



Technical Memorandum #3: Roadway Review

Date: July 20, 2012
To: Alex Georgevitch
 City of Medford
From: Joe Bessman, Julia Kuhn, and Matt Kittelson
Project: TSP/UGB Amendment
Subject: Draft 2028 Roadway Needs Memorandum

This memorandum outlines our review of the City of Medford’s roadway functional classification system, cross-section elements, and supporting standards and policies. This review will help inform recommended policy modifications to support the updated year 2028 planning horizon and better meet the City’s multi-modal, economic development, and mobility goals.

FUNCTIONAL CLASSIFICATION PURPOSE AND GOALS

The City’s functional classification system provides an integrated, interconnected transportation system that supports its land use vision, economic development goals, and provides mobility for all modes of travel for people and goods. Meeting these objectives requires appropriately located and sized facilities for the types and amount of lands served.

Roadways are typically classified as local streets, collectors, arterials, and highways, with various subsets of these general classes. Lower-order streets, such as those found in residential neighborhoods, provide high levels of accessibility to the adjacent street. Throughput on local streets is intended to be low as the primary function is to connect users to their destinations. Alternatively, freeways provide strictly controlled access with entering movements allowed only at merging and diverging movements at interchanges. Limiting the speed differentials between through and turning movements on freeways through access management allows high levels of throughput.

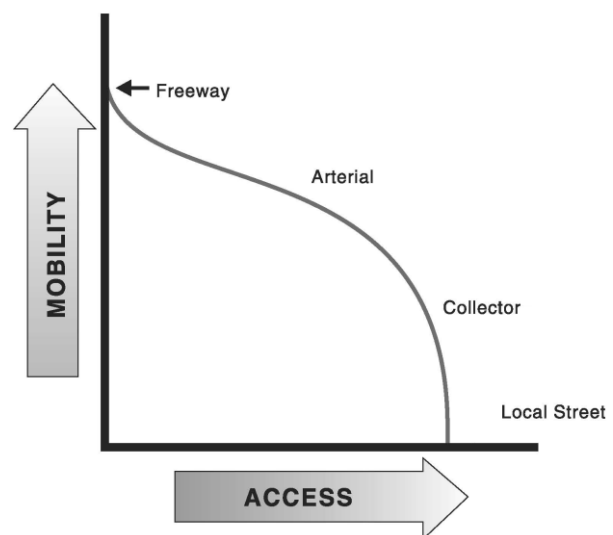


Exhibit 3-1. Relationship between access and mobility.

A roadway’s classification establishes the role that it plays within the community’s hierarchy of access and mobility needs. Ideally, lower-order facilities connect into progressively higher-order

facilities, allowing a smooth transition between access and throughput while providing for safe and efficient movement of people and goods. However, natural features, topographical limitations, compatibility issues, and the built urban environment all provide constraints that make this ideal system impractical. Planning for the needs of active transportation modes is essential to providing a complete transportation system for a community. The Transportation Planning Rule (OAR 660-12) requires that *Collector* and *Arterial* facilities include pedestrian and bicycle facilities (typically bicycle lanes and sidewalks) to provide continuous facilities for walking and cycling.

Functional classification systems set standards for how facilities should “look and feel” and provide a basis for the public and policy-makers to understand, identify, and prioritize needed improvements. Functional classification helps inform right-of-way needs and provides a vision for appropriate street design and streetscape characteristics. Finally, functional classification systems guide the City’s development of policies and performance standards needed to operate, manage, maintain, and finance a transportation system that advances the City’s economic and livability goals.










EXISTING STREET FUNCTIONAL CLASSIFICATION SYSTEM

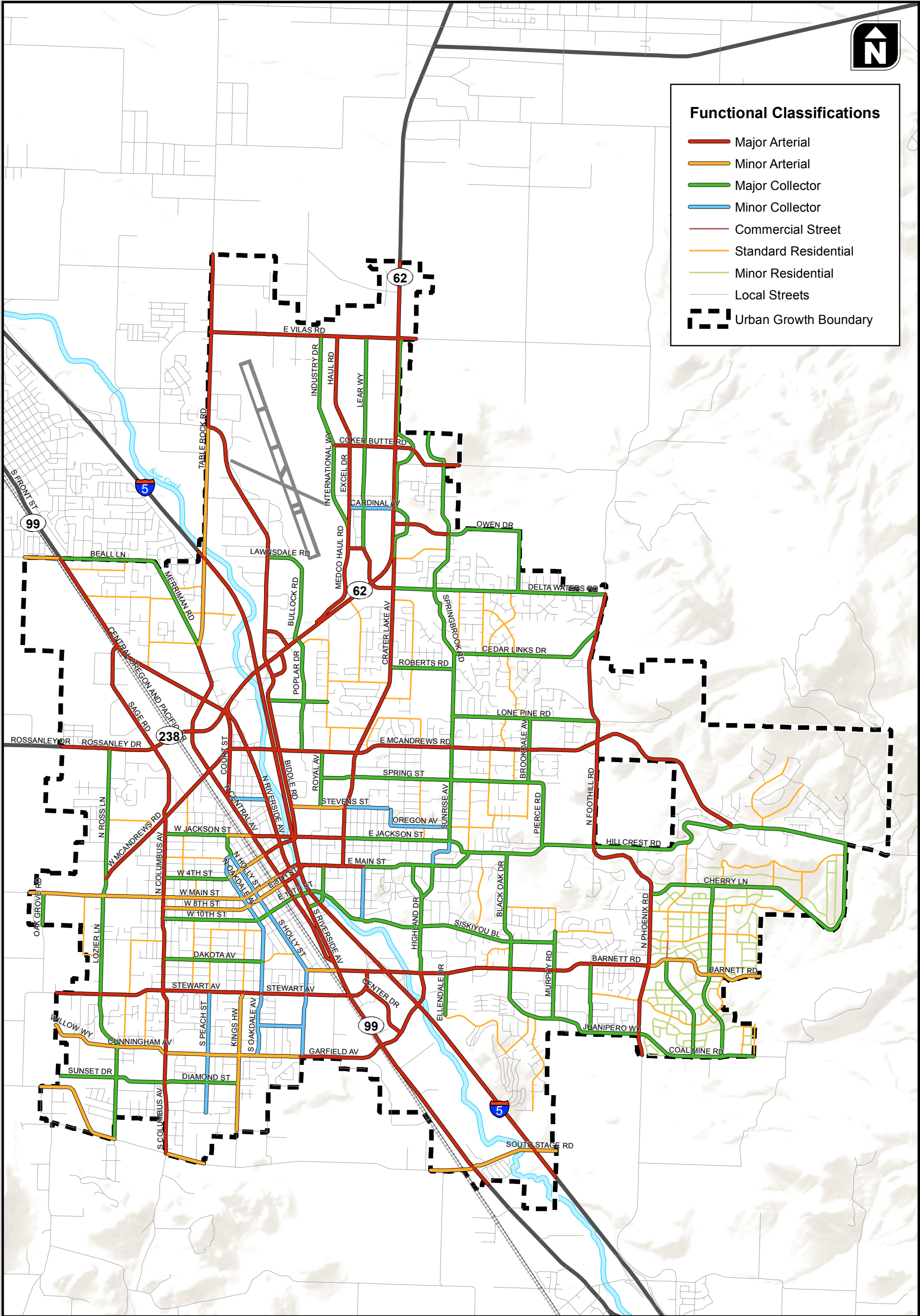
The City of Medford uses the Street Functional Classification system to reserve future right-of-way, determine a consistent street design that complements existing and planned land uses, develop future street improvement projects, and maximize the effectiveness of transportation investments. Service to commercial and industrial centers typically includes higher-order facility classifications to promote mobility and recognize Medford’s role in the regional, state, and interstate economy; in residential areas low-level classifications are used to support livability, accessibility, and traffic calming. The existing Street Functional Classification system provides flexibility to accommodate changing needs as the City develops; however, as Medford continues to grow, it will occasionally review and assess the functional classification system to ensure that designations meet the City’s needs.

The existing Street Functional Classification system, as described in the Medford Municipal Code, contains twelve classifications. Table 1 shows the cross-section dimensions of each functional classification. A detailed description of the design and operation of the primary functional classes and standard cross-section graphics are provided below. Figure 1 shows the existing functional classification of streets in the City of Medford.



