



TECHNICAL MEMORANDUM #7

Date: January 31, 2019 Project #: 21289
To: Paige West, RVTD
From: Susan Wright, PE, Molly McCormick (Kittelson & Associates, Inc.)
Subject: Transit-Supportive Areas

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INTRODUCTION

This memorandum provides benchmarks for evaluating potential scenarios and identifies existing and future transit supportive areas for each of the cities and urban areas within the Rogue Valley Transit District (RVTD) study area, under existing and future projected conditions. This information will support the Design Charrettes, Service Concepts Meeting (in Task 5), and the service enhancements analysis (to be documented in Technical Memorandum #9) by:

IN THIS MEMO

- ▶ Evaluation Criteria Benchmarks
- ▶ Transit Supportive Areas

- ▶ Identifying areas that are or will be capable of supporting at least hourly weekday fixed-route service;
- ▶ Identifying areas that due to density, mix of uses, demographic characteristics, and/or services offered can or will support more frequent service than currently exists; and
- ▶ Providing benchmarks for the evaluation criteria (identified in Technical Memorandum #5) helpful for evaluating and comparing scenarios or alternatives.

EVALUATION CRITERIA BENCHMARKS

The following provides benchmark evaluations for existing conditions and projected 2042 conditions based on the forecast land use and population and existing transit service. No service enhancements were assumed in this no-build future baseline assessment. The evaluation criteria were identified in Technical Memorandum #5 and will be used to compare future transit scenarios in Technical Memorandum #9. The evaluation criteria fall into three main categories that generally align with the tool used to evaluate them.

SERVICE AREA (TOOL: GIS)

How well existing transit service levels provided in 2018 are serving essential destinations and transit supportive areas under existing and future land use conditions was evaluated using GIS. Note that the RVMPO boundary includes the City of Eagle Point; however, the city is not within the RVRTD service boundary and does not have fixed-route transit service available currently.

How well is transit serving essential destinations?

Table 1 helps address how well existing transit service is providing access to the essential destinations within the MPO boundary (identified in Figure 4) by identifying the percent and number that are within a 30-minute transit trip from Front Street Station (200 S Front Street). Essential destinations within a 30-minute transit trip from Front Street Station are identified as destinations within a ¼-mile walk from existing transit stops that are served by a 30-minute transit stop from Front Street Station. Secondly, Table 1 identifies the percent and number of essential destinations that are within a 1-4-mile walk from existing transit stops on all routes.

Table 1 Transit Access to Essential Destinations

	Percent	Number
% Essential Destinations accessible within a 30-minute transit trip from Front Street Station or future transit center	31%	120 out of 382
% Essential Destinations within 1/4-mile walk of a transit	57%	216 out of 382

How well is transit serving high-density housing?

Table 2 helps address how well high-density housing is being served by transit by looking at the percent and number of multi-family developments and mobile home parks within the MPO boundary that are within a ¼-mile walk from existing transit stops, as shown in 5. For this analysis, multi-family developments included those with 5 units or more.

Table 2 How well is high density housing being served by transit?

	Percent	Number
% Multi-family/mobile home parks within 1/4 mile of transit	71%	211 out of 296

How well is transit serving existing and future transit supportive areas?

Table 3 helps identify how well transit is serving existing and future areas that are considered supportive of a minimum level of fixed route transit service (such as one-hour headways), as shown in Figure 7 and Figure 12. An area is considered to be transit-supportive if it contains 3 or more households per gross acre or 4 or more employees per acre.

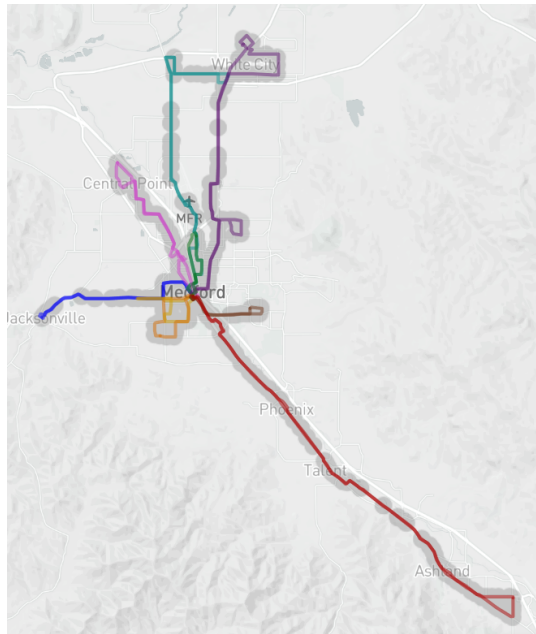
Table 3 Service to Transit Supportive Areas

	2018	2042
Percentage of areas meeting density threshold within ¼-mile of a transit route	46%	40%

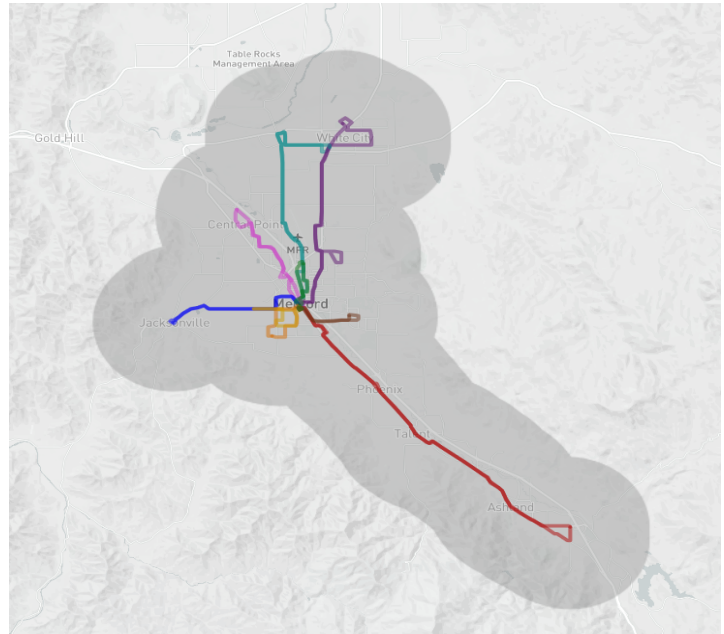
TITLE VI ANALYSIS (TOOL: REMIX)

Title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d-1) states that "no person in the United States shall, on the ground of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance." In combination with subsequent federal nondiscrimination statutes, agencies receiving federal financial aid are prohibited from discriminating based on race, color, national origin, age, economic status, disability, or sex (gender).

Remix is a user-friendly, web-based tool for planning transit networks. Remix automates the process of route and schedule testing, allowing users to immediately see the impacts of route and schedule changes. The tool can also be used to quickly understand the social and economic impacts (e.g., changes in population and employment transit accessibility, changes in operating costs) of new/modified transit routes and schedules. The following provides a baseline Title VI assessment for RVTD's existing services that will be used to compare potential service changes. The assessment compares the existing population, jobs and percentage of the population made up of different demographic groups within a ¼ mile of transit and within 3 miles of transit. The 3-mile distance is being used as a surrogate for the MPO area and is the largest distance Remix offers in its analysis tools. This analysis is separate from the MPO's Title VI assessments.



Remix 1/4-mile transit area



Remix 3-mile transit area

As shown in Table 4, the area within 1/4 mile of existing transit service serves a greater portion of transportation disadvantaged populations than the 3-mile area, with the exception of seniors indicating that seniors may be more heavily located further from transit compared to other populations. There is a much larger population in the 3-mile area than the 1/4 mile area. The table demonstrates the percentages of each of the two populations that fall in the different categories. With the exception of seniors, the disadvantaged populations are more concentrated near transit service.

Table 4 Title VI Analysis (2018)

	1/4 Mile from Transit	3 Miles from Transit
Population	70,717 (42%)	170,257
Jobs	42,648 (55%)	76,963
% in poverty	24.7%	18.8%
% minority	25.1%	19.8%
% in poverty 200%	51.2%	41.6%
% seniors (65+)	15.9%	19.0%
% youth (18-)	22.9%	22.0%
% limited English	2.9%	1.8%
% with disabilities	17.8%	17.1%
% with no vehicles	10.7%	7.4%

SERVICE LEVELS (TOOL: TBEST)

TBEST (Transit Boardings Estimation and Simulation Tool) is a model for analyzing transit system changes. RVTD has adapted and calibrated this powerful tool, originally developed by the Florida DOT, for use in the Rogue Valley. The tool will be used to understand transit ridership generated by service changes, as well as the potential socioeconomic effects of those changes (e.g., changes in the number of low-income riders that use the system). The following provides baseline data for the existing transit service levels applied to future population and employment. In other words, the following analysis assumes RVTD does not add or change the existing 2018 service levels even as the region's population grows.

How much transit ridership do we project if transit remains the same as today?

Table 5 indicates that transit ridership is forecast to grow by approximately 55,000 rides per year based on the future population growth scenario. Ridership is forecast to grow at just under 1% per year while the population is forecast to grow slightly over 1% per year resulting in a decrease in the overall rides per capita.

Table 5 Existing and Forecast Ridership

	2018	2042	Change 2018- 2042	Ave. Growth per year (2018- 2042)	Percent Growth (2018- 2042)
Ridership	1,240,876	1,519,603	278,727	0.936%	22%
MPO Population	175,493	230,429	54,936	1.304%	31%
Rides per Capita (MPO)	7.07	6.59	-0.48	-0.281%	-7%

How well is transit serving the existing and future population?

Table 6 helps us understand how well the existing and forecast population is being served by existing transit service. Currently, approximately 50% of dwelling units are within 1/4-mile of a transit route, and 46% are within 1/4-mile of transit service that operates every 30-minutes or less (RVTD operates only one-hour headways in west White City and Jacksonville). The percentages are both projected to reduce slightly in the future as the population grows in areas that are beyond 1/4-mile from existing transit service.

Table 6 Dwellings with Transit Access

	2018	2027	2042
% Dwelling Units within 1/4 mile of any transit service	50%	48%	45%
% Dwelling Units within 1/4 mile of 30-minute transit service	46%	45%	42%

How well is transit serving the existing and future workers and jobs?

Table 7 helps us understand how well the existing and forecast workers and jobs are being served by existing transit service. Workers are defined as employees within each TAZ based on publicly-accessible Jackson County data. Currently only 49% of workers and 77% of their potential jobs are within 1/4-mile of a transit route. In the future, this is projected to decrease as housing growth occurs in areas that are beyond 1/4-mile from existing transit service.

Table 7 Workers and Jobs with Transit Access

	2018	2027	2042
% of Workers in households that are within 1/4 mile of transit service	49%	47%	45%
% of Employment within 1/4 mile of transit service	77%	77%	75%

IDENTIFYING TRANSIT-SUPPORTIVE AREAS

Portions of the study area that have characteristics that can support fixed-route transit service were identified using the following key factors:

- ▶ **I. Land Use and Density** At a relatively large (e.g., neighborhood) scale, evaluating the number of households and jobs per acre gives an indication of the areas capable of supporting at least hourly weekday fixed-route service. The locations of various types of higher-density development and essential destinations gives a finer-grained indication of an area's ridership potential.
 - ▶ Tools and sources include analysis conducted in Technical Memorandum #4, ODOT's PlaceTypes tool, destination locations provided by Jackson County and Rogue Valley Council of Governments, and the JEMnR model.
- ▶ **II. Demographics.** An area's demographic characteristics, such as concentrations of older adults or zero-car households, can indicate a greater need for the area's residents to rely on transit service for their mobility needs. Technical Memorandum #4 presented a wide range of demographic information for the study area.
 - ▶ Tools and sources include analysis and documentation conducted in Technical Memorandum #4, based on data from the United States Census Bureau.
- ▶ **III. Growth Projections.** As the region grows, areas that are not currently transit-supportive may become transit-supportive, while areas currently served may be able to support increased service levels. The locations of planned major developments, as well as the area's zoning and comprehensive plan designations, indicate where growth may occur in the future.
 - ▶ Tools and sources include analysis and documentation conducted in Technical Memorandum #4, based on data from the State of Oregon's Department of Administrative Services, Office of Economic Analysis and the Oregon Employment Department Workforce and Economic Research Division.

Not every location identified as transit-supportive may be a good candidate for fixed-route service for a number of reasons, including:

- ▶ **Cost** - Pockets of higher density located well away from other higher-density areas, where the cost of extending service would not be sufficiently offset by the area's ridership potential
- ▶ **Poor infrastructure** - Neighborhoods with poor pedestrian infrastructure that make it difficult for potential riders to access stops
- ▶ **Difficult access** - Difficult transit vehicle access, due to poor street connectivity, steep grades, narrow streets, etc.

Finally, given finite budget resources to provide transit service, this project will need to develop priorities for how service may be improved within transit-supportive areas (e.g., expanding service into new areas versus using the same budget to provide more frequent service or longer service hours in areas already provided with service). Technical Memorandum #9 will evaluate potential service enhancements.

I. LAND USE AND DENSITY

This review and analysis identifies the following:

- ▶ Land use trends documented in Technical Memorandum #4;
- ▶ PlaceTypes, using ODOT's tool for identifying transit-supportive areas;
- ▶ Locations of essential destinations for people riding transit to meet their daily needs for access to jobs, schools, healthcare, social services, shopping, and recreation;
- ▶ Locations of higher density housing; and
- ▶ Population and jobs density

LAND USE TREND SUMMARY (TECHNICAL MEMORANDUM #4)

The Regional Problem Solving (RPS) Plan identified several regionally significant Transit-Oriented Development (TOD) strategies, policies, and promotion strategies in established cities and between urban reserve areas. These policies align with the "Nodal Development" land use modeling scenario in the RPS Plan, which places TOD mixed-use centers in urban reserve areas. The "Committed Densities" strategy from the RPS is expected to help produce a land use pattern in all seven participating jurisdictions that will have transit-supportive residential densities of seven dwelling units per gross acre by the year 2035. In addition, some communities are actively planning for TOD as described below and shown in Figure 1.

Medford

- ▶ The Downtown TOD, which continues to undergo revitalization.
- ▶ The adopted Southeast Area Village Center, which exists as a portion of Medford's comprehensively planned Southeast Area. The Southeast Village Center consists of 175 acres of planned high-density residential development surrounding a commercial and mixed-use core.
- ▶ The West Main TOD, an existing underdeveloped strip commercial area with residential surroundings. The nexus for this area is the intersection of Ross Lane/Lozier Lane and West Main Street. The TOD plan for this area will incorporate high-density residential development into existing development.
- ▶ The Delta Waters Road area TOD, planning for which has not yet been started.
- ▶ The Stewart Meadows project, a planned development incorporating several TOD features, including senior and high-density housing, retail, and health services.

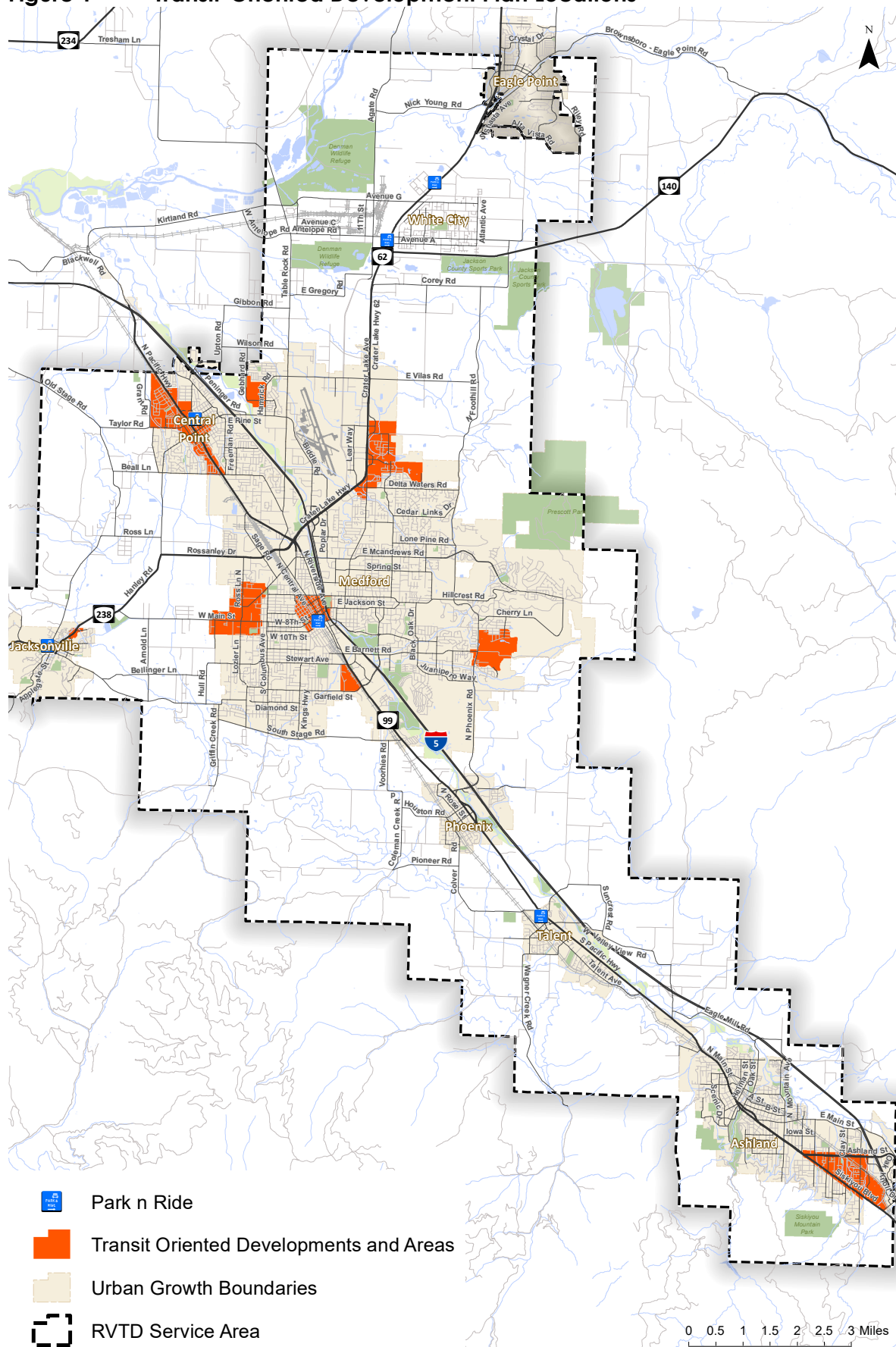
Central Point

- ▶ The 200-plus acre Twin Creeks TOD in northwest Central Point has nearly built out its residential components, while commercial and health care developments are in progress.
- ▶ The White Hawk TOD is an adopted master plan for 18 acres in northeast Central Point, at the corner of Gebhard Road and Beebe Road.

Ashland

- ▶ The Croman Mill Site is planned to feature a large employment component, high-density residential, and a station site for future bus rapid transit or passenger rail.
- ▶ Transit Triangle, the area between Tolman Creek Rd, Siskiyou Blvd, and Highway 66, is now in development. The City is considering code amendments for this area to allow for transit-oriented development.

Figure 1 Transit-Oriented Development Plan Locations



Jacksonville

- ▶ The North Gateway TOD is 17 acres adjacent to N 5th Street, including the intersections with G Street and Shafer Lane. Existing land uses include the Pioneer Village independent and assisted living senior community, hotels, and other commercial uses.

PLACETYPES

PlaceTypes is a new tool developed by Oregon Department of Land Conservation and Development to help policymakers understand the relationship between transportation and land use at the regional level. The tool uses five factors to assign a “place type” to each Census tract in the Rogue Valley: destination accessibility, jobs/household density, multimodal street network presence, land use diversity, and level of transit service. Each factor is rated for each Census block group, resulting in an aggregate score that indicates which areas in the region are most transit-supportive today and which ones are projected to be in the future.

Figure 2 shows the predominant land use pattern within different areas of the Rogue Valley, including Employment, Low Density/Rural, Residential, and Mixed Use at lower and higher levels of density. None of the study areas currently meet the PlaceTypes criteria to be designated as Transit Supportive Development; however, the employment, mixed-use, and mixed-use high categories are the most transit supportive areas in the study area. The I-5 corridor, western White City, and northern Medford are major employment zones in the region, along with the centers of the cities in the region. The majority of Residential place types are located adjacent to employment areas and within the urban growth boundaries (UGB) of cities in the region. Mixed-use patterns are found in and adjacent to downtown Medford, the Rogue Regional Medical Center, downtown Central Point, and along both sides of Siskiyou Boulevard in Ashland.

A ¼-mile walking distance buffer from existing RVTD transit stops is shown in Figure 2 and many other subsequent figures for comparison purposes. One-quarter mile, corresponding to a 5-minute walk, is often used in transit planning to indicate a maximum desirable walking distance to local transit stops. However, the results of the on-board survey reported in Technical Memorandum #8 found that about two-thirds of respondents walked more than 5 minutes to and from bus stops, and about 40% walked more than 10 minutes.

