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DEPARTMENT OF TRANSPORTATION AND DEVELOPMENT

DEVELOPMENT SERVICES BUILDING
150 BEAVERCREEK ROAD OREGON CITY, OR 97045

STAFF REPORT

TO: Planning Commission
FROM: Stephen Williams, Principal Transportation Planner
DATE: September 10, 2018

RE: ZDO-270: Updates to Figures, Maps and Tables for Comprehensive Plan Chapter 5
Transportation System Plan

PROPOSAL

ZDO-270 proposes three amendments to the Figures, Maps and Tables associated with the Clackamas County Comprehensive Plan, Chapter 5, Transportation System Plan. There are no text changes to the Comprehensive Plan or the Zoning Development Ordinance proposed. The changes to these Figures, Maps and Tables are necessary to maintain consistency between the Comprehensive Plan and current county practice, but none of the changes represent a substantive policy change. The following describes the proposed amendments in greater detail.

Amendment #1: Modify Figures 5-1 a-f Urban Cross Sections, and Figures 5-2 a-f Rural Cross Sections

Clackamas County has incorporated the Transportation System Plan into the Comprehensive Plan to improve the integration between land use policy and transportation policy. The urban and rural roadway cross sections are one of the important links in the plan between land use policy and transportation policy. These cross-sections inform property owners of the standard transportation facilities that are required for each type of street frontage. The cross-sections also inform the designers and builders of streets of the types of street improvements that are required. The cross-sections are organized by functional classification, with urban cross sections for major arterials, minor arterials, collectors, local streets and urban alleys, and rural cross sections for arterials, rural arterials in unincorporated communities, rural collectors, rural collectors in unincorporated communities, and rural connectors/local streets. Attached are the proposed revised urban and rural cross sections for all functional classifications, in redline format to highlight the proposed changes. The following describes the changes proposed for each of the cross sections:

Urban Cross Sections (Figures 5-1 a-e)

- Figure 5-1a, Typical Urban Major Arterial Cross Section
 - Bikeway width was increased to 8'. The national standard for a bikeway on a major arterial is 8' due to the high traffic volume and that width is identified as the Clackamas County standard in the Clackamas County Active Transportation Plan.
 - Landscape strip and curb has been widened to 5'6" to accommodate a 5' landscape strip and 6" curb.

- Pedestrian facility width varies between 6' and 8' based on the type of pedestrian facility as called for in the Active Transportation Plan.
- Figure 5-1b, Typical Urban Minor Arterial Cross Section
 - Left turn lane/median and second travel lane has been re-designated from "optional" to "as needed" to be consistent with Clackamas County Roadway Standards.
 - Parking lane width of 7'-8' is proposed to be allowed to provide consistency with Clackamas County Roadway Standards.
 - Landscape strip and curb has been widened to 5'6" to accommodate a 5' landscape strip and 6" curb.
- Figure 5-1c, Typical Urban Collector Cross Section
 - Left turn lane/median re-designated from "optional" to "as needed" to be consistent with Clackamas County Roadway Standards.
 - Parking lane width of 7'-8' is proposed to be allowed to provide consistency with Clackamas County Roadway Standards.
 - Landscape strip and curb has been widened to 5'6" to accommodate a 5' landscape strip and 6" curb.
- Figure 5-1d, Typical Urban Connector/Local Cross Section – The Urban Connector Cross Section (previously Figure 5-1d) is the same as the Urban Local Cross Section (previously Figure 5-1e), so those have been combined in one cross section, and re-titled "Figure 5-1d, Typical Urban Connector/Local Cross Section".
 - Travel lanes and parking lanes have been combined into one element to be consistent with the Clackamas County Roadway Standards.
 - Landscape strip and curb has been widened to 5'6" to accommodate a 5' landscape strip and 6" curb.
- Figure 5-1f, Typical Urban Alley Cross Section – Becomes Figure 5-1e due to deletion of previous Figure 5-1e, but otherwise no change.

Rural Cross Sections (Figures 5-2 a-e)

- Figure 5-2a, Typical Rural Arterial Cross Section
 - Left turn lane/median has been re-designated from "optional" to "as needed" to be consistent with Clackamas County Roadway Standards.
 - Gravel shoulder altered to allow a narrower width if a "Paved shoulder/bikeway" is present.
 - Ditch has been re-designated from "optional" to "as needed" to be consistent with Clackamas County Roadway Standards and stormwater requirements.
- Figure 5-2b, Typical Rural Arterial Cross Section Unincorporated Communities
 - Left turn lane/median has been re-designated from "optional" to "as needed" to be consistent with Clackamas County Roadway Standards.
 - Paved shoulder/bikeway width has been revised to conform to national standards and the provisions of the Active Transportation Plan.
 - Landscape strip and curb has been widened to 5'6" to accommodate a 5' landscape strip and 6" curb.
- Figure 5-2c, Typical Rural Collector Cross Section
 - Paved shoulder bikeway has been revised to "Paved shoulder/bikeway" to be consistent with the Active Transportation Plan.

- Gravel shoulder altered to allow a narrower width if a “Paved shoulder/bikeway” is present.
- Ditch has been re-designated from “optional” to “as needed” to be consistent with Clackamas County Roadway Standards and stormwater requirements.
- Figure 5-2d, Typical Rural Collector Cross Section Unincorporated Communities
 - Left turn lane/median has been re-designated from “optional” to “as needed” to be consistent with Clackamas County Roadway Standards.
 - Paved shoulder bikeway has been revised to “Paved shoulder/bikeway” to be consistent with the Active Transportation Plan and with other cross sections.
- Figure 5-2e, Typical Rural Urban Connector Cross Section – The Rural Connector Cross Section is the same as the Local Cross Section, so those have been combined in Figure 5-2e.
- Figure 5-2f, Typical Rural Connector/Local Cross Section
 - Paved width was incorrectly shown in the adopted version to include the gravel shoulders. In the proposed revised diagram “paved width” only applies to the paved section of the road and does not include the gravel shoulder width. This change simply corrects a previous mistake and neither the travel lane width nor the gravel shoulder width are proposed to change.
 - Ditch has been re-designated from “optional” to “as needed” and width range has been widened from 6’ to 8’ in the adopted, to a proposed 2’ to 9’ to be consistent with Clackamas County Roadway Standards and stormwater requirements.

If this proposed amendment is approved it will be incorporated into Comprehensive Plan, Chapter 5 – Transportation System Plan by replacing the existing Figure 5-1, a-f and Figure 5-2, a-f with proposed Figure 5-1, a-e and Figure 5-2, a-e.

Amendment #2: Modify Appendix A.7 SE 172nd Avenue/190th Drive Corridor Management Plan

The SE 172nd/190th Drive Corridor Management Plan was jointly created and adopted by Clackamas County and City of Happy Valley to address congestion and safety problems in the corridor and serve future north-south traffic, expected population growth and regional travel demand. The SE 172nd Ave/190th Corridor is intended to be the main north-south spine of a well-connected, multi-modal transportation system that will meet travel demands for all modes to the year 2035. The SE 172nd/190th Drive Corridor Management Plan was adopted by Clackamas County in February 2012 and added to the Comprehensive Plan Appendix A as a document adopted by reference.

Earlier this year the City of Happy Valley worked with the original project consultant to make very minor revisions to the Corridor Management Plan. County staff was informed throughout the process, and ensured that none of the revisions affected county plans or regulations. However, since the Corridor Management Plan was jointly adopted by the county and the city, the county must adopt the revisions.

There were five minor revisions made by City of Happy Valley are as follows:

- a. **Add City of Happy Valley Logo** – In the adopted version the City of Happy Valley Logo was not included because the roadway was east of the city limits at that time. The revisions added the City of Happy Valley Logo alongside the County logo on the cover page and all the figures.
- b. **Revise Adoption Date** – Revise the adoption date to January 2018 on all pages.

- c. **Overview Figure 7-2E Added** – The adopted version of the Corridor Management Plan did not include an overview figure providing a broad view of the full extent of the plan provisions. The Happy Valley revision added Figure 7-2E, which provides an overview of the plan (attached).
- d. **Update Pagination and Table of Contents** – The addition of Figure 7-2E added a page to the document, requiring that the pagination and table of contents be changed to conform.
- e. **Revisions to Figures 7-1A, 7-1B, 7-2A through 7-2D, and 7-3A** – In their most recent Transportation System Plan update, Happy Valley revised several roadway network designations and cross sections, which had been included in the SE 172nd/190th Drive Corridor Management Plan. Since those were amended in the city TSP, and the corridor has been annexed into the City of Happy Valley it was necessary to amend them in the Corridor Management Plan to maintain consistency. Although Clackamas County has no authority over roadway network designations and cross sections in Happy Valley, it is necessary for the county to adopt the updated Corridor Management Plan that includes those changes.