Functional Classifications

-  Major Arterial
-  Minor Arterial
-  Major Collector
-  Minor Collector
-  Commercial Street
-  Standard Residential
-  Minor Residential
-  Local Streets
-  Urban Growth Boundary



H:\projfiles\10771 - Medford TCM\GIS\2028 Tech Memo 413-1 Existing Functional Classification.mxd



Existing Functional Classifications

Figure 3-1

Table 1 Medford Street Cross-Sections Dimensions¹

Functional Classification	Features/Dimensions (Each Direction)					Left Turn Lane/ Median ²	Total Paved Width	Total Right-of-Way Width
	Travel Lane	Bike Lane	On-Street Parking	Sidewalk	Planter Strip ¹			
Major Arterial	11' & 11'	6'	None	5'	10'	14'	70'	100'
Minor Arterial	12'	5'	None	5'	10'	14'	48'	78'
Major Collector	11'	5'	None	5'	10'	12'	44'	74'
Alternative	11'	5'	7'	5'	10'	None	46'	76'
Minor Collector	11'	5'	7'	5'	8'	None	46'	72'
Commercial Street	11'	None	7'	5'	8'	None	36'	63'
Industrial Street	12'	None	8'	5'	8'	14'	54'	80'
Standard Residential	11'	None	7'	5'	8'	None	36'	63'
Minor Residential (See 10.430(2) for design options.)	11'	None	7'	5'	8'	None	28'+ ³	55'
Residential Lane	17'	None	7' One Side	5' One Side	None	None	26' ³	33'
Minimum Access Easement	18'	None	None	None	None	None	18'	20'
Alley	18'	None	None	None	None	None	18'	20'

Notes: These street standards apply to new or reconstructed streets under the jurisdiction of and maintained by the City of Medford. Jackson County and ODOT have their own street design standards that are applicable to facilities under the jurisdiction of and maintained by those agencies

See the Central Business (C-B) District Overlay and adopted specific or Neighborhood Circulation Plans for exceptions to these standards.

¹A pedestrian pad may be required in the right-of-way at bus stops to ensure ADA compliance. A pedestrian pad is at minimum a four-foot-wide area between the bus stop and curb where a bus ramp would be deployed. Planter strips may be eliminated in areas with greater pedestrian activity (such as Downtown or in transit-oriented districts) to provide up to fifteen (15) feet of walking area, including a "furniture zone" for utilities, benches, trees and other streetscape components.

²Raised medians shall be installed with turn bays as necessary. Traffic analysis shall be conducted to determine the need for turn bays and required vehicle storage length.

³Street width numbers are not additive. When vehicles are parked on both sides of the street, travel lane width is effectively reduced to accommodate only a single vehicle at any one time.

Major Arterials

This designation is primarily used for streets with high traffic volumes (greater than 15,000 Average Daily Trips, ADT) and inter-regional connections. Arterials are high-order facilities that are generally intended to connect to several collector roadways or provide links to higher order interstate or highway facilities. One-hundred feet of right-of-way is required for major arterials to allow construction of a five-lane roadway section, bicycle lanes, and detached sidewalks with

¹ Based on the City of Medford [Land Development Code, Section 10.430\(B\)](#).

a landscaped planter strip. Major arterials within the City of Medford are illustrated in Figure 1, and include roadways such as McAndrews Road (west of Crater Lake Avenue), Riverside Boulevard, and Biddle Road.

Standard cross-section elements for the major arterial designation are shown in Exhibit 3-2. As discussed within the 2003 TSP, elements such as the landscape strips may be replaced with pavers or other treatments within transit-oriented development areas or the downtown where supporting pedestrian travel is a high priority. Adjustment of these standards can be provided through an adopted plan or code standards to provide a “main street” atmosphere.

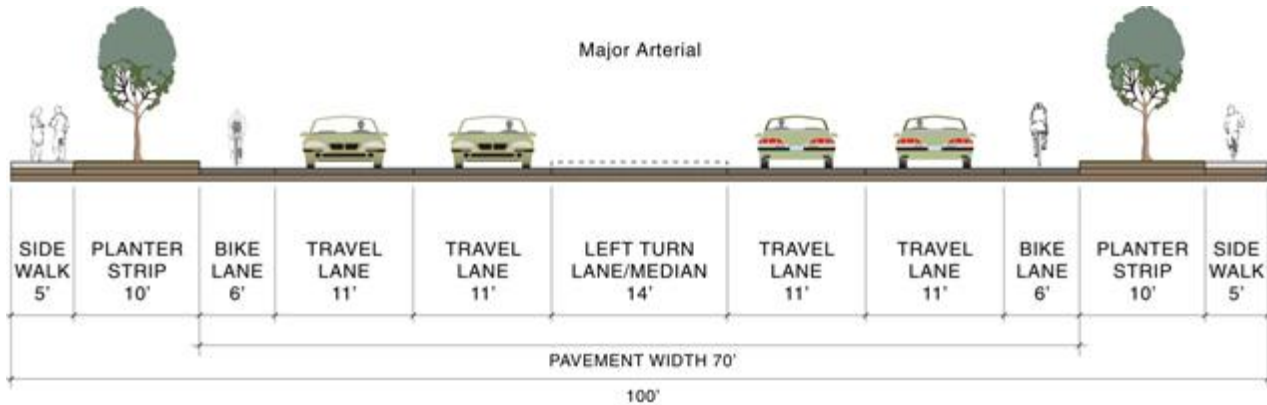


Exhibit 3-2. Major Arterial standard cross-section.

The City’s higher-order major arterial facilities are generally intended as high-mobility corridors and freight routes, so design flexibility that would enable wider curbside travel lanes could minimize truck encroachment into the bicycle lanes. The mix of trucks and bicycles is less desirable because of safety concerns between these two road users. By providing more design flexibility of major arterial facilities, particularly along freight routes, may help reduce conflicts between cyclists and freight traffic, or simply improve separation along higher-speed facilities. This could be accomplished by narrowing the planter width without increasing the right-of-way. A slightly reduced landscape strip (e.g., 8 feet instead of 10 feet) can still provide for a comfortable buffer between pedestrians and the street.

Minor Arterials

The Minor Arterial classification was amended into the City’s TSP as part of the 2003 update to further distinguish between arterials with a five-lane cross-section and those with three. Minor Arterials generally serve slightly lower traffic volumes than Major Arterials, ranging from approximately 10,000 to 15,000 ADT.

The standard cross-section for the minor arterial classification is illustrated in Exhibit 3-3. As shown, this classification includes 48 feet of paved width versus the 70 feet within the Major Arterial designation. Within the 2003 TSP, the City acknowledges the design flexibility for minor arterials to allow lower vehicular speeds, on-street parking, and variations in landscape strip and sidewalk width to better reflect specific area needs. The additional design flexibility is provided

due to lower mobility goals for these facilities and the desire for minor arterials to serve transit-oriented districts (TODs), adopted neighborhood plans, and pedestrian friendly, mixed-use development areas.

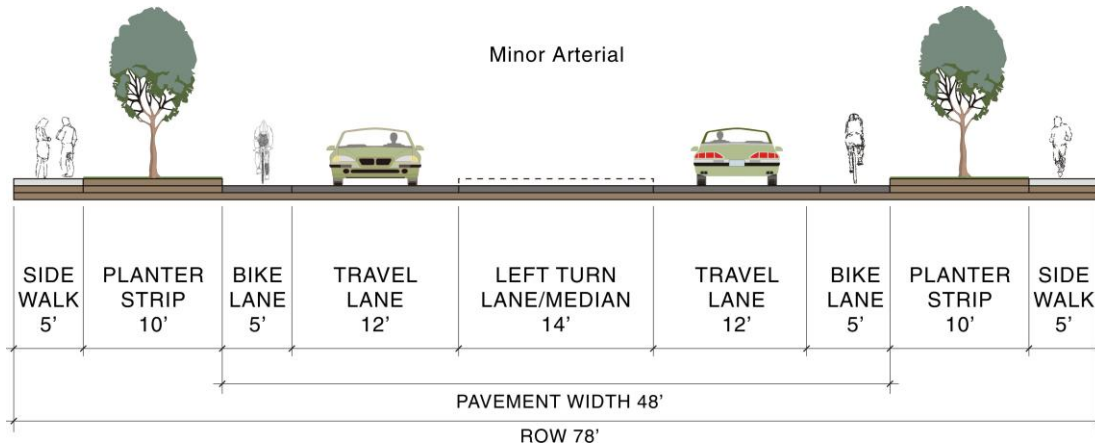


Exhibit 3-3. Minor Arterial standard cross-section.

The City’s classified minor arterial roadways are generally limited to the west side of the I-5 corridor, as shown in Figure 3-1. These roadways vary in their context between downtown, one-way roads with on-street parking demands (such as Main Street and 8th Street), to those that link residential areas (such as Cunningham Avenue), or serve more of a regional function (such as Table Rock Road south of Biddle).

The design flexibility provided within this classification allows minor arterials to adapt the allocation of the right-of-way to the surrounding land use context. No changes to this classification are recommended.