Figure 3 shows PlaceTypes data for the year 2042 based on the distribution of anticipated growth. Comparing 2017 and 2042, employment land uses along the I-5 corridor in southern Medford are forecast to expand by 2042 around White City, in Tolo and northern Medford, and around Rogue Regional Medical Center. Low Density/Rural areas that are forecast to become Residential by 2042 include areas in southeast Medford, southern Jacksonville, western Central Point, northern White City, and adjacent to Eagle Point. The amount and density of Mixed Use is forecast to increase adjacent to downtown Medford, in Central Point, and between I-5 and the hospital.

Figure 2 Place Types 2017

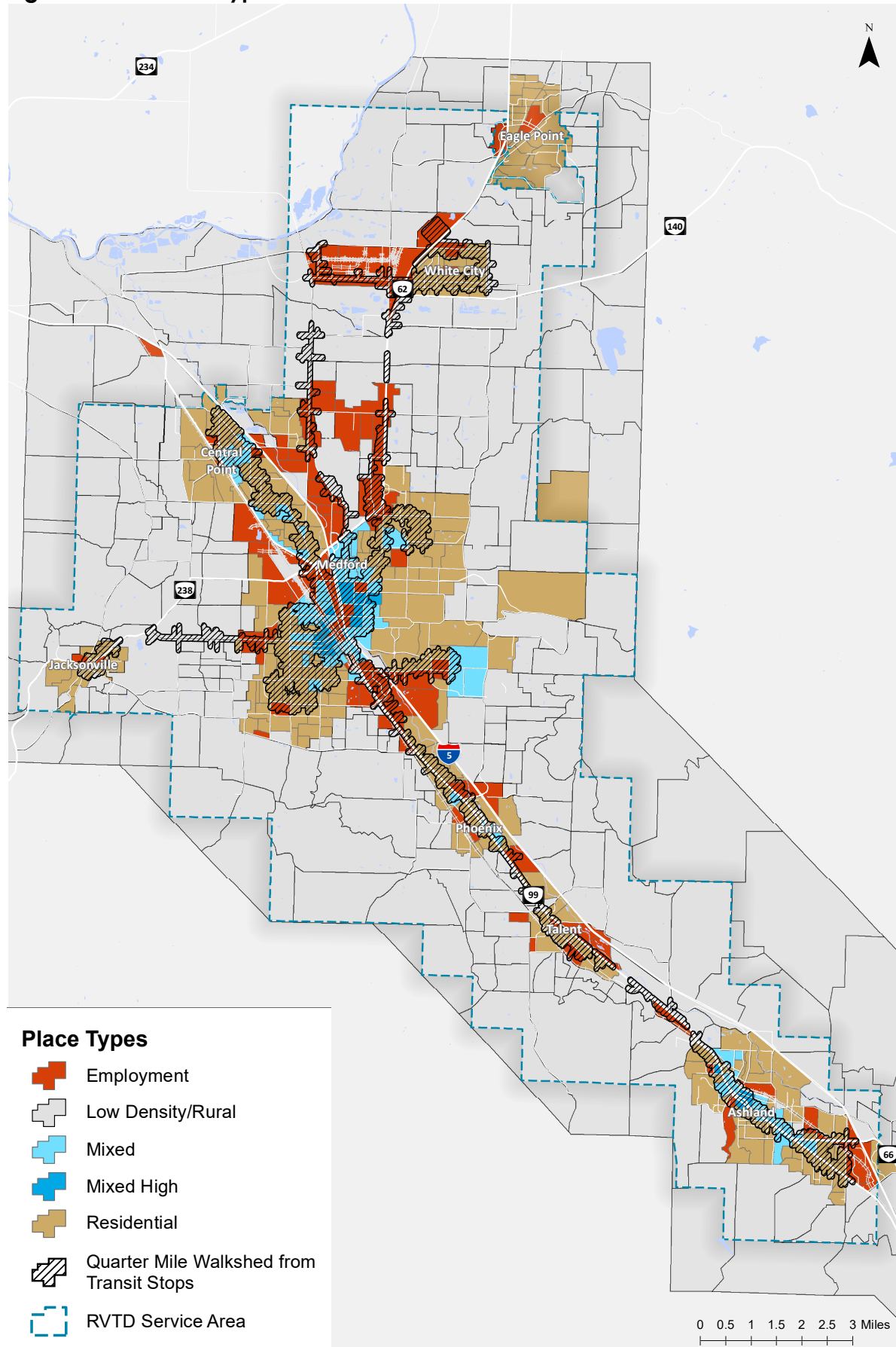
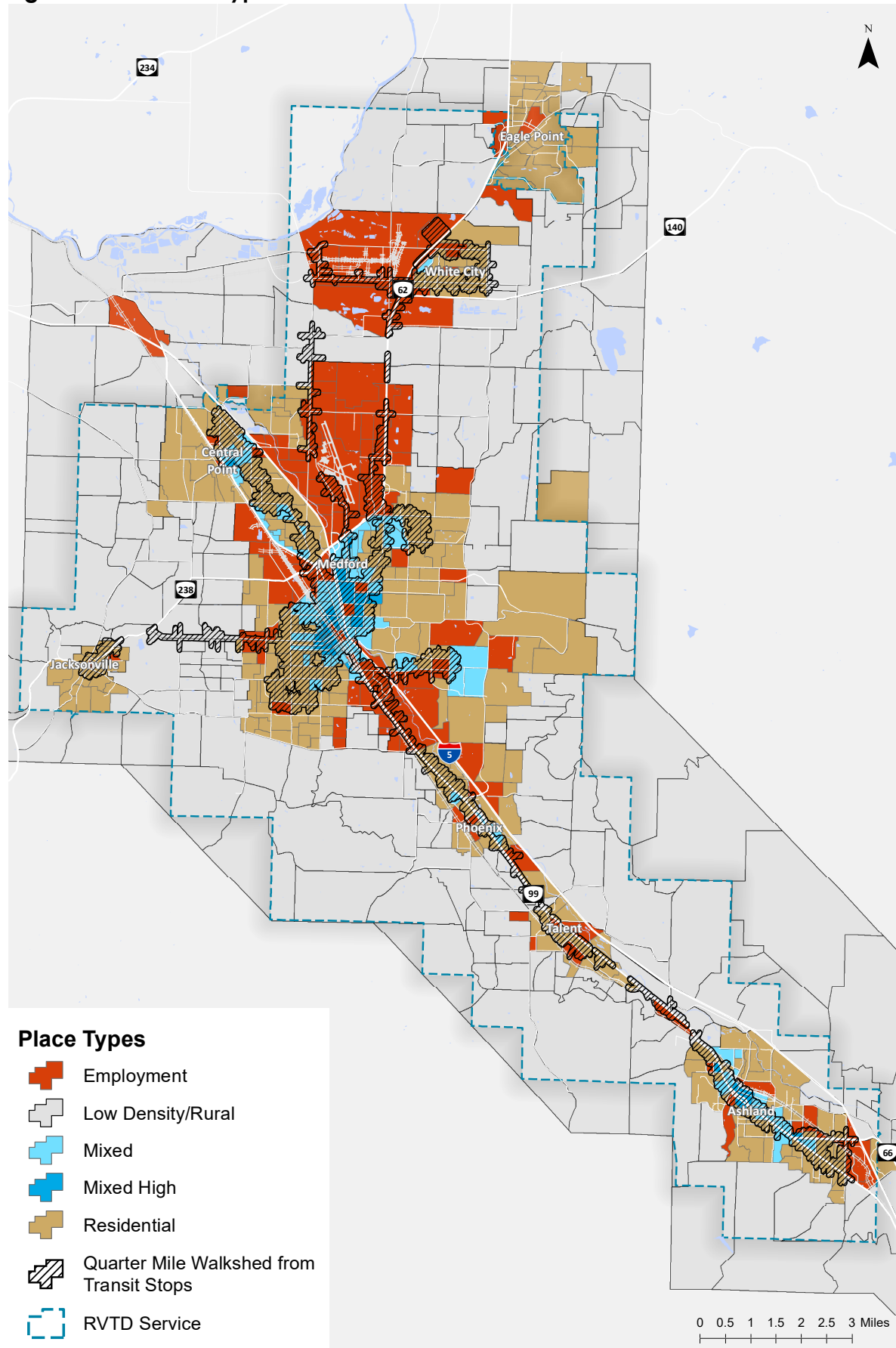


Figure 3 Place Types 2042



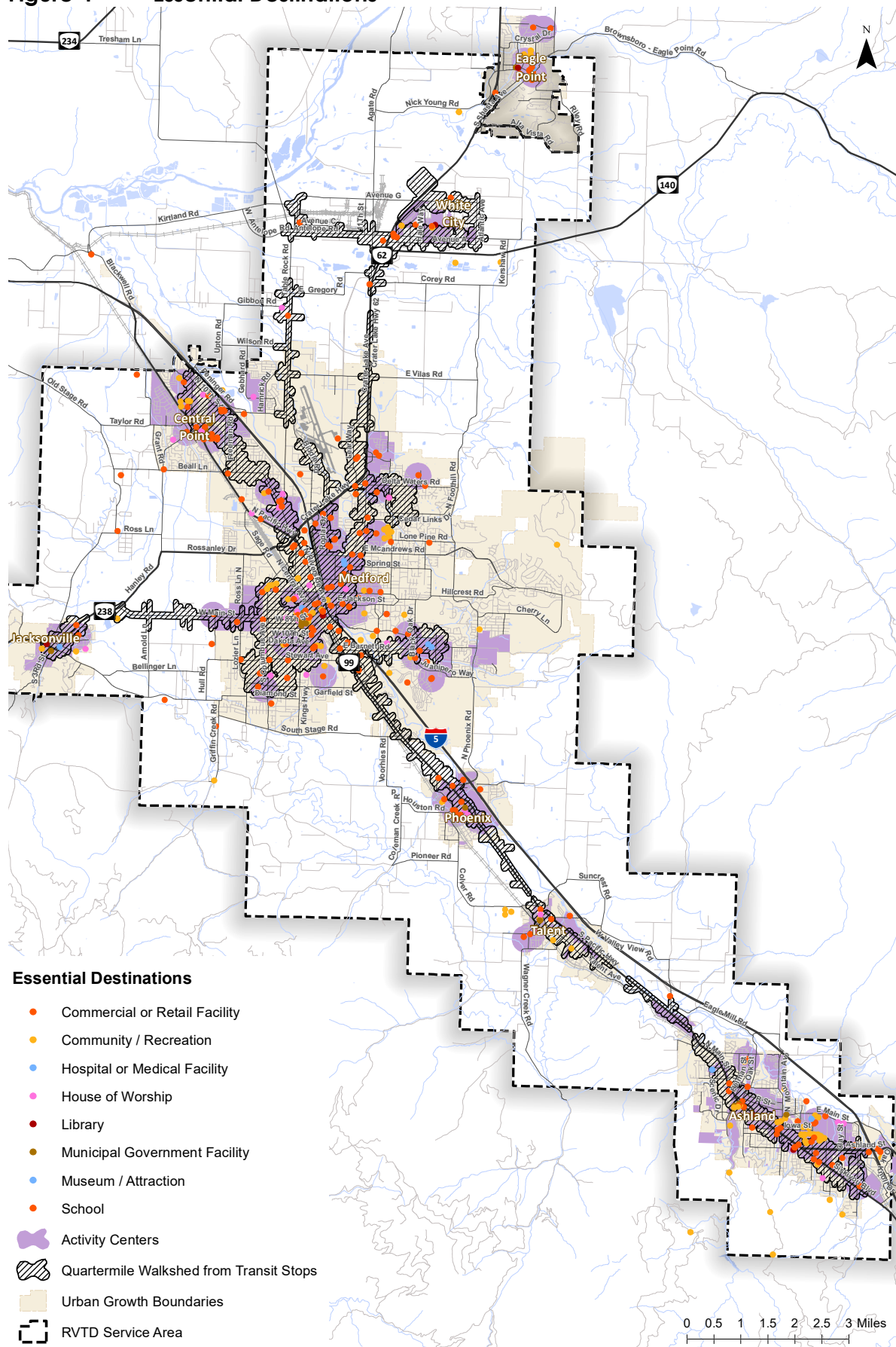
ORIGINS AND DESTINATIONS

Jackson County provided destination data for various land use types in the Rogue Valley. Figure 4 shows a subset of destinations considered essential to meet people's daily needs. These include commercial and retail facilities; community and recreation sites; hospitals and medical facilities; houses of worship; libraries; municipal government facilities; museums and attractions; and schools. Figure 4 also indicates Activity Centers provided by the Rogue Valley Council of Governments. Each incorporated jurisdiction within the RVMPO area defines their own Activity Centers based on their understanding of commercial and employment land uses and a location's local relevance in the community. Some locations, including portions of southwest White City and south Medford, have several essential destinations outside of the designated activity centers.

Figure 5 illustrates the location of higher-density housing including, multi-family dwellings and mobile home parks. Central Medford and downtown Ashland along Siskiyou Boulevard have the highest concentrations of multi-family dwellings in the region. Concentrations of mobile home parks are found in White City, Eagle Point, and the Oregon 99 corridor between Medford and Ashland.

Figure 6 illustrates the location and density of households within the RVTD service area in 2017. Outside of the city urban growth boundaries, other locations with high households levels per acre are located along I-5 between Medford and Phoenix and in White City.

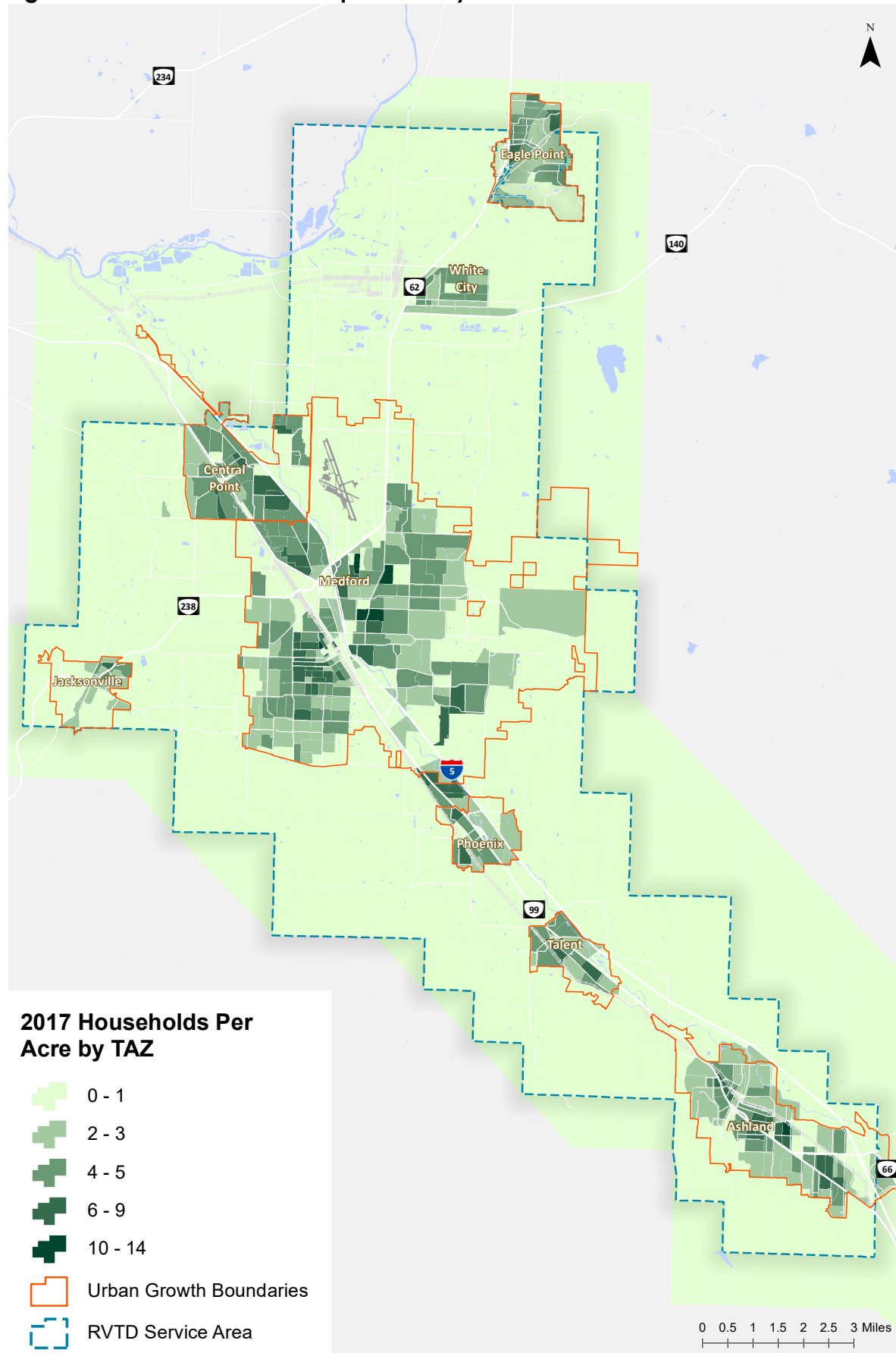
Figure 4 Essential Destinations



Essential Destinations

- Commercial or Retail Facility
- Community / Recreation
- Hospital or Medical Facility
- House of Worship
- Library
- Municipal Government Facility
- Museum / Attraction
- School
- Activity Centers
- ▨ Quartermile Walkshed from Transit Stops
- Urban Growth Boundaries
- ▭ RVRTD Service Area

Figure 6 2017 Households per Acre by TAZ

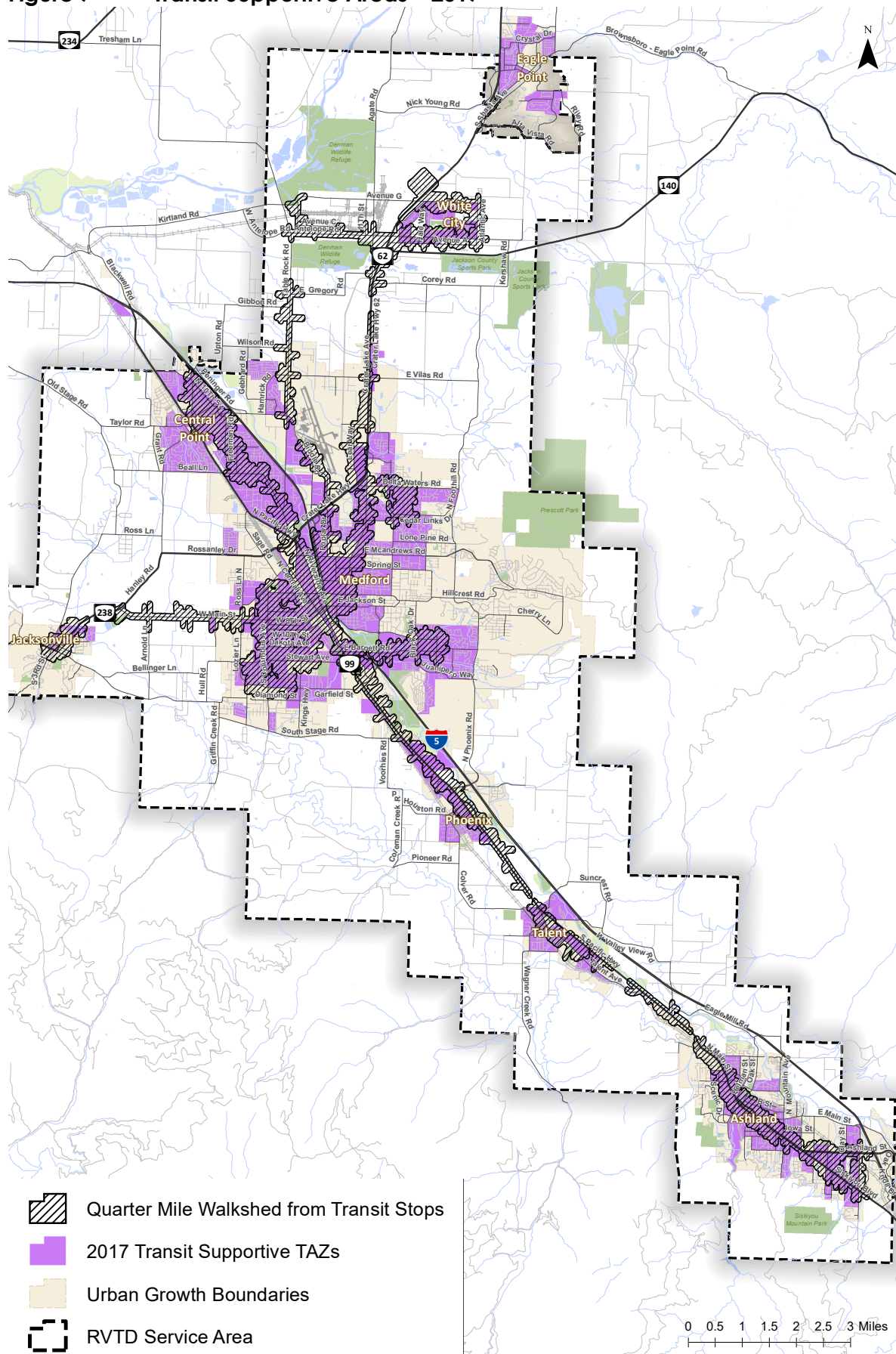


POPULATION AND EMPLOYMENT DENSITY

Existing population and employment density in the study area was evaluated using data from the JEMnR model, a travel demand model maintained by ODOT and the Rogue Valley MPO. The JEMnR model estimates multimodal traffic flows in the Rogue Valley and produces estimates of future travel based on future land use, population, and transportation system assumptions. Existing and future population and employment values are assigned to Transportation Analysis Zones (TAZs) in the model.

