3. TRANSIT

INTRODUCTION

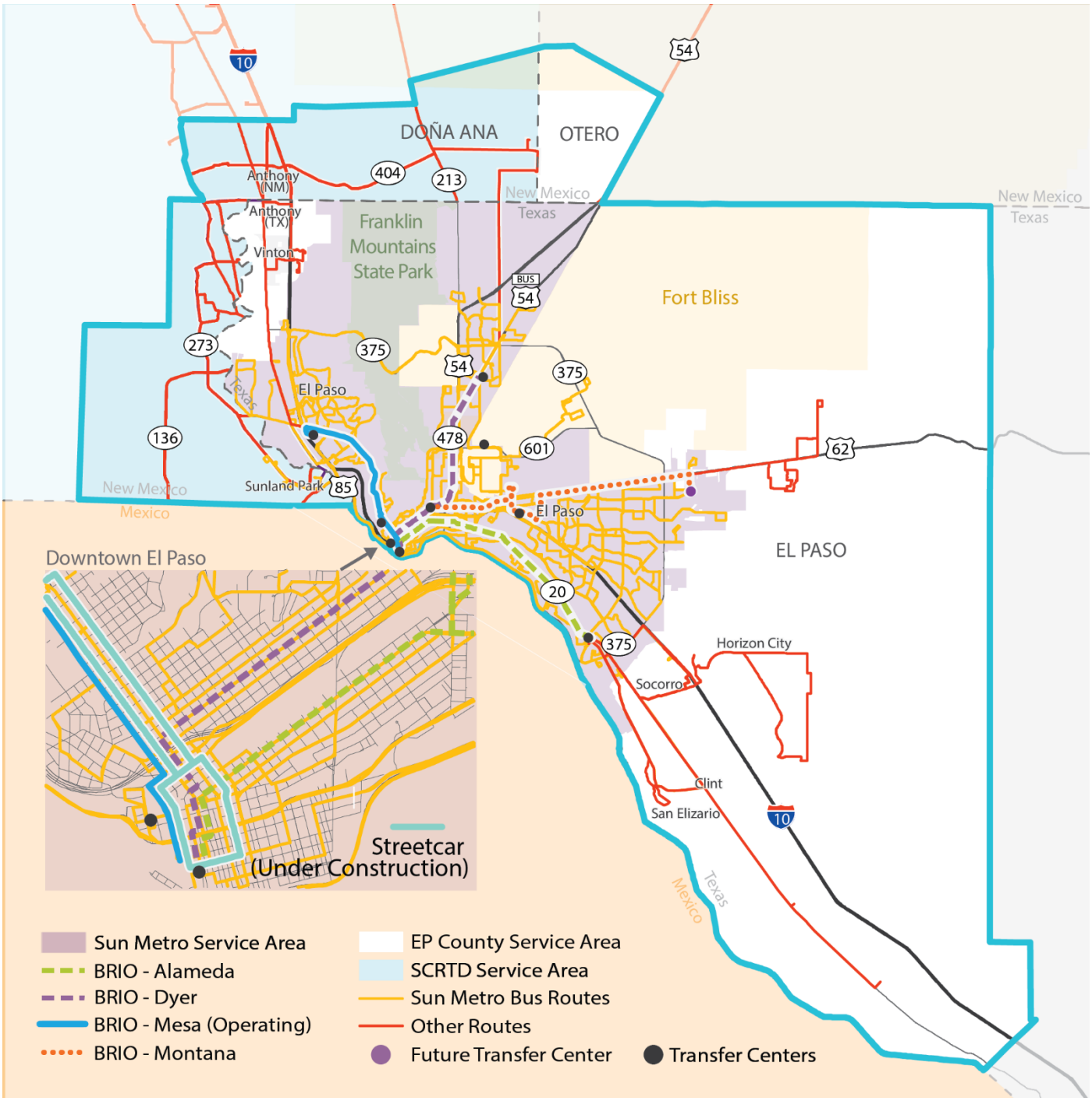
The following section presents an analysis of the existing transit system, the transit needs of the community, and opportunities for improvement so that the El Paso MPO and its planning partners can prioritize investments in public transportation. The analysis includes an inventory of existing and planned services, an analysis of population and employment coverage of the existing and planned system, and an identification of gaps in service based on potential transit need and key destinations in the region. Ongoing public and stakeholder engagement regarding public transportation needs, supported by Geographic Information System (GIS) mapping, informed the public transportation analysis.

EXISTING TRANSIT SERVICE

Developing an understanding of the existing transit system and the various providers within the region helps identify the strengths of the system and how to build on them, as well as where gaps or duplication in service occur. This level of understanding will help inform the processes and methodologies used to create context sensitive solutions or improvements that will address the gaps and duplications in service and prepare the region for future growth. El Paso County Transit, South Central Regional Transit District (SCRTD) and Sun Metro all provide transit services in the study region and this section identifies their operational characteristics.

Figure 3.1 shows current and planned transit routes in the El Paso area, as well as the service area boundaries of the various transit providers that operate throughout the region.

FIGURE 3.1: CURRENT AND PLANNED EL PASO TRANSIT SERVICES

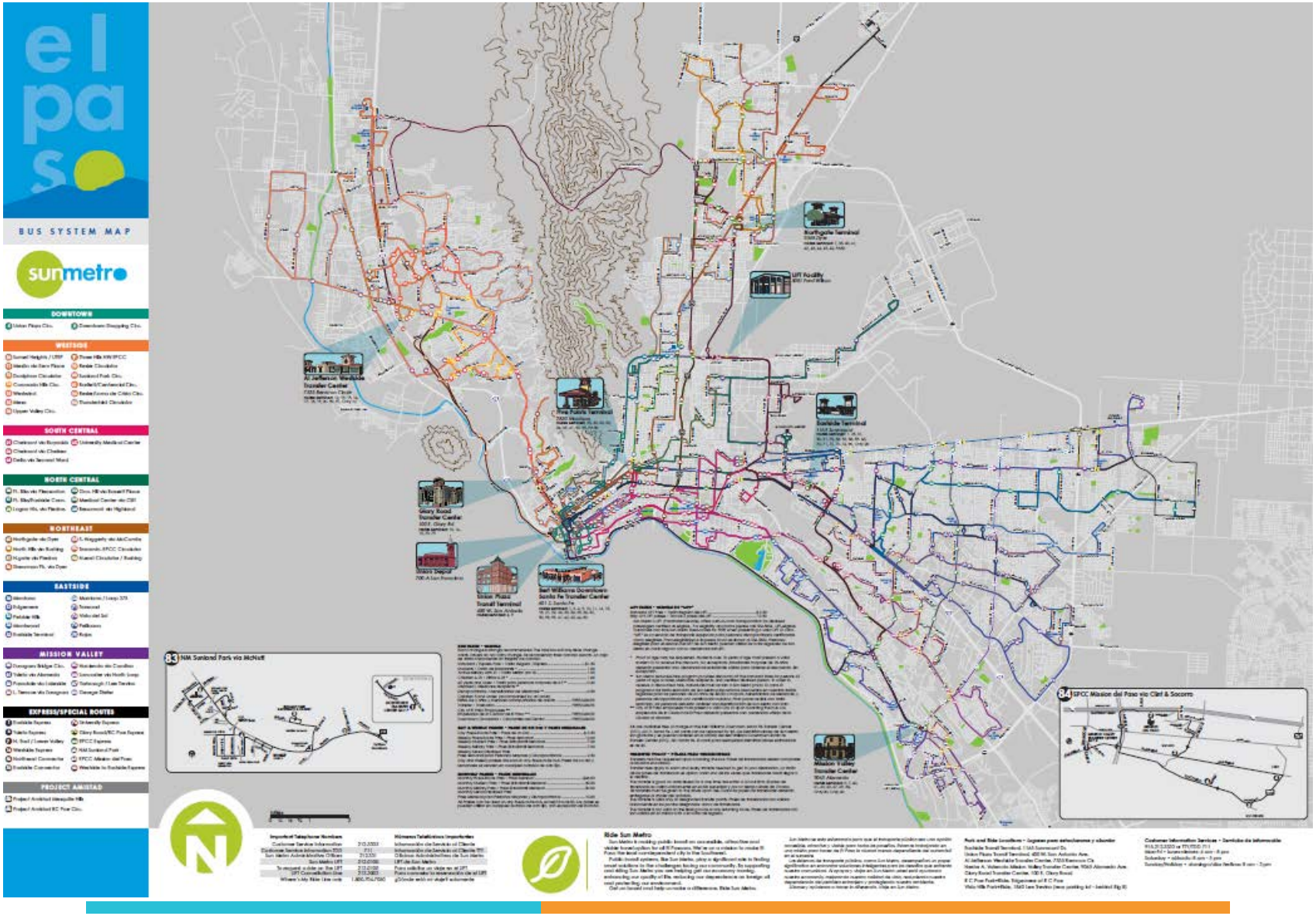


SUN METRO TRANSIT

Sun Metro is the largest transit provider in the El Paso area and initially began as Sun City Area Transit (SCAT) in 1977 when the City of El Paso bought out three existing public transit lines. In 1987, SCAT became Sun Metro in conjunction with a change in dedicated funding.

Sun Metro serves more than 14 million passengers a year through a combination of 166 buses running on 64 fixed-routes and 65 LIFT vehicles. There are approximately 3,000 bus stops and 500 bus shelters. The service area is 255 square miles and has six park-and-ride lots and eight transfer centers. Both services utilize buses to connect the region, however differ in that the demand response systems cater to users who may not be able to access a typical fixed-route transit stop. Figure 3.2 provides a map of routes operated by Sun Metro as of June 2017.

FIGURE 3.2: SUN METRO ROUTE MAP



Fixed-Route Transit

Sun Metro operates a total of 64 transit routes and provides service in one of the following three operational manners:

1. Line Route
2. Circulator
3. Express

Sun Metro's 38 line routes comprise the bulk of its transit operations, and typically run from the edges of the service area to transit centers or across town. Sun Metro operates 13 routes as circulator routes that generally operate in one-way or bidirectional loop patterns, focusing on providing coverage for smaller geographical areas. 12 routes operate as Express routes with limited stop spacing connecting remote geographic areas to each other, often operating on highways.

Sun Metro categorizes and brands the routes by region and type. The service area is broken up into nine subareas or categories with some of the routes serving multiple subareas. For example, route 18 – Westside Express is an express route between the Downtown Transfer Center and the Westside Transfer Center that runs along Paisano. This route is listed in both the Westside category and the Express/Special service category. The table below identifies all categories and the routes within each.