Major Collectors

The Major Collector designation is used for streets that link arterial and lower-order streets and serve moderate traffic volumes (approximately 5,000 to 10,000 ADT). Collectors serve both mobility and access functions with a three-lane roadway section, bicycle lanes, and detached sidewalks with a landscaped planter strip. Within this classification on-street parking is prohibited. Major Collectors within the City of Medford are illustrated in Figure 3-1, and include roadways such as Lozier Lane, Hillcrest Road, Black Oak Drive, Sunrise Avenue, and Springbrook Road. Exhibit 3-4 illustrates the standard Major Collector cross-section.

An alternative cross-section (Major Collector Alternative) is also available where included in an adopted neighborhood plan, neighborhood circulation plan, or transit-oriented district. This alternative allows the removal of the center turn lane to allow two 7-foot parking strips on both sides of the roadway. This section requires two additional feet of right-of-way as the standard center turn lane replaced by the on-street parking is 12 feet wide.

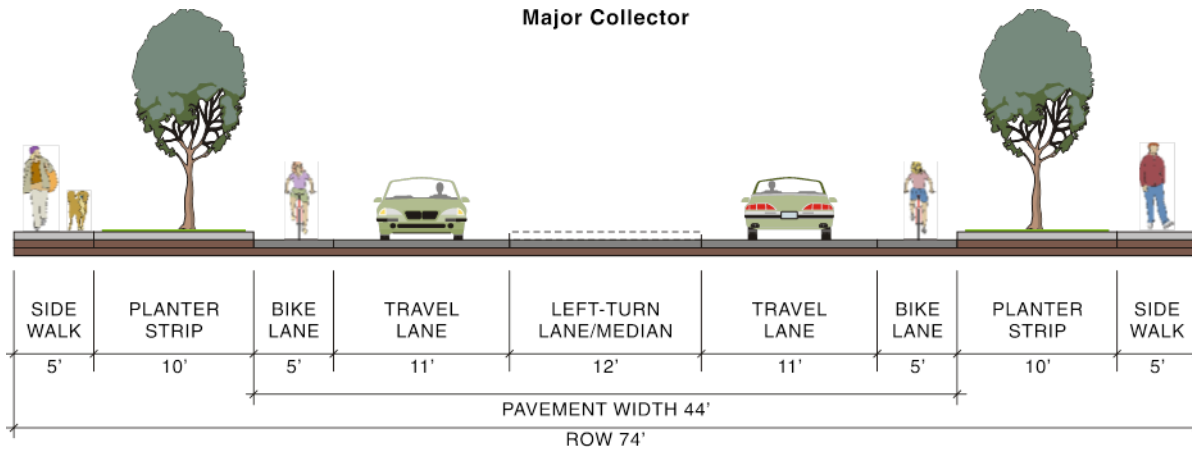


Exhibit 3-4. Existing Major Collector standard cross-section.

The City’s major collector section provides a narrower vehicular section than the City’s arterials for reduced emphasis on throughput. With the narrowed 11-foot travel lanes standard, bicycle lanes could be widened an additional foot to increase separation and comfort, with the width taken from the planter strip. Given the location of major collectors near employment centers, schools, and residential areas, increasing the sidewalk width to six feet would also improve pedestrian comfort while walking abreast or passing. Retaining eight-foot planters to accommodate the wider cyclist and pedestrian facilities would still provide adequate width for landscape buffers, utilities, and transit stops.

Within the Alternative Collector standard it is recommended that the cross-section be modified to reduce the planter by a foot, allowing an identical right-of-way width for either section.

Minor Collectors

The Minor Collector classification was amended into the City’s TSP as part of the 2003 update to further distinguish between collectors with a three-lane cross-section and those with two. Minor Collectors place a greater emphasis on access than throughput as compared to major collectors and serve relatively low traffic volumes (2,500 to 5,000 ADT). Most Minor Collectors run through neighborhoods and link residential streets to higher-order collectors and arterials.

The standard cross-section for the minor arterial classification is illustrated in Exhibit 3-5. As shown, this classification includes the same 46 feet of paved width as a major collector but includes on-street parking and no center turn lane. Similar to Major Collectors, the 2003 TSP provides flexibility to provide 7-foot sidewalks without planter strips where right-of-way is constrained.

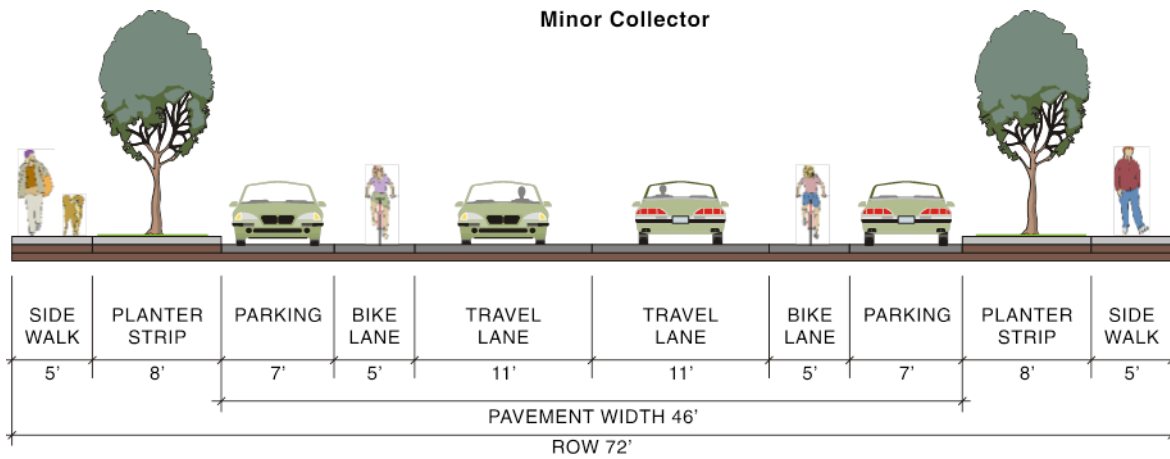


Exhibit 3-5. Minor Collector standard cross-section.

Currently, the City’s minor collector network is only applied to a small number of streets. This designation could be particularly useful in low-speed commercial environments, TOD areas, and employment areas.

Industrial Street

The Industrial Street designation is used for lower-order streets within or abutting industrially zoned lands. Industrial streets provide frontage and direct access to industrial uses and link them to collectors and arterials to facilitate mobility for vehicles and goods. This designation provides wider travel lanes and center turn lanes/medians to accommodate heavy trucks. Industrial Streets also provide on-street parking, sidewalk, and planter strips on both sides of the street. The standard cross-section for Industrial Streets is shown in Exhibit 3-6.

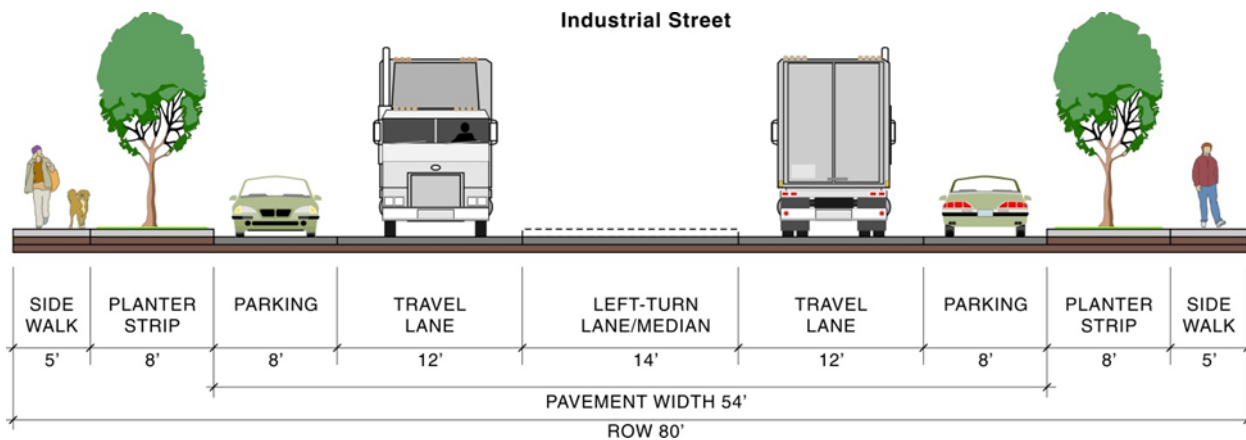


Exhibit 3-6. Industrial Street standard cross-section.

The City’s industrial street designation requires a wide right-of-way in an environment that is intended to serve very low traffic volumes but a higher percentage of trucks. Given the low-volume nature of industrial areas, unless warranted for specific uses or at intersections it is recommended that the travel lanes be increased to 14 feet and the left-turn median be eliminated. The 14-foot travel lane can serve as a shared bicycle/vehicular lane.