Figure 7 shows the location of transit-supportive areas, as defined by the *Transit Capacity and Quality of Service Manual*. An area is considered to be transit-supportive (i.e., could support at least hourly fixed-route service on weekdays) if it contains 3 or more households per gross acre or 4 or more employees per acre. Areas shaded purple in the figure meet one or both of these criteria. For comparison, the area reachable within a ¼-mile walk of a bus stop is shown in yellow. The figure shows that every city within the RVTD service has areas beyond the current transit service corridors that potentially could support fixed-route service. In addition, much of the northern half of Eagle Point, outside the RVTD boundary, is considered transit-supportive due to its higher residential densities. Tolo, also outside the RVTD boundary, is considered transit-supportive due to its concentration of employment.

Figure 7 Transit Supportive Areas – 2017



II. DEMOGRAPHICS

Population and demographic trends and forecasts were documented in Technical Memorandum #4. A summary of the findings from that analysis is provided below. Areas with high concentrations of transportation disadvantaged populations (which tend to be lower income, disabled, older, youth, and zero-car households) increase an area's need for transit and its ability to support more-frequent transit service.

DEMOGRAPHICS SUMMARY

- ▶ Concentrations of older adults are found in central, east, and northeast Medford; Central Point; White City; northern Eagle Point; the northeast and southeast sides of Jacksonville; Phoenix; Talent; and much of Ashland.
- ▶ The highest concentrations of children and youth (under 18 years old) are found in Medford, White City, Central Point, Eagle Point, Phoenix, Talent, and along Siskiyou Boulevard in Ashland.
- ▶ Low-income populations are concentrated along the Oregon 99 corridor, along with west, southwest, and northeast Medford; near the hospital; and in White City and northern Eagle Point, as shown in Figures 8 and 9. Data shown is from the 2016 American Community Survey. Poverty thresholds are defined by the United States Census Bureau.
- ▶ Populations with disabilities are also concentrated in the Oregon 99 corridor, along with southwest and east Medford, the northeast and southeast sides of Jacksonville, White City, and Eagle Point.
- ▶ Title VI populations not currently served by RVTD fixed-route bus services are as follows:
 - Individuals with limited English proficiency in west Central Point and west Medford.
 - Older adult, youth, and minority populations in Eagle Point, west Central Point, and east Medford.
 - Hispanic/Latino and low-income populations in Eagle Point, west Central Point, and northeast Medford.
 - Populations with a disability in Eagle Point, west Central Point, east Medford, and northeast Ashland.
- ▶ Medford's central area census tracts contains the highest concentration of residents living in poverty in Oregon.
- ▶ A lack of public transit service is a key barrier to employment, education, and residential access, especially in western White City and portions of Eagle Point.

Future forecasts developed by the State of Oregon's Department of Administrative Service, Office of Economic Analysis, project that by 2050, the senior population will increase to 34 percent of the total County population, with that segment of the population expected to exceed 100,000 persons.

Figure 8: Jackson County Low-Income Population Density

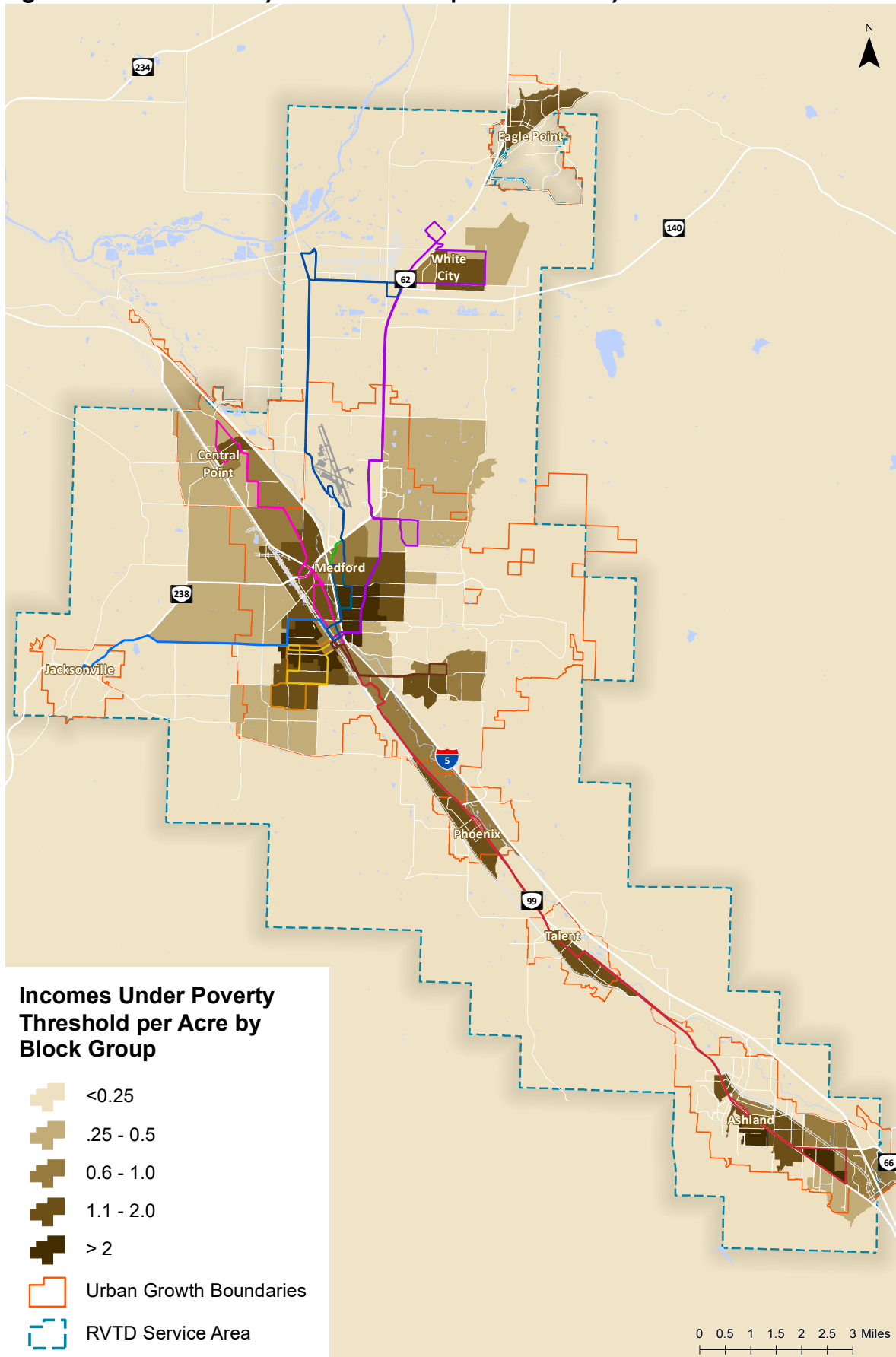
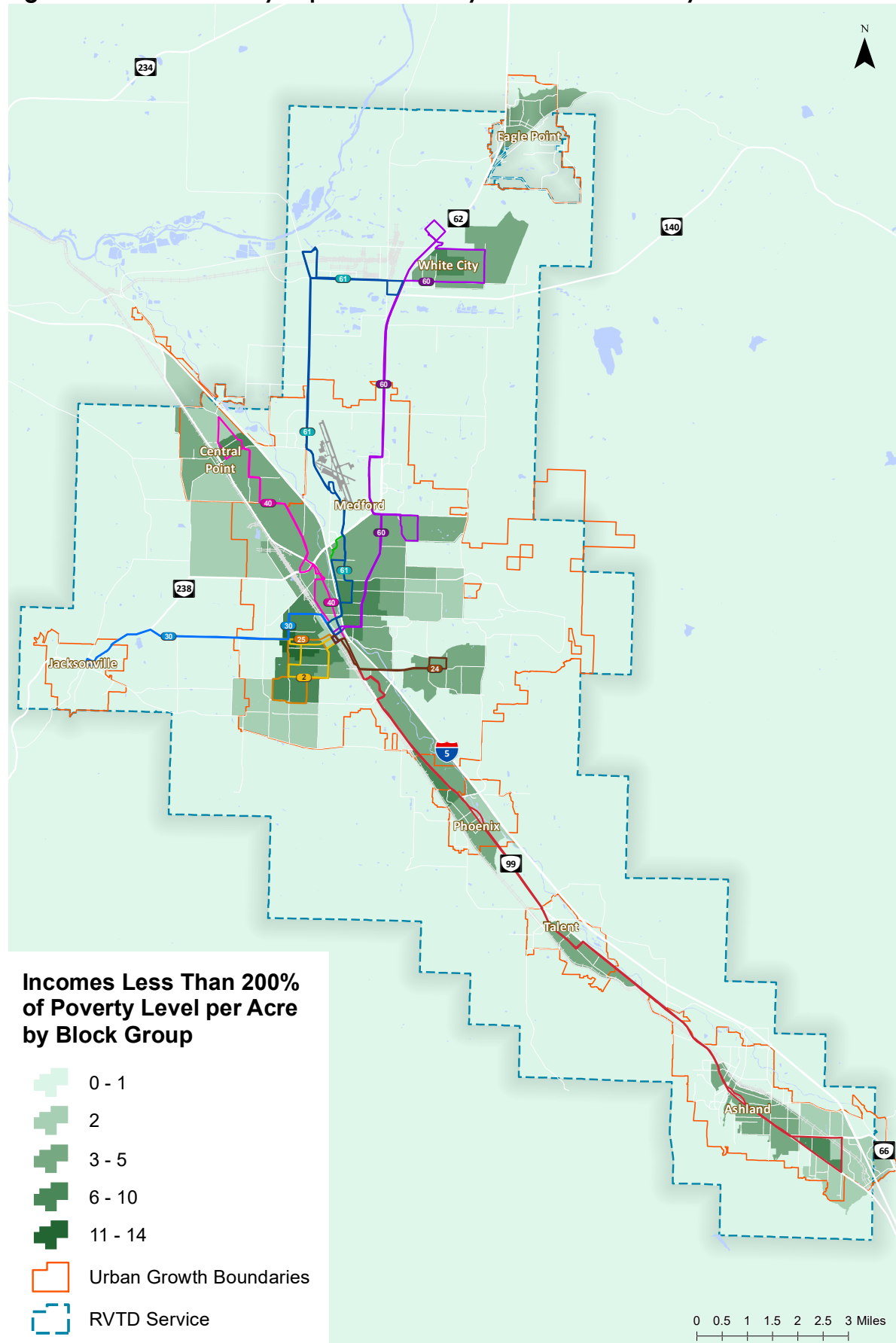


Figure 9: Jackson County Population Density Below 200% Poverty Threshold



III. GROWTH PROJECTIONS

Growth projection data was provided by the State of Oregon's Department of Administrative Services, Office of Economic Analysis and the Oregon Employment Department Workforce and Economic Research Division. Figure 10 indicates the forecasted residential growth (number of households) between 2017 and 2042. The greatest amount of growth is forecasted to occur along the east and north sides of Medford, in and around Eagle Point, north of Phoenix, and the west and northeast sides of Central Point. One TAZ in Ashland is also forecasted to grow by more than 500 households.

Figure 11 shows the forecasted growth in employment by TAZ between 2017 and 2042. The greatest amount of growth is forecasted to occur in north and southeast Medford, east and west of White City, areas adjacent to Eagle Point, between Central Point and Tolo, and at the university and Croman Mill Site in Ashland.

Figure 12 shows the TAZs that are forecasted to have transit-supportive household or employee densities by 2042, along with a ¼-mile walk buffer from existing bus stops. Comparing Figure 12 to Figure 7, it can be seen that new transit-supportive areas will develop in and around Eagle Point; on the east, southwest, and north sides of Medford; on the north side of Central Point; in Jacksonville; in Phoenix east of I-5; and in several locations in Ashland, including the Croman Mill Site.

Figure 10 Household Growth 2017 – 2042

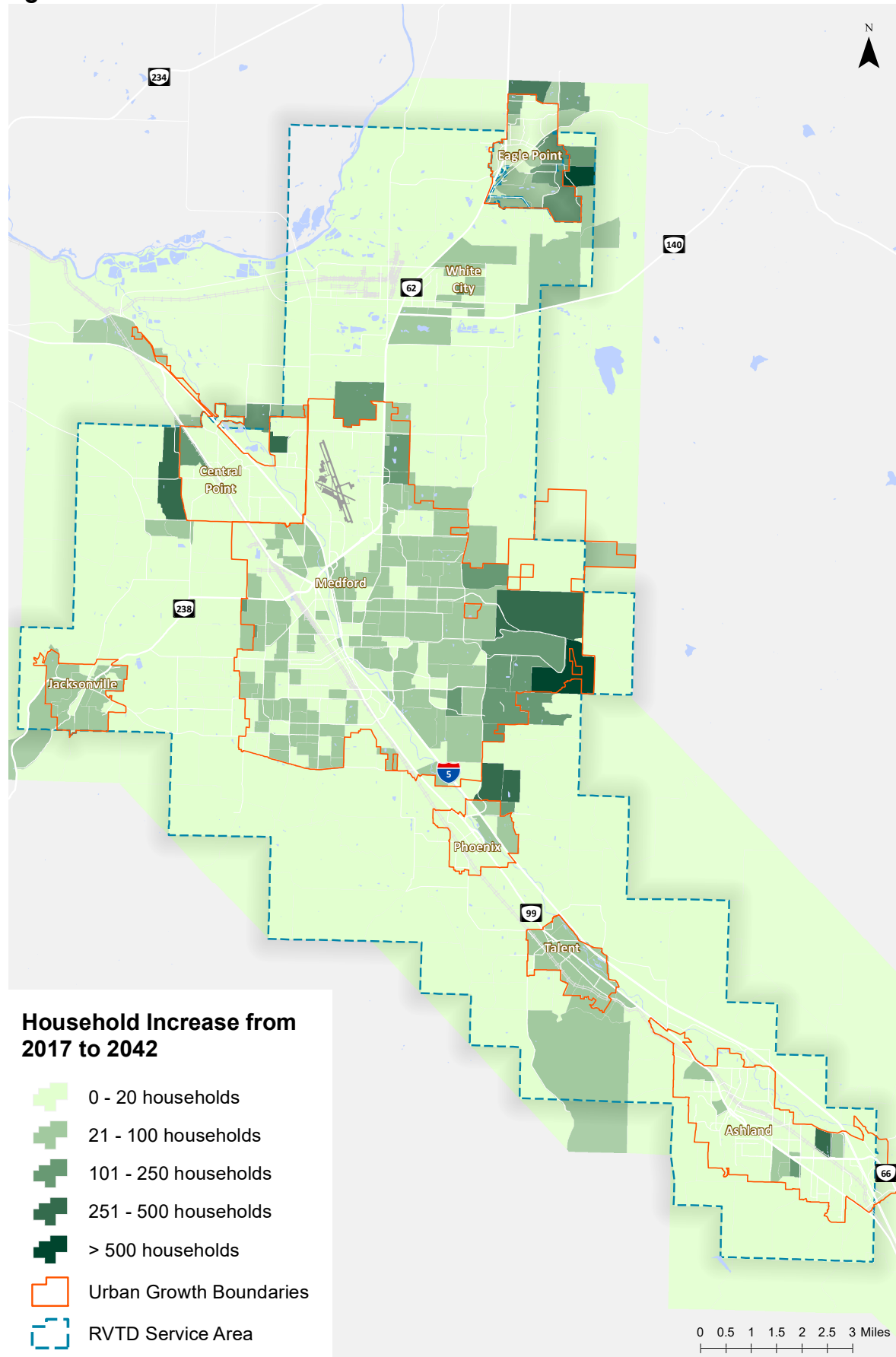


Figure 11 Employee Growth 2017 – 2042

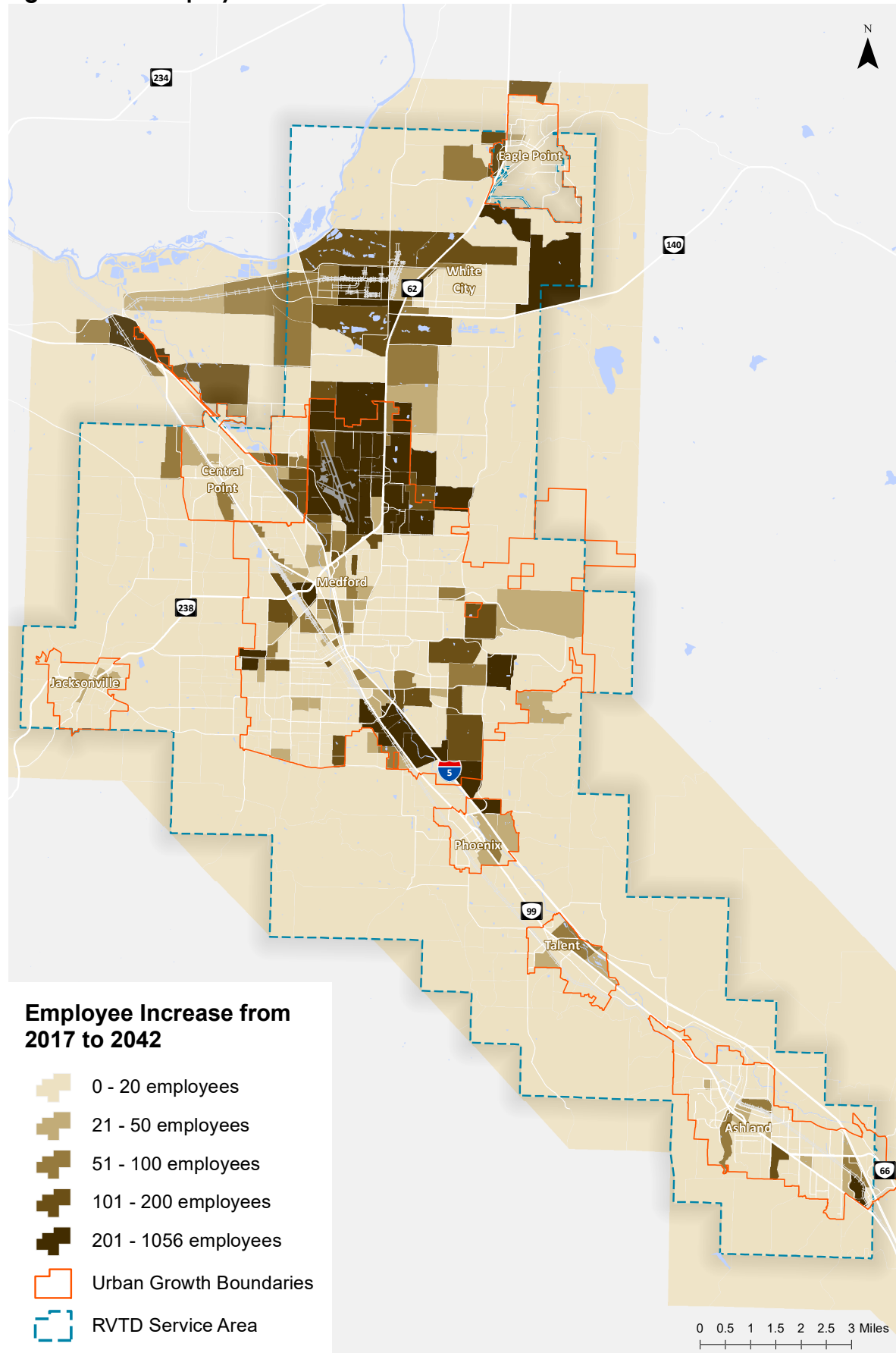
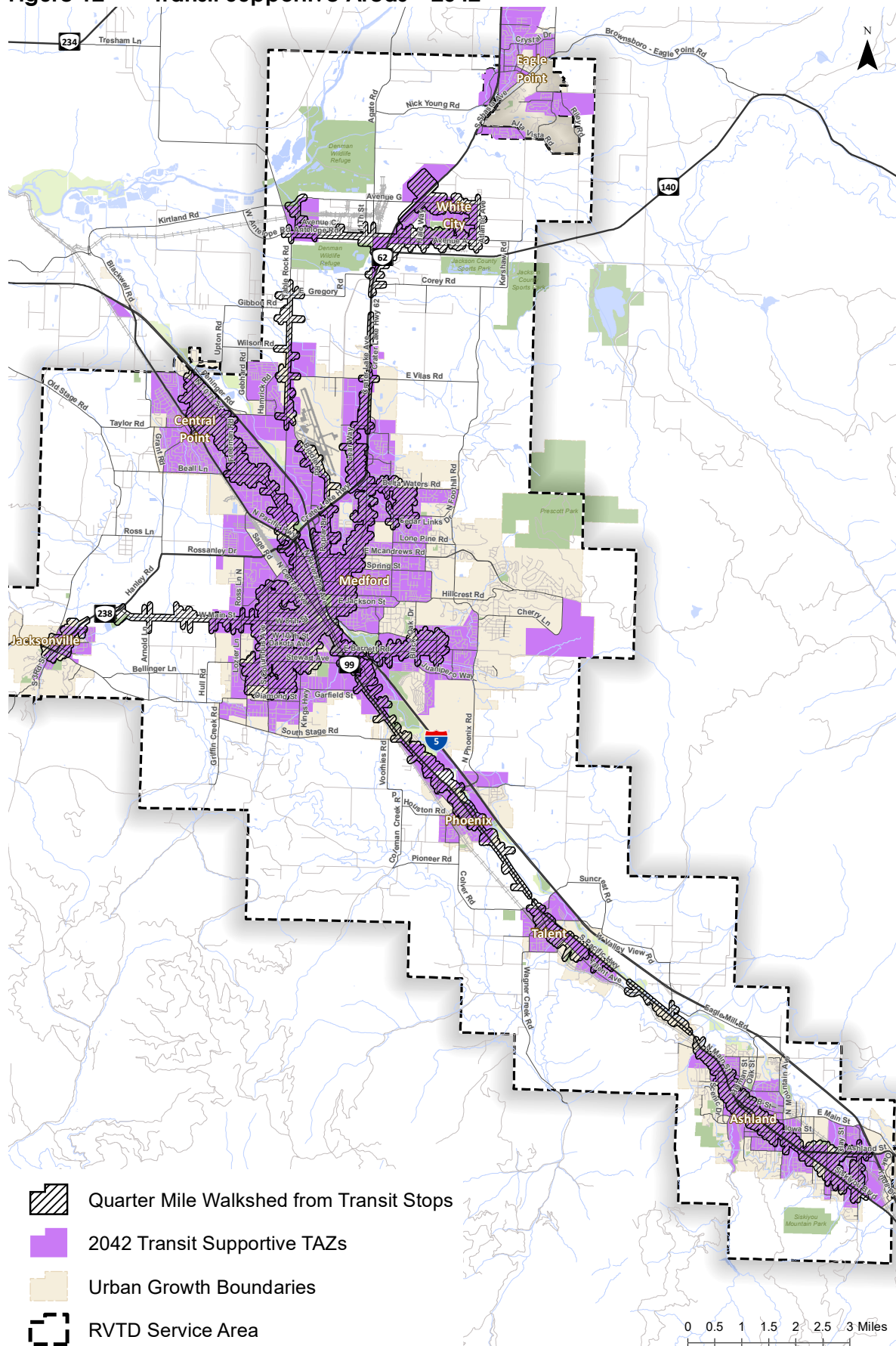