If this proposed amendment is approved the fully revised January 2018 SE 172nd Avenue/190th Drive Corridor Management Plan will be incorporated into Comprehensive Plan, Chapter 5 – Transportation System Plan by reference. The new “Overview” figure and the Happy Valley adopted revised cross section are attached.

Amendment #3: Modify Table 5-3c Long Term Capital Projects – Project #3029

Chapter 5 of the Comprehensive Plan, the Transportation System Plan, includes four tables of projects: Table 5-3a, 20 Year Capital Projects; Table 5-3b, Preferred Projects; Table 5-3c, Long Term Capital Projects; Table 5-3d, Regional Capital Projects. The 20 Year Capital Projects is a prioritized list of needed transportation projects that can reasonably be undertaken given the current estimates of available funding. The Preferred Capital Projects is a list of needed, prioritized transportation projects that the County would undertake if additional funding becomes available. The remainder of the needed transportation projects are included in the Long Term Capital Projects List, which are not expected to be funded or constructed unless specific funding becomes available. The third revision to the Transportation System Plan that is proposed as part of this amendment is to divide a single Long Term Capital Project into two sections.

The project proposed to be modified is #3029, which is named the “West 82nd Ave Parallel Road”, extends from King Road to Luther Road and is described as follows: “Construct collector road parallel to OR213 with bikeways and pedestrian facilities.” The intent of this proposed TSP project is to improve access for local traffic, pedestrians and bicyclists in this neighborhood without the necessity of using 82nd Ave/OR213. This proposed modification would replace #3029 with #3029a and #3029b. Both replacement projects would have the same project name (West 82nd Ave Parallel Road) and the same description (see attached table). New project #3029a would extend from Luther Road to Johnson Creek Boulevard, and new project #3029b would extend from Johnson Creek Boulevard to King Road (see attached map).

Project #3029 is proposed to be split into #3029a and #3029b, as described above, due to the provisions of ZDO 1007.07 Transportation Facilities Concurrency. The concurrency requirement applies to design review applications, subdivisions, partitions and conditional uses and is

intended to ensure that transportation system capacity is adequate to serve proposed developments. In the Clackamas County ZDO, there are four ways that requirement can be met. One of the ways to meet concurrency requirements, identified in ZDO 1007.07(H), is for the applicant to make a voluntary substantial contribution to the transportation system that meets all of the following criteria:

- a. A complete project or a segment of a roadway identified in Comprehensive Plan Table 5-3a, *20-Year Capital Projects*, 5-3b, *Preferred Capital Projects*, or 5-3c, *Long-Term Capital Projects*; the STIP; or the capital improvement plan (CIP) of a city or another county.
- b. Located within the impact area of the proposed development as identified from a Traffic Impact Study as established in the Clackamas County Roadway Standards;
- c. Estimated to have a minimum construction cost of \$527,000 in year 2004 dollars.

In this case, an applicant has brought forward a project proposed for the intersection of Luther Road and 79th. The applicant is proposing to meet the concurrency requirement by providing a voluntary substantial contribution to the transportation system that meets the above requirements set out in ZDO 1007.07(H). However, the traffic impact of the proposed project only extends from Luther Road to Johnson Creek Blvd. The southern section of project #3029, extending from Johnson Creek Blvd to King Road is outside the impact area for traffic from the proposed development and would not improve the ability of the transportation system to handle traffic from the project.

As a result, the best way to ensure the applicant meets their responsibilities to provide adequate transportation system capacity is to enable the construction of the portion of project #3029 between Luther Road and Johnson Creek Blvd. Enabling the construction of that segment of project #3029 requires that the project be split into two sections, #3029a and #3029b as described on the previous page, and shown in the attached table and map.

Project #3029 was two separate projects under previous TSPs but was combined in the 2013 TSP update to simplify the TSP project list. If this development project had come forward 5 years ago, before the most recent TSP update, this TSP amendment would not have been necessary.

If this proposed amendment is approved it will be incorporated into Comprehensive Plan, Chapter 5 – Transportation System Plan by modifying Table 5-3c Long Term Capital Projects and Map 5-11a to remove Project ID #3029 and replace it with two projects with the same description: #3029a extending from Luther Road to Johnson Creek Boulevard, and #3029b extending from Johnson Creek Boulevard to King Road.

PUBLIC NOTICE AND COMMENTS

Notice of the proposed amendments in ZDO-270 was sent to:

- All cities within the County
- All County Community Planning Organizations (CPOs) and Hamlets
- DLCD, Metro, ODOT and other interested agencies

Notice was also published in the newspaper and subject of a press release posted on various social media outlets. To date, no comments have been received from members of the public or any cities or agencies to which notice was sent.

ANALYSIS AND FINDINGS

1. Zoning and Development Ordinance (ZDO)

The proposed amendments will not make any changes to the ZDO. The proposed text amendments are legislative. Section 1307 of the ZDO establishes procedural requirements for legislative amendments, which have been or are being followed in the proposal and review of ZDO-270. Notice was mailed at least 35 days before the first scheduled public hearing to the Department of Land Conservation and Development (DLCD), all active Community Planning Organizations (CPO), Metro and other interested agencies to allow them an opportunity to review and comment on the proposed amendments. Advertised public hearings are being held before the Planning Commission and the Board of County Commissioners (BCC) to consider the proposed amendments.

2. Comprehensive Plan

- a. **Chapter 5 – Transportation System Plan:** The amendments to the Plan have been evaluated by staff for consistency with the relevant transportation policies in Chapter 5 of the Plan. The proposed amendments are consistent with the policies in Chapter 5 – Transportation System Plan and do not require any amendments to those policies.

3. Statewide Planning Goals and Guidelines

- a. **Goal 1 – Citizen Involvement:** The amendments do not propose to change the structure of the County's citizen involvement program. Notice of the proposed amendments was provided to all Community Planning Organizations, Hamlets, and a list of interested parties. Notice of the Planning Commission and Board of County Commissioners hearings was also published in the newspaper, both were advertised through social media, and a press release was issued.
- b. **Goal 2 – Land Use Planning:** Statewide Planning Goal 2 does not apply to ZDO-270 because the amendments do not propose to change the County's land use planning process. The County will continue to have a comprehensive land use plan and implementing regulations consistent with that plan.
- c. **Goal 3 – Agricultural Lands:** This goal is also not applicable because the ZDO-270 amendments would not change Plan agricultural land policies or implementing regulations for compliance with Goal 3.
- d. **Goal 4 – Forest Lands:** This goal is not applicable because the ZDO-270 amendments will not change the Plan forest lands policies or implementing regulations for compliance with Goal 4.
- e. **Goal 5 – Open Spaces, Scenic and Historic Areas, and Natural Resources:** Goal 5 is not applicable because the amendments do not propose to change Plan policies or implementing regulations for Goal 5 open spaces, scenic and historic areas, and natural resources within Clackamas County.

- f. **Goal 6 – Air, Water and Land Resources Quality:** Goal 6 is not applicable because the amendments do not propose to change Plan policies or implementing regulations for compliance with Statewide Planning Goal 6.
- g. **Goal 7 – Areas Subject to Natural Disasters and Hazards:** This Statewide Planning Goal is also not applicable because the amendments do not propose to change Plan policies or implementing regulations regarding natural disasters and hazards.
- h. **Goal 8 – Recreational Needs:** Goal 8 is not applicable because the amendments do not propose to change Plan policies or implementing regulations related to recreational needs.
- i. **Goal 9 – Economy of the State:** Goal 9 is not applicable because the amendments do not propose to change Plan policies or implementing regulations related to economic development and analysis in the County's urban areas.
- j. **Goal 10 – Housing:** Goal 10 concerns urban lands designated for residential use. ZDO-270 does not apply to Goal 10 because the amendment does not propose to rezone land for residential purposes or to reduce the amount of land already zoned for residential development.
- k. **Goal 11 – Public Facilities and Services:** Goal 11 is not applicable because the text amendments do not propose to change the County's Comprehensive Plan policies or implementing regulations regarding public facilities and services.
- l. **Goal 12 – Transportation:** Goal 12 is implemented by Oregon Administrative Rules (OAR) Chapter 660, Division 12. Local governments are required to adopt a transportation system plan (TSP) and land use regulations to implement the TSP. OAR 660-012-0060 requires any comprehensive plan amendment to be evaluated according to the terms outlined in that OAR to demonstrate whether they will have a significant impact on the transportation system. Evaluation by staff is that the amendment is fully consistent with the policies of the Transportation System Plan, and will not revise or limit the application of those policies in any fashion.
- m. **Goal 13 – Energy Conservation:** Goal 13 is not applicable because the amendments do not propose to change the Plan's energy conservation policies or implementing regulations.
- n. **Goal 14 – Urbanization:** Goal 14 is not applicable to ZDO-270 because the amendments do not propose to change Plan policies or implementing regulations regarding urbanization.
- o. **Goal 15 – Willamette River Greenway:** Goal 15 is not applicable because the amendments do not propose to change Plan policies or implementing regulations regarding the Willamette River Greenway (WRG).
- p. **Goals 16-19 – (Estuarine Resources, Coastal Shore lands, Beaches and Dunes, and Ocean Resources):** Clackamas County is not subject to these four Statewide Planning Goals.