Routes by Area

changes alerts

Area	Route Numbers
Downtown Circulators	4 9
Westside	10 11 12 13 14 15 16 17 18 19 20 70 75 90 91 92 93
South Central	21 22 24 25
North Central	30 31 32 33 34 35 36
Northeast	7 35 40 41 42 43 44 45 46 80 90 PA 50
Eastside	1 7 50 51 52 53 55 58 59 70 71 72 73 74 75 80 90
Mission Valley	3 7 60 61 62 63 65 66 67 69 80 PA 60
Express/Special	1 3 7 18 42 59 70 75 80 83 84 90 PA 50 PA 60
County/New Mexico	83 84 COUNTY 10 COUNTY 20 COUNTY 30 COUNTY 40 COUNTY 50 GR

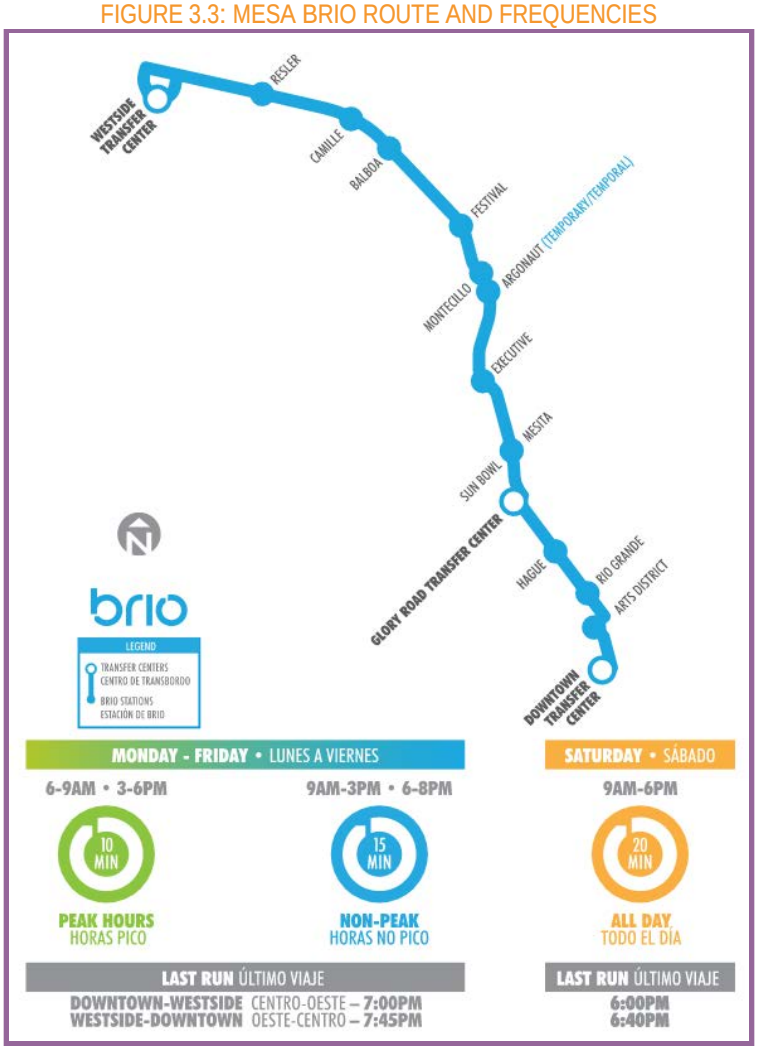
Grouping routes by service area or by service type helps passengers understand and navigate the transit network, but categorizing the routes by service area and by service type could create confusion. Due to the limited number of routes that cross between different service areas, the system also requires users to transfer (sometimes multiple times) to reach destinations in other parts of the region.

The Brio

The Brio Rapid Transit System (RTS) is a premier bus service that offers similar benefits to light rail transit, such as improved speed and reliability, but at a much lower implementation cost. The Brio features uniquely branded 60-foot articulated buses that operate in mixed traffic at high frequencies of every 10 to 15 minutes depending on the time of day. It has stations spaced about a mile apart along the corridor that feature improved pedestrian amenities, real-time travel info, partially enclosed shelters, and landscaping. The service also utilizes traffic signal prioritization, which means that green light durations are lengthened for the vehicles, allowing them to move faster through the corridor.

Sun Metro introduced the first of four planned Brio corridors in the fall of 2014 with the implementation of the Mesa Corridor as shown in Figure 3.3. The Mesa Corridor is approximately 8.6 miles long and begins at the Downtown Transfer Center and ends at the Westside Transfer Center serving 22 stations along the corridor.

FIGURE 3.3: MESA BRIO ROUTE AND FREQUENCIES



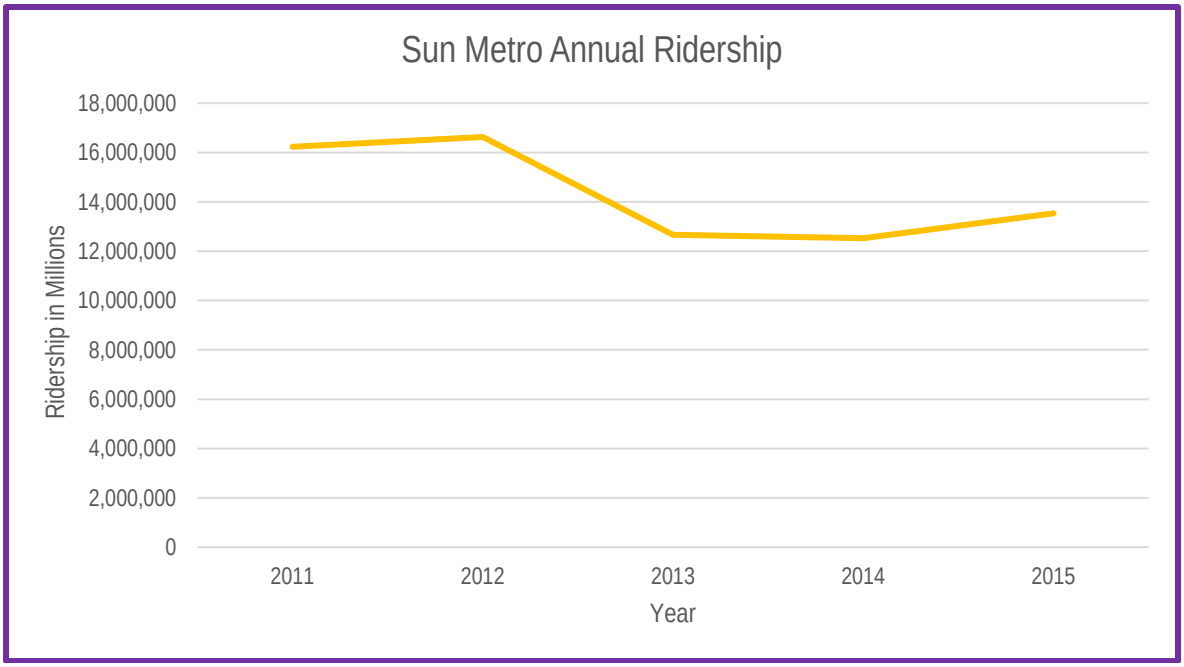
LIFT

Sun Metro operates the LIFT, which is a paratransit service for ADA paratransit-eligible clients. The LIFT provides origin-to-destination (curb-to-curb), on-demand transportation using small buses equipped with hydraulic mobility device lifts and tie downs, as well as contracting with private operators using regular passenger vehicles. This service complements the area and hours of operation covered by Sun Metro's fixed-route service and extends 1.5 miles beyond the fixed-route service, still within the El Paso city limits. There is also door-to-door service available for those who qualify.

Sun Metro Ridership

Figure 3.4 displays Sun Metro's systemwide ridership trends over the five-year period from 2011 through 2015. Systemwide ridership peaked in 2012 at over 16 million annual riders, but has decreased since then. Over the past few years, ridership has generally hovered between 12 and 14 million annual riders. This is consistent with trends observed throughout the country and can partially be attributed to inexpensive gas prices and higher wages leading to increased car ownership.

FIGURE 3.4: SUN METRO RIDERSHIP



EL PASO COUNTY TRANSIT

El Paso County Transit operates six rural transit routes that have listed stop locations but can also be boarded at any safe location along the route by flagging the bus. While there is variability from route to route, service is generally provided from 7:00 a.m. until 7:00 p.m. All routes operate from Monday to Saturday and one route, 50 Mission Trail, offers service on Sundays. El Paso County Transit also offers limited commuter service between Las Cruces and El Paso on the Gold Route. El Paso County Transit sponsors Vamonos Vanpool, which is a program that utilizes Zimride as a private ridesharing network. Fares are $2.00 per trip and $3.00 for the Gold Route.

TABLE 3.1: EL PASO COUNTY RURAL TRANSIT ROUTES

ROUTE ID	ROUTE NAME	LIMITS
Route 10	Anthony/Canutillo	Westside Terminal-Franklin/Doniphan
Route 20	Montana Vista	Eastside Terminal-Deerfield/Greg
Route 30	Horizon	Alameda/Zaragoza-Kentwood/Agua Clara
Route 40	Fabens/Tornillo	Alameda/Zaragoza-O.T. Smith Wenchos
Route 50	Mission Trail	Mission Valley Terminal-San Elizario Presidio
Route 84	EPCC Mission del Paso	Alameda/Zaragoza-Socorro/San Antonio

SOUTH CENTRAL REGIONAL TRANSIT DISTRICT (SCRTD)

The SCRTD was created in 2006 and provides transportation between rural areas, small unincorporated communities, and municipalities throughout its service area. The SCRTD primarily operates in Doña Ana County with limited service in Sierra County and connections to Otero and El Paso Counties. Service connects with Sun Metro service via the Purple Line at the Westside Transfer Center. At this location, transit riders can access 13 different Sun Metro routes, including the premier Mesa Brio Line, providing connections to Downtown El Paso and the eastside transit facilities. The Purple Flex Route (see Figure 3.10) is a 5310-grant funded service utilizing one 22-foot 14 passenger van to provide flex service. This route recently released new schedules with fixed bus stops and scheduled passing times in addition to providing route deviations upon customer request. Ridership has grown steadily since service started in 2016.