Figure 12 Transit Supportive Areas – 2042



TRANSIT-SUPPORTIVE AREAS OVERVIEW

Based on the demographic, land use, density, and growth projection information, the following describes the existing and future transit supportive areas by city or urban area. Figures 13 and 14 combine the transit supportive TAZs identified under 2017 and 2042 conditions, respectively, with the essential destinations and housing locations specified in Figures 4 and 5 for a more holistic view of each city and urban area. *Additional information for each area is included in Attachment A.*

As noted previously, not every location identified as transit-supportive may be a good candidate for fixed-route service for a number of reasons, including:

- ▶ Cost
- ▶ Poor infrastructure
- ▶ Difficult access

Additionally, given finite budget resources to provide transit service, this project will need to develop priorities for how service may be improved within transit-supportive areas (e.g., expanding service into new areas versus using the same budget to provide more frequent service or longer service hours in areas already provided with service).

MEDFORD

- ▶ Existing unserved TSAs located throughout Medford
 - In north Medford, existing unserved TSAs are focused west of the airport, along I-5, and east of Springbrook Road
 - In south Medford, existing unserved TSAs are primarily located adjacent to Garfield Street and between McAndrews Road and Siskiyou Boulevard
 - In east Medford, existing unserved TSAs are located just east of existing service along Routes 24 and 60.
- ▶ The largest unserved future TSAs are in east (residential growth) and north Medford (employment growth)

ASHLAND

- ▶ East and northwest portions of city are existing unserved TSAs (such as E. Main and Mountain Avenue)
- ▶ Future TSAs are expansions of already existing TSAs with (including Normal Avenue and Croman Mill)

CENTRAL POINT

- ▶ Southwest portion of city as well as along Front Street are existing unserved TSAs
- ▶ Future TSAs in northwest and northeast corners of the city

JACKSONVILLE

- ▶ Northeast corner of city is an existing unserved TSA, but streets not designed for larger buses and no straight street connections
- ▶ New unserved TSA located on east side and south side of city in 2042
- ▶ Older adult/disabled population concentrations on northeast side of city

PHOENIX

- ▶ Southwest corner of city is an existing unserved TSA, but poor street connectivity makes providing service difficult
- ▶ Mobile home parks are generally long and narrow with only one entrance; many front busy streets (pedestrian access issues)
- ▶ New unserved TSAs in 2042 on both sides of I-5
- ▶ High concentrations of older adults, youth, low-income, and disabled persons

TALENT

- ▶ Mobile home parks (TSAs) on east side of Oregon 99 not well-served and not easily accessed
- ▶ Neighborhoods on west side of city are also unserved TSAs, but have poor street connectivity
- ▶ No change in TSAs in 2042
- ▶ High concentrations of older adults, youth, low-income, and disabled persons

WHITE CITY

- ▶ Existing unserved TSAs are mostly within a 5-minute walk of service, all are within a 10-minute walk.
- ▶ The one new future unserved TSA is adjacent to existing service at SORCC.
- ▶ Highest concentrations of older adults, youth, low-income, and disabled persons in the region

EAGLE POINT

- ▶ Much of the northern portion of the city is currently an unserved TSA
- ▶ Even more of the city will be an unserved TSA by 2042
- ▶ Northern portion of the city has high concentrations of older adults, youth, low-income, and disabled persons

Figure 13 Destinations, Housing, and Transit Supportive Areas – 2017

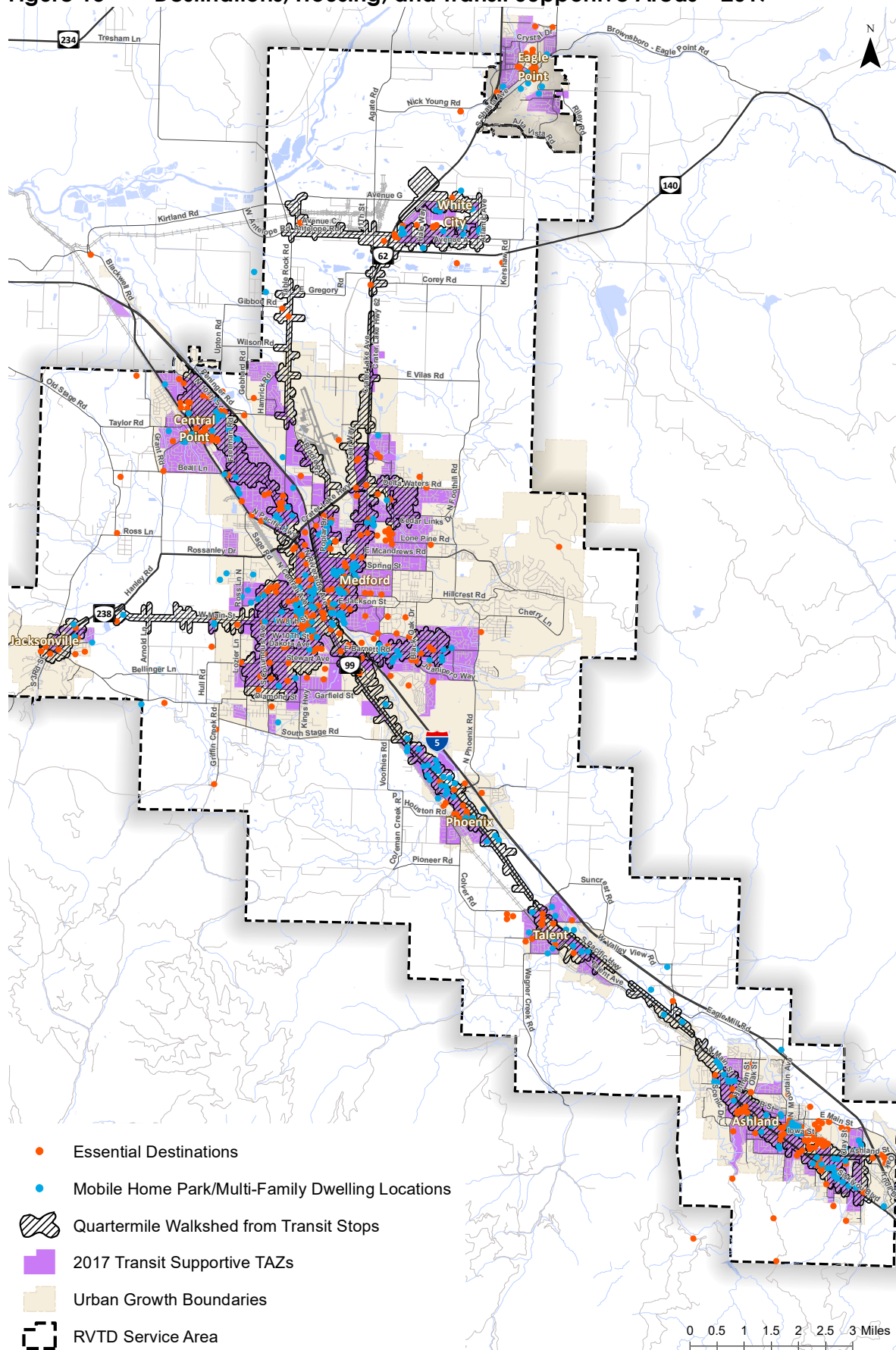
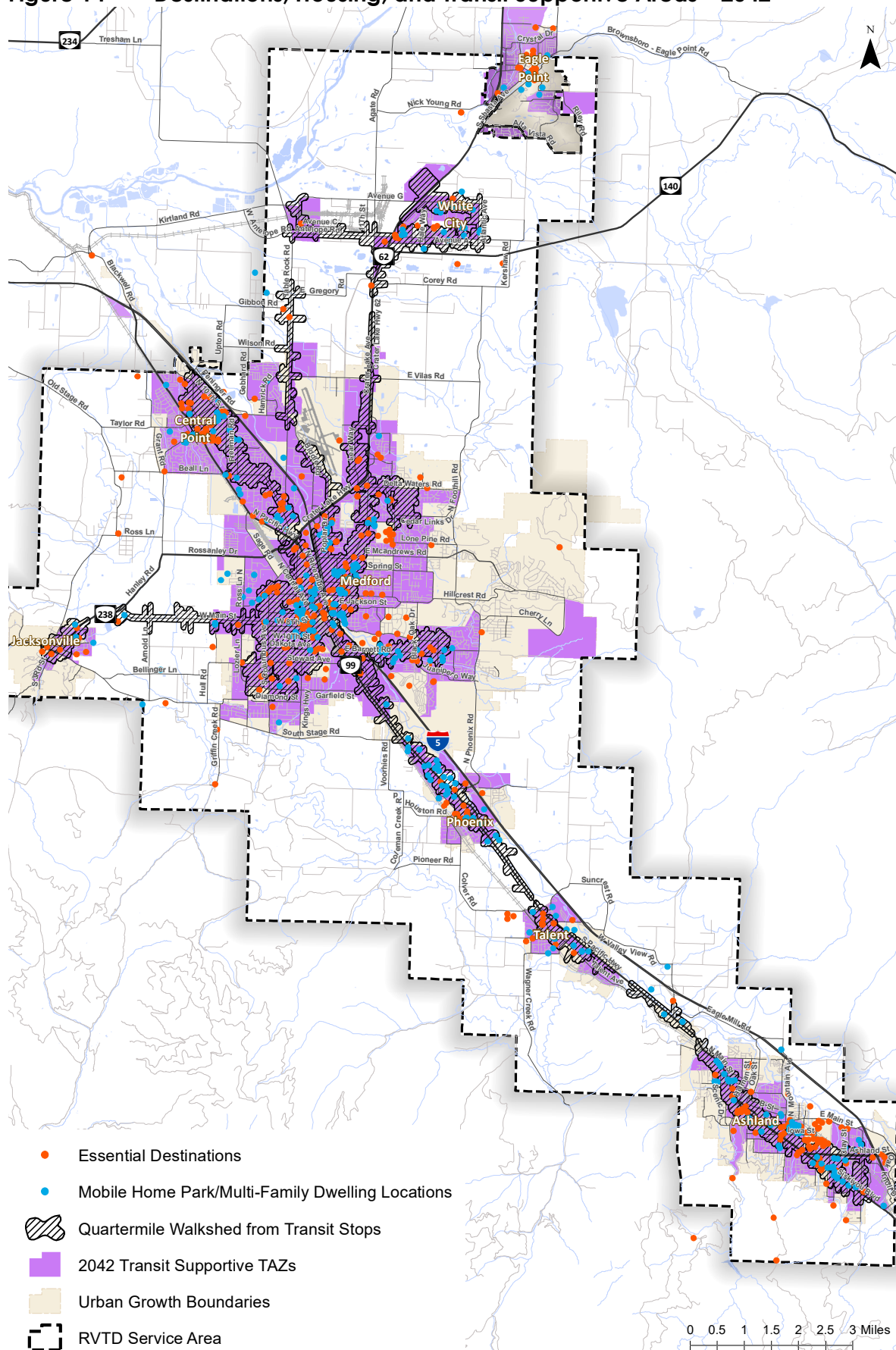


Figure 14 Destinations, Housing, and Transit Supportive Areas – 2042



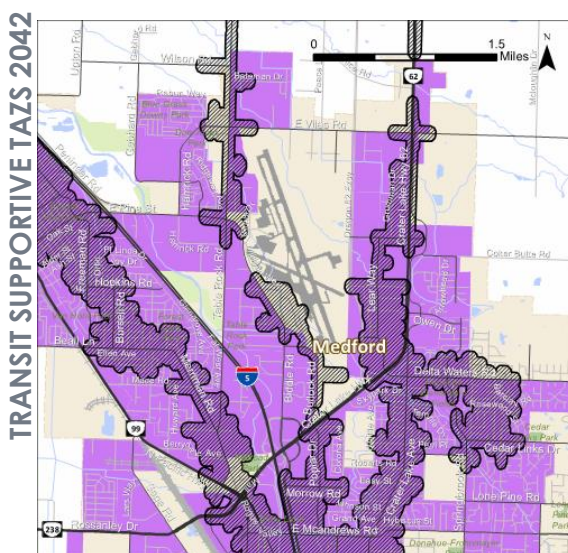
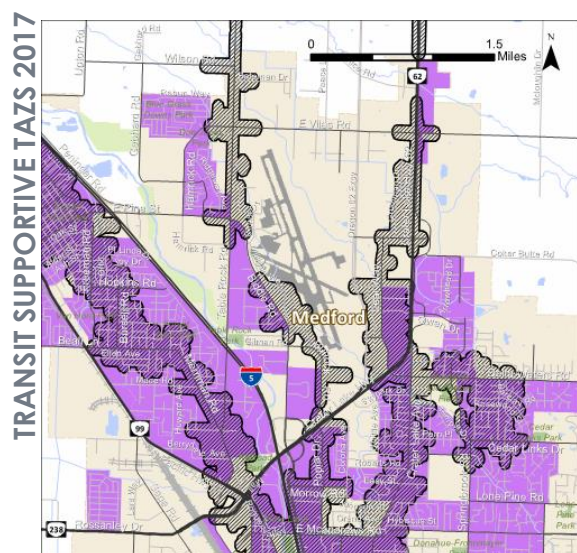
NEXT STEPS

The transit supportive areas will be reviewed with the Technical Advisory Committee and the Community Advisory Committee at meetings scheduled to be held in October 2018. This information will support the subsequent Design Charrettes and Service Concepts Meeting that will be used to identify future transit scenarios and alternatives for modeling and other evaluations that will be documented in Technical Memorandum #9.

ATTACHMENT A: TRANSIT-SUPPORTIVE AREAS

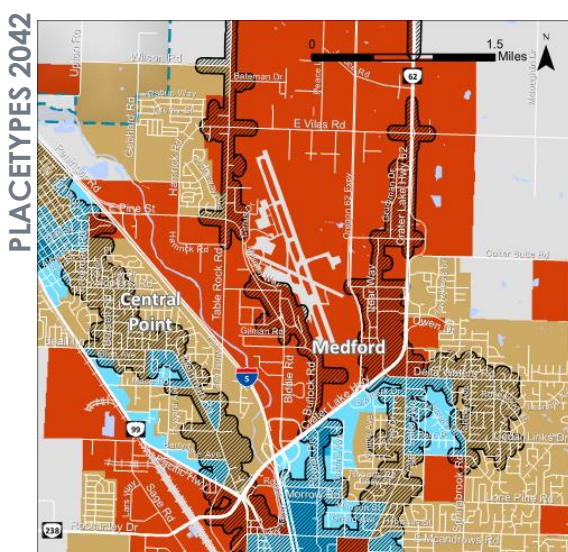
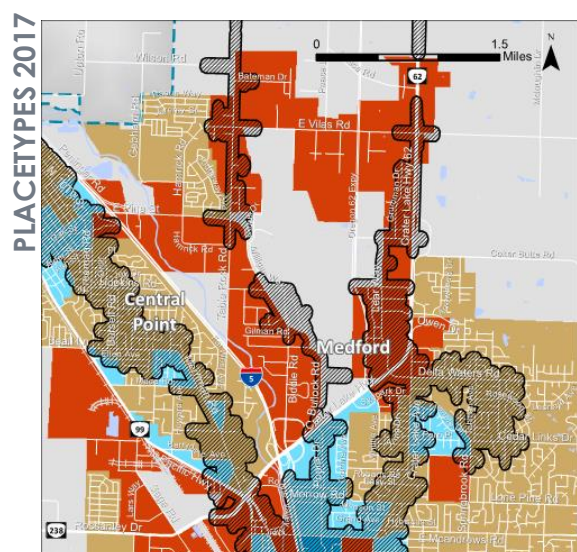
CITY OF MEDFORD – NORTH REGION

The City of Medford is expected to see an increase in both households and population into the future, creating more areas and destinations that are transit-supportive. The city is envisioned to continue to play a key role in the RVTD network.

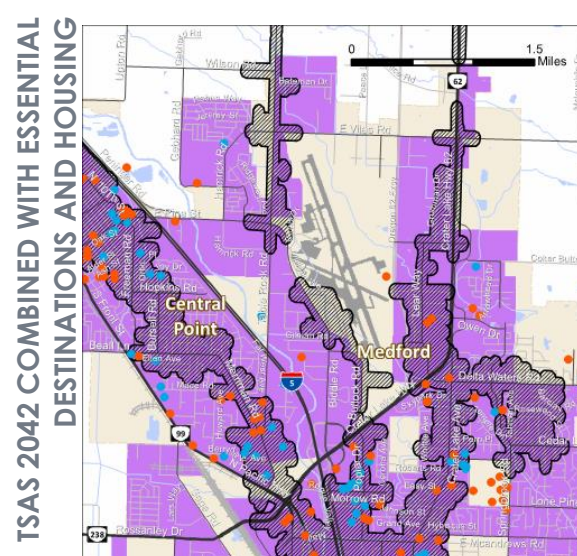
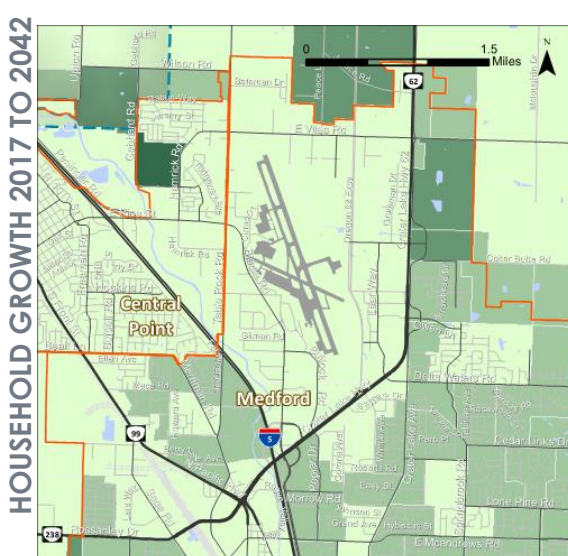
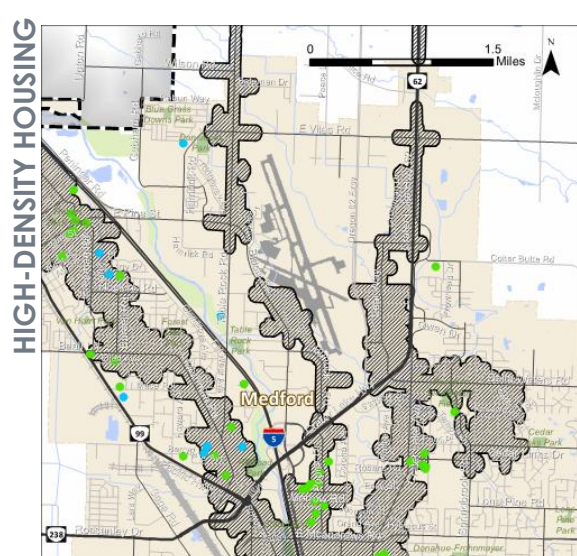


- Growth areas include the following:
- ▶ North, south, and east of the airport
 - ▶ North Medford, along I-5
 - ▶ North of Rossanley Drive
 - ▶ East of Springbrook Road

As shown above, there are existing unserved TSAs throughout north Medford, continuing to expand in 2042. The largest unserved TSAs are located along I-5, Rossanley Drive, and Springbrook Road.