On-street parking areas in industrial systems often serve more of a loading function, and a note designating the parking/loading function may be appropriate. Given the lower pedestrian use along industrial areas and the conflicts with loading functions, slightly wider attached sidewalks may be more functional on these facilities. On industrial roadways where on-street parking is not needed it should be eliminated to avoid overly wide travel lanes.

Commercial Street

The Commercial Street designation is intended to provide frontage and direct access to land uses within a commercially zoned district. Commercial streets link downtown and commercial centers with other parts of the City and provide vehicular and pedestrian mobility and access by providing one travel lane and on-street parking in each direction with a sidewalk and planter strip on both sides. The Municipal Code allows for adjustments in sidewalk width and planter strip use to create a “main street” atmosphere.

The standard cross-section for Commercial Streets, shown in Exhibit 3-7, is identical to that of the Standard Residential designation, albeit with higher traffic volume. The narrow section is expected to help enforce a lower speed along these facilities that enhances the pedestrian environment. Within a lower speed environment bicyclists would be expected to share the road.

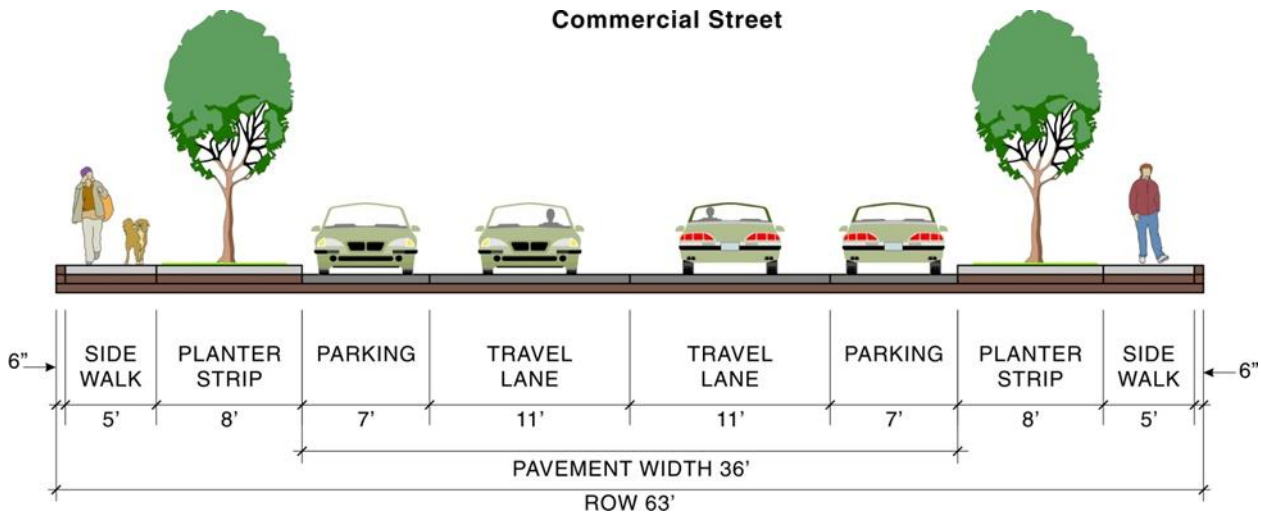


Exhibit 3-7. Commercial Street standard cross-section.

Given the increased pedestrian use in commercial areas and buffering provided by the on-street parking, a 13-foot sidewalk is recommended in lieu of a planter strip and sidewalk. This enables a minimum of 5 feet of clear space for pedestrians while still providing for transit stops and street furniture (trash receptacles, benches, dining areas, planters, and street trees).

Standard Residential

Standard residential streets prioritize access over throughput and generally serve less than 2,500 ADT. Standard residential is the highest of the residential roadway classifications, connecting

neighborhoods to collector roadways. This designation provides one travel lane and on-street parking in each direction with a sidewalk and planter strip on both sides. Typical volumes and speeds on Standard Residential streets are low enough to accommodate shared use of travel lanes between bicyclists and motorists.

The standard cross-section for the Standard Residential designation is illustrated in Exhibit 3-8. Designation of Standard Residential streets is dependent upon the number of dwelling units that will be served by the street proposed in a land development application, as set forth in the City’s Land Development Code.

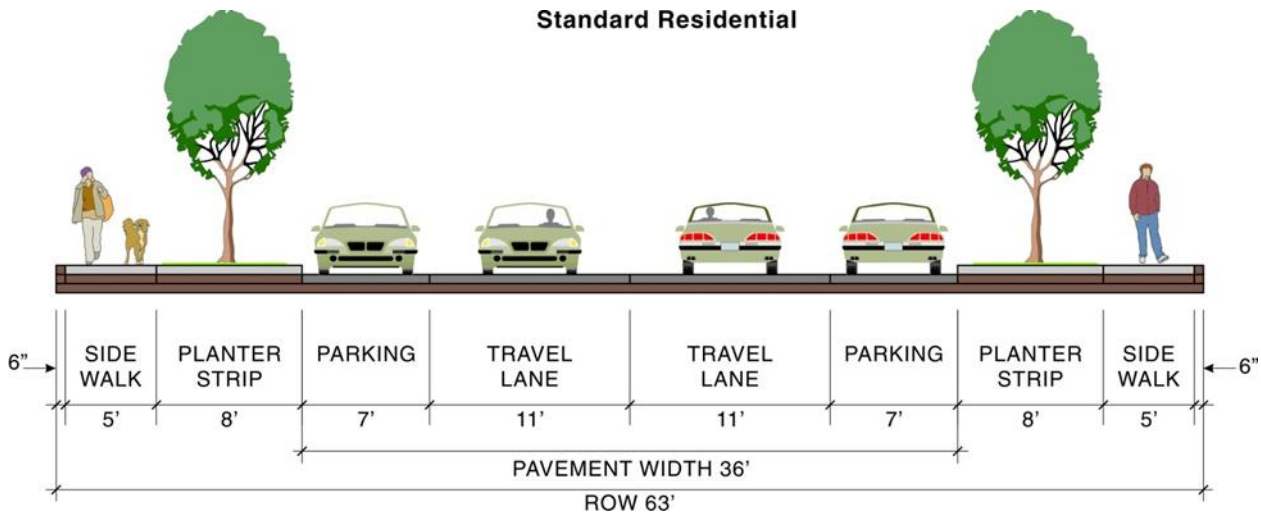


Exhibit 3-8. Standard Residential cross-section.

No changes are proposed to this designation as the current cross-section meets the functional objectives.

Minor Residential

Minor Residential Streets are low-volume streets that provide immediate access to a maximum of 100 dwelling units on adjacent land. Minor Residential Streets have a two-lane cross-section and may provide on-street parking on both sides. Given the narrow width and low-speed environment cyclists share the road with motorists. A key consideration within this cross-section is the ability to maintain a 20-foot clear width for fire access, where use of on-street parking could leave only 14-feet. An option is available for a wider street section (33-feet) with narrowed planter strips to maintain the same right-of-way. Exhibit 3-9 illustrates this section.

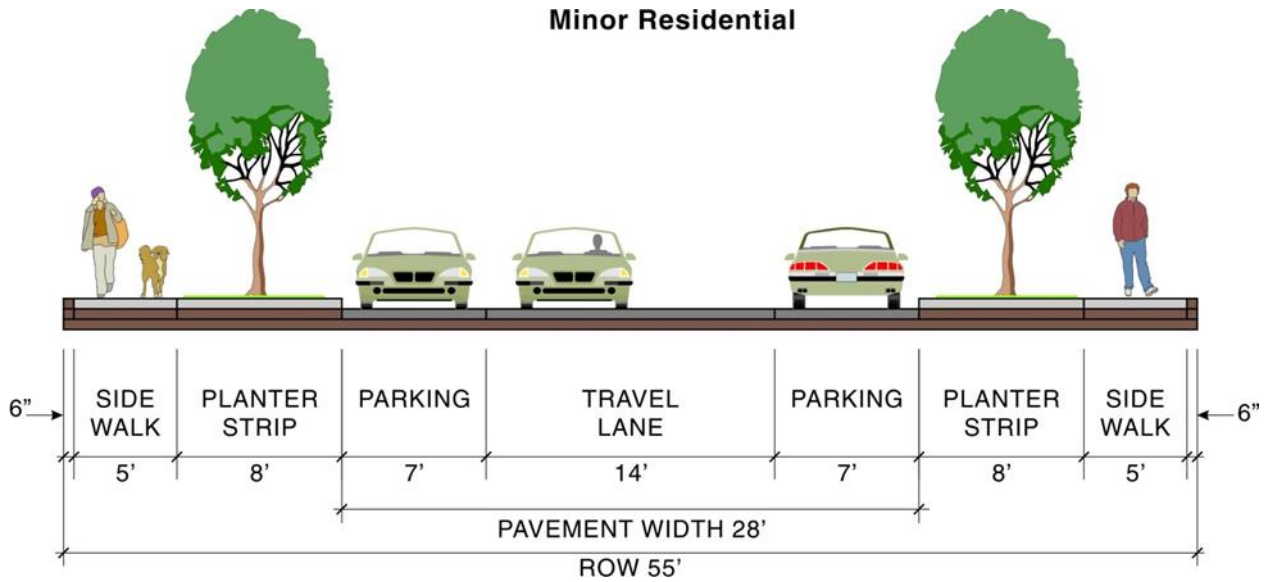


Exhibit 3-9. Minor Residential cross-section.