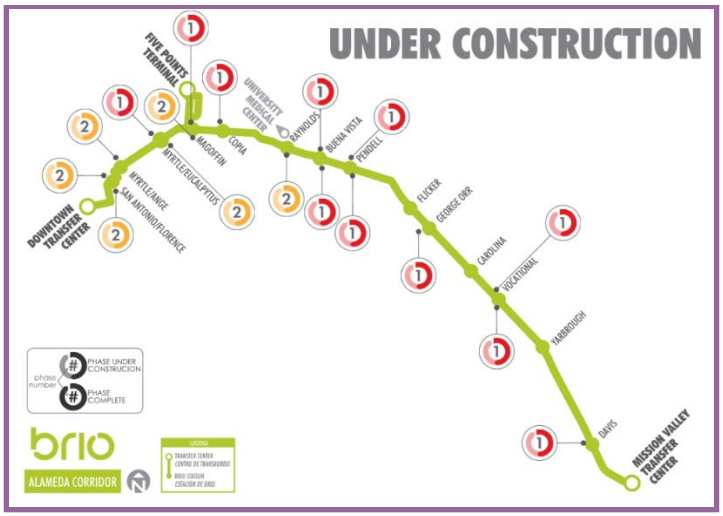
FIGURE 3.10: SCRTD PURPLE ROUTE

CURRENT INITIATIVES/PLANNING EFFORTS

THE BRIO

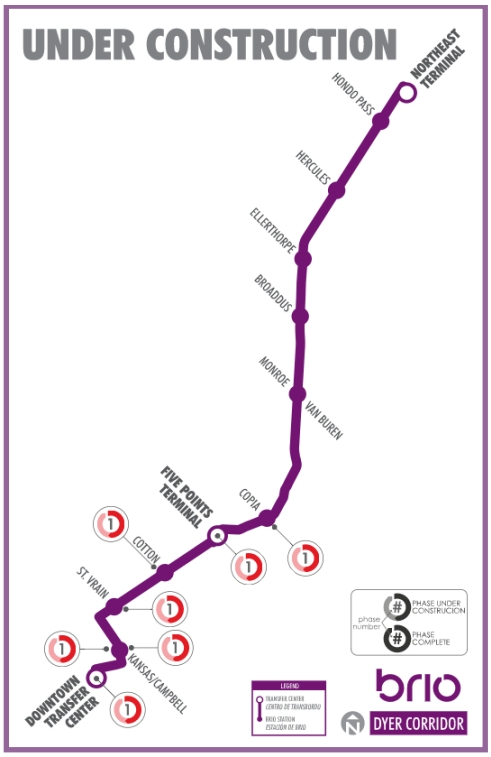
Sun Metro plans to expand and improve the Brio network to create a complete and connected rapid transit system. There will be four Brio corridors in total. The next two Brio corridors, Alameda (see Figure 3.5) and Dyer (see Figure 3.6), are now under construction. The Alameda Corridor will be approximately 14.5 miles long and will begin at the Downtown Transfer Center and end at the Mission Valley Transfer Center serving 29 stations along the corridor including the Five Points Terminal. The Alameda Corridor is expected to be operational in mid-2018.

FIGURE 3.5: ALAMEDA BRIO BRT



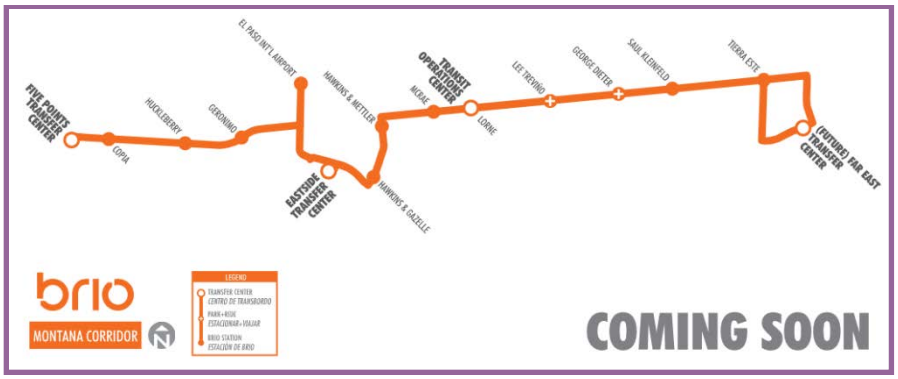
The Dyer Corridor will be approximately 10.2 miles long and is expected to be operational in late 2018. It will begin at the Downtown Transfer Center and end at the Northeast Transfer Center, serving 22 stations along the corridor including the Five Points Terminal.

FIGURE 3.6: DYER BRIO BRT



The Montana Corridor (Figure 3.7) will be the fourth Brio corridor and is in the planning phase The Montana Corridor will be approximately 16.8 miles long, beginning at the Five Points Terminal and ending at the planned Far East Transfer Center. It will serve 25 stations along the corridor including the Eastside Terminal and the Transit Operations Center. Operations are expected to begin in late 2019.

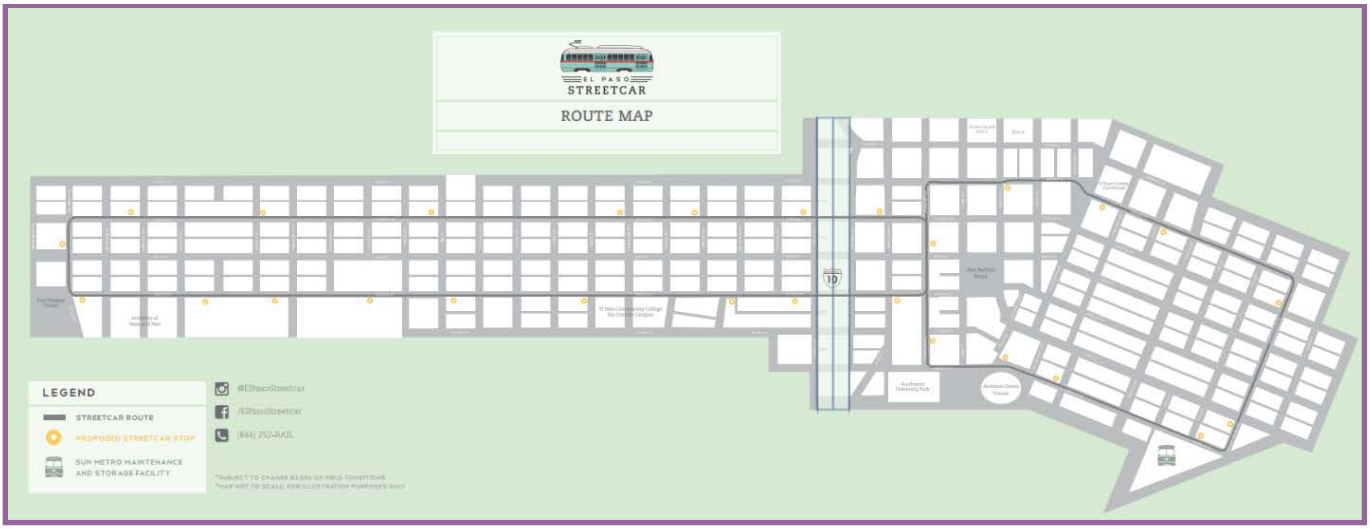
FIGURE 3.7: MONTANA BRIO BRT



STREETCAR

The El Paso Streetcar Project (Figure 3.8) will be a 4.8-mile route with 27 stations that will operate in two loops, one in the downtown and one in the uptown that connect along Franklin Avenue. The route will connect the international bridges, retail areas, government buildings, convention center, and downtown ballpark with the medical center, University of Texas at El Paso and several historic neighborhoods. Construction is currently underway and the project will include utility relocation, a new maintenance and storage facility, sidewalk repairs, complete street reconstruction, and resurfacing work on other streets.

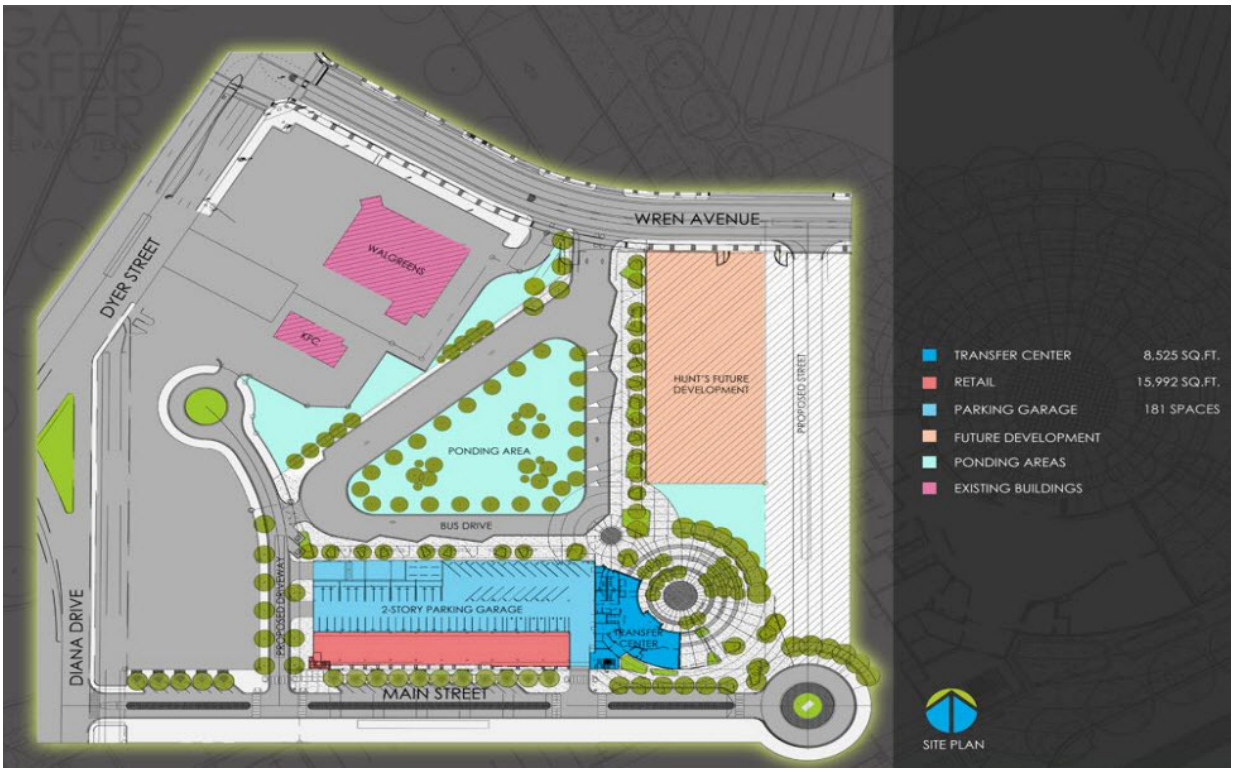
FIGURE 3.8: EL PASO STREETCAR CONCEPT MAP



NORTHGATE TRANSFER CENTER

The Northgate Transfer Center recently opened and is one of the first transit centers in the region that is part of a transit-oriented development built around a bus rapid transit system. This center will be the anchor of the Dyer Brio line on its farthest extent and will include a park-and-ride garage, multiple shelters, enclosed waiting and ticketing areas, electronic on-street message boards, ticketing and information offices, bike racks, and a landscaped pedestrian plaza.