The Department of Land Conservation and Development (DLCD) was notified of this proposal, but no response has been received.

4. Metro Regional Transportation Functional Plan

The Metro Regional Transportation Functional Plan (MRTFP) establishes an outcomes-based framework that is performance-driven and includes policies, objectives and actions that direct future planning and investment decision to consider economic, equity and environmental objectives. As such the MRTFP sets standards for the identification of projects for inclusion in city and county transportation system plans, and for the design and cross section of all types of transportation facilities.

Staff has reviewed all the modifications to the TSP proposed in these three amendments and have found all to be consistent with the provisions of the MRTFP. The modifications to the TSP cross sections (Amendment #1 – Modify Figure 5-1 a-f, Urban Cross Sections, and Figure 5-2, a-f Rural Cross Sections) will improve compliance of the TSP to the MRTFP. In addition, notes added to the figures provide flexibility to vary the amended TSP cross section if necessary to achieve compliance with the MRTFP. The modifications to the SE 172nd Ave/190th Drive Corridor Management Plan that are proposed only incorporate changes already made by Happy Valley to the joint plan into the Clackamas County TSP and do not make any changes that affect conformance with the provisions of the MRTFP. Likewise, the modification proposed in Amendment #3, splitting project #3029 into projects #3029a and #3029b does not affect compliance with the MRTFP.

Metro was notified of this proposal, but no response has been received.

RECOMMENDATIONS

Staff recommends approval of ZDO-270, as described above and included in Attachment A, to modify the Clackamas County Comprehensive Plan, Chapter 5 – Transportation System Plan as follows:

1. Replace previously adopted Figure 5-1, a-f Urban Cross Sections and Figure 5-2, a-f Rural Cross Sections with revised figures (attached) 5-1, a-e and 5-2, a-e.
2. Modify Appendix A.7 SE 172nd Avenue/190th Drive Corridor Management Plan, a plan jointly developed and adopted by Clackamas County and the City of Happy Valley, and incorporated by reference with the following changes: a) Cover page and all figures updated to include City of Happy Valley logo alongside the County logo; b) Revised adoption date on all pages to January 2018, c) Add a conceptual design “Overview” figure as Figure 7-2E; d) Updates to the pagination and Table of Contents as necessary for the inclusion of Figure 7-2E; e) Revisions to Figures 7-1A, 7-1B, 7-2A through 7-2D, and 7-3A to show Happy Valley’s current Transportation System Plan roadway network and revised roadway cross section diagrams.
3. Modify Table 5-3c Long Term Capital Projects and Map 5-11a to remove Project ID 3029 extending from Luther Road to King Road and replace it with two projects: a) Project ID 3029a extending from Luther Road to Johnson Creek Boulevard; b) Project ID 3029b extending from Johnson Creek Boulevard to King Road.

Figure 5 - 1a
Typical Urban Major Arterial Cross Section



Back of sidewalk: 1'-2'-6" Minimum	Pedestrian facility	Landscaped strip and curb with street trees	Bikeway	Travel lane	Travel lane	Left turn lane and raised median with vegetation	Travel lane	Travel lane	Bikeway	Landscaped strip and curb with street trees	Pedestrian facility	Back of sidewalk: 1'-2'-6" Minimum
	6' - 8'	5' 6"	6' - 8'	10' - 12'	10' - 12'	12' - 14'	10' - 12'	10' - 12'	6' - 8'	5' 6"	6' - 8'	
paved width: 648' - 78'												
ROW: 8892' - 106'												

Notes:

- 1- This standard cross section shall apply except where a special transportation plan in Chapter 5 specifies a different cross section.
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate Metro's Regional Transportation Functional Plan 3.08.110 Street System Design, to accommodate design modifications in compliance with the County Roadway Standards, or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Medians, pedestrian refuges, islands, curb extensions, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed and right-of-way width.
5. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Capital Improvement Program.

ATTACHMENT A

ZDO-270, Minor TSP Amendments

Figure 5 - 1b
Typical Urban Minor Arterial Cross Section



Back of sidewalk: 1'-2'-6" Minimum												Back of sidewalk: 1'-2'-6" Minimum	
Pedestrian facility	Landscape strip and curb with street tree	Parking	Bikeway	Travel lane	(as needed) Travel lane	(as needed) Left turn lane and raised median with vegetation	(as needed) Travel lane	Travel lane	Bikeway	Parking	Landscape strip and curb with street tree	Pedestrian facility	
6' - 8'	5' 6" □	7' - 8'	6' - 8'	10' - 12'	10' - 12'	12' - 14'	10' - 12'	10' - 12'	6' - 8'	7' - 8'	5' 6" □	6' - 8'	
paved width: 48' 6" - 94'													
ROW: 70' - 122'													

Notes:

- ~~1. This standard cross section shall apply except where a special transportation plan in Chapter 5 specifies a different cross section.~~
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate Metro's Regional Transportation Functional Plan 3.08.110 Street System Design, to accommodate design modifications in compliance with the County Roadway Standards, or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Medians, pedestrian refuges, islands, curb extensions, parking, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed and right-of-way width.
5. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Transportation Capital Improvement Program.

Figure 5 - 1c
Typical Urban Collector Cross Section



Pedestrian facility	Landscape strip and curb with street tree	Parking	Bikeway	Travel lane	(as needed)		Travel lane	Bikeway	Parking	Landscape strip and curb with street tree	Pedestrian facility
					Left turn lane and raised median with vegetation						
6' - 8'	5' 6"	7' - 8'	6' - 8'	10' - 12'	11' - 13'	10' - 12'	6' - 8'	7' - 8'	5' 6"	6' - 8'	
paved width: 48' - 69'											
ROW: 56' - 107' 5"											

Back of sidewalk: 1'-2'-6" Minimum

Back of sidewalk: 1'-2'-6" Minimum

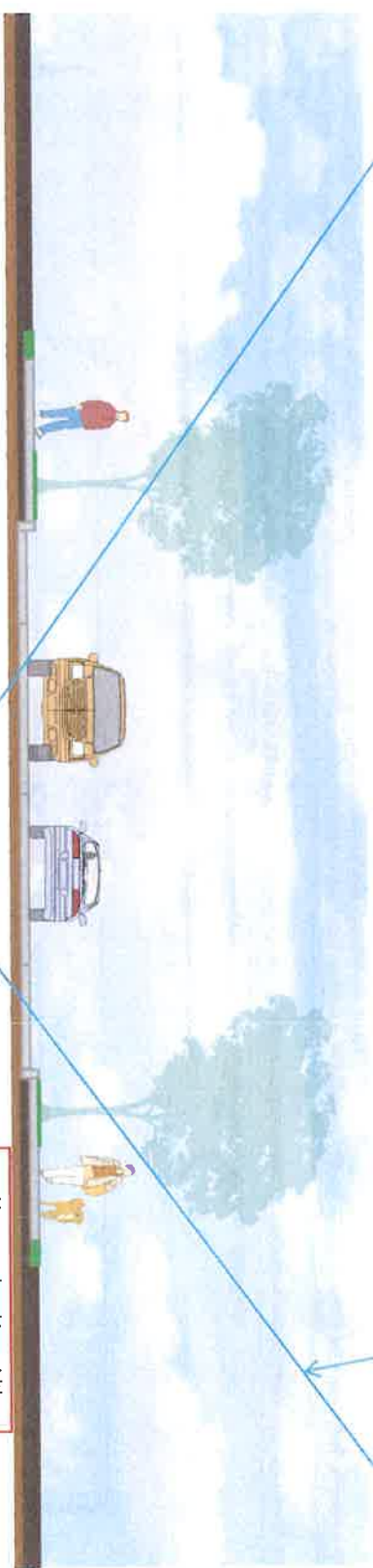
Notes:

1. This standard cross-section shall apply except where a Special Transportation plan in Chapter 5 specifies a different cross section.
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate Metro's Regional Transportation Functional Plan 3.08.110 Street System Design, to accommodate design modifications in compliance with the County Roadway Standards, or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Medians, pedestrian refuges, islands, curb extensions, parking, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed and right-of-way width.
5. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Transportation Capital Improvement Program.