Residential Lane

Residential Lanes are the lowest-order residential facility. These roads can serve a maximum of 8 residences and extend no more than 450 feet. The terminus of residential lanes is an approved cul-de-sac adequate for turn-around maneuvers (minimum 37-foot paved radius). The cross-section is illustrated in Exhibit 3-10.

Residential Lane

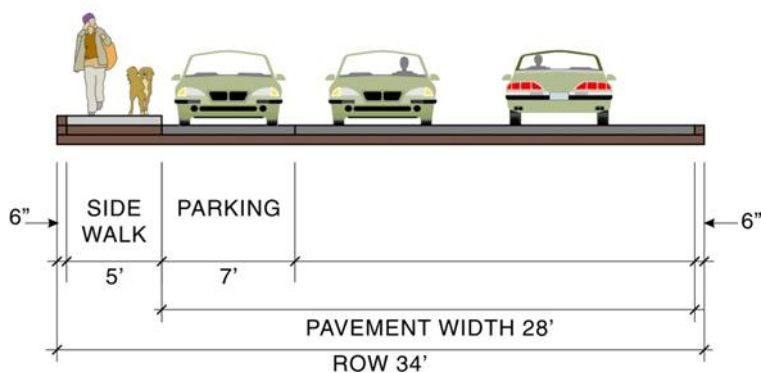


Exhibit 3-10. Residential Lane cross-section.

Freight Routes

Freight routes are intended to direct through-freight movements to facilities where truck traffic is most appropriate considering traffic volumes, street design, and surrounding land uses. Freight Routes are not a specific classification within the City of Medford's Street Functional Classification System or within the Oregon Highway Plan (OHP), though these routes are documented in the TSP and OHP and are used to inform roadway planning, design, and funding decisions.

Most freight routes are major arterials or collectors where the demand for access and circulation by large vehicles is expected to be highest. This includes major corridors that serve long distance freight movements such as Interstate 5 and Highway 62; as well as streets that serve high volumes of local and regional freight movements, such as Biddle Road, Table Rock Road, and McAndrews Road. Freight route designations inform City investments and street design by identifying areas where it is a priority to maintain high throughput levels, to design access to accommodate large vehicle movements, and to maintain facilities to avoid temporary weight restrictions and out-of-direction travel for trucks. Figure 3-2 identifies the existing classified freight routes.

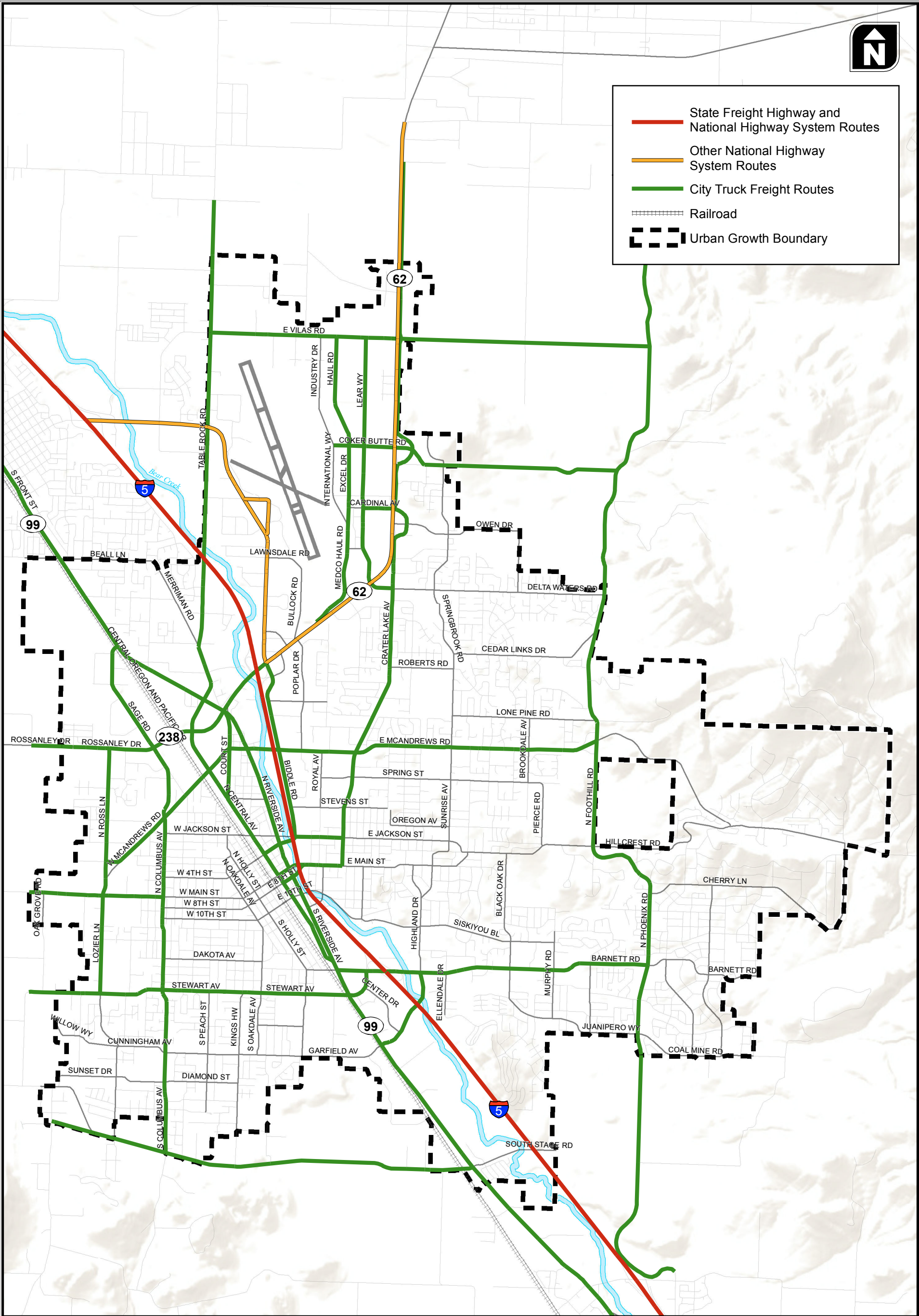
EFFECTIVENESS OF EXISTING SYSTEM

Policy Coordination

There are many roads located within the Medford UGB that are under the jurisdiction of Jackson County and other roads that cross jurisdictional boundaries at the edge of the UGB (including streets in the unincorporated area around the City and streets in the city of Central Point). As a result, it is important that Medford's Functional Classification System, the street classifications of surrounding jurisdictions, and those established in the Rogue Valley Council of Governments' *Regional Transportation Plan (RTP)* are coordinated. The revisions to Medford's Functional Classification System that were implemented as part of the TSP were based on a review of the functional classification systems of surrounding jurisdictions and RVCOG. The existing Medford Street Functional Classification system meets the requirements of the Transportation Planning Rule and ODOT access management guidelines.



— State Freight Highway and National Highway System Routes
— Other National Highway System Routes
— City Truck Freight Routes
 Railroad
 Urban Growth Boundary



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Truck and Freight Routes

Figure 3-2

The existing Medford Street Functional Classification system also supports the City's existing *Comprehensive Plan*, which contains goals, policies and implementation strategies that address street classification. Specifically, the *Comprehensive Plan* provides that "Streets shall be designated as arterial streets, and officially identified as such in the Arterial Streets Plan. All other streets shall function as collectors or residential streets" (Goal 2, Policy 1). The *Comprehensive Plan* further establishes as policy the intent that "Streets shall be designated as arterial streets in advance of actual function, thereby allowing for the application of the proper planning criteria necessary to integrate the street function into the adjacent land use pattern with minimum impact to neighborhood livability" (Goal 2, Policy 2). Other policies and implementation strategies related to street classifications identify design criteria; a level of service standard; provision of space for alternative transportation modes such as transit, bicycling and walking; and minimization of adverse environmental impacts.