FIGURE 3.9: NORTHGATE TRANSFER CENTER



TRANSIT GAP ANALYSIS

To understand how well the existing and planned transit system serves the El Paso region, Destino 2045 uses a GIS-based, data-driven analysis that compares existing transit supply to one measure of potential transit demand – described later in this section - to identify service gaps throughout the region. This analysis can assist the MPO and its planning partners in identifying projects or future studies for inclusion in the MTP.

TRANSIT DEMAND

Demand for transit, as with most forms of transportation, is primarily driven by concentrations of people and jobs throughout the region. Destino 2045 explored where concentrations of those choosing transit for commute trips are currently distributed as well as areas where additional population and employment growth is expected to be concentrated to 2045 to gain high-level, qualitative understanding of where transit demand is currently highest and where additional services may be needed in the future. The demand discussion concludes with a quantitative analysis of where populations with limited access to or ability to operate motor vehicles are concentrated throughout the region, which becomes the "demand input" for the gap analysis described later in this section.

Transit Mode Share

Mode share refers to the type of transportation mode that an individual may chose for each trip – including single-occupant vehicle (SOV), high-occupant vehicle (HOV), bicycle, walking, and transit. The El Paso Metropolitan Planning Organization (MPO) 2045 Travel Demand Model produces estimates of mode shares for many trip purposes for both 2012 and 2045, using travel surveys and observed trends to inform the calculation. The following maps (Figures 3.11 and 3.12) illustrate the model estimated concentrations of home-based work (i.e. commute) transit trips by origin and destination Traffic Analysis Zone (TAZ) for both 2012 and 2045. These maps provide some context to how existing and future transit demand is distributed throughout the area. Higher concentrations of transit trips can be seen originating in central East El Paso, the Mission Valley (near Alameda Ave), north El Paso (near Dyer St) and some parts of the westside, primarily near the existing Brio route along Mesa. Popular transit trip destinations include Downtown El Paso, UTEP, The I-10 East corridor, and Fort Bliss.

Across the region, transit trips are forecast to comprise 1.2% of all commute trips by 2045, which is roughly the same percentage as observed in 2012.

FIGURE 3.11: 2012 TRANSIT COMMUTE TRIPS

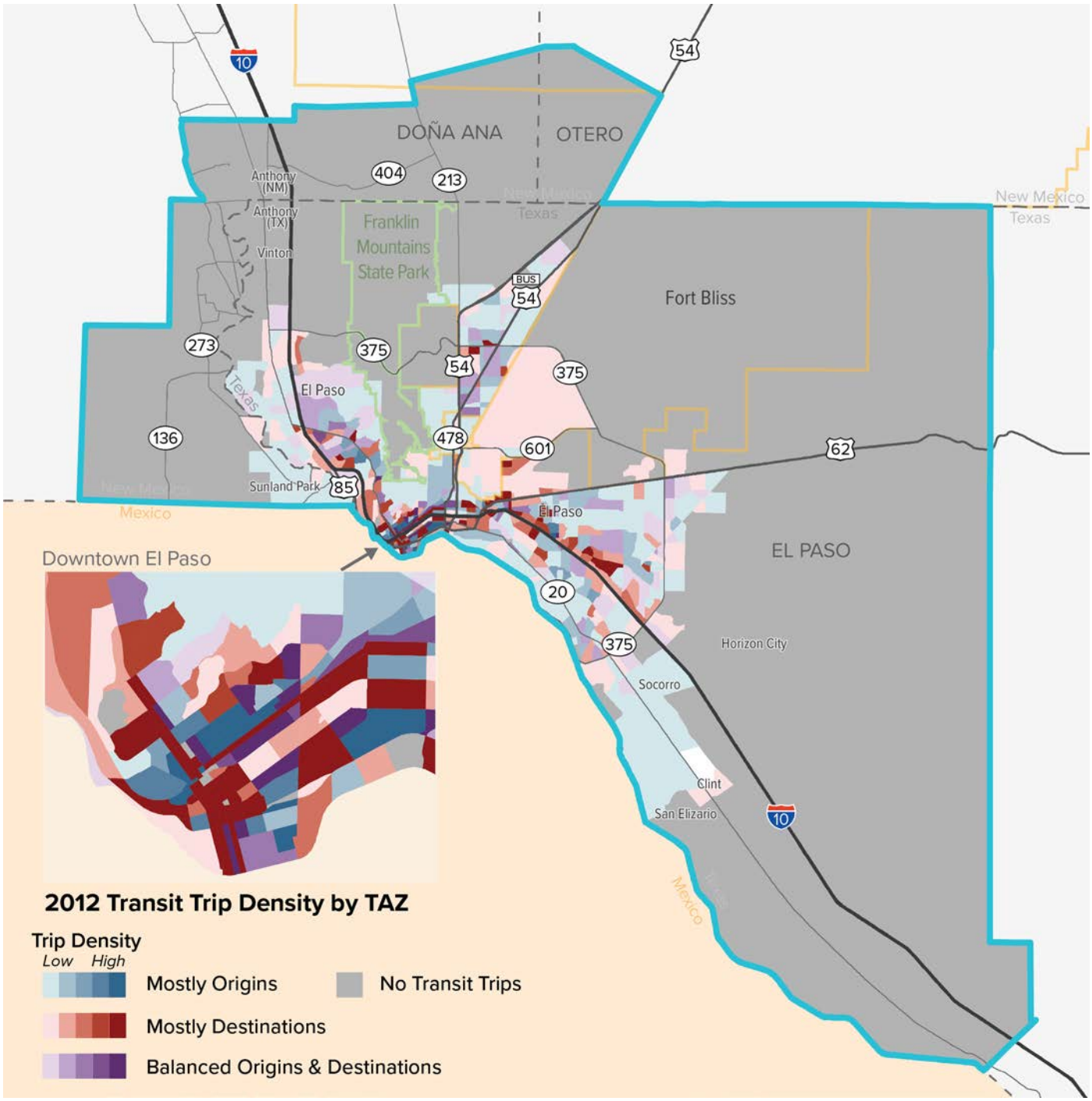
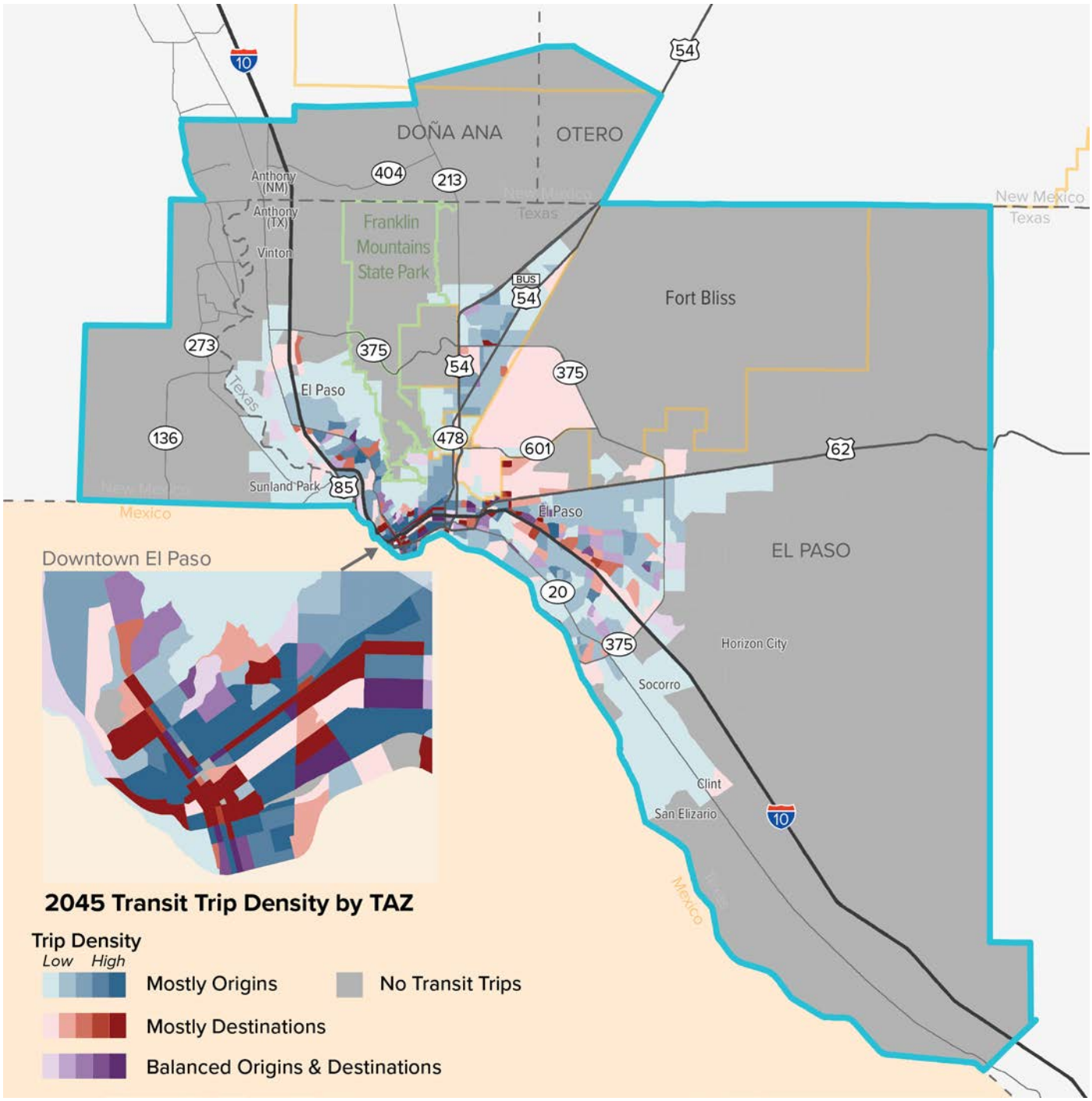


FIGURE 3.12: 2045 TRANSIT COMMUTE TRIPS



Future Growth Areas

Growth in the El Paso region is expected to introduce additional demand for transit near the edges of the existing urbanized area. The low-density, disconnected nature of this type of growth presents challenges for transit providers extending system coverage without jeopardizing service quality in other parts the network. The MPO, transit providers, and planning partners responsible for land-use planning in these areas should pay special attention to regional growth patterns and their effects on transit service delivery as the region continues to expand through 2045.