ATTACHMENT A

ZDO-270, Minor TSP Amendments

Figure 5 - 1d
Typical Urban Connector Cross Section



See Figure 5-1e

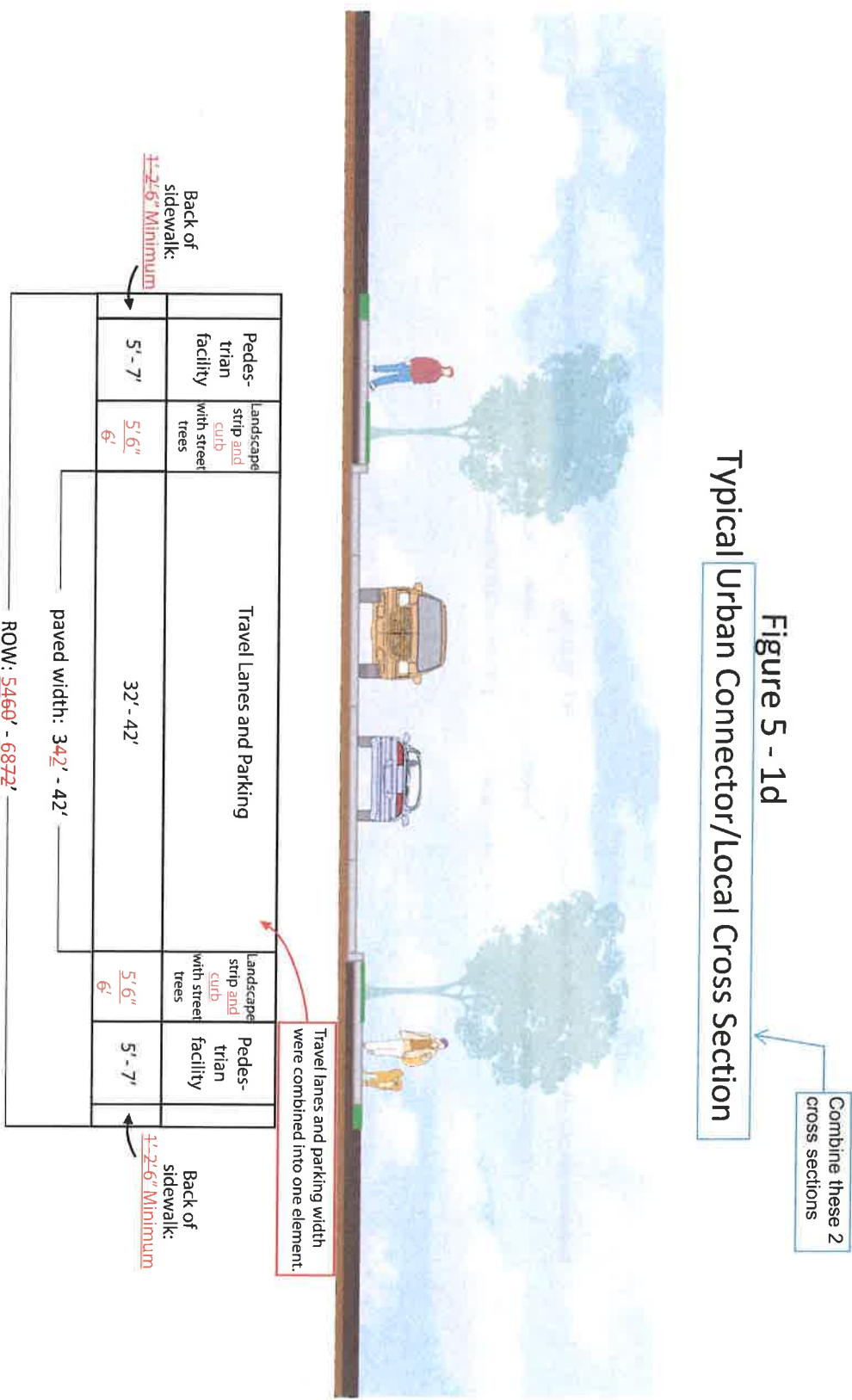
Back of sidewalk: 1'-2'-6" Minimum		Pedestrian facility	landscape strip and curb with street trees	Travel Lanes and Parking	landscape strip and curb with street trees	Pedestrian facility	Back of sidewalk: 1'-2'-6" Minimum
	5'-7'	5'6"			5'6"	5'-7'	
	paved width: 34'2" - 42'						
ROW: 54'6" - 68'7"							

Notes:

1. This standard cross section shall apply except where a Special Transportation Plan in Chapter 5 specifies a different cross section.
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate Metro's Regional Transportation Functional Plan 3.08.110 Street System Design, to accommodate design modifications in compliance with the County Roadway Standards, or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Curb extensions, parking, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed and right-of-way width.
5. Standard configuration is parking on both sides, which may be reduced to one side of the street (resulting in a paved width of 26') with a design exception per the Roadway Standards.

7. Under no circumstances will the paved width be less than 20' (two 10' travel lanes with no parking).
File ZDO-270, Draft Amendments to Comprehensive Plan Chapter 5, Draft Date 9/1/18

Figure 5 - 1d
Typical Urban Connector/Local Cross Section



Notes:

1. This standard cross section shall apply except where a Special Transportation plan in Chapter 5 specifies a different cross section.
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate Metro's Regional Transportation Functional Plan 3.08.110 Street System Design, to accommodate design modifications in compliance with the County Roadway Standards, or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Curb extensions, parking, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed and right-of-way width.
6. Standard configuration is parking on both sides, which may be reduced to one side of the street (resulting in a paved width of 26' with a design exception per the Roadway Standards).
7. Local Streets Only: Under no circumstances will the paved width be less than 20' (two 10' travel lanes with no parking).

Figure 5 - 1e
Typical Urban Alley Roadway Section

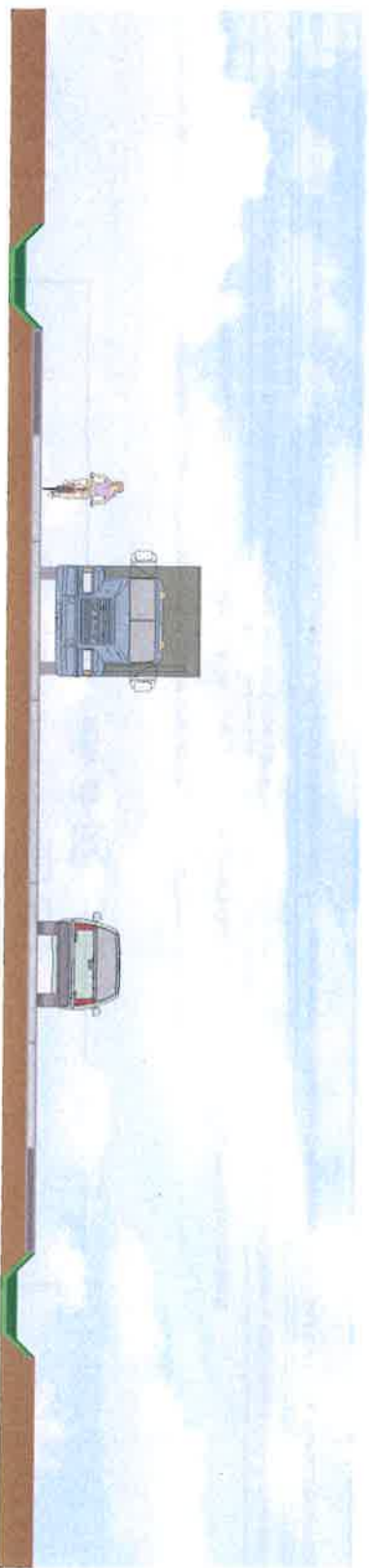


Alley Travel lane	Alley Travel lane
8'	8'

Notes:

1. This standard cross section shall apply except where a Special Transportation plan in Chapter 5 specifies a different cross section.
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate *Regional Transportation Functional Plan 3.08.10 Street System Design* or to accommodate topographical or environmental constraints.