Current Functional Classification System

The recommended changes to the Street Functional Classification System within the 2003 TSP have been successfully codified in Medford. The addition of major and minor arterial and collector designations provide the City with the flexibility to adopt a five-, three-, or two-lane design to accommodate local conditions and constraints in the built and natural environment without having to diverge from adopted standards. This flexibility also helps the City to save both time and money on street improvement projects. The current range of designations provides a variety of design options to better fit the surrounding context and multimodal environment.

Additional flexibility could also be provided within the TOD boundaries. While the current provisions allow planter space to be used for hardscape treatments to provide wider sidewalks, additional flexibility to alter the dimensions of the sidewalks, bicycle lanes, and planter strips, or include on-street parking could be implemented.

Finally, implementation of a new facility designation has been discussed by the City for regional roadways that interconnect to the surrounding cities and communities. The creation of an Expressway classification could emphasize automobile and freight mobility, affording intercity pedestrian and bicycle connectivity through a parallel multi-use pathway.

Evaluation of Functional Classification Designations

We reviewed the City's functional classification system to address: 1) the connectivity and continuity of the system; 2) the continuous length and density of the collector and arterial system based on the surrounding zoning; and 3) review of the opportunities and constraints of the current system based on the existing vehicular demands.

System Connectivity and Hierarchy

Connectivity of the arterial and collector street system was reviewed by identifying the extents and layout of the City's street system for the separate classifications and their sub-classifications (major and minor). The intent of this review was to identify whether a continuous grid network is in place throughout the City, how the facility classification changes or continues at the junction of collector and arterial roadways, and to identify areas that are not able to follow a traditional hierarchical access scheme. For additional clarity, Figure 3-3 illustrates the *Arterial* roadway network, and Figure 3-4 illustrates the *Collector* classifications.

As shown in Figure 3-3, the arterial network exhibits the highest density along the City core and surrounding the I-5 corridor. The network of arterials is poorly spaced east of Crater Lake Avenue, with both limited east-west and north-south connections. While several roadways are classified as minor arterials west of I-5, the transition in the east side of the City generally occurs directly from Major Arterial to some form of Collector.

Figure 3-4 illustrates the Collector roadway network. This figure highlights the lack of minor collector roadways throughout the City and shows the limited length and continuity of the collector network. The integration and stepped access from minor collectors to major collectors is generally not present in Medford, with the two collector classes generally operating independently. While these lower-order facilities are intended to carry lower volumes and shorter lengths, the result is an over-reliance on the City's arterial network that also has the burden of serving regional connectivity needs.

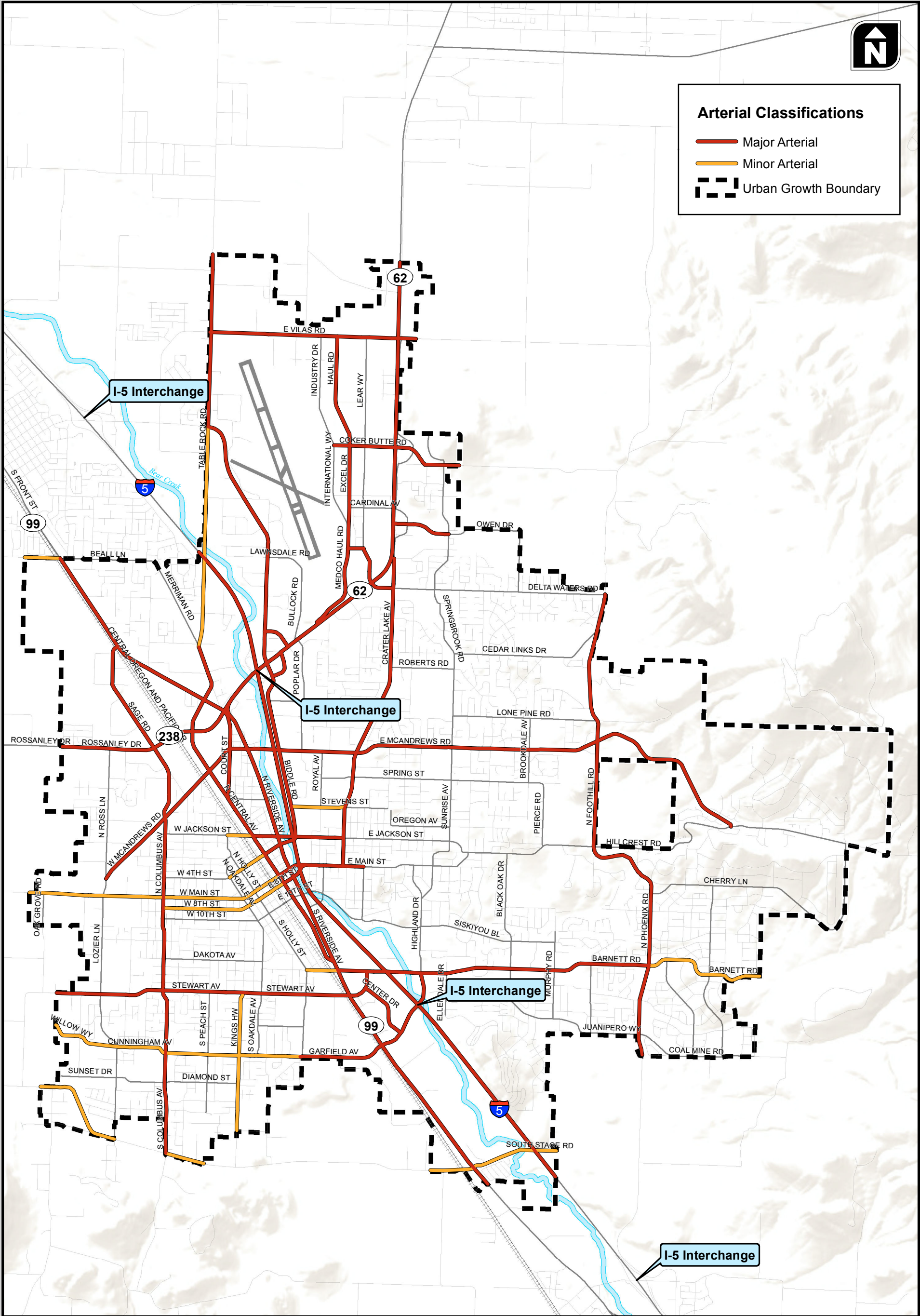
Review of the network and classification identified the following deficiencies:

- Lack of arterial roadways in eastern Medford
- Limited Minor Collector designations throughout Medford
- Limited intra-city network and reliance on a limited number of corridors