FIGURE 3.13: TRANSIT COVERAGE AND FUTURE POPULATION GROWTH

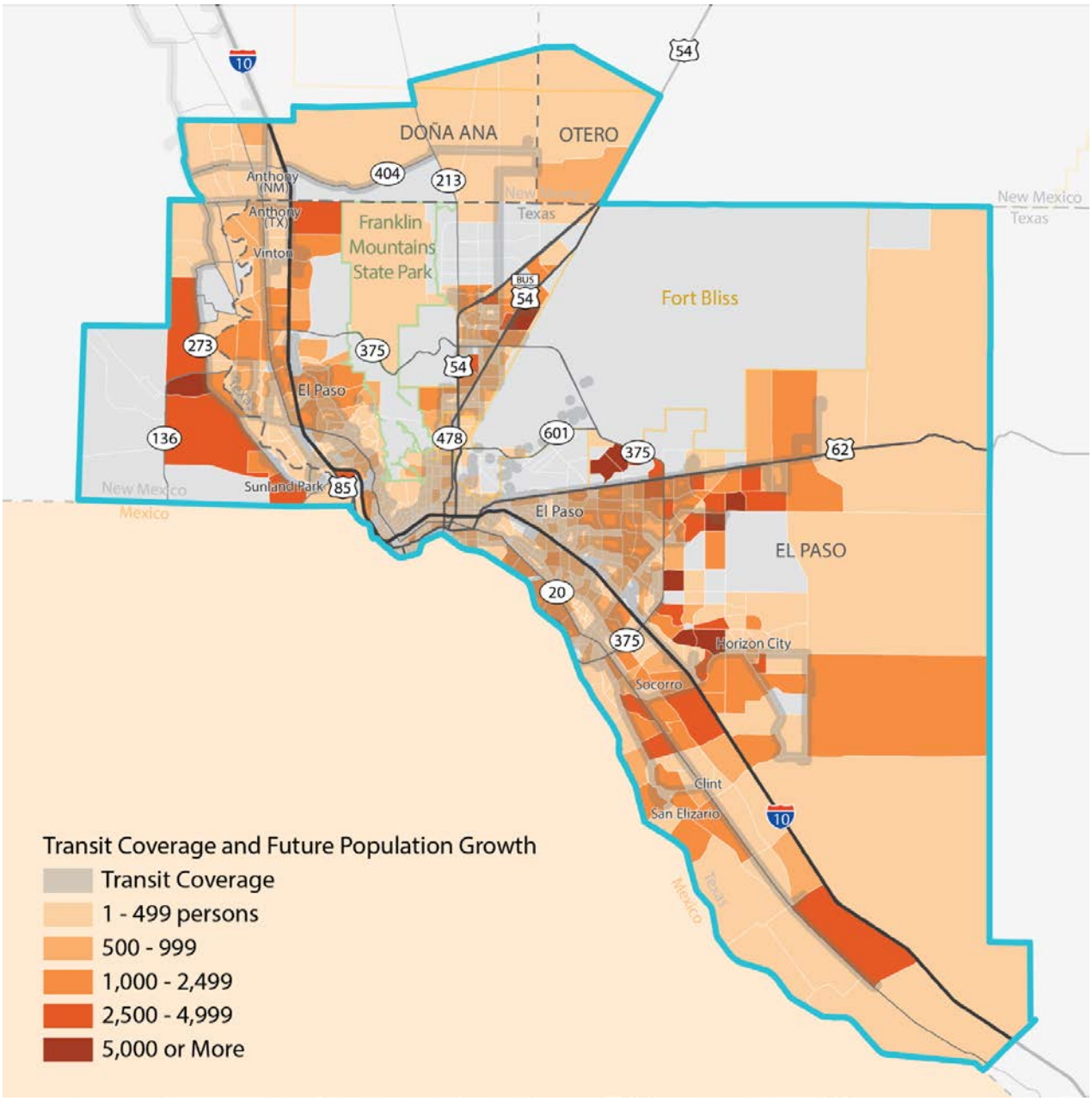


FIGURE 3.14: TRANSIT COVERAGE AND FUTURE EMPLOYMENT GROWTH

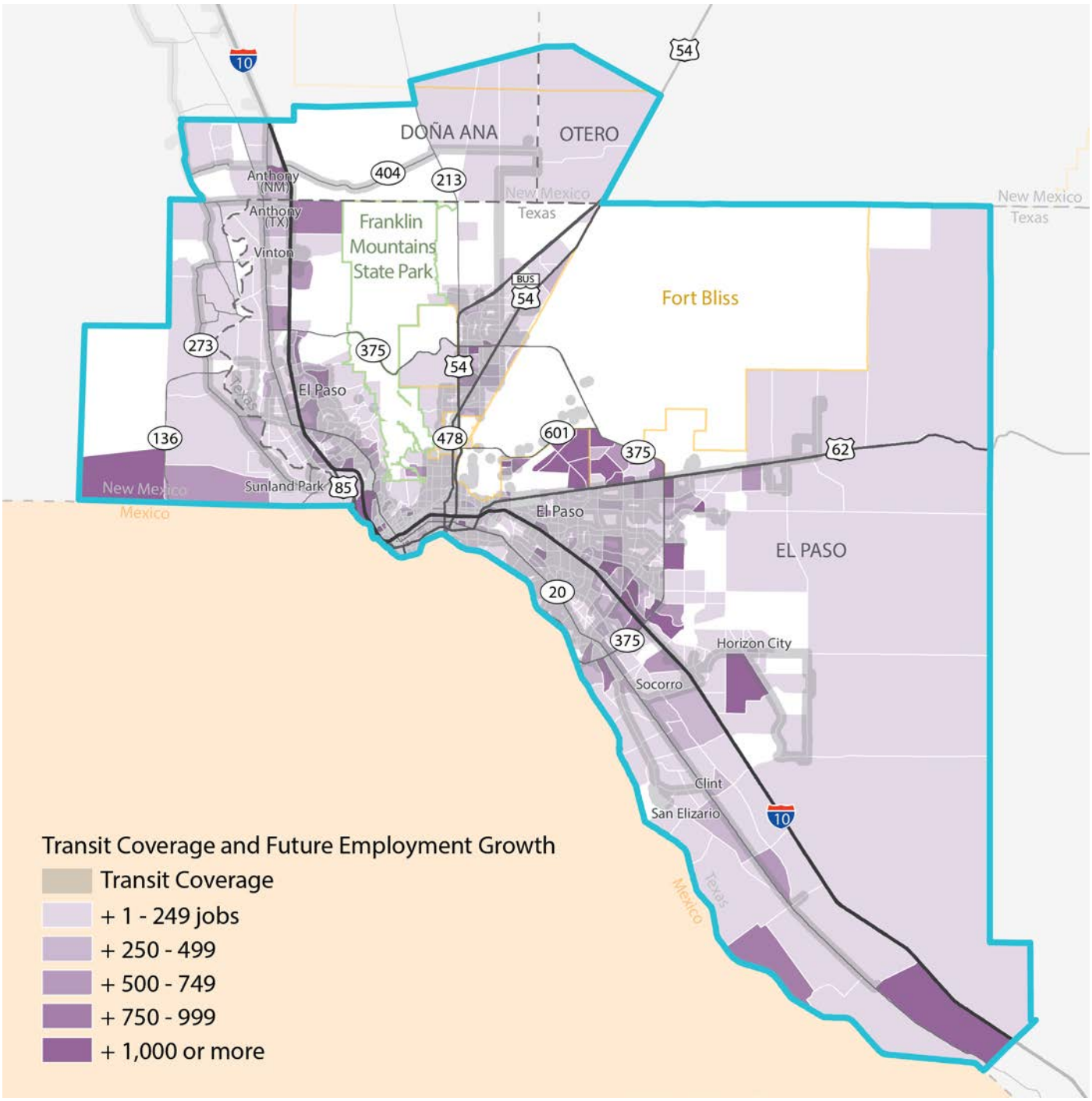
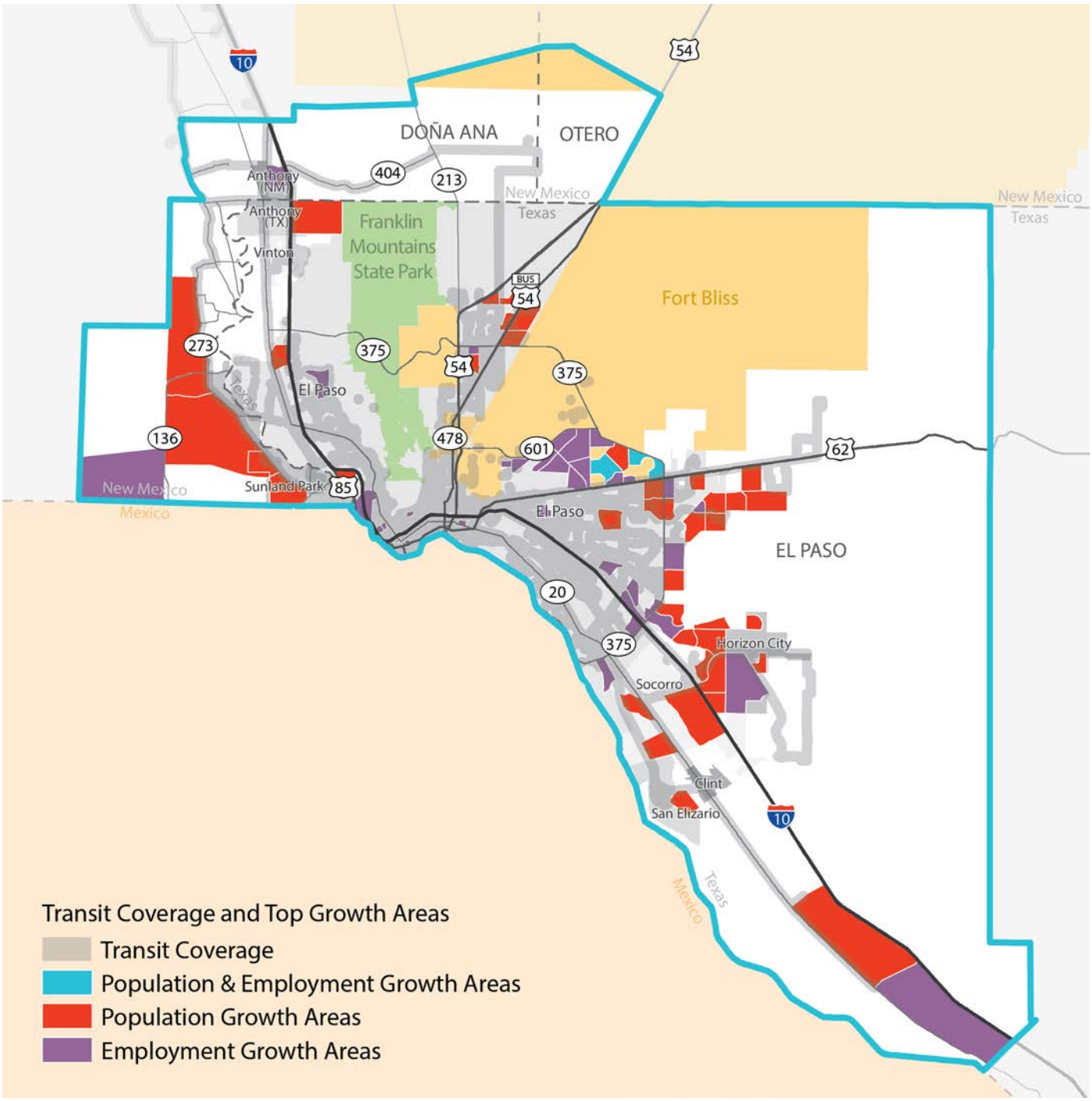