The PlaceTypes model shows an increase in employment land uses in north Medford into future year 2042. Increased mixed-use development is also forecast in central Medford. Although the majority of Medford's essential destinations are covered by the existing service area, the north area of the city includes several unserved essential destinations, including a Transit-Oriented Development (TOD) north of Delta Waters Road and east of OR 62.

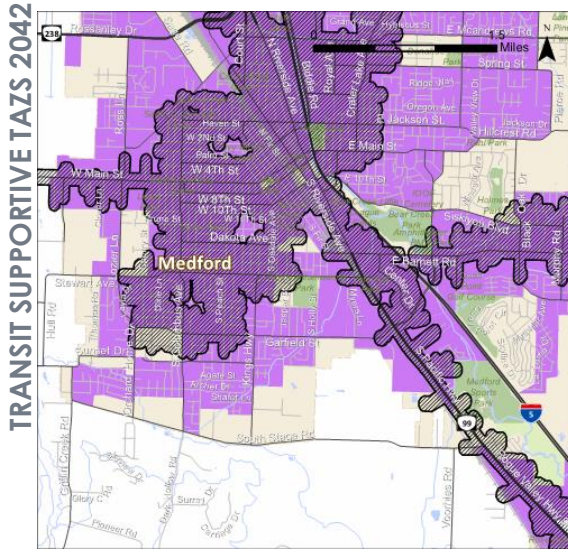
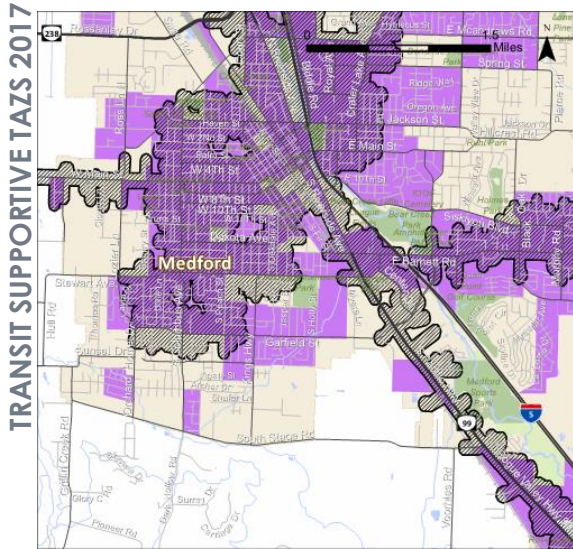


The existing ¼-mile service area supports the majority of Medford's high-density and mixed-use/multi-family housing. Increased service could target destinations along OR 99 and Lone Pine Road for further coverage.

Medford is envisioned to continue to be a main transit hub for the RVTD system, including increased capacity at the Front Street Station. In addition, Transit-Oriented Developments (TODs) have been established and planned within the city, encouraging new or improved service in areas throughout Medford.

CITY OF MEDFORD – SOUTH REGION

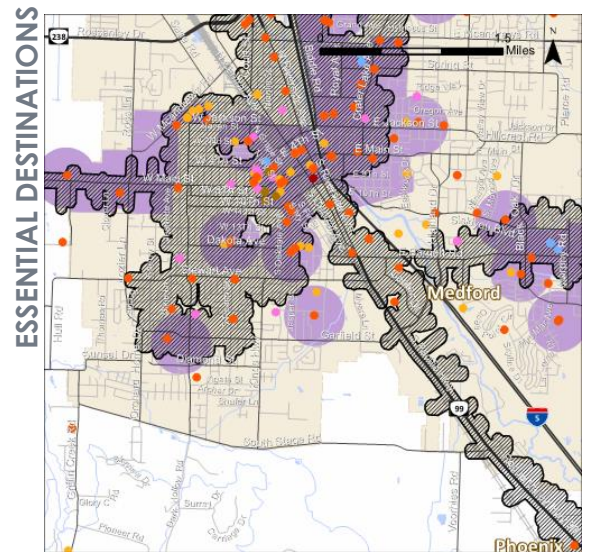
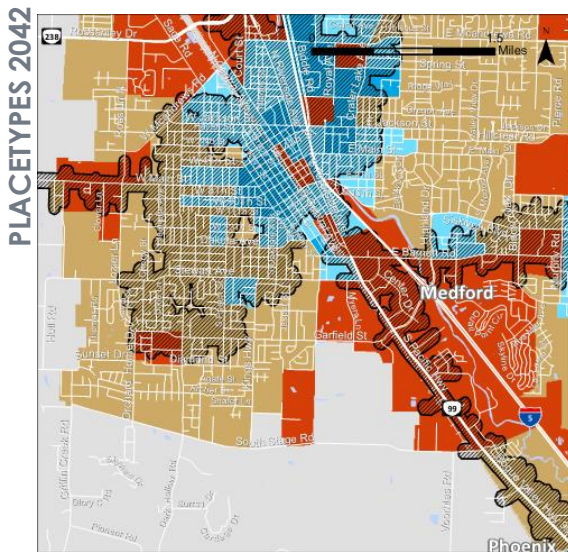
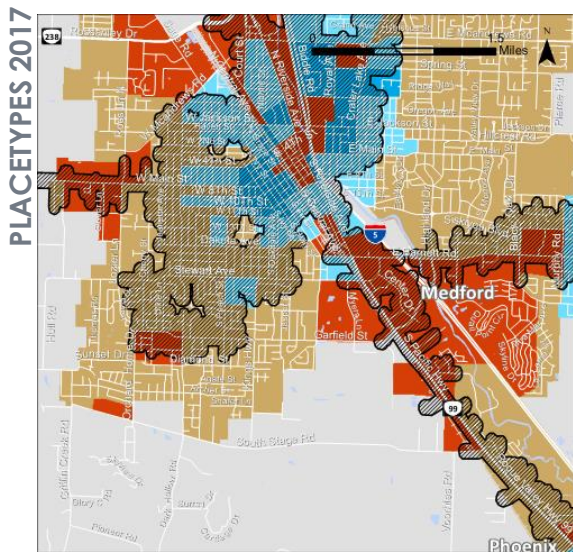
The City of Medford is expected to see an increase in both households and population into the future, creating more areas and destinations that are transit-supportive. The city is envisioned to continue to play a key role in the RVTD network.



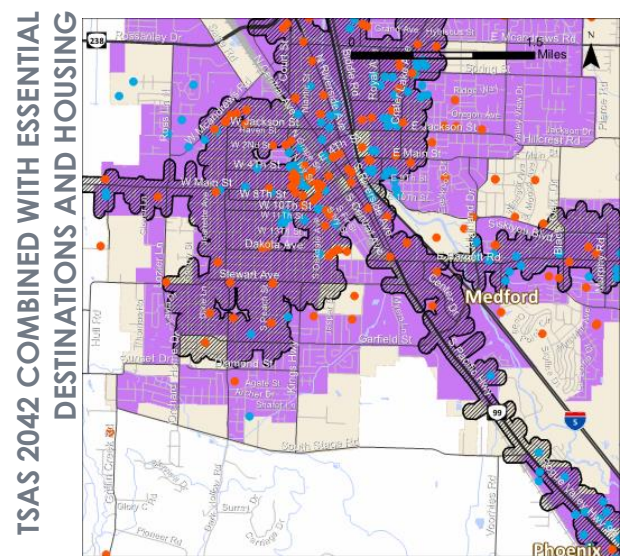
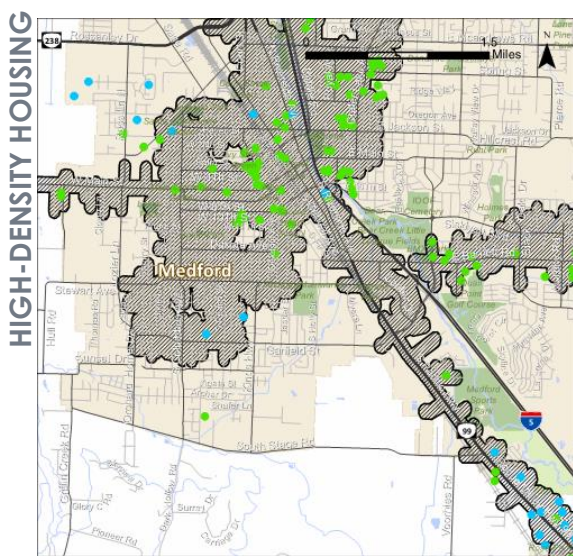
Growth areas include the following:

- ▶ Between Stewart Avenue and South Stage Road
- ▶ Between McAndrews Road and Siskiyou Boulevard

As shown above, there are existing unserved TSAs throughout south Medford, continuing to in 2042. The largest unserved TSAs are located between Stewart Avenue and South Stage Road and between McAndrews Road and Siskiyou Boulevard.



The PlaceTypes model shows an increase in employment land uses in south Medford into future year 2042. Although the majority of Medford's essential destinations are covered by the existing service area, the south area of the city includes several unserved essential destinations, including a TOD east of OR 99 between Stewart Avenue and Garfield Street.

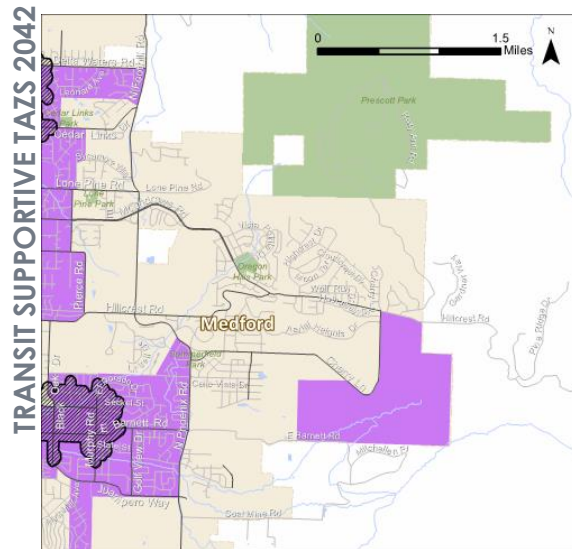
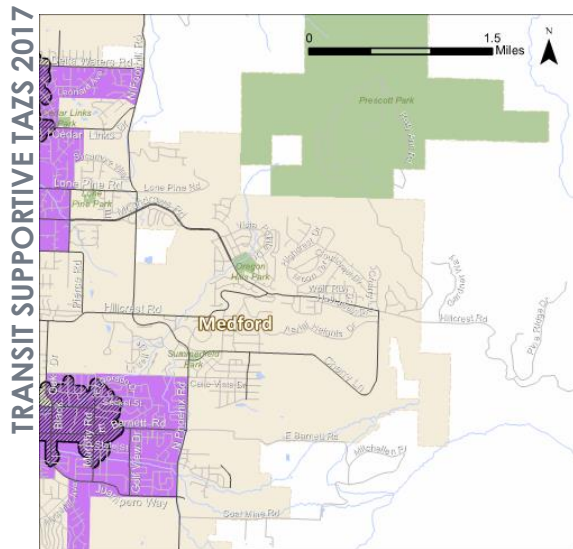


The existing ¼-mile service area supports the majority of Medford's high-density and mixed-use/multi-family housing. Increased service could target destinations along Ross Lane and Siskiyou Boulevard for further coverage.

Medford is envisioned to continue to be a main transit hub for the RVTD system, including increased capacity at the Front Street Station. In addition, Transit-Oriented Developments (TODs) have been established and planned within the city, encouraging new or improved service in areas throughout Medford.

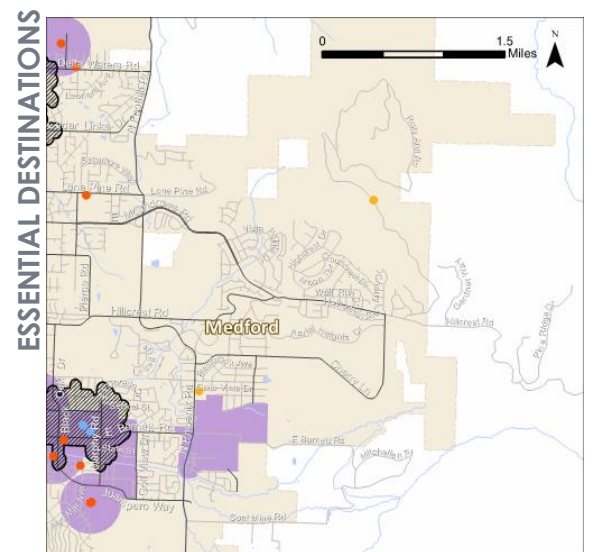
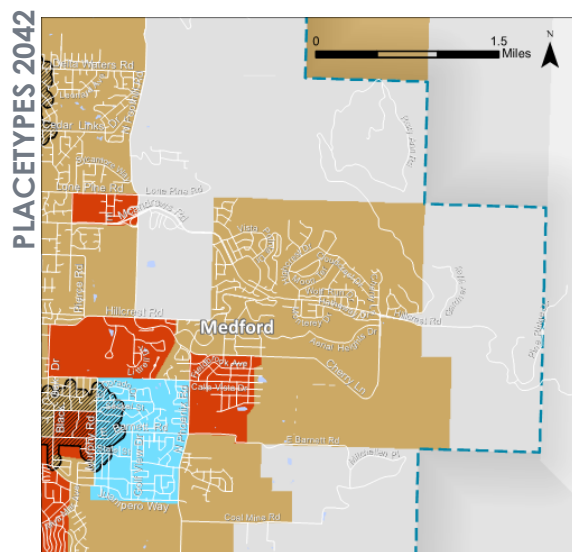
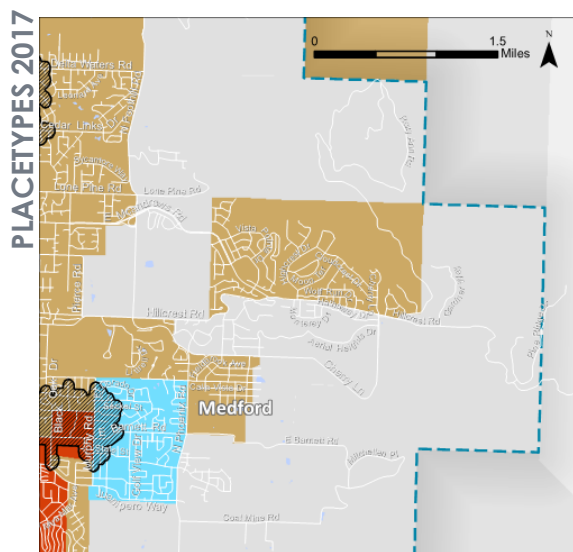
CITY OF MEDFORD –EAST REGION

The City of Medford is expected to see an increase in both households and population into the future, creating more areas and destinations that are transit-supportive. The city is envisioned to continue to play a key role in the RVTD network.

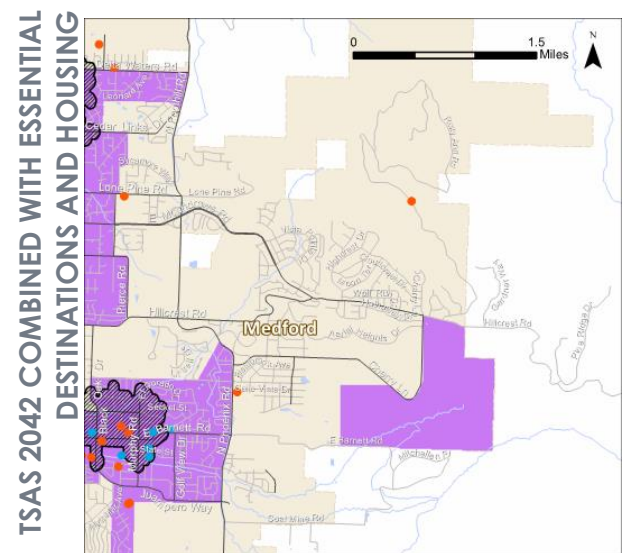
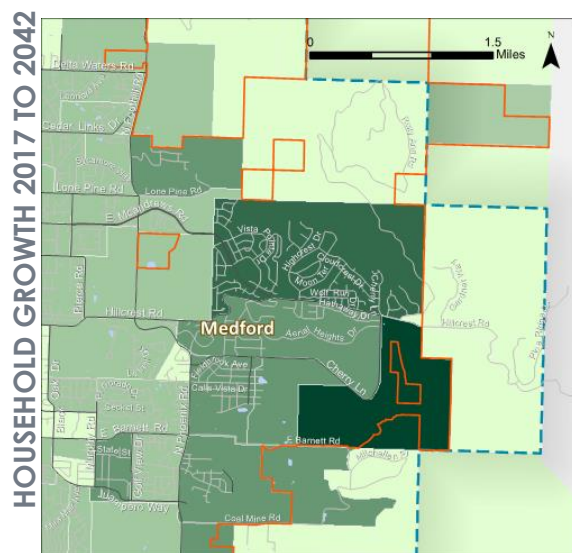
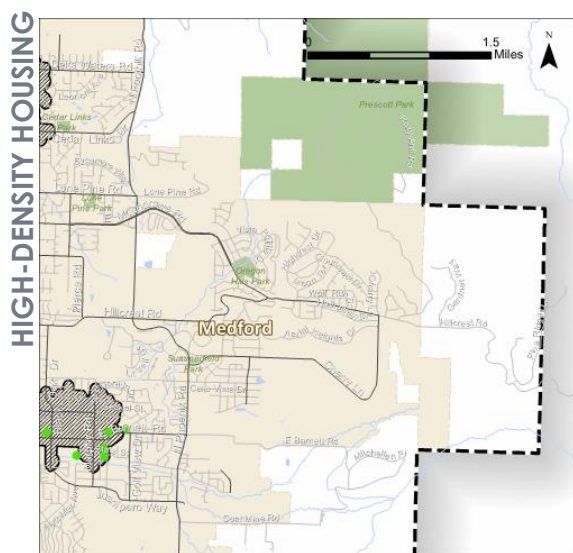


- Growth areas include the following:
- ▶ East Medford, north of Jackson Street
 - ▶ Adjacent to Cherry Lane
 - ▶ Adjacent to Barnett Road

As shown above, there are existing unserved TSAs just east of the current transit walkshed and expanding further east in 2042. The largest unserved TSAs are located north of Jackson Street and adjacent to Cherry Lane and Barnett Road.



The PlaceTypes model shows an increase in employment land uses in east Medford into future year 2042. The majority of Medford's essential destinations are covered by the existing service area in east Medford, with the main exception of the TOD to the east of Phoenix Road and south of Cherry Lane.

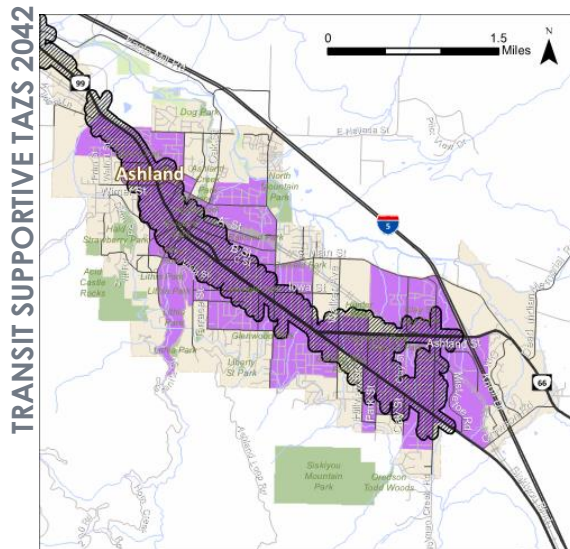
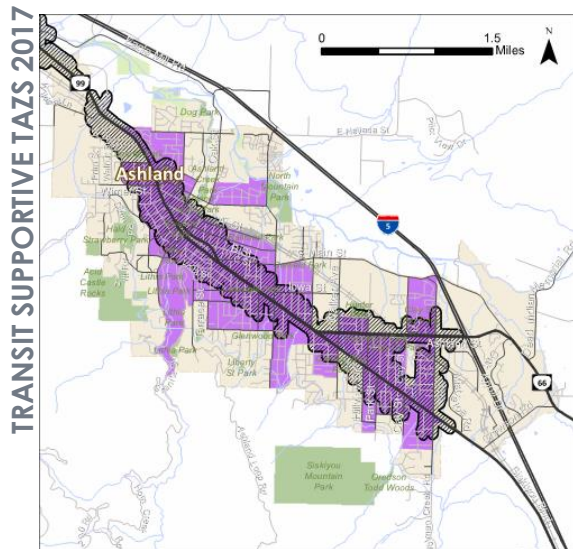


The existing ¼-mile service area supports the majority of Medford's high-density and mixed-use/multi-family housing. Increased service could target the unserved TSAs mentioned above for further coverage.

Medford is envisioned to continue to be a main transit hub for the RVTD system, including increased capacity at the Front Street Station. In addition, Transit-Oriented Developments (TODs) have been established and planned within the city, encouraging new or improved service in areas throughout Medford.