Figure 5 - 2a
Typical Rural Arterial Cross Section



Ditch (as needed)	Gravel shoulder	Paved shoulder/ bikeway	Travel lane	(as needed) Left turn lane	Travel lane	Paved shoulder/ bikeway	Gravel shoulder	Ditch (as needed)
2'-9"	2'-8"	6' - 8'	11' - 12'	12' - 14'	11' - 12'	6' - 8'	2'-8"	2'-9"
paved width: 34' - 54'								
ROW: 60' - 88'								

Notes:

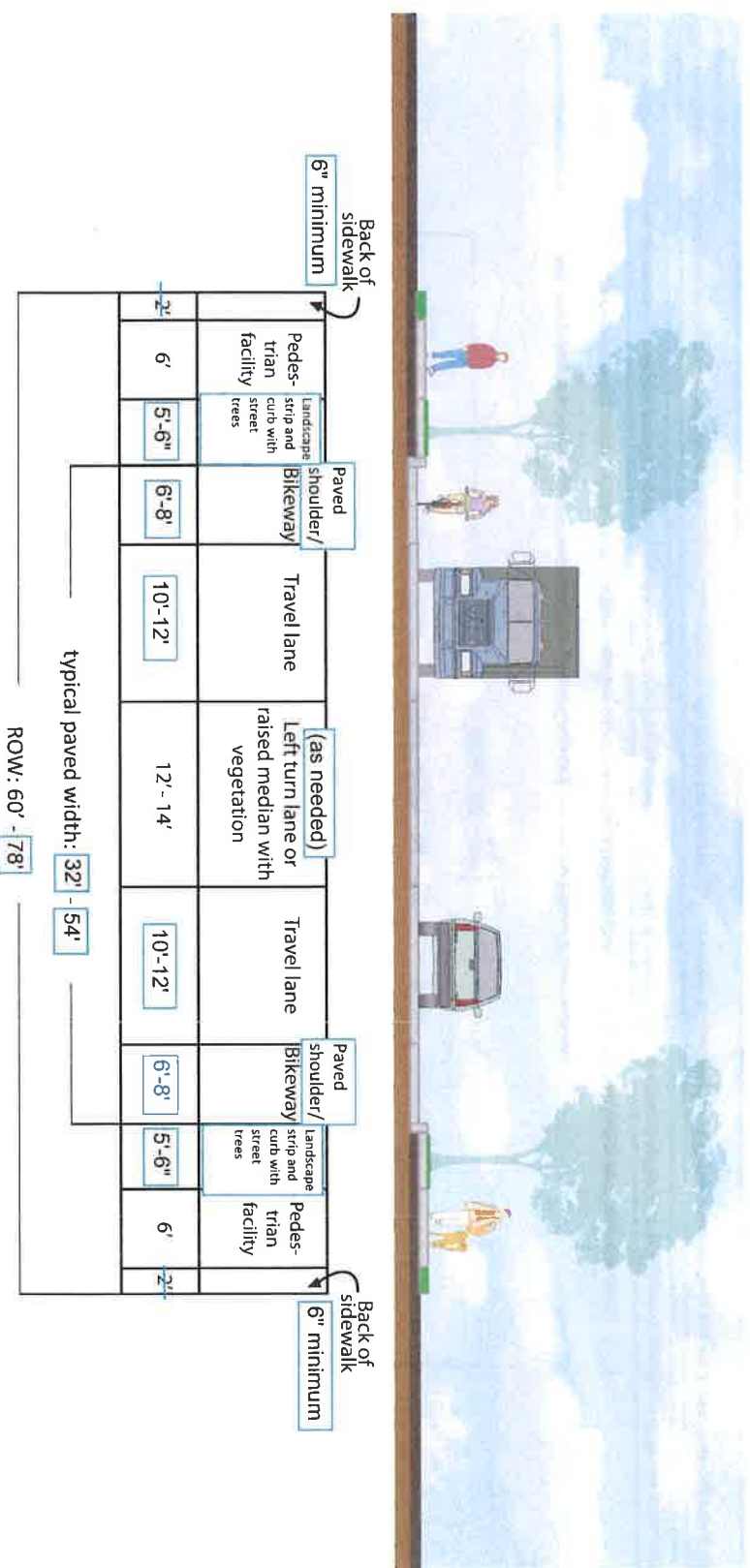
- ~~1. This standard cross-section shall apply except where a Special Transportation plan in Chapter 5 specifies a different cross section.~~
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate design modifications in compliance with the County Roadway Standards or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Transportation Capital Improvement Program.
5. Islands, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.

6. Cross sections must comply with ORS 215.283 in the Exclusive Farm Use District (EFU zone).

ATTACHMENT A

ZDO-270, Minor TSP Amendments

Figure 5 - 2b
Typical Rural Arterial Cross Section
Unincorporated Communities



- Notes:
1. This standard cross section shall apply except where a special transportation plan in Chapter 5 specifies a different cross section.
 2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
 3. Cross section may vary to accommodate design modifications in compliance with the County Roadway Standards or where a special transportation plan in Chapter 5 specifies a different cross section.
 4. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Transportation Capital Improvement Program.
 5. Medians, pedestrian refuges, islands, curb extensions, parking, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.
 6. The sidewalk shall be separated a minimum of 5'-6" from edge of pavement. Curb and landscape strip is shown as the standard. An at-grade sidewalk separated by a stormwater facility or landscaping may be approved by Engineering.

Figure 5 - 2c
Typical Rural Collector Cross Section



Ditch (as needed)	Gravel shoulder	Paved shoulder/ bikeway	Travel lane	Travel lane	Paved shoulder/ bikeway	Gravel shoulder	Ditch (as needed)
2'-9'	2'-8'	6'	10' - 12'	10' - 12'	6'	2'-8'	2'-9'
paved width: 32' - 36'							
ROW: 60' - 70'							

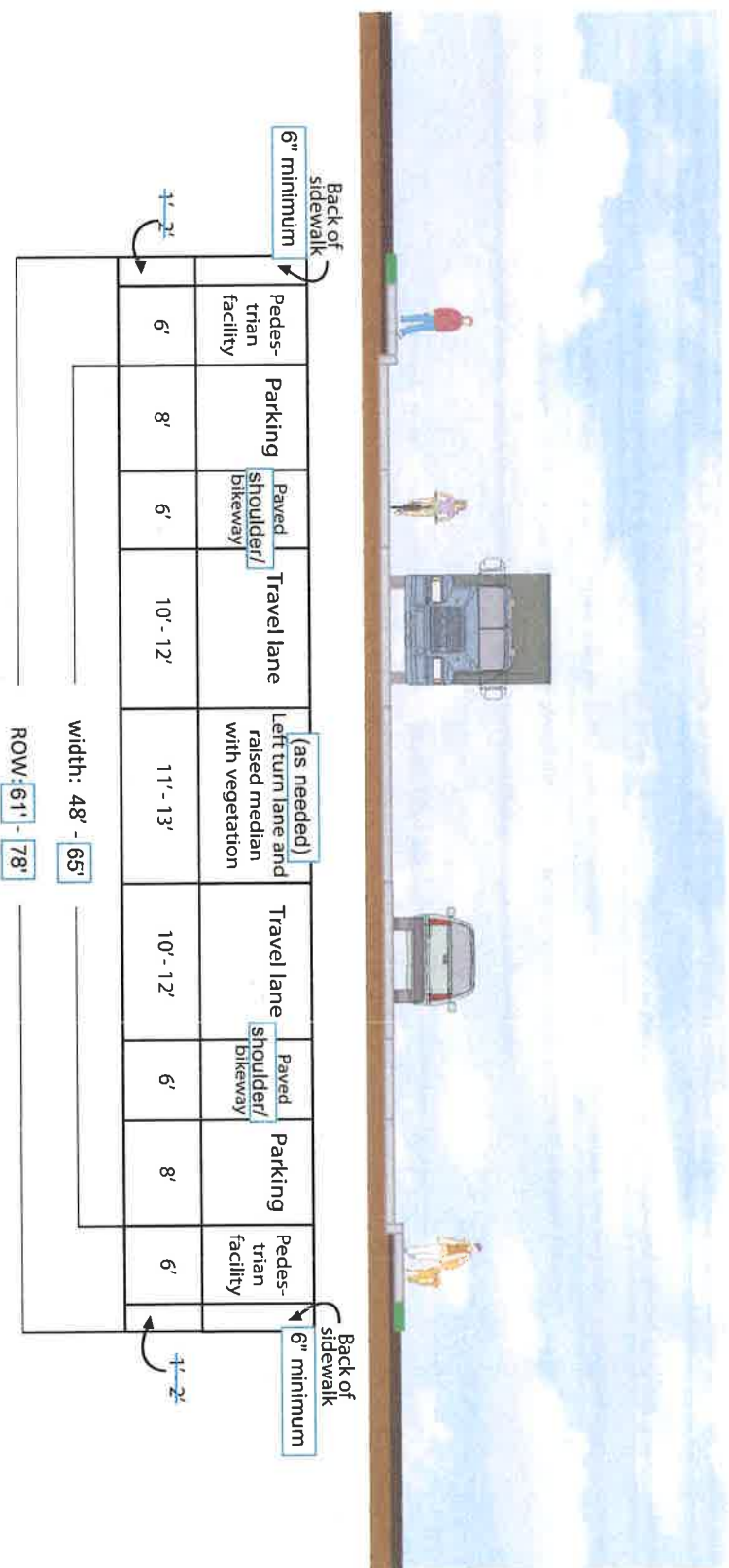
Notes:

1. ~~This standard cross section shall apply except where a Special Transportation plan in Chapter 5 specifies a different cross section.~~
2. For more detailed information on the implementation of this Cross Section - see the Zoning and Development Ordinance and/or the County Roadway Standards.
3. Cross section may vary to accommodate design modifications in compliance with the County Roadway Standards or where a special transportation plan in Chapter 5 specifies a different cross section.
4. Bikeway facilities shall be based on the guidelines found in 5.2 of the Clackamas County Active Transportation Plan except as specified in the Comprehensive Plan and the 5-year Transportation Capital Improvement Program.
5. Medians, pedestrian refuges, islands, curb extensions, parking, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.
6. Cross sections must comply with ORS 215.283. in the Exclusive Farm Use District (EFU zone).

ATTACHMENT A

ZDO-270, Minor TSP Amendments

Figure 5 - 2d
Typical Rural Collector Cross Section
Unincorporated Communities



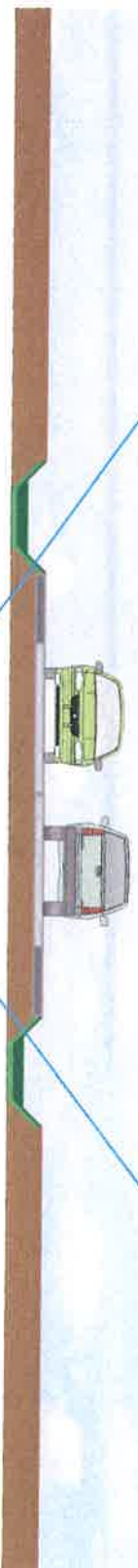
Notes:

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5. Medians, pedestrian refuges, islands, curb extensions, parking, turn lanes, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.
6. The sidewalk shall be separated a minimum of 5'-6" from edge of pavement when street parking is not provided.

ATTACHMENT A

ZDO-270, Minor TSP Amendments

Figure 5 - 2e
Typical Rural Connector Cross Section



Ditch (as needed)	Gravel shoulder	Travel lane	Travel lane	Gravel shoulder	Ditch (as needed)
2'-9"	2' - 5'	10' - 11'	10' - 11'	2' - 5'	2'-9"
paved width: 20' - 22'					
ROW: 36' - 50'					

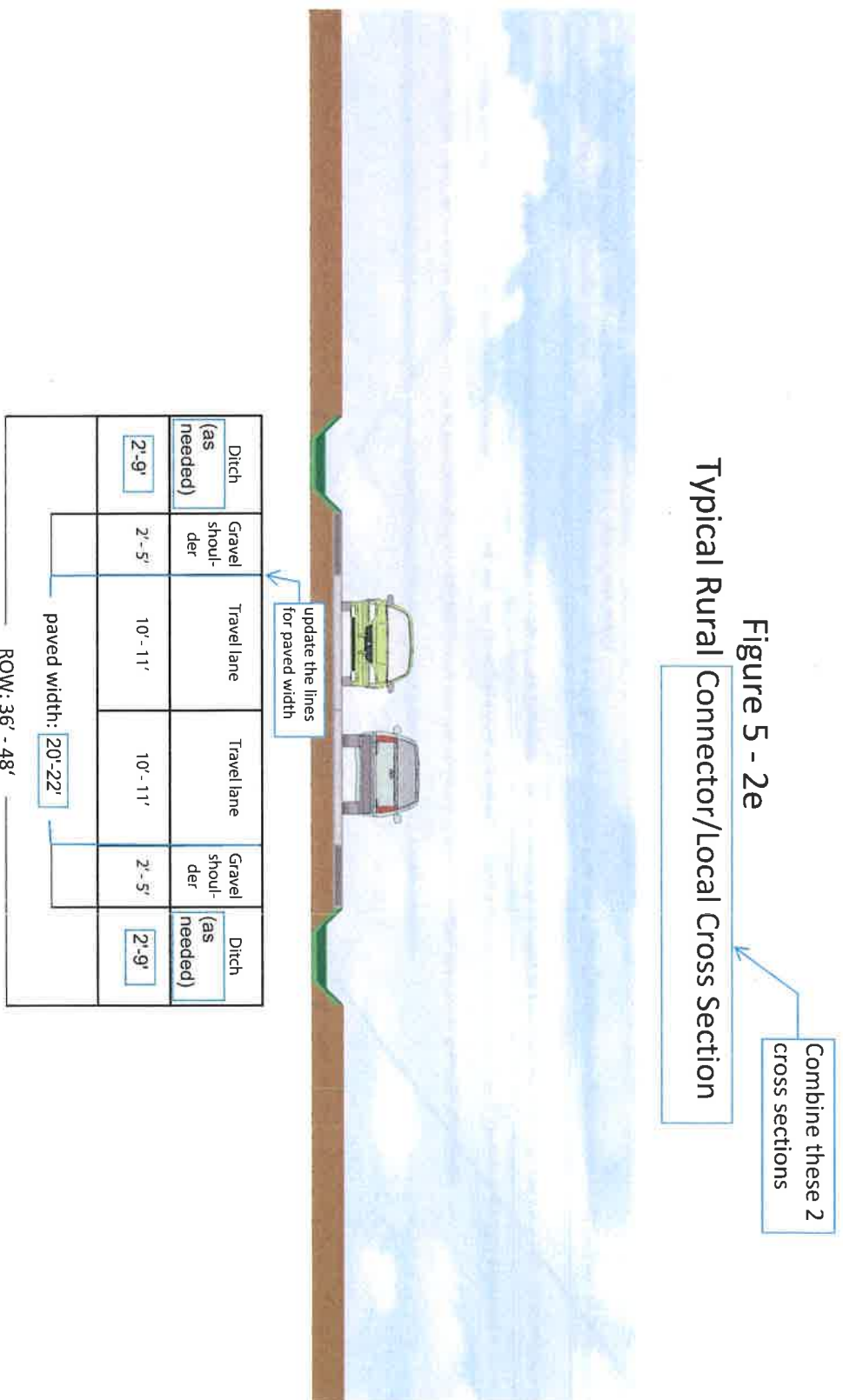
Notes:

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5. Curb extensions, parking, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.
6. Cross sections must comply with ORS 215.283, in the Exclusive Farm Use District (EFU zone).