FIGURE 3.15: TRANSIT COVERAGE AND HIGH GROWTH AREAS



Transit Dependent Population

For purposes of the gap analysis, transit demand was defined by the amount of transit dependent population (TDP) of an area. The transit dependent population is calculated at the census block-group level based on a formula from the U.S. Department of Transportation (USDOT). A modified version of this formula from the Capital Area Transit Authority in Lansing, Michigan was used in this analysis to identify areas where there are large concentrations of driving-age people that have limited access to vehicles. American Community Survey (ACS) data was used to calculate the transit dependent population. The formula is as follows:

- Household Drivers = (population aged 18 and over) - (persons living in group quarters)
- Transit-Dependent Household Population = (household drivers) – (vehicles available)
- Transit-Dependent Population = (transit-dependent household population) + (population aged 10-17) + (non-institutionalized population living in group quarters)

It should be noted that while the driving age is 16 and someone could technically be driving at that age, the cutoff age of 18 was used for this analysis. This was done because ACS data does not allow for using the age 16 as a breaking point. It is possible – and not completely uncommon – for people between the ages of 16-18 to own a car, but car availability will be lower for this group than for other age groups. It should also be noted that 2015 ACS data does not distinguish between institutionalized and non-institutionalized populations living in group quarters. This means that the non-institutionalized population living in group quarters was estimated by multiplying the percentage of non-institutionalized populations living in group quarters from the 2010 Census by the 2015 total population living in group quarters. This estimate operates under the assumption that the relative proportion of institutionalized to non-institutionalized populations will not change much within each block group between 2010 and 2015.

Once the transit-dependent population is calculated, it is measured in both dependent population density and dependent population percentage per block group. Each measure is given a score from 1 to 5 based on the following breakpoints in Table 3.2:

TABLE 3.2: TRANSIT DEPENDENT POPULATION (TDP) DENSITY AND PERCENTAGE MEASURE BREAKS

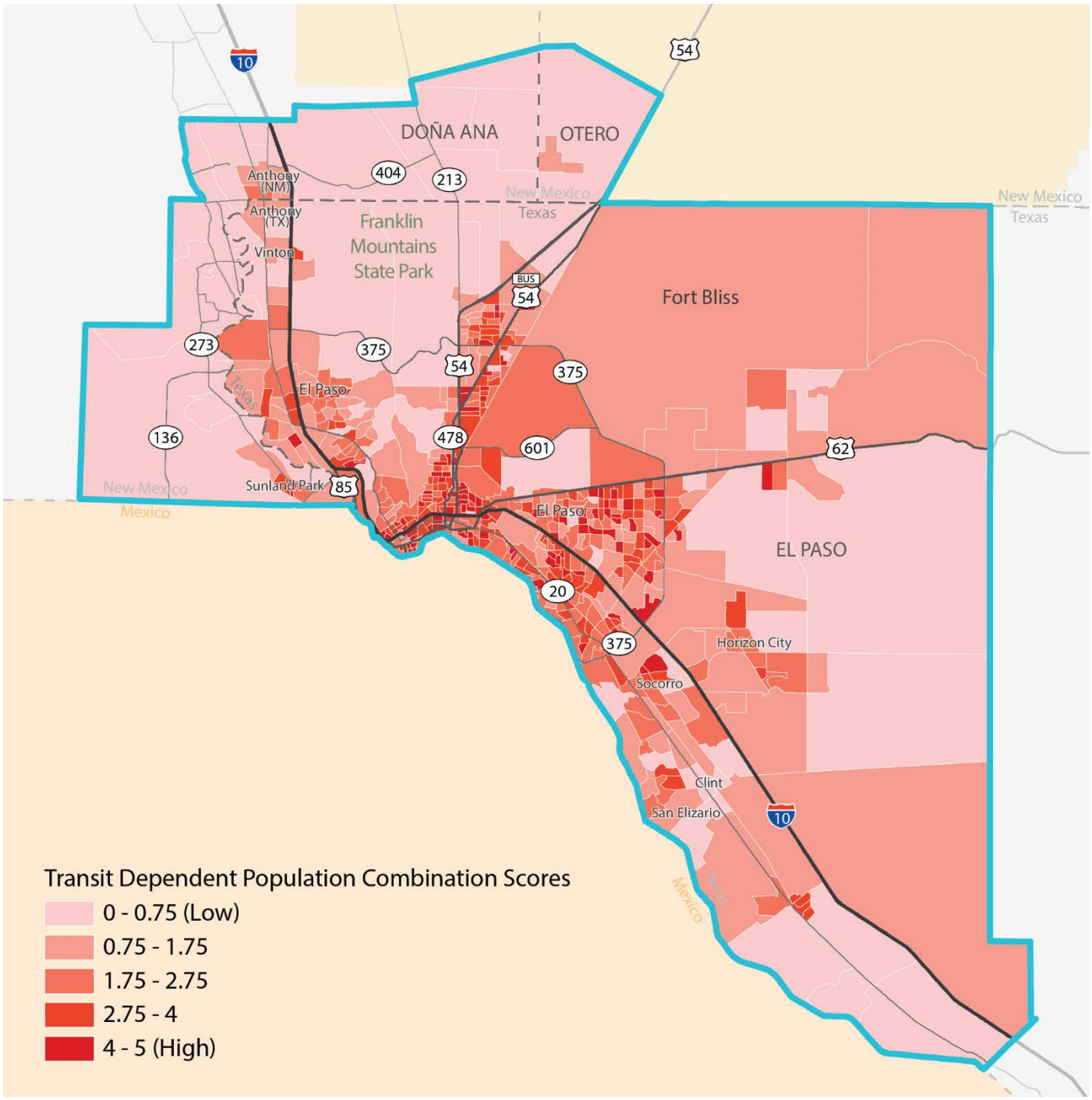
SCORE	DENSITY (PER ACRE)	PERCENTAGE OF BLOCK GROUP
0	Less than 0.2 TDP Per Acre	Less than 10% TDP
1	0.2 – 1 TDP Per Acre	10% - 20% TDP
2	1 – 2 TDP Per Acre	20% - 30% TDP
3	2 – 3 TDP Per Acre	30% - 40% TDP
4	3 – 5 TDP Per Acre	40% - 50% TDP
5	More than 5 TDP Per Acre	More than 50% TDP

Both the density and percentage scores were combined to create a transit dependent population combination score, with more weight (75%) given to density than to percentage (25%). The formula used to produce the final analysis is listed below:

Combined Score = (.75 * TDP_Dens_Score) + (.25 * TDP_Pct_Score)

Figure 3.16 maps the resulting TDP concentration by both the density and percentage of transit dependent people at the block group level of the El Paso MPO Region. Moreover, the formula adjusts for the fact that the block groups vary in size, enabling the identification of areas with high concentrations of citizens who do not have access to a car. The final scale ranges from 0 to 5, with values closer to 5 representing high concentrations of transit dependent populations, with lower concentrations reflected in areas where the combined score is closer to 0.

FIGURE 3.16: POTENTIAL TRANSIT DEMAND (TRANSIT DEPENDENT POPULATION)



SUPPLY

Transit supply is quantified by measuring various characteristics of the region's transit system. This includes characteristics such as frequency or how often the bus comes, hours and days of operation, and type of service such as local, commuter or Brio. Each transit route is assigned a score from 1-5 to quantify the quality of the service. A score of 1 indicates low-quality service and a score of 5 indicates high-quality service. A route may receive a score of 1 if it only operates a few days per week and has low frequency, while a different route may receive a score of 5 if it operates every day of the week and has relatively short headways. Higher-quality services, such as BRT or rail transit receive a higher score because of the premium amenities and the high visibility factor associated with their service. Visibility refers to the fact that these types of services are more reliable because of the investments Sun Metro made in the Brio network such as enhanced stations, signal priority, and other capital improvements.

Buffers were created around the transit stops along each line and the transit supply scores were assigned to these buffers. Quarter-mile buffers were placed around rural transit stops and regular, fixed-route bus services. Half-mile buffers were placed around the Brio transit stops. These distances were chosen because the average person is generally willing to walk five minutes – or a quarter mile – to access transit. People will typically be more willing to walk further for higher-quality transit services, such as streetcars or bus rapid transit.

Transit Corridor Frequencies

A critical element of transit supply is how frequently transit services arrive along a street. The more frequent transit is, the easier it is for users to rely on transit to reach destinations due to the minimal wait time and less need to "plan" their trip. Figures 3.17, 3.18, and 3.19 show the frequency along the combined transit network for weekdays, Saturdays, and Sundays.