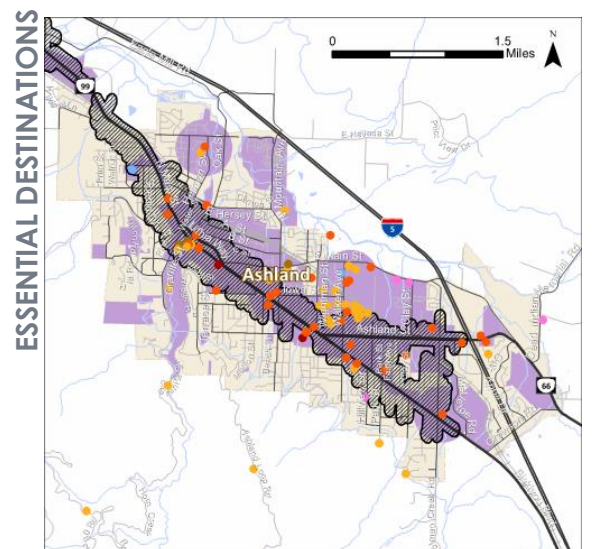
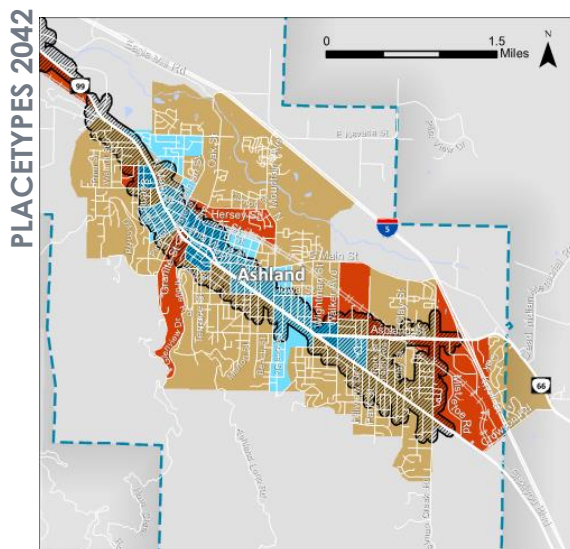
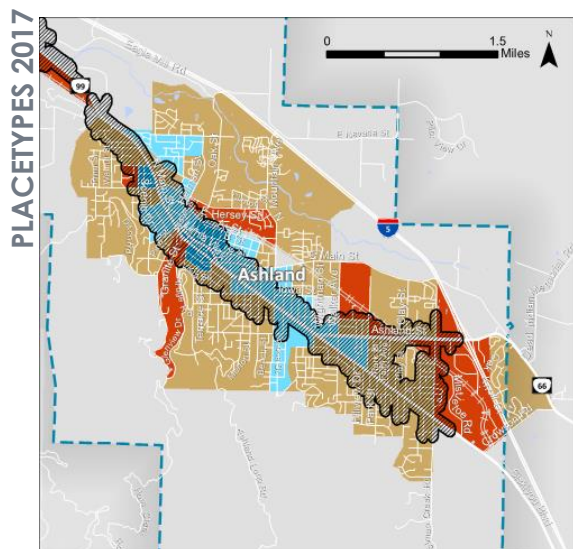
CITY OF ASHLAND

The City of Ashland has both existing and future unserved transit-supportive areas that are located in all directions surrounding OR 99. Unserved essential destinations and high-density housing are primarily located in eastern Ashland.

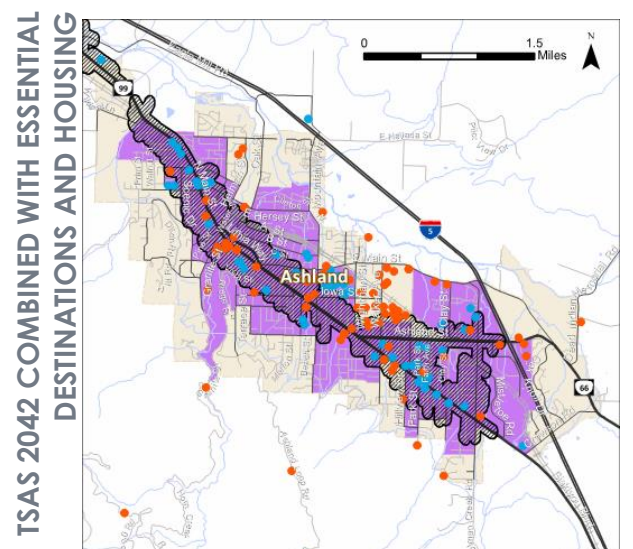
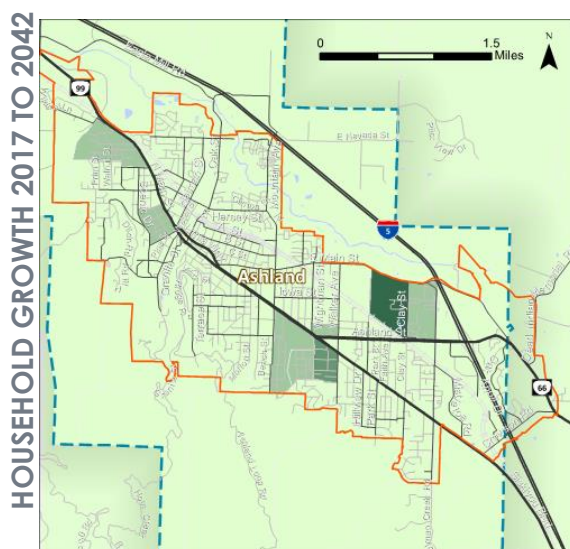
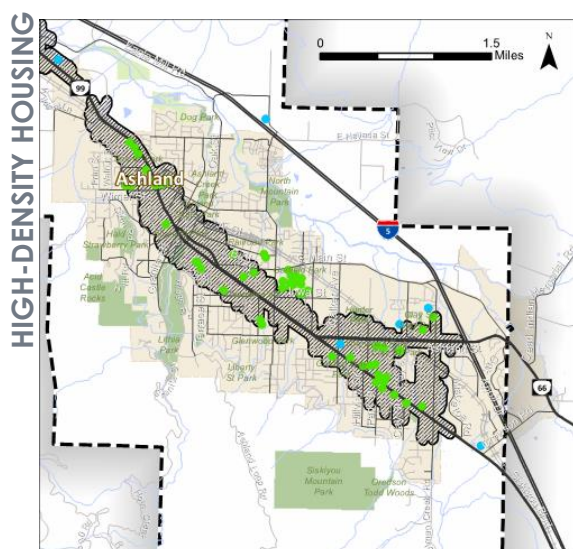


- Growth areas include the following:
- ▶ West of I-5, south of Main Street (Normal Avenue Area)
 - ▶ South of Siskiyou Boulevard (Croman Mill Area)

As shown above, existing unserved TSAs are located in east and west Ashland, expanding further in east Ashland in 2042.



The PlaceTypes model shows that land use, density, and street network in Ashland is projected to remain fairly consistent between 2017 and 2042. Additional employment and mixed-use land uses are shown at N. Main/Ashland Street.

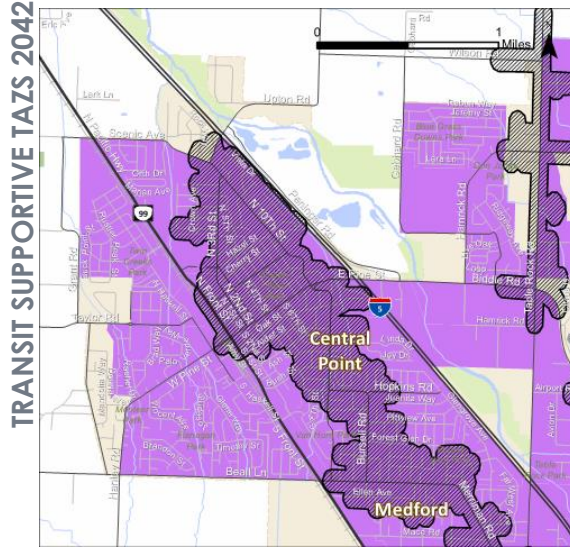
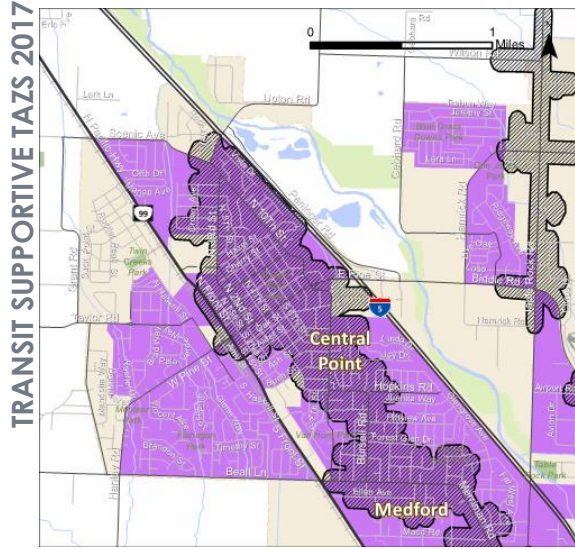


Most multi-family dwellings in Ashland are within the ¼-mile walk of transit.

The growth areas directly correlate to the community transit vision discussed in Tech Memo 8. There is interest more service to the Railroad District east of downtown Ashland via a transfer center and/or park-and-ride location. As more development and growth occur in the future, there is potential for an additional city circulator route to connect the growth areas, downtown, and potential transit transfer areas and park-and-rides in the Railroad District and/or Croman Mill.

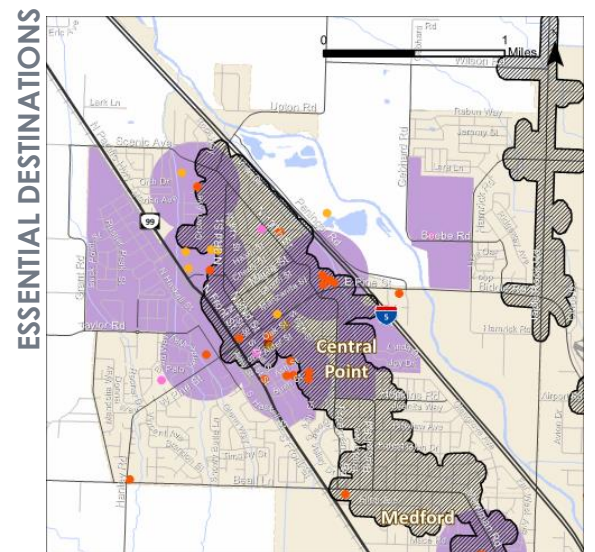
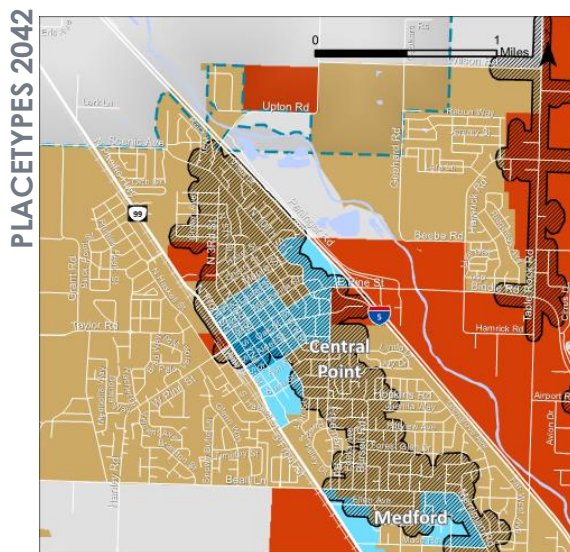
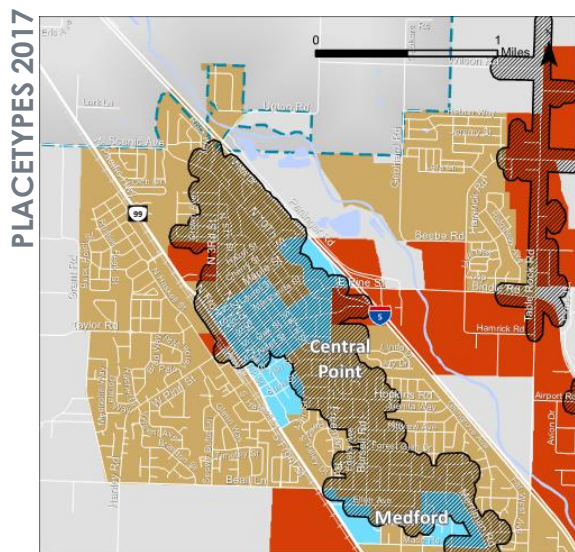
CITY OF CENTRAL POINT

The City of Central Point has both existing and future unserved transit-supportive areas that create potential for new local service in the area. Although many high-density housing locations and essential destinations in the city are covered by existing service, service may still be needed for essential destinations in northeast Central Point and along Front Street. The Community Vision for Central Point aligns well with the findings described below.

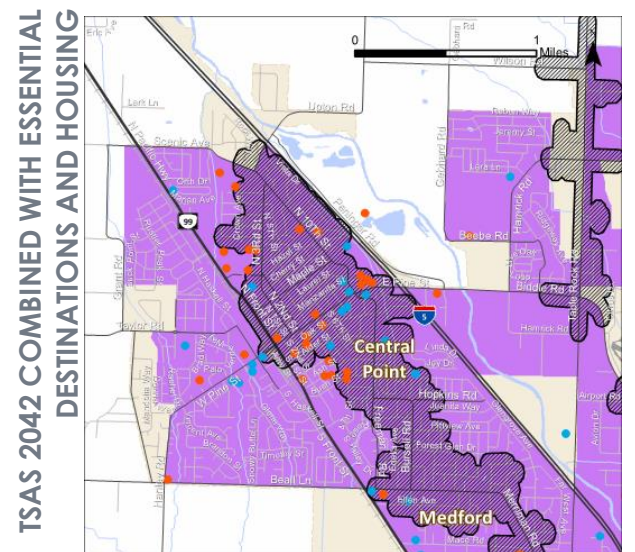
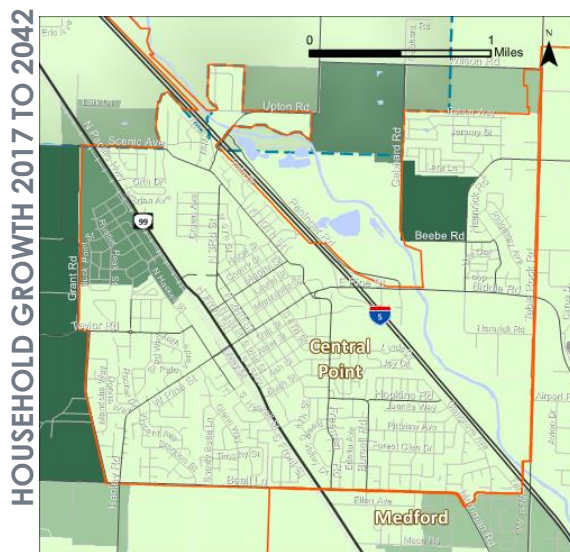
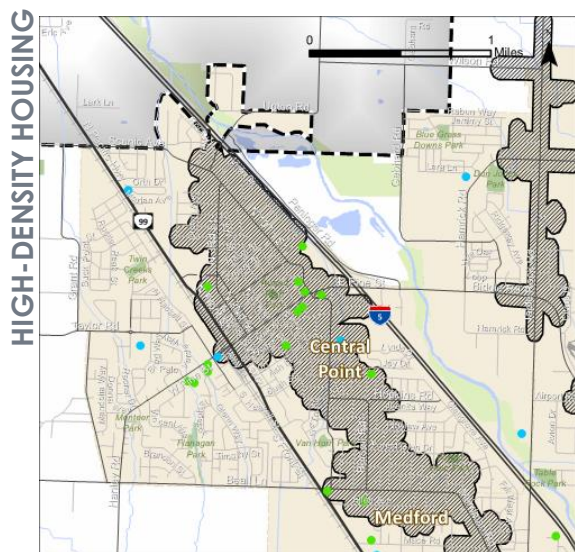


- Growth areas include the following:
- ▶ East of Gebhard Road, north of Beebe Road
 - ▶ East of Bear Creek, south of Biddle Road
 - ▶ West of Front Street, north of Taylor Road

As shown above, southwest Central Point is an existing unserved TSA. Anticipated growth within the city reclassifies several areas as transit-supportive in 2042 as compared to 2017, primarily located in the northwest (Twin Creeks TOD) and northeast corners of the city (White Hawk development).



The PlaceTypes model shows an increase in both residential and employment land uses into future year 2042. Increased density of residential land uses is planned to occur in the central and western parts of the city, while increased employment is forecast for southeast Central Point.



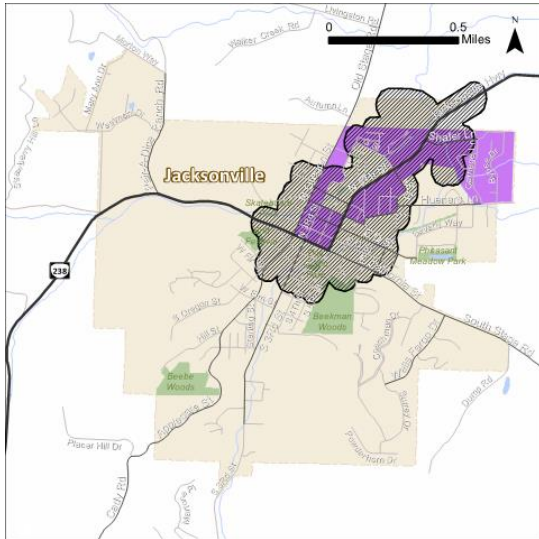
The existing ¼-mile service area supports the majority of Central Point's essential destinations and high-density housing with the exception of along Front Street. Increased service could target destinations in west Central Point for further coverage.

The transit-supportive areas discussed above correlate directly to the Central Point community vision discussed in Tech Memo 8. The City is developing Twin Creeks TOD in the northwest area of the city where there are unserved existing and future transit-supportive areas and unserved essential destinations. Beall Lane and its surroundings were highlighted as areas of transit interest. Potential new or improved service includes a city circulator, service to White City via RCC, and creating a transfer center.

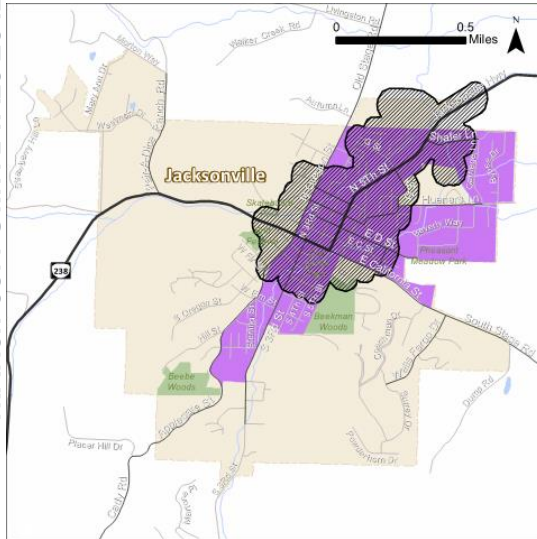
CITY OF JACKSONVILLE

The City of Jacksonville is expected to see a slight increase in both households and population into the future, creating more areas and destinations that are transit-supportive. The majority of TSAs, essential destinations, and housing in the city are served by the existing service area.

TRANSIT SUPPORTIVE TAZS 2017



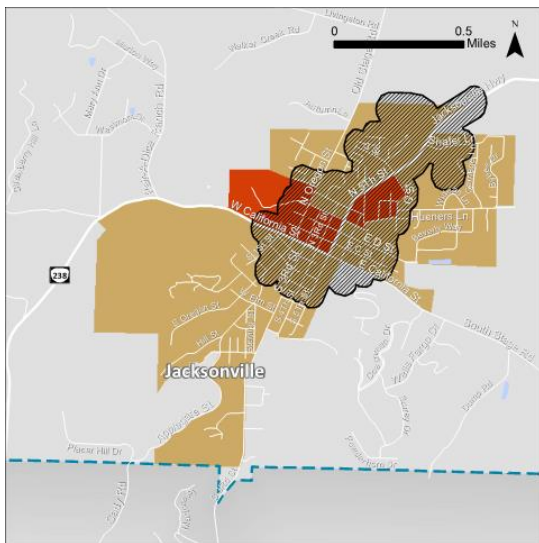
TRANSIT SUPPORTIVE TAZS 2042



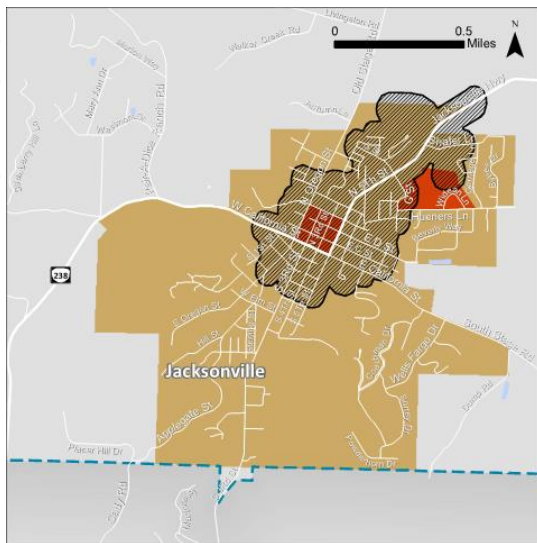
- Growth areas include the following:
- ▶ East of OR 238, north of S Stage Road
 - ▶ East of Applegate Street, south of S Stage Road

As shown above, an unserved TSA is located in northeast Jacksonville. This TSA expands south in 2042 due to anticipated growth, along with an additional unserved TSA developing east of Applegate Street further south.