Arterial Classifications

- Major Arterial
- Minor Arterial
- Urban Growth Boundary



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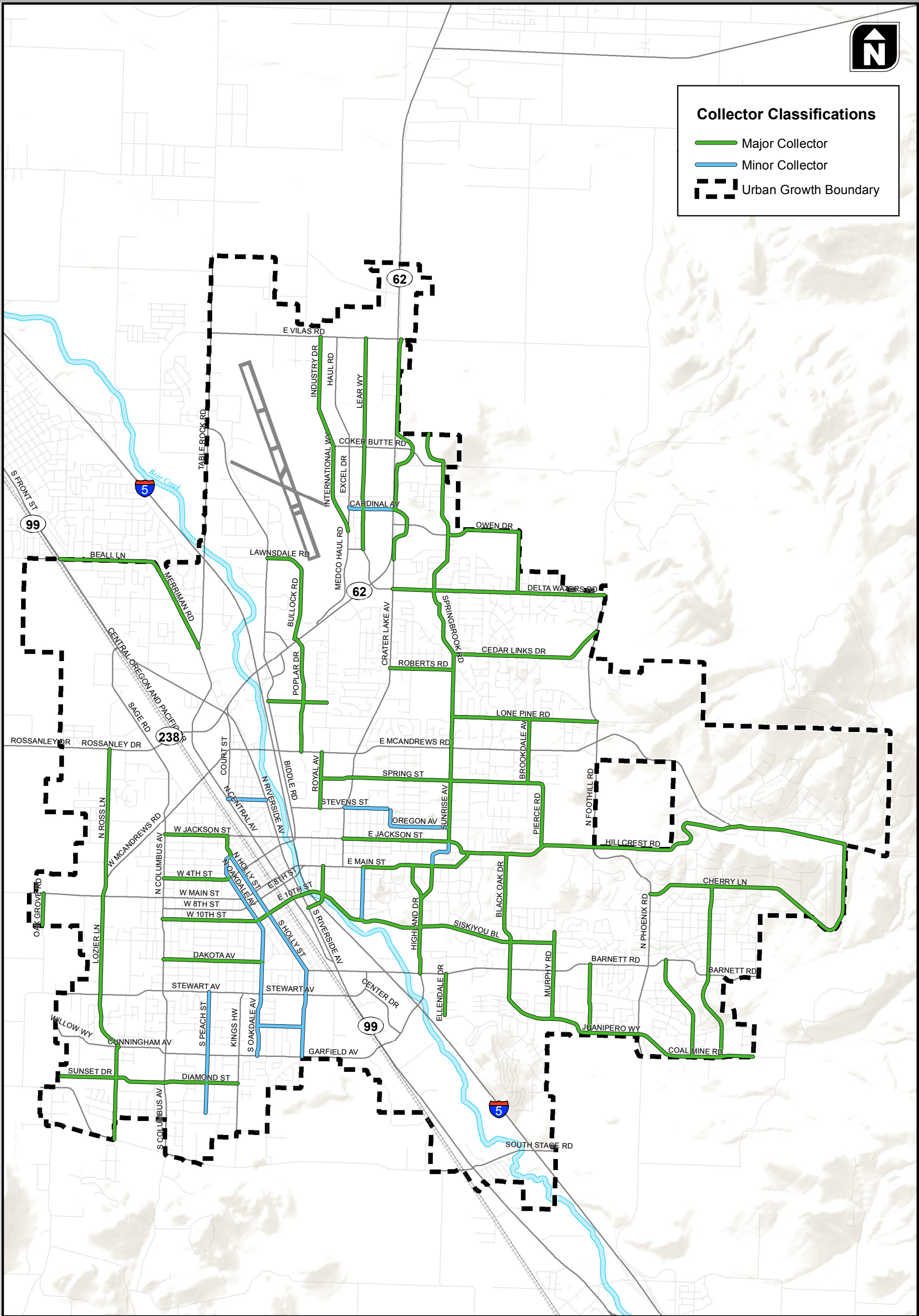
Arterial Roadway Network

Figure 3-3



Collector Classifications

- Major Collector
- Minor Collector
- Urban Growth Boundary



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Collector Roadway Network

Figure 3-4

Length and Density of Classified Roadways

The roadway hierarchy was further reviewed to assess the length of classified roadways and the surrounding densities that the roadways serve; the longer a facility and the higher the density along that facility the higher the demands will be. The purpose of this review was to consider whether the designation of parallel facilities would be appropriate, or if a change in classification should be considered.

Review of the roadway system noted the following:

- Springbrook Road –Sunrise Avenue serves as the only continuous north-south route between Crater Lake Avenue and N Foothill Road along a relatively built-out area of residential uses. This route is a key link in providing regional connections to I-5 and OR 62.
- Near the airport, the close spacing between Industry Drive (International Way), Lear Way, Excel Drive, and Highway 62 result in a very high density of higher-order roadway facilities. The functions and reclassification of the supporting network surrounding the planned bypass should be considered as part of the OR 62 bypass project.
- Hillcrest Road–Jackson Street provides a continuous east-west connection across the City changing functional classification between a collector and arterial roadway. The length of this facility, land uses served, and changes in classification indicate the potential for a higher order classification throughout its length.

Within the Arterial roadway system, notable gaps are present on the east side of the City bounded by Crater Lake Avenue to the west, Owen Drive to the north, Foothill Road to the east, and Barnett Road to the south. A robust network of Major Collectors is present within this area, though continuous north-south and east-west travel opportunities are limited. High arterial roadway density was noted in the area surrounding the South Medford Interchange and may be in part a remnant of the previous interchange configuration that should be reassessed based on the forecast needs.

Collector and Arterial Opportunities and Constraints

The City's 2008 roadway segment volumes were reviewed to assess where opportunities and constraints exist within the current system. This assessment was intended to identify roadways that carry higher or lower volumes than is typical for their classification. Table 2 presents the general volume thresholds for the City's higher-order facilities from the 2003 Transportation System Plan. These thresholds are intended as a guideline only, and volumes alone are not intended to form the basis of a roadways' classification.

**Table 2
Generalized Volume Thresholds**

Functional Classification	Volume Threshold (ADT)
Major Arterial	>15,000
Minor Arterial	10,000-15,000
Major Collector	5,000-10,000
Minor Collector	2,500-5,000

The following observations were noted:







- Springbrook Road–Sunrise Avenue corridor carries up to 17,000 vehicles in the vicinity of McAndrews Road and is currently classified as a Major Collector south to Jackson Street. As previously noted, limited parallel north-south opportunities are present. Other north-south collectors within this area are generally carrying lower volumes than those shown in Table 2, and the basis for reclassification is present independent of the volume thresholds.
- Volumes on Lozier Lane–Ross Lane are currently classified as Major Collectors, though current volumes exceed 15,000 vehicles per day south of McAndrews Road. With the recent completion of the South Medford Interchange current traffic volumes should be reviewed to consider the need to reclassify the loop formed with Garfield Street, Lozier Lane, McAndrews Road, and Foothill Road as part of an arterial ring system.
- West of I-5 roadway segment volumes south of Garfield provide ample capacity to accommodate planned growth within this developing area.
- The functional classification within the downtown core is generally consistent with the facility designations.

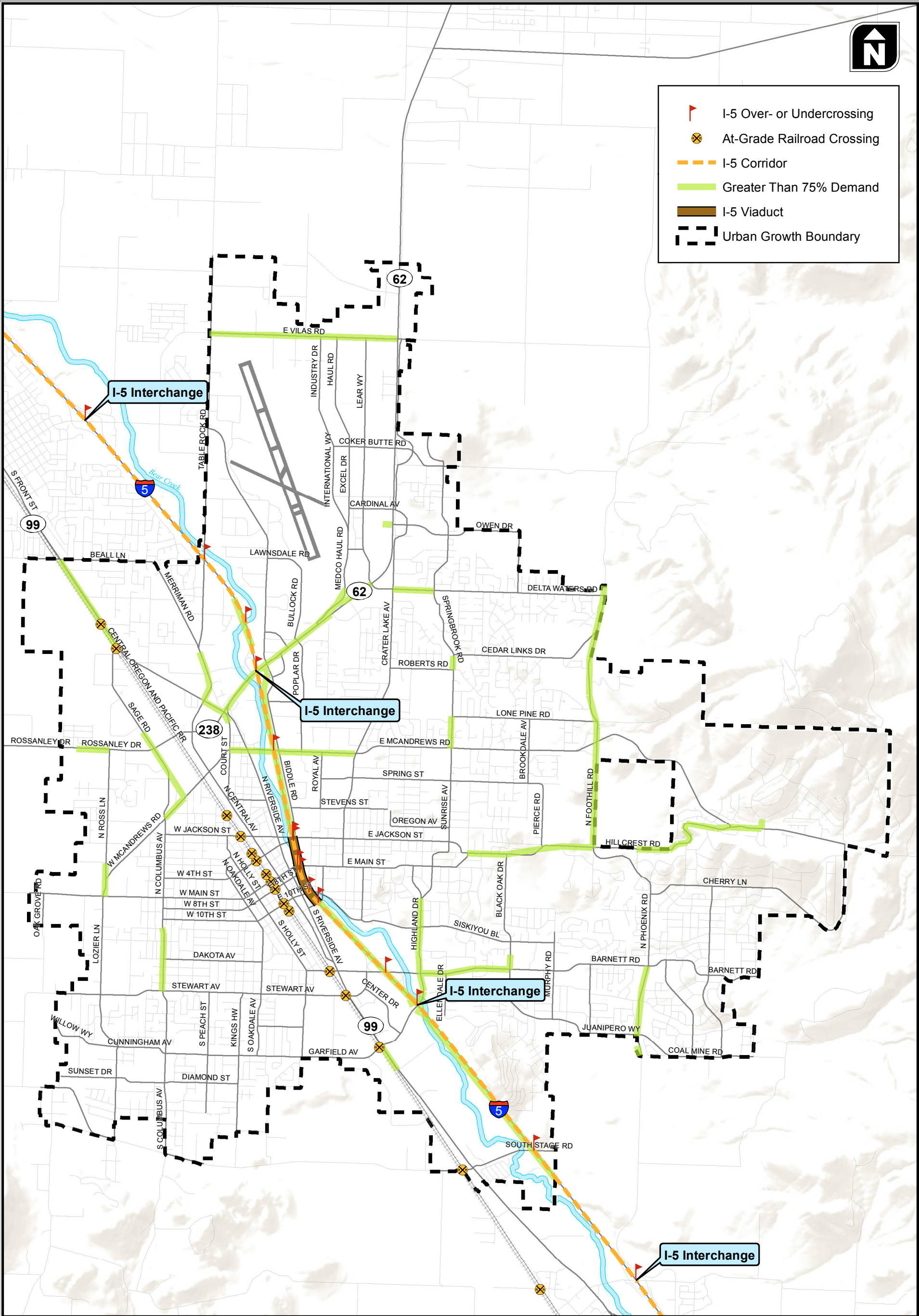
Constrained Corridors

Year 2028 traffic demand to segment capacity ratios (d/c ratios) were assessed to further identify facilities that operate beyond their current or forecast capacity (based on the travel demand model), as illustrated in Figure 3-5. This figure also illustrates key portals within Medford, such as the locations of I-5 interchanges and overcrossings, the Bear Creek corridor, and rail crossing locations to highlight critical system constraints. The following is highlighted in the figure:

- OR 62, even with the bypass, will continue to operate with significant capacity constraints between Riverside Avenue and the planned bypass.
- The number and locations of rail crossings and Bear Creek/I-5 crossings significantly reduces the barrier effect of these system constraints.
- Corridors directly serving and along the route to both I-5 interchanges are projected to operate in a constrained manner.