FIGURE 3.17: WEEKDAY TRANSIT FREQUENCY

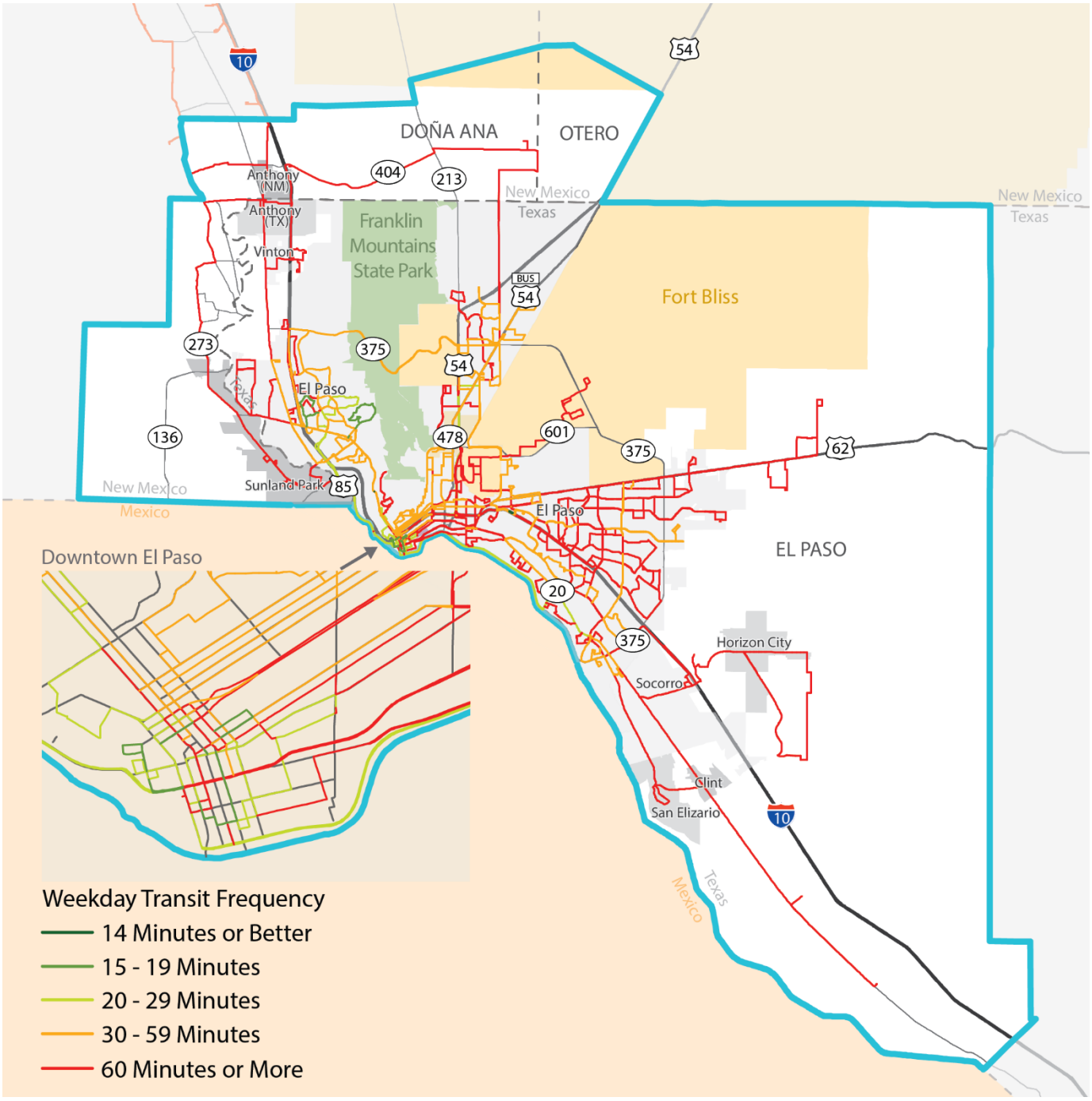


FIGURE 3.18: SATURDAY TRANSIT FREQUENCY

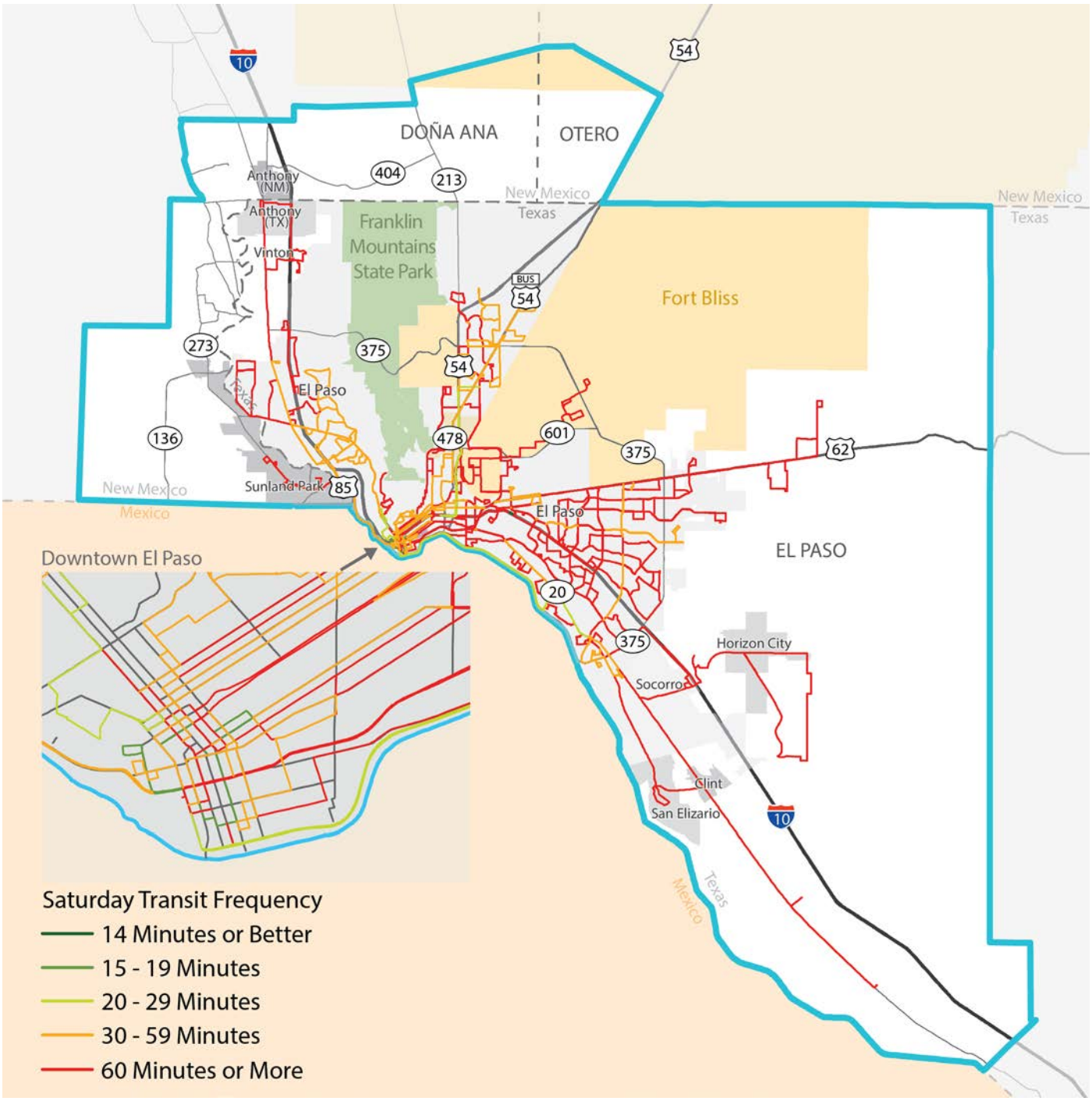
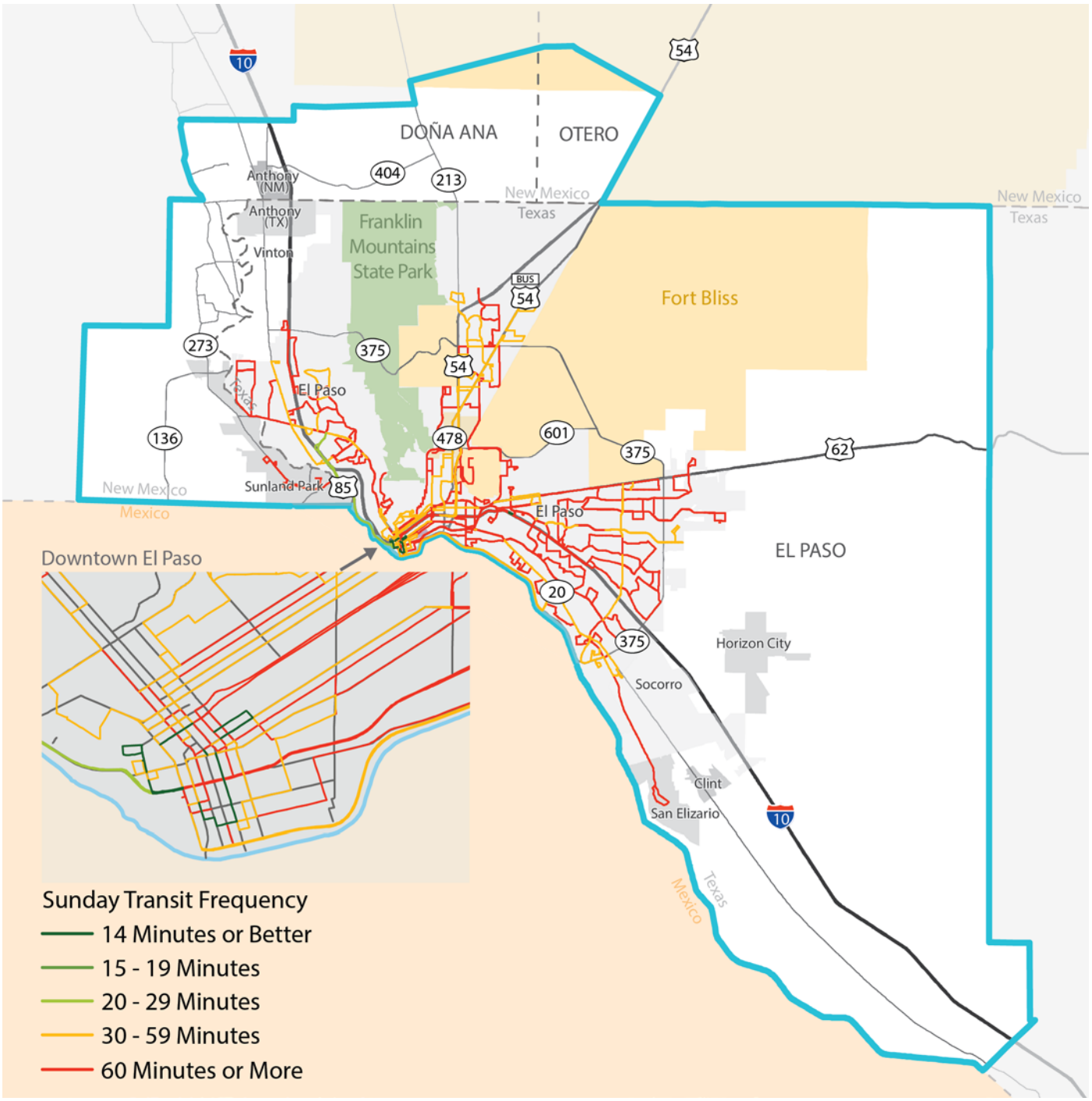


FIGURE 3.19: SUNDAY TRANSIT FREQUENCY



These three maps (Figures 3.17– 3.19) show that transit frequency throughout most of the system is much lower on the weekends than during the week. This is partly because some routes just don't run as often, and other routes don't run at all during the weekend.

The frequency maps also highlight the abundance of relatively infrequent services in east El Paso. While many bus lines go through this area, most of them run infrequently and many of them rarely operate along the same corridors as other routes.