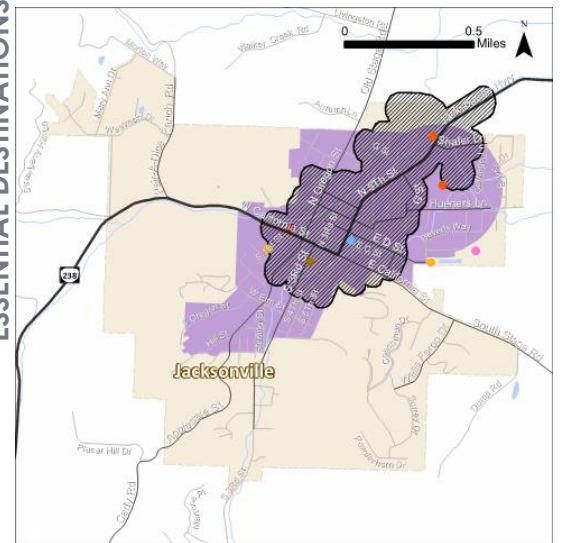
PLACETYPES 2017



PLACETYPES 2042

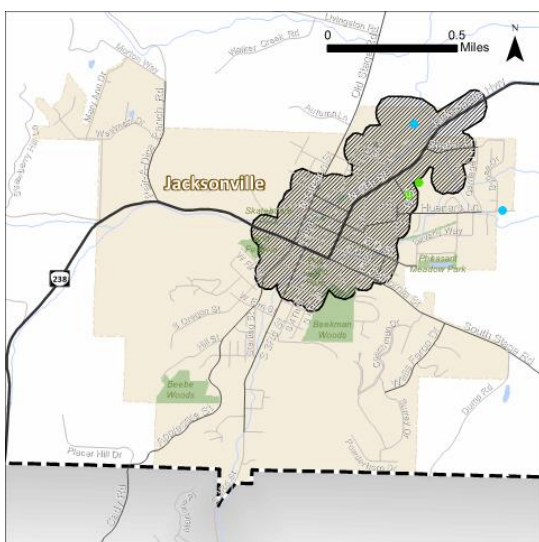


ESSENTIAL DESTINATIONS

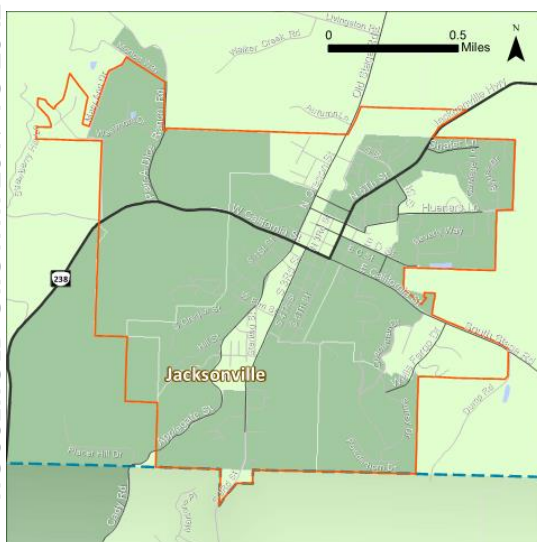


The PlaceTypes model shows an increase in residential land uses and a decrease in employment land uses between 2017 and 2042. Although there is only a small portion of employment land uses, it is not well served currently. Although the majority of Jacksonville's essential destinations are covered by the existing service area, the northeast and central areas of the city include several unserved essential destinations.

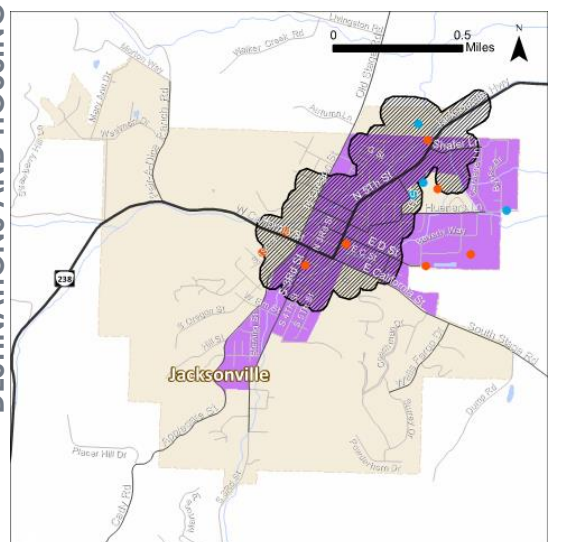
HIGH-DENSITY HOUSING



HOUSEHOLD GROWTH 2017 TO 2042



TSAS 2042 COMBINED WITH ESSENTIAL DESTINATIONS AND HOUSING



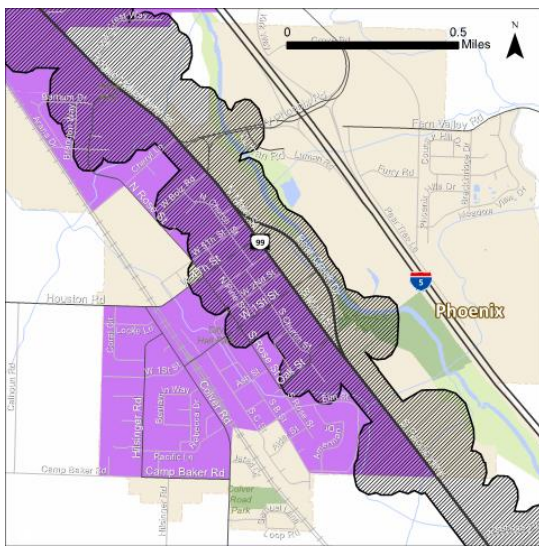
The existing ¼-mile service area supports the majority of Jacksonville's high-density, mixed-use, and multi-family housing.

Although there are unserved TSAs and essential locations in northeast Jacksonville, the streets are not designed for larger buses and there are minimal straight street connections. As more development and growth occur in the future, there is potential to run a smaller bus in this area that can circulate through neighborhoods, serving both an unserved TSA and an anticipated increased older adult/disabled population. Despite having transit supportive density, the total population and jobs in Jacksonville is low and located well away from other higher-density areas which limits the ridership potential of service in Jacksonville. As such, hybrid models of fixed-route and on-demand service should be explored.

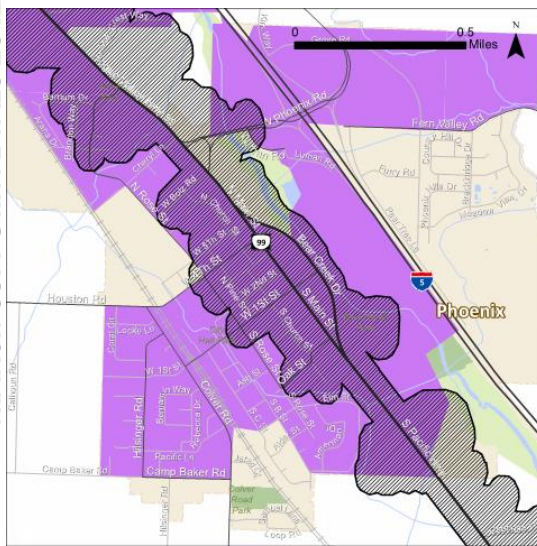
CITY OF PHOENIX

A combination of existing and future unserved transit-supportive areas is anticipated for the City of Phoenix. The existing service area provides reasonable coverage to essential destinations, high-density housing, and mixed-use/multi-family housing.

TRANSIT SUPPORTIVE TAZS 2017



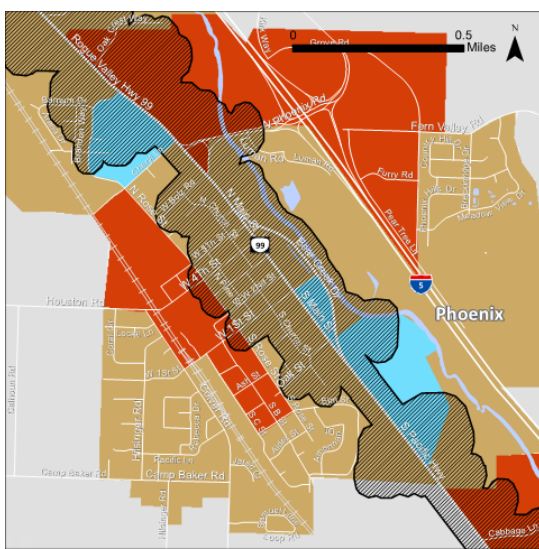
TRANSIT SUPPORTIVE TAZS 2042



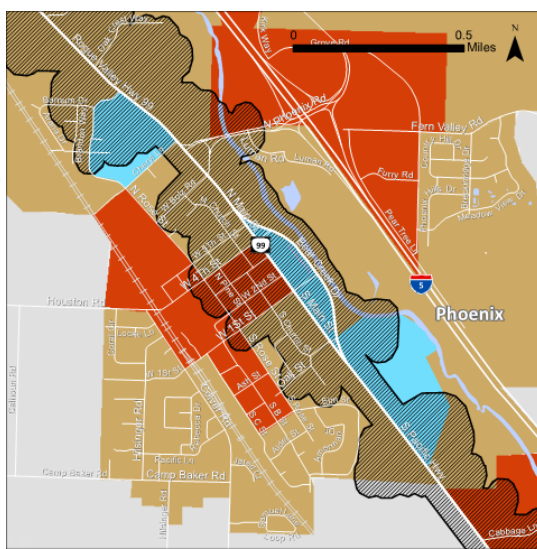
- Growth areas include the following:
- ▶ East of Main Street
 - ▶ East of I-5, north of Fern Valley Road

As shown above, southwest Phoenix is an existing unserved TSA. Due to the poor street connectivity in this area, providing service is difficult. Anticipated growth within the city reclassifies several TAZs as transit-supportive in 2042 as compared to 2017, primarily located in the northeast and central areas of the city.

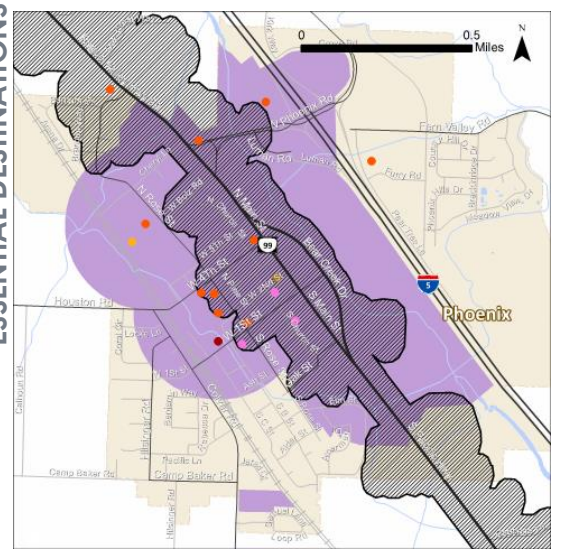
PLACETYPES 2017



PLACETYPES 2042

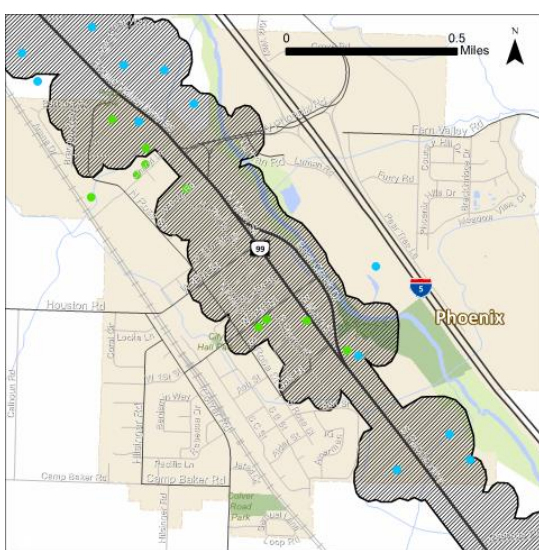


ESSENTIAL DESTINATIONS



The PlaceTypes model shows an increase in employment land uses and increased housing density in northeast Phoenix between 2017 and 2042. Employment land uses north of I-5 and surrounding the railroad are unserved by the existing service area. Although the majority of the city's essential destinations are covered by the existing service area, west Phoenix includes several unserved essential destinations.

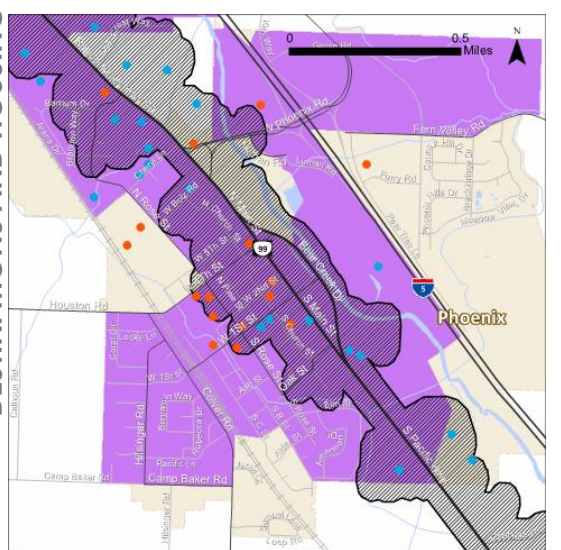
HIGH-DENSITY HOUSING



HOUSEHOLD GROWTH 2017 TO 2042



TSAS 2042 COMBINED WITH ESSENTIAL DESTINATIONS AND HOUSING

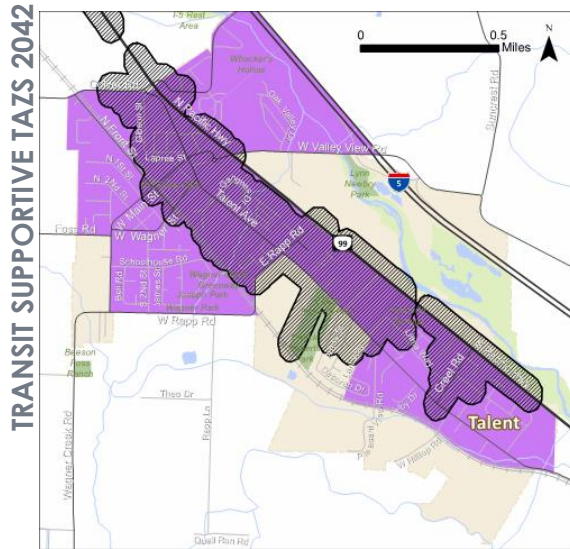
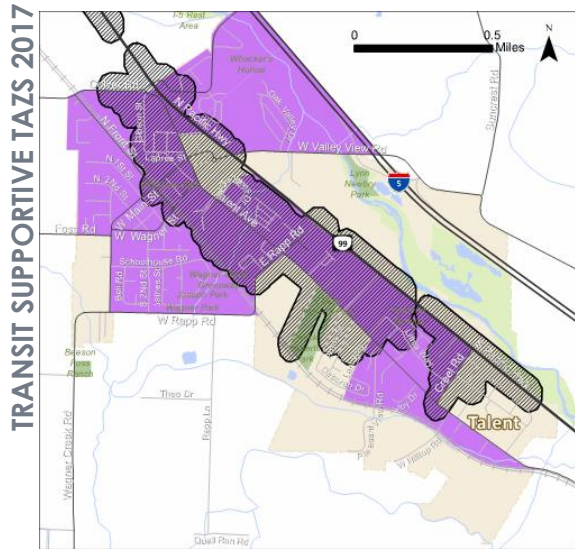


The existing ¼-mile service area supports the majority of Phoenix's high-density, mobile home, mixed-use, and multi-family housing, with the exception of a high-density residential area west of I-5 in central Phoenix.

Unserved TSAs in southwest and northeast Phoenix may be served by a local circulator route with a smaller vehicle, especially with the poor street connectivity in those areas of the city. This is a potential enhancement also discussed in Tech Memo 8 for Phoenix.

CITY OF TALENT

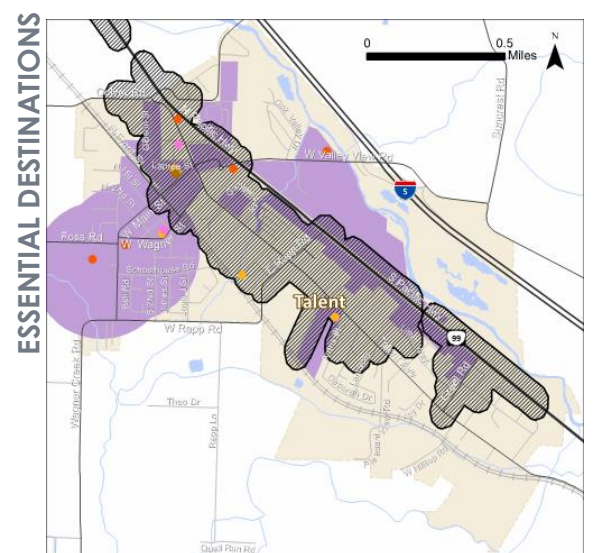
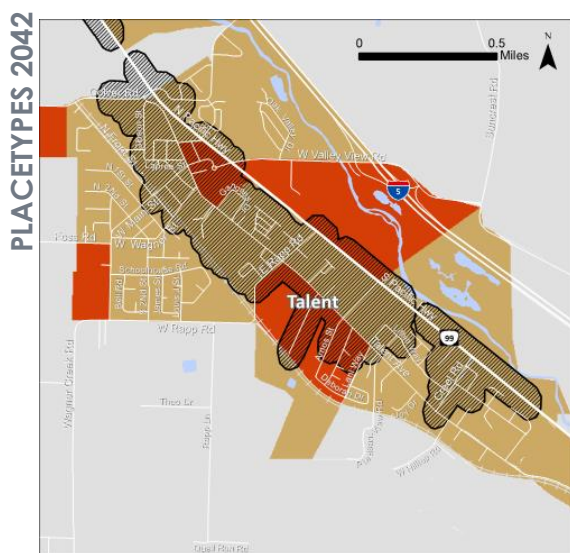
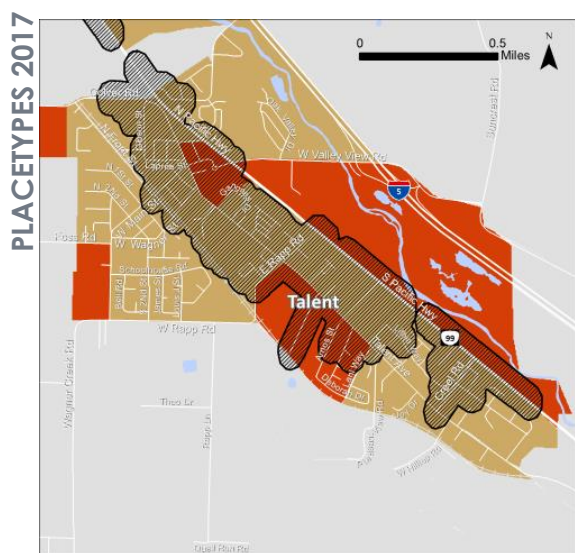
The City of Talent is not expected to see a substantial increase in households and population into the future, but there are unserved transit-supportive TSAs in northeast, northwest, and southwest Talent that suggest the need for additional or modified service. Current schedule adherence issues have resulted in shifting a portion of Route 10 to OR 99 instead of Talent Avenue, which is not consistent with the City's vision for transit.