ATTACHMENT A

ZDO-270, Minor TSP Amendments

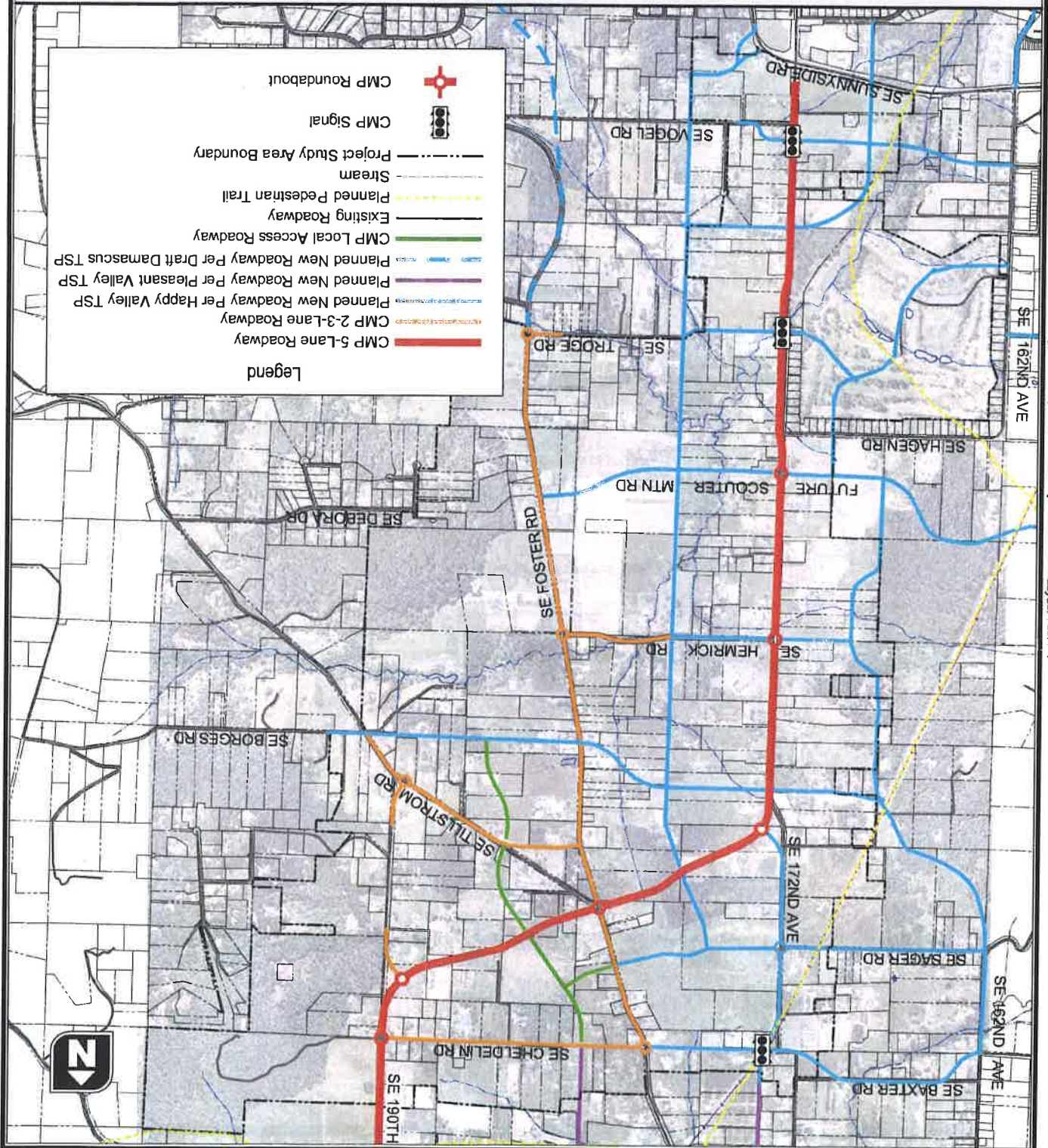
Figure 5 - 2e
Typical Rural Connector/Local Cross Section



Notes:

1. This standard cross section shall apply except where a special transportation plan in Chapter 5 specifies a different cross section.
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5. Curb extensions, parking, and drainage facilities shall be provided as needed in accordance with the Comprehensive Plan, the 5-year Transportation Capital Improvement Program, or as warranted by the Roadway Standards and will vary the required constructed width and right-of-way width.
6. Cross sections must comply with ORS 215.283 in the Exclusive Farm Use District (EFU zone).

Figure 7-1A



Corridor Management Plan

5-Lane Streetscape

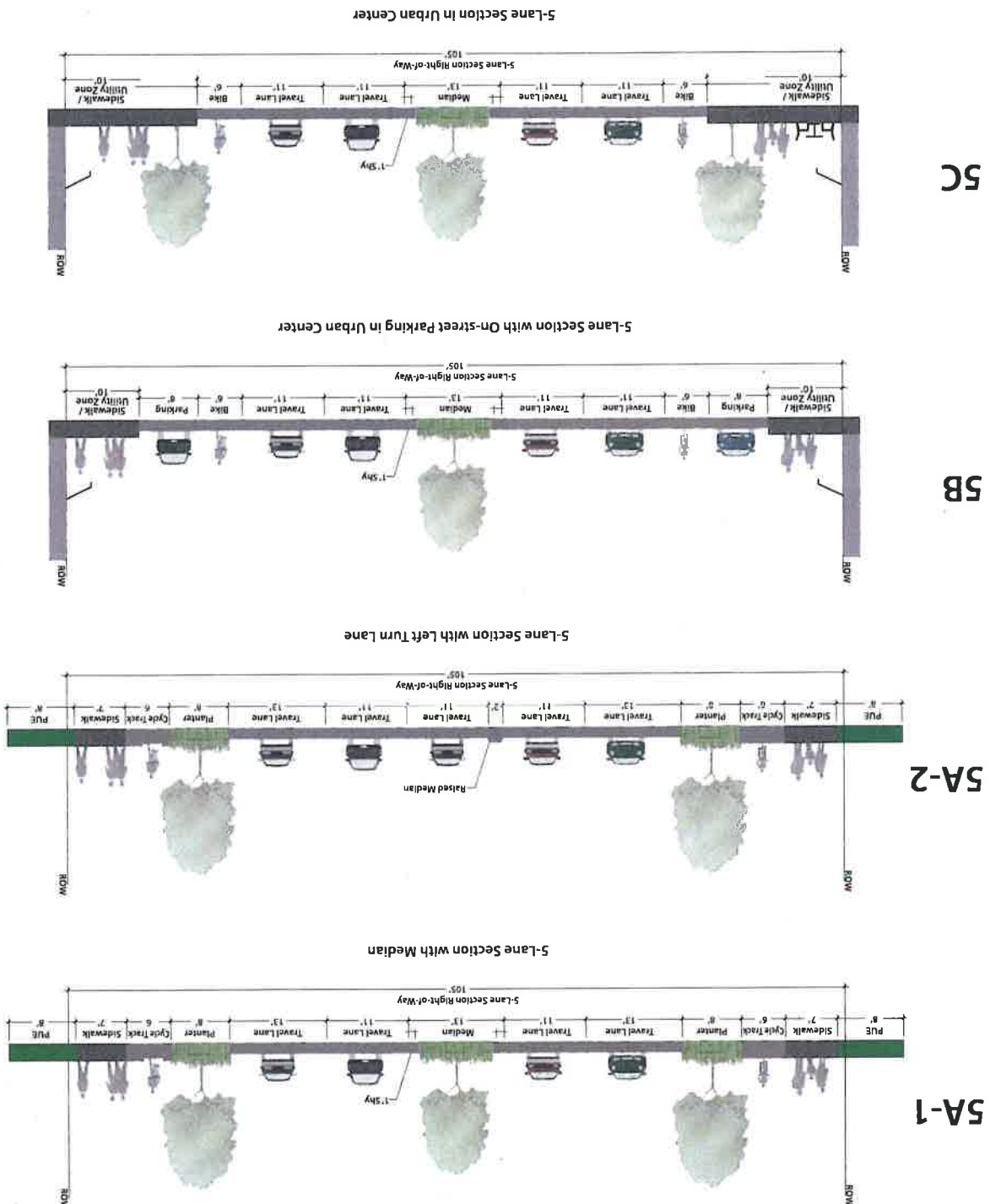
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ZDO-270, Minor TSP Amendments