Existing Network Coverage

Table 3.3 shows the breakdown of 2012 population and employment within the transit service area, broken down by maximum score. This shows the breakdown of population and employment by the score of available transit services. A neighborhood might have access to multiple transit routes of varying scores, but the population and jobs are only counted within the highest ranked transit service. Figure 3.20 on the following page displays the region's transit existing transit supply by maximum score.

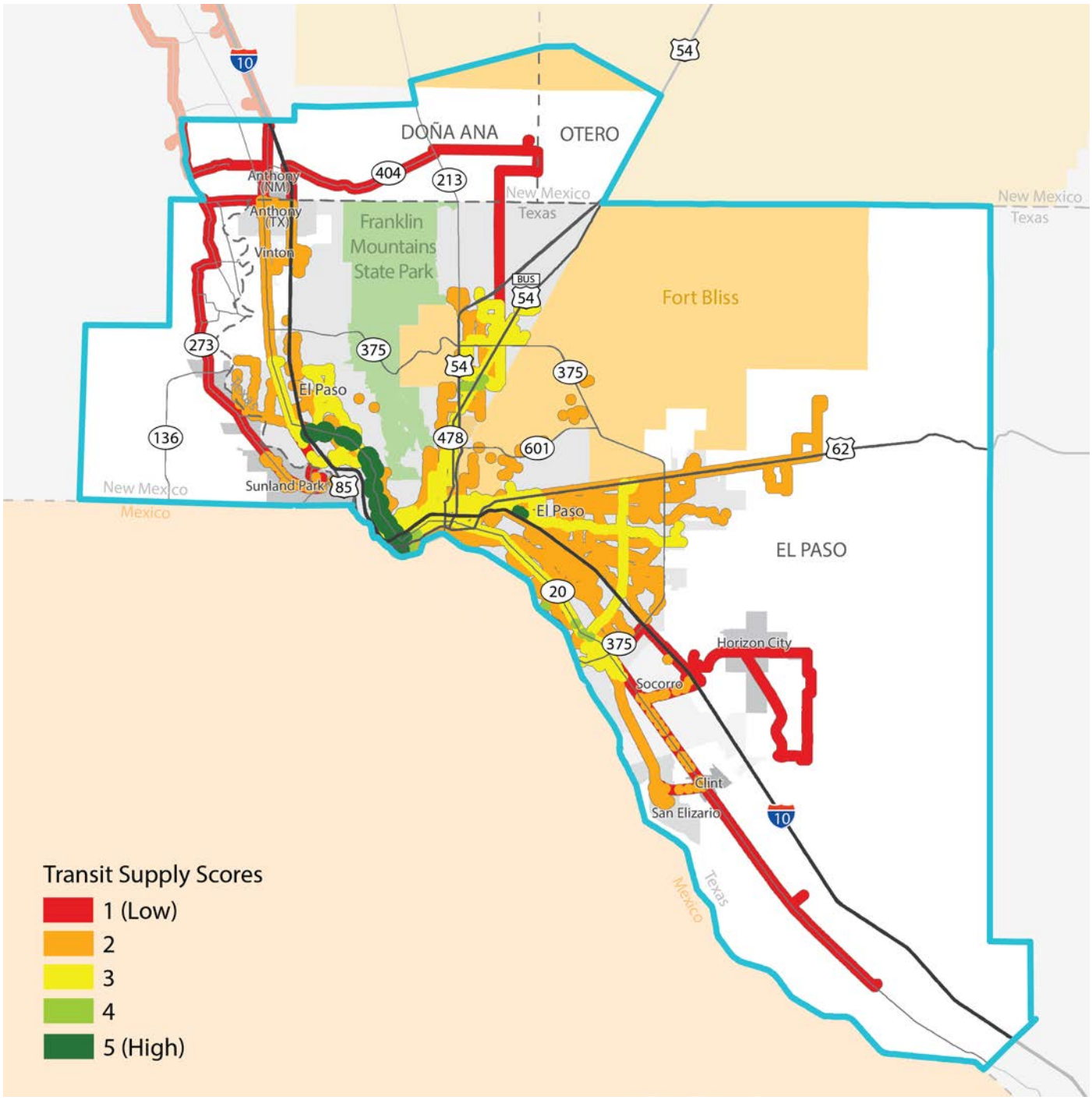
The supply analysis reveals that about 51% of the estimated regional population is either within one quarter mile of a rural or regular fixed-route bus service, or within one half mile of Brio service. Table 3.3 shows that only 1% of the 453,826 people who live within the transit coverage area have access to a transit service with a score of 1 as the lowest-quality available service, while 8% of the population that lives in the coverage area has access to a transit service with a score of 5 (best service). Most of the population that lives in the transit coverage area has access to a transit service with a score of 2.

TABLE 3.3: 2012 POPULATION AND EMPLOYMENT BY MAXIMUM ROUTE SCORES IN EXISTING TRANSIT NETWORK

MAXIMUM SERVICE SCORE	POPULATION COVERED	PERCENT OF REGIONAL POPULATION COVERED	EMPLOYMENT COVERED	PERCENT OF REGIONAL EMPLOYMENT COVERED
0	429,034	49%	104,630	34%
1	8,616	1%	1,388	0%
2	233,224	26%	83,743	27%
3	166,899	19%	74,339	24%
4	8,164	1%	1,187	0%
5	36,923	4%	41,944	14%
Total	882,860	100%	307,231	100%

Table 3.3 shows a similar situation for jobs within the transit service area. While a larger percentage of the region's total jobs are within the transit service area, only 14% have access to a transit service with a maximum score of 5, and the majority have access to transit with a score of 2 or 3.

FIGURE 3.20: TRANSIT SUPPLY (EXISTING TRANSIT NETWORK)



Future Network Coverage

The future transit network in El Paso includes all the transit routes that are currently operating, as well as the planned Brio routes and the downtown streetcar. The planned services all received a score of 5, and half mile buffers were created around the future transit stops as well. The addition of new high-quality transit services in El Paso means that an even larger proportion of the population will be within an area serviced by transit with a score of 5, despite expected population and employment growth outside of the current service buffers.

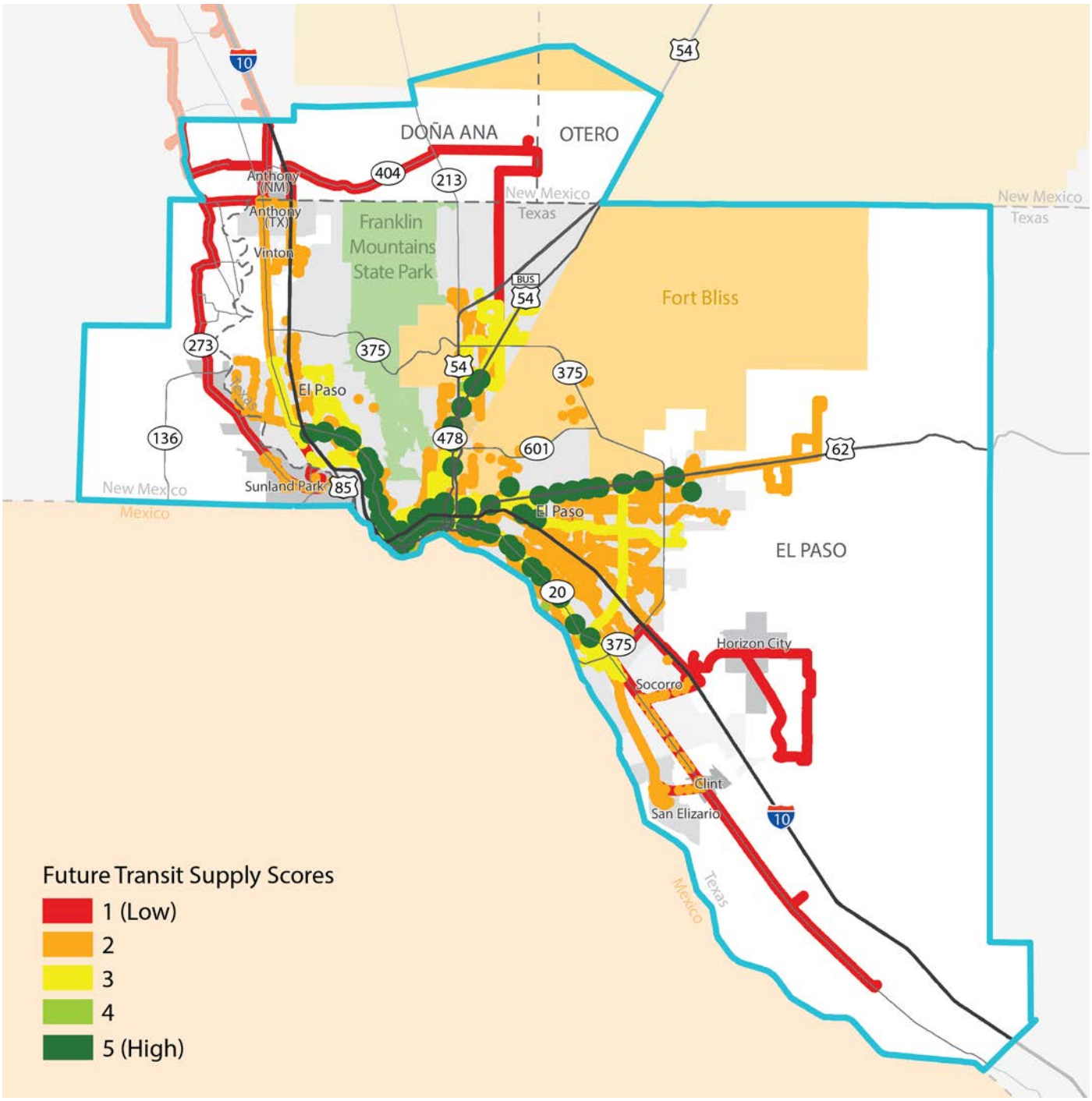
Table 3.4 shows the breakdown of 2045 population and employment within the future transit network service area. The most notable difference between the existing transit network service area and the future network service area is the addition of three new Brio routes and two streetcar circulators. This means that an even greater percentage of the population will be near high-quality transit services. In the existing transportation network, only 4% percent of the region's population live within a half mile of a high-quality transit route. The addition of new routes means that in the future, about 15% of the region's population will live within a half mile of high-quality transit.

The region's employment will also experience increased coverage in the future transit network service area due to the addition of new routes. Approximately 65% of the region's jobs are within the existing network service area. This percentage increases in the future service area to 78%, but a much more significant increase is the proportion of the jobs in the service area will be near high-quality transit. Now, only 21% of the jobs that have access to transit are near a route with a score of 5. This percentage is expected to increase to 40% in the future.

TABLE 3.4: 2045 POPULATION AND EMPLOYMENT BY MAXIMUM SERVICE SCORES IN FUTURE TRANSIT NETWORK

