPHIC 50' Tangent and 60 degree minimum]

6. Dead End Roads or Streets.

Dead end roads or streets, other than cul-de-sacs, shall not be approved except when such dead end roads or streets are necessary for the effective development of the area. Any approved dead end road or street shall be provided with a turnaround conforming to the provisions of this ordinance.

7. Alignment.

Whenever practicable, all new roads and streets shall be in alignment with existing roads and streets by continuation of the centerlines thereof. Staggered road or street alignments resulting in "T" intersections shall leave a minimum distance of 150 feet between the centerlines of roads or street oriented in approximately the same direction.

8. Future Extension of Street or Road.

Roads and streets shall be extended across property being divided when necessary to facilitate development or provide future access to adjoining property. When extensions are deemed necessary, roads and streets shall be extended to the boundary of the

property being divided. The resulting dead end road or street may be approved without a turnaround, notwithstanding subsection "6", above.

9. Road and Street Names.

Except for extensions of existing roads or streets, no new road or street name shall be used which will duplicate or be confused with the name of existing roads or streets in the County. Road or street names, or numbers, shall conform to established patterns in the surrounding area (whether the area is incorporated or not) and must comply with road naming requirements set forth in the Coos County Code.

10. Slope Easements.

In addition to the minimum right-of-way standards set forth in this ordinance, slope easements may be required for cuts or fills that must necessarily extend beyond right-of-way lines.

11. Grading.

- a. Cut slopes shall be not steeper than one (1) foot vertical rise to one (1) foot horizontal run, except that if the material is blow sand, the cut slope shall be not steeper than one (1) foot vertical rise to two (2) feet horizontal run.
- b. Fill slopes shall be not steeper than one (1) foot vertical rise to one and one-half (1.5) feet horizontal run, except that if the material is blow sand, the fill slope shall be not steeper than one (1) foot vertical rise to two (2) feet horizontal run.

SECTION 7.3.200. Street Hierarchy

Arterials are the highest demand roadways that carry and distribute regional traffic between cities and counties. The emphasis is on serving through traffic will controlled and less frequent property access. The state highway system will continue to serve as the arterial network within Coos County.

~~**Arterial:** These roads are intended to provide for high speed travel between or within communities or to and from collectors. Arterials may be four (4) or more lanes in width or two (2) one-way lanes.~~

Major Collectors connect residential neighborhoods with smaller community centers and facilities, as well as providing access to the arterial system. They generally serve higher traffic demands and serve both through traffic as well as providing property access. They tie federal roads, minor collectors, and local roads to the arterial system and also serve as relief routes should an event result in the closure of one of the arterial routes. These roads also provide access to agricultural, forest, and recreational areas.

Minor Collectors generally serve lower traffic demands than major collectors. They generally branch off from highway, arterial, or major collector roadways and provide access to agricultural, forest, recreational areas, and residential homes. Property access is generally a higher priority for minor collectors while through traffic movements are served as a lower priority.

Collector: Collector roads connect residential streets to the highway systems major and high speed arterial roads or provide access to non-residential uses and arterial streets. Collector roads are designed for higher speeds and traffic volumes than are residential streets. Because uncongested traffic flow is necessary for their effective functioning, residential uses are discouraged access to collector roads. Collector roads accommodate traffic from two (2) or more residential streets.

Local Commercial/Industrial Commercial/industrial streets primarily function is to provide access to commercial or industrial zones.

Local Residential Streets: Residential streets primarily function to provide access to residential uses. All residential streets are intended to accommodate relatively low traffic volumes at slow speeds in order to minimize the basic incompatibility of vehicles and the pedestrians and children who characterize residential neighborhoods.

Cul-de-sac: Cul-de-sacs are limited to residential use, and as local streets have only one outlet, without possibility of extension, and a maximum length of 400 feet measured from the center of the turnaround to the right-of-way line of the street or road being intersected.

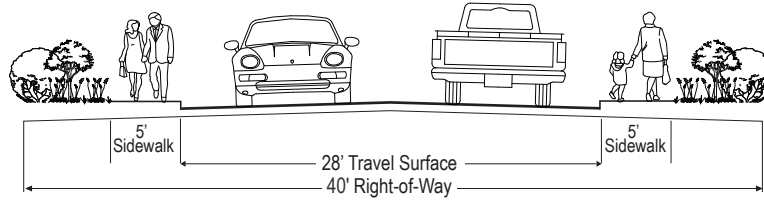
Table 7.3 Minimum Road and Street Development Standards within City Urban Growth Boundaries or City Unincorporated Area