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Figure 7-3A



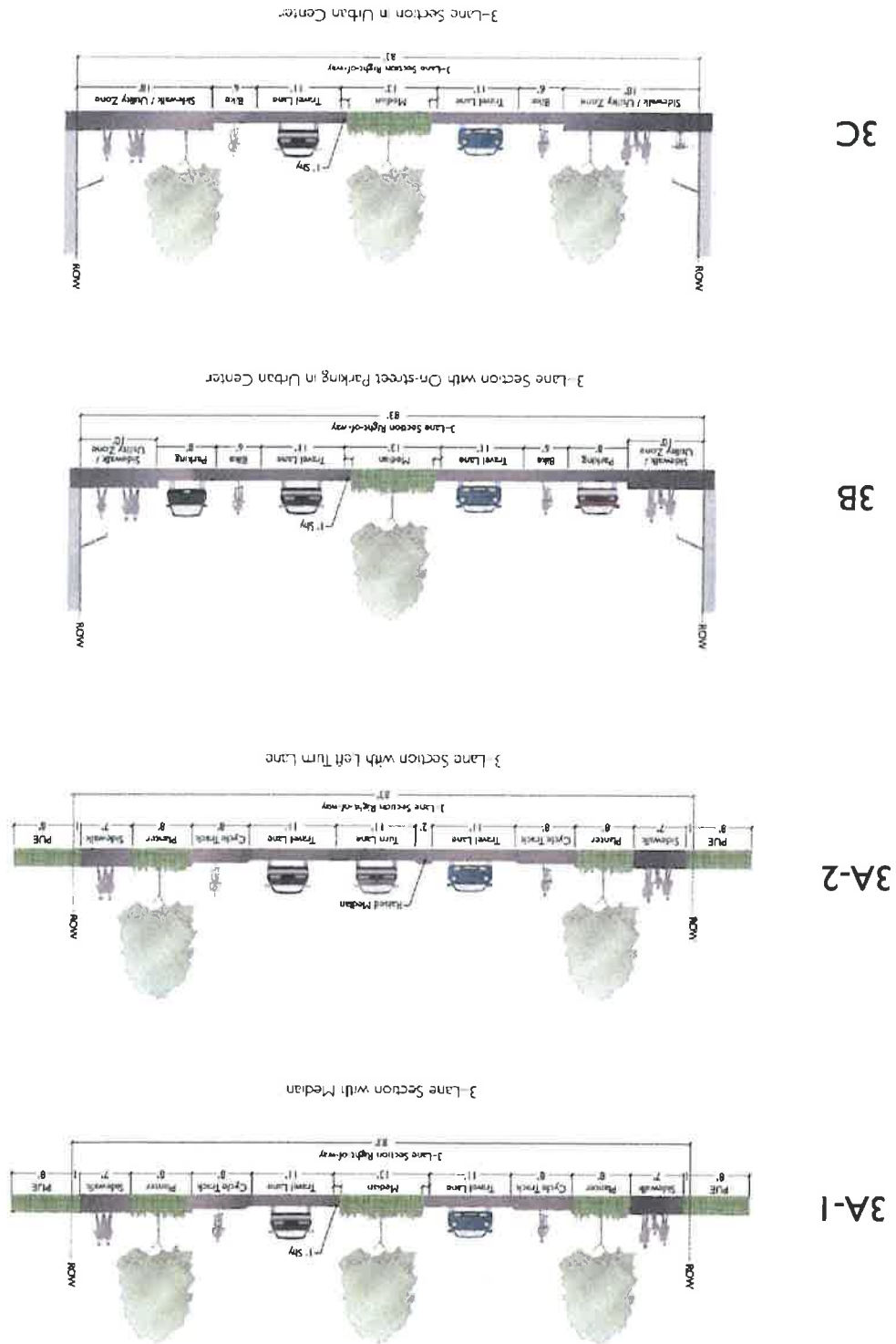
Corridor Management Plan 3-Lane Streetscape

ATTACHMENT A

ZDO-270, Minor TSP Amendments
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Figure 7-3B



ATTACHMENT A



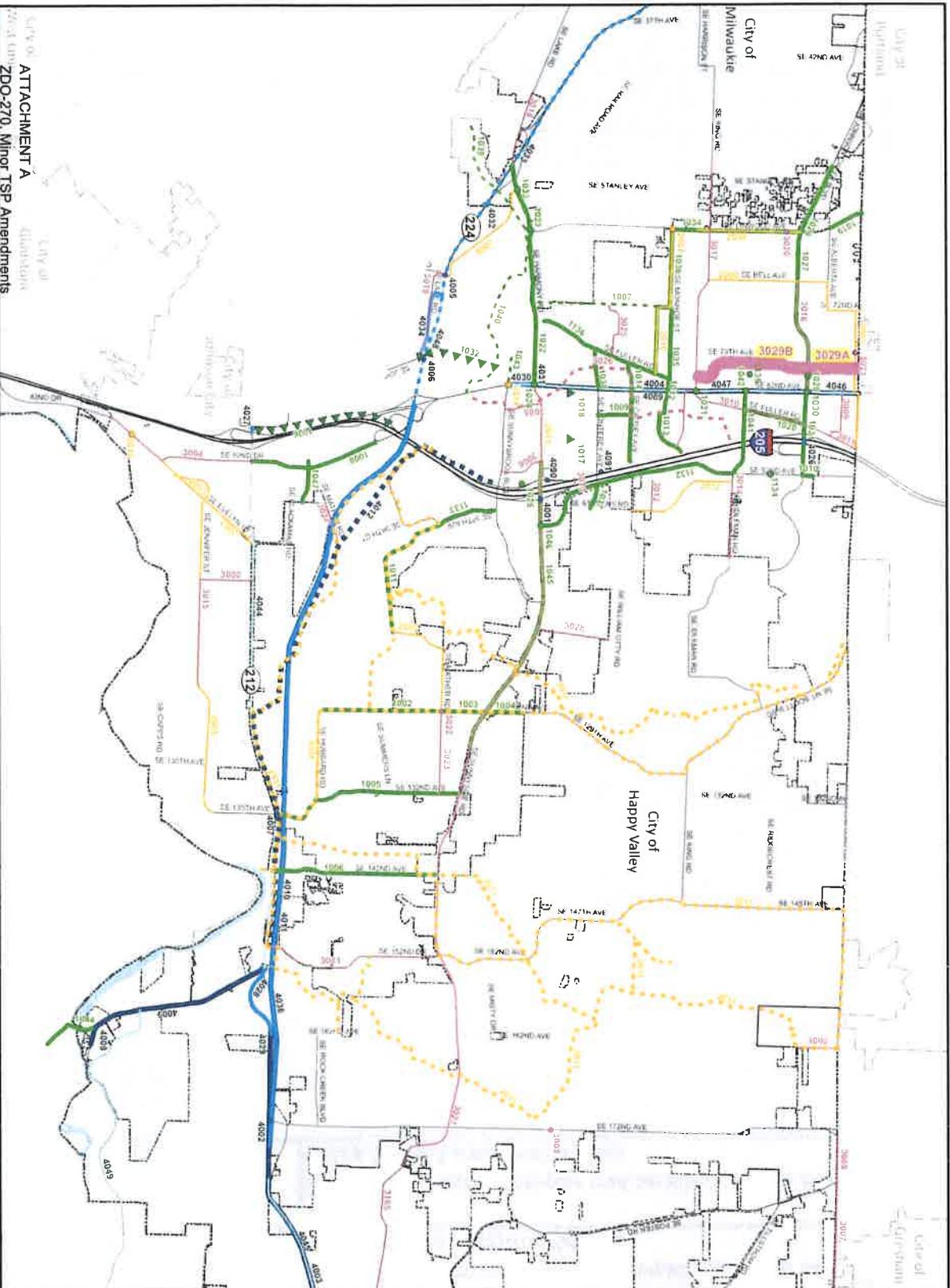
7-3C



5-Lane Section with Median and Frontage Road

Table 5-3c Long Term Capital Projects

Project ID	Map	Project Name / Street Name	Segment / Locations	Project Description
3029	5-11a	West 82nd Ave- Parallel Road	Luther Rd- to King Rd	Construct collector road parallel to OR 213 with bikeways- and pedestrian facilities
3029a	5-11a	West 82nd Ave Parallel Road	Luther Rd to Johnson Creek Blvd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities
3029b	5-11a	West 82nd Ave Parallel Road	Johnson Creek Blvd to King Rd	Construct collector road parallel to OR 213 with bikeways and pedestrian facilities



Proposed Update to Transportation System Plan

Greater Clackamas Regional
Center / Industrial Area

Priority

20-Year Capital Projects (Table 5-3a)
Preferred Capital Projects (Table 5-3b)
Long-Term Capital Project Needs (Table 5-3c)

Projects on Non-County Facilities
Priority

High (Table 5-3d)
Medium (Table 5-3d)
Low (Table 5-3d)

Study

Multi-Use Path
Metro Urban Growth Boundary
Incorporated City

Symbol color consistent with Priority
symbolologies shown above

0 0.25 0.5 1 Miles



Last Updated July 27, 2018



**CLACKAMAS
COUNTY**
Department of Transportation & Development
150 Beavercreek Rd. Oregon City, OR 97045

CLACKAMAS COUNTY
COMPREHENSIVE PLAN

MAP 5-11a