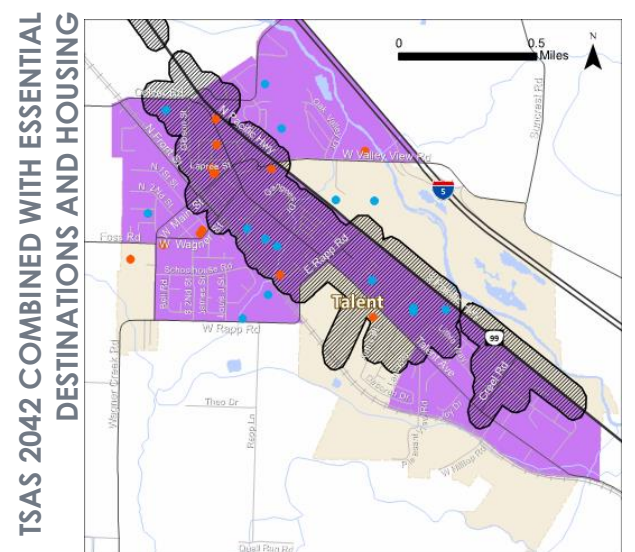
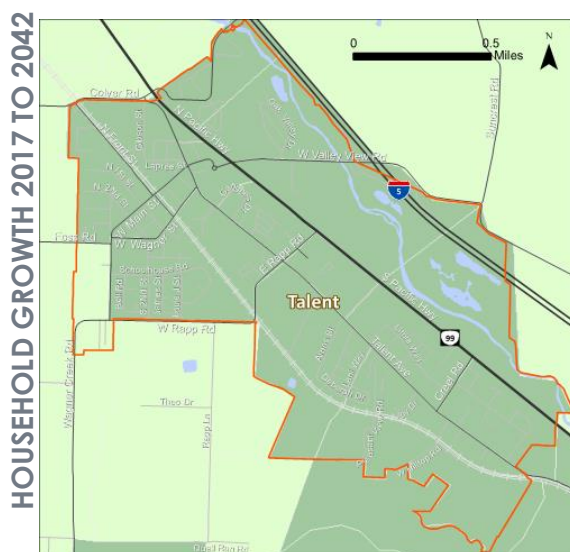
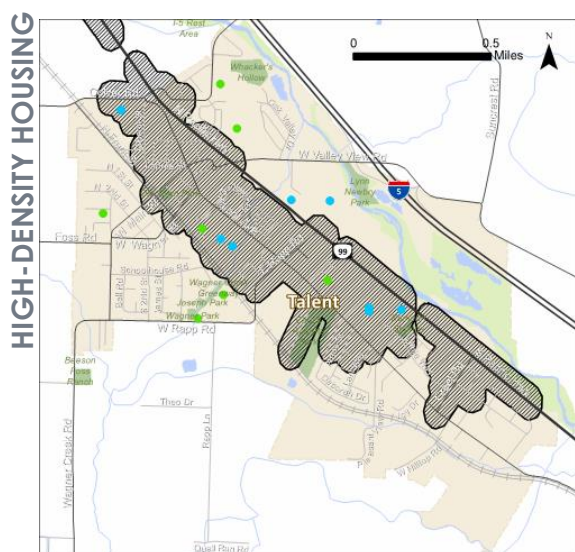
Growth areas include the following:

- ▶ West of OR 99, south of Nerton Street

As shown above, Talent's transit-supportive TAZs are very similar between 2017 and 2042. Unserved transit-supportive TAZs are located in northeast, northwest, and southwest Talent.



The PlaceTypes model shows an increase in employment land uses in east Talent between 2017 and 2042. Employment and residential land uses east of OR 99 and west of the railroad are unserved by the existing service area. Although the majority of the city's essential destinations are covered by the existing service area, east of OR 99 and west of the railroad include several unserved essential destinations.

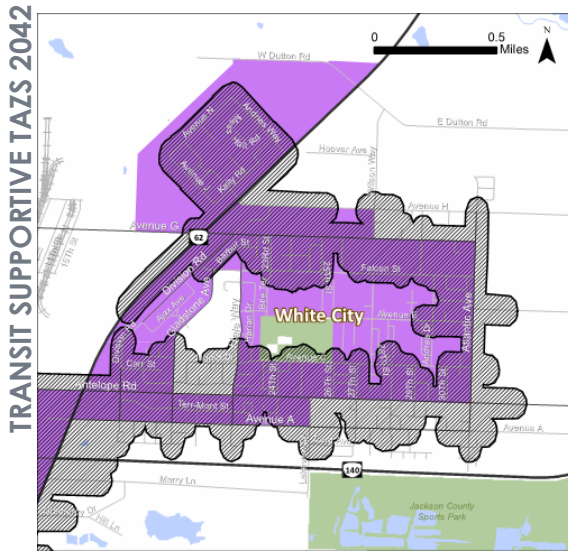


East of OR 99, there are several mobile home parks that are not well-served and which are not easily accessible. Additionally, several multi-family dwelling locations are not service in west Talent.

Although there are unserved TSAs and essential locations in west Talent, the poor street connectivity makes it difficult to provide service. Although schedule adherence issues have pushed some of Route 10 operations onto OR 99, the community vision for transit is to have service run through the center of town on Talen Avenue. To achieve this vision and provide expanded coverage, potential enhancements include splitting Route 10 into two routes with a Talent turnaround, having Route 10 express and non-express routes operate on different routes, providing a local circulator service, and/or creating a park-and-ride location in the city.

CITY OF WHITE CITY

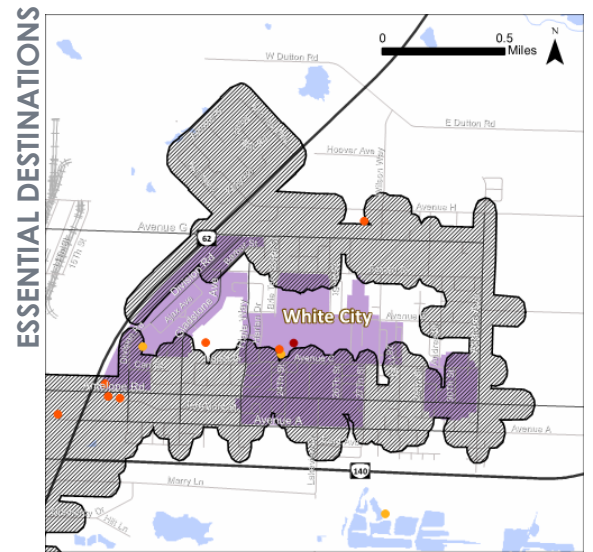
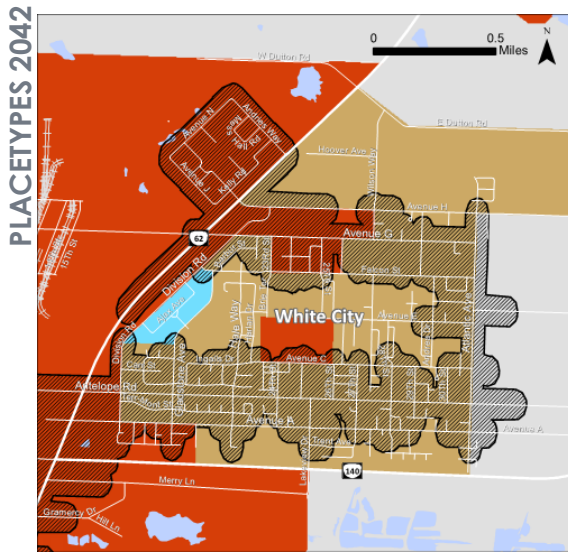
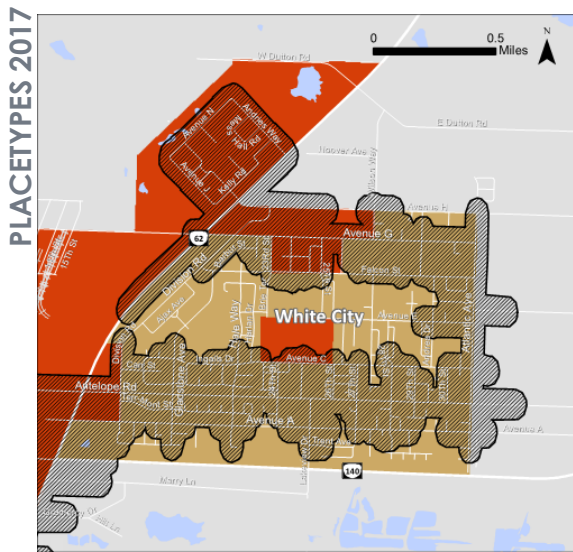
The City of White City has good coverage of both existing and future TSAs. Because of the coverage provided by the existing service area, most of the desired enhancements in the city are based around providing more efficient service on existing Route 60.



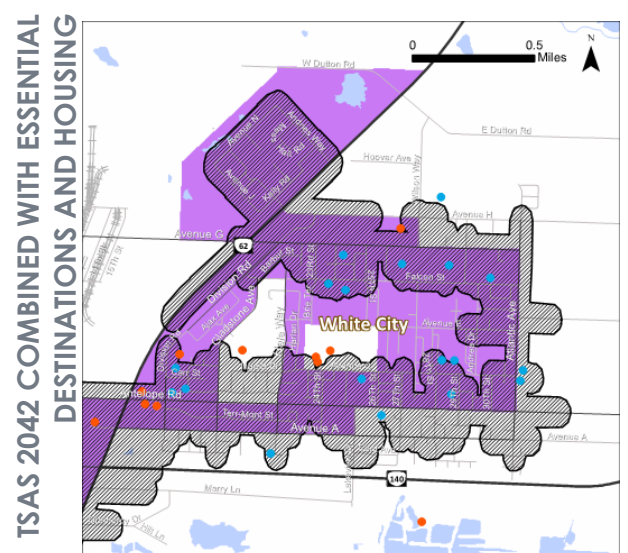
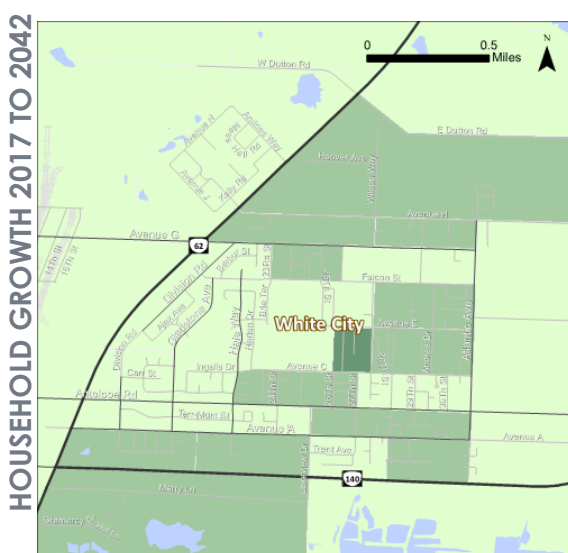
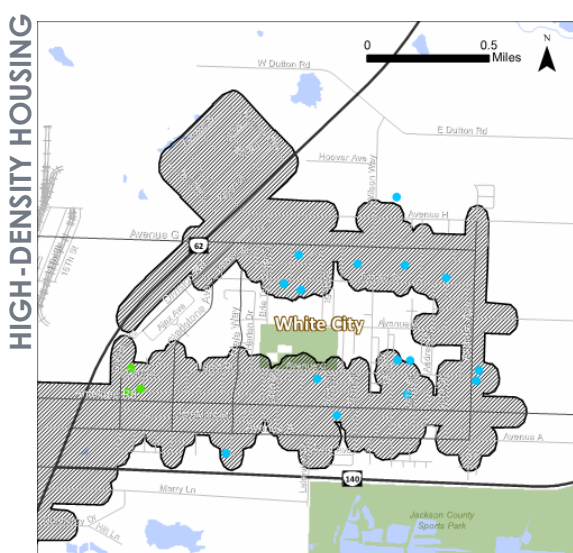
Growth areas include the following:

- ▶ North of Avenue G

As shown above, central White City is an existing unserved TSA and a future unserved TSA is projected in north White City. Although these areas are not covered by the 1/4-mile walkshed, they are within a 1/2-mile walkshed or could potentially be served by minor routes modifications such as shifting service one block south to Falcon Street.



The PlaceTypes model shows new mixed-use development adjacent to OR 62 and increased employment land uses between 2017 and 2042. Most of the essential destinations within the city are covered by the existing service area.

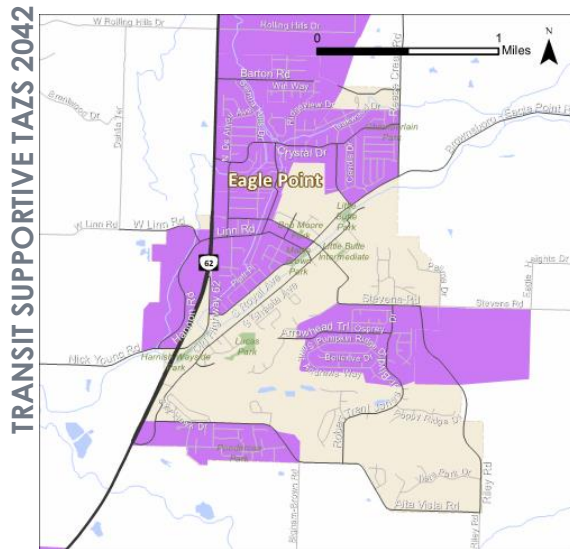
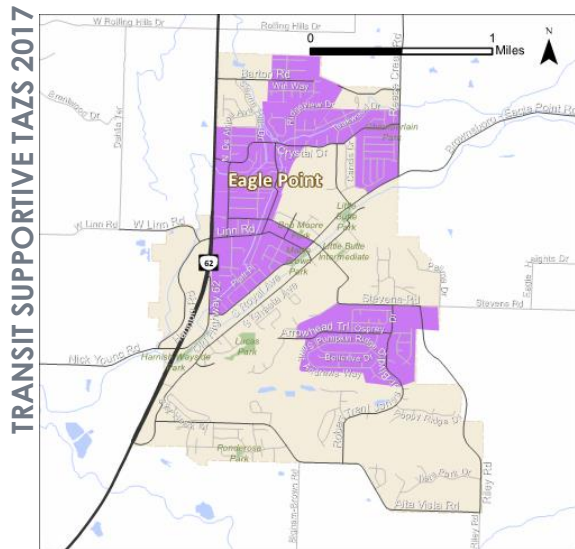


The existing 1/4-mile service area supports the majority of White City's high-density and mobile home locations.

The maps above directly correlate to the White City community vision discussed in Tech Memo 8. The City is interested in enhancements that increase efficiency because White City already has good transit coverage. Desired enhancements include transit signal priority, GPS transit signal priority, and sidewalk infill, all along OR 62 and potential express service on OR 62 while mainlining local service with timed transfers.

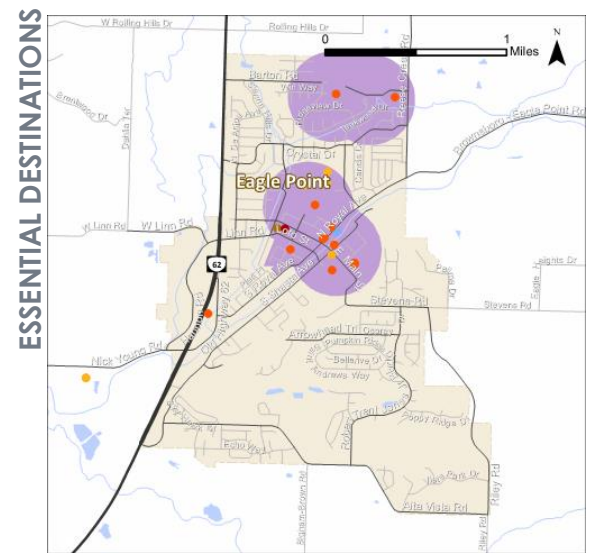
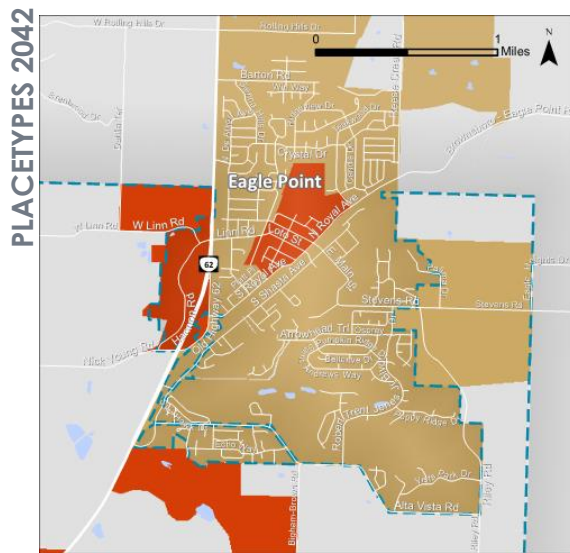
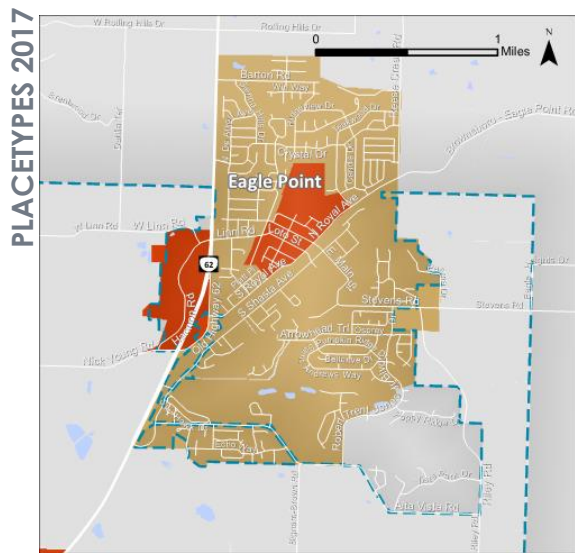
CITY OF EAGLE POINT

The City of Eagle Point is not currently within the RVRTD district boundary, which results in limited demand-responsive service only to the area. There is a number of TSAs in the city.

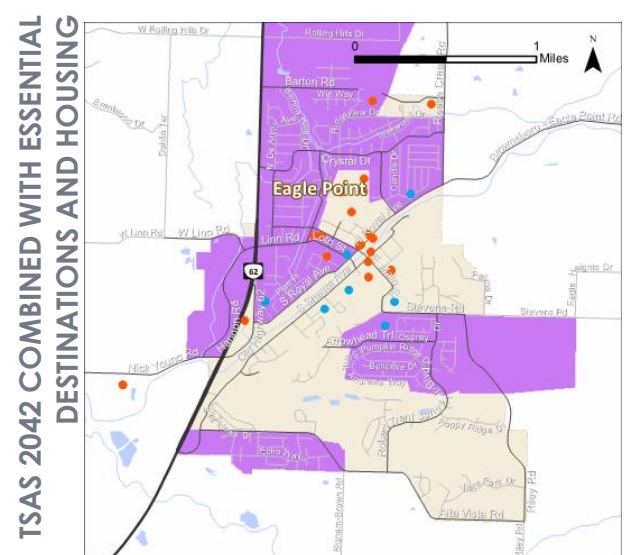
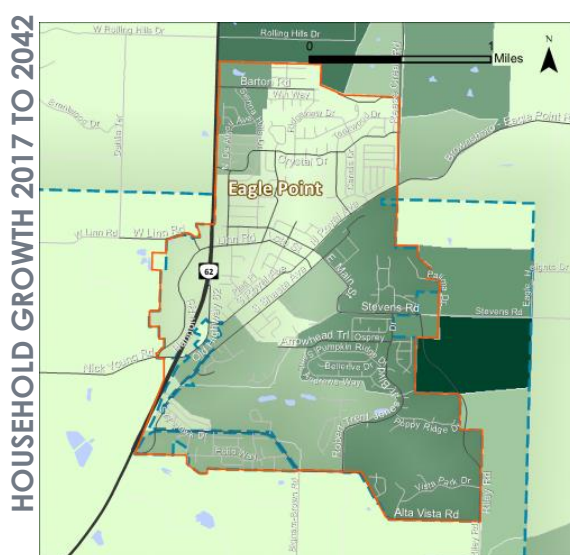
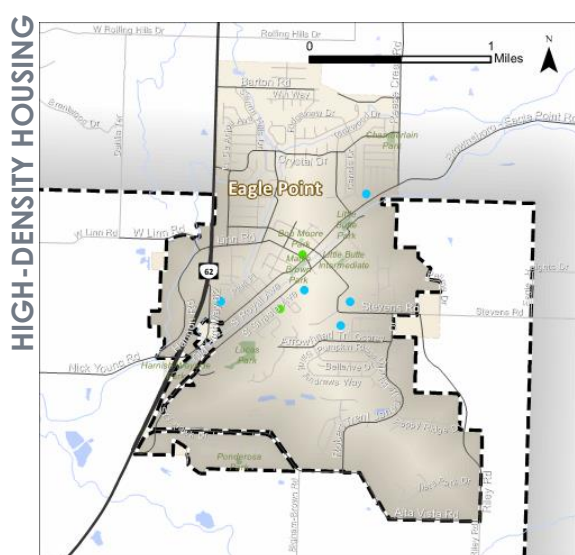


- Growth areas include the following:
- ▶ East of OR 62, north of Crystal Drive
 - ▶ West of OR 62
 - ▶ South of Alta Vista Road
 - ▶ East of Riley Road

No existing or future TSAs are covered by fixed-route service because Eagle Point is not inside the district boundary. They do receive limited demand-responsive service connecting them to Medford, White City, Shady Cove, and Trail. By 2042, over half the area of Eagle Point will be considered transit-supportive although it's relatively small size and distance from other high-density areas makes it difficult to serve and limits its' ridership potential.



The PlaceTypes model shows an increase in employment land uses in south Eagle Point and increased housing density in south Eagle Point between 2017 and 2042. Two primary concentrations of essential destinations can be found along Crater Lake Highway and in the city center. A secondary set of essential destinations are located along Win Way.



High-density, mixed-use, and multi-family housing are primarily located in central and northern Eagle Point, as well as along Alta Vista Road.

Although there are transit-supportive areas and densities of essential destinations that would be well served by transit, Eagle Point is currently outside the RVRTD boundary. Limited demand-responsive service is provided with Oregon's Special Transportation Funds and HB2017 funds may help continue to support this type of limited service. To see regular fixed-route service, Eagle Point may need to annex into RVRTD.