Roadway Classification	Minimum Right-of-Way Width ¹	Minimum Travel-All Weather Travel Surface Width	Minimum Sub-Grade Width	Intersections			Maximum Grade	Sidewalks Minimum Width ¹	Curb Width	Minimum Access Spacing ²	Construction	
				Minimum Acute Angle	Minimum Tangent Adjacent	Minimum Centerline Offset					Base Rock Finish	Paving Asphalt Concrete Depth
Major Collector/ Arterial (four-lane)	80'	62' including two, 6' bike lanes	66'	60 degrees	50'	150'	10% 7%	5' both sides	6"	500' / State Standards	6" 4" 12"	4" (two lifts) Yes 2
Major Collector/ Arterial (2 one-way lanes)	60'	36' including two, 6' bike lanes	40'	60 degrees	50'	150'	10% 7%	5' both sides	6"	500' / State Standards	6" 4" 12"	4" (two lifts) Yes 2
Minor Collector	60'	36' including two, 6' bike lanes	40'	60 degrees	50'	150'	10% 7%	5' both sides	Not required	500'	6" 4" 12"	3" Yes 2
Local Residential	40 50'	28'	32'	60 degrees	50'	150'	16% 15% Ave. / 18% Max.	5' both sides	Not required	500	6" 4" 10"	2" (suggested)
Cul-de-Sac (Not to exceed 400' in length)	40' with 50' radius turn-around	28'	32'	60 degrees	50'	150'	16% 15% Ave. / 18% Max	5' both sides	Not required	-	6" 4" 10"	2" Yes 2
Local Commercial/ Local Industrial	60'	36'	40'	60 degrees	50'	150'	12% 10%	Not required	Not required	500'	6" 4" 12"	

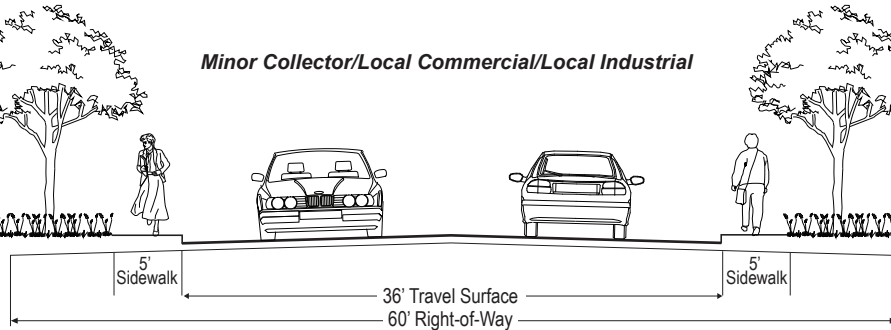
FOOTNOTES FOR TABLE 7.3

1. In addition to right-of-way, slope easements may be required.
2. The access spacing standards for public street intersections on County roads is 500 feet, for both collectors and local roads. The access spacing standard for private driveway intersections on major and minor collector roads is 200 feet and on local roads is 50 feet. Where feasible, private accesses to major and minor collector roadways should be minimized or combined to increase access spacing and minimize conflict points.

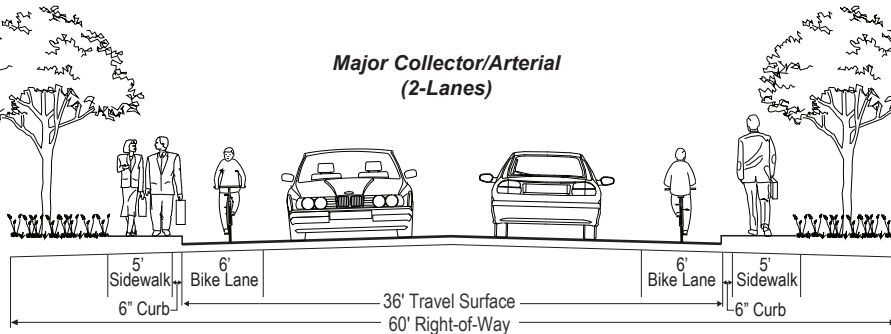
Local Residential



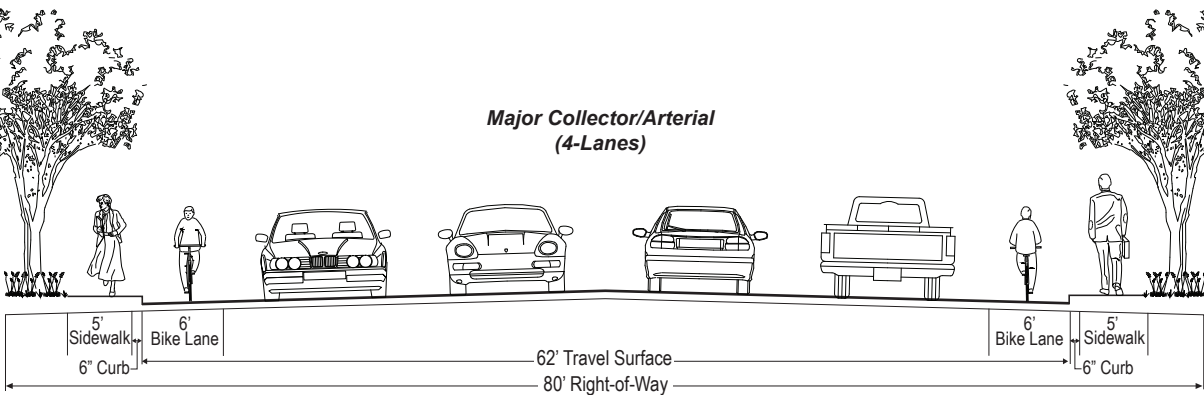
Minor Collector/Local Commercial/Local Industrial



Major Collector/Arterial (2-Lanes)



Major Collector/Arterial (4-Lanes)



Not to Scale

Figure 7-3
County Roads Typical Cross-Sections: Within City Urban Growth Boundary