-  I-5 Over- or Undercrossing
-  At-Grade Railroad Crossing
-  I-5 Corridor
-  Greater Than 75% Demand
-  I-5 Viaduct
-  Urban Growth Boundary



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System Constraints and Constrained Corridors

Figure 3-5

Recommended Functional Classification Changes

Based on the system needs, connectivity, forecast demands, and review of the existing functional classification, the following changes are recommended to support the 2028 travel demand forecasts:







- Expand the City's Standard Residential classification to relieve pressure on the Collector and Arterial system while minimizing impacts to adjacent neighborhoods. This classification should initially focus on the east side of Medford between Barnett Road and Delta Waters Road. While lower-order facilities are generally not addressed within citywide plans, the ability of the local roadway network to better serve its local function and relieve higher-order facilities could provide significant system improvements.
- Identify and improve an arterial system in coordination with Jackson County along Lozier Lane, McAndrews, Foothill, and South Stage Road. Development of a continuous route can help to relieve the intra-city function of the highway and interstate system.
- Reclassify Hillcrest Road from the North Phoenix Road–Foothill Road intersection west along Jackson Street to Crater Lake Avenue as a Minor Arterial. Providing this consistent classification throughout this route better satisfies the roadway function. The route through residential areas and the constrained right-of-way in built areas may require deviations from a standard section.
- Reclassify Springbrook Road–Sunrise Avenue between Delta Waters and Jackson Street as a Minor Arterial. Similar to Hillcrest, the location of this roadway within built residential areas with direct driveway access may limit development of a standard section. However, removal of the on-street parking, relocation of utilities outside of the sidewalk clear space, and other improvements can be made to allow this road to better meet its intended function.
- Delta Waters Road also is located within a built-out residential area, and its current cross-section may not accommodate additional improvements. The current classification as a Major Collector prioritizes the throughput function, so that direct access onto Delta Waters from individual residences can be reduced over time as alternative options allow. As the upgrade of Delta Waters to an ideal classification as a Minor Arterial may not be feasible within the built environment, it is recommended that extension of the local roadway system be applied within the surrounding neighborhoods. A hierarchical residential classification system has been started within this area and should seek to extend beyond the current system.
- Downgrade the classification of Center Drive to a Major Collector. Despite the roadway's existing cross-section the function of the roadway is to link Stewart Avenue and Garfield Avenue, as well as collect traffic from the adjacent retail uses. The downgraded classification provides additional emphasis on serving this access role.

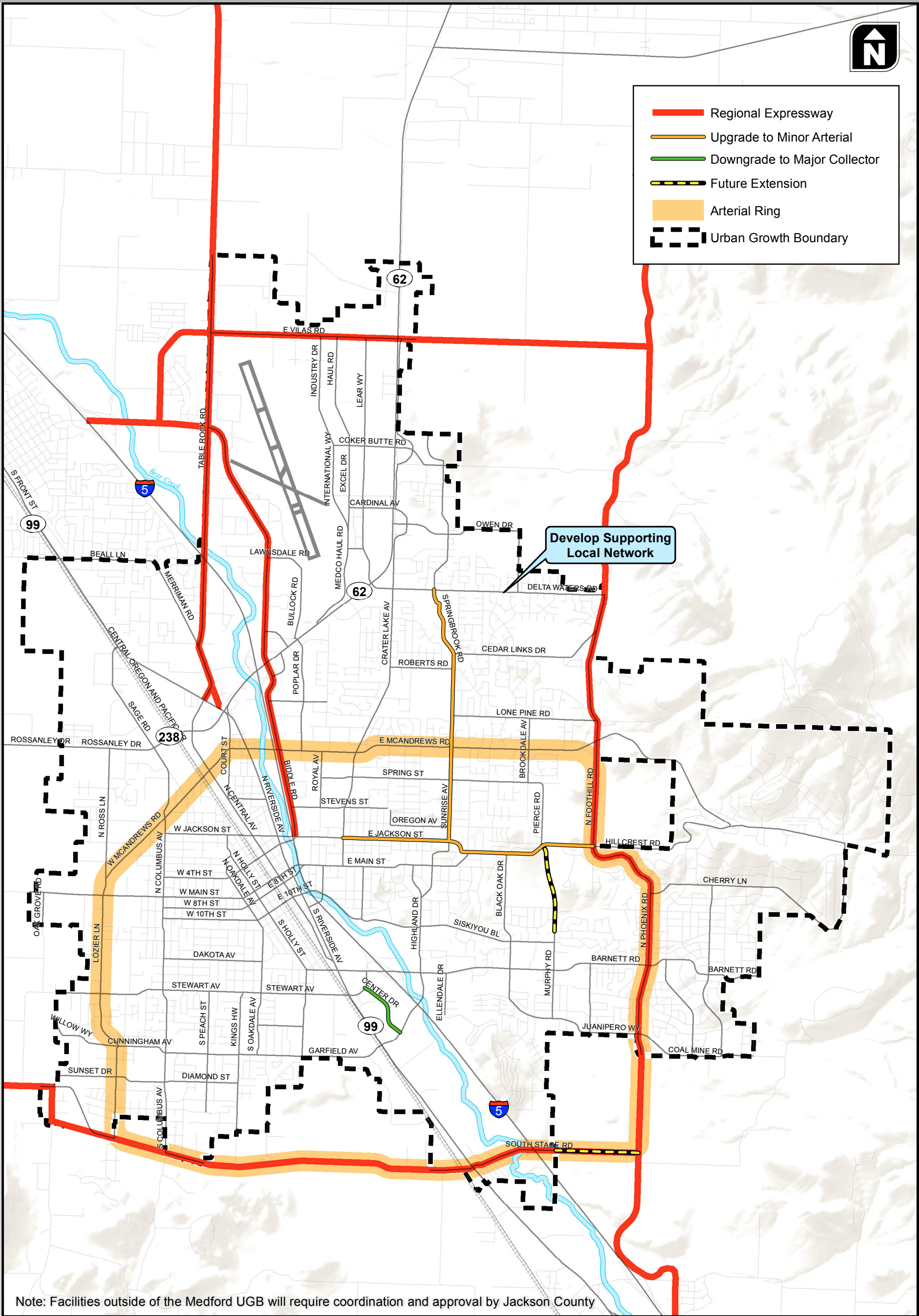
- Coordination with Jackson County to extend South Stage Road east to connect to Phoenix Road over the Interstate. South Stage is classified as a freight route, and the ability of this regional roadway to connect to the east while remaining separate from facilities serving I-5 will help preserve parallel routes.
- Identification of a future extension of Murphy Road north to align with Pierce Road as a Major Collector. This extension would occur only as part of future redevelopment of the Rogue Valley Country Club, but would help to reduce the reliance on Phoenix Road, allowing it to better serve its regional function.
- Develop a regional expressway designation for roadways that provide intercity connections. The focus of this designation should be on throughput as a means of reducing highway reliance. The regional expressway designation should be coordinated with Jackson County and other agencies for segments outside of the Medford UGB. Candidate roadways include the following:
 - North Phoenix Road–Foothill Road
 - South Stage Road
 - Vilas Road
 - Table Rock Road
 - Biddle Road

Expressway facilities should be designed to accommodate freight, with a classification as City Truck Freight Route. All of the roads recommended for this classification already contain this freight designation.

The items listed above are illustrated in Figure 3-6.



-  Regional Expressway
-  Upgrade to Minor Arterial
-  Downgrade to Major Collector
-  Future Extension
-  Arterial Ring
-  Urban Growth Boundary



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Recommended Functional Classification Changes

Figure 3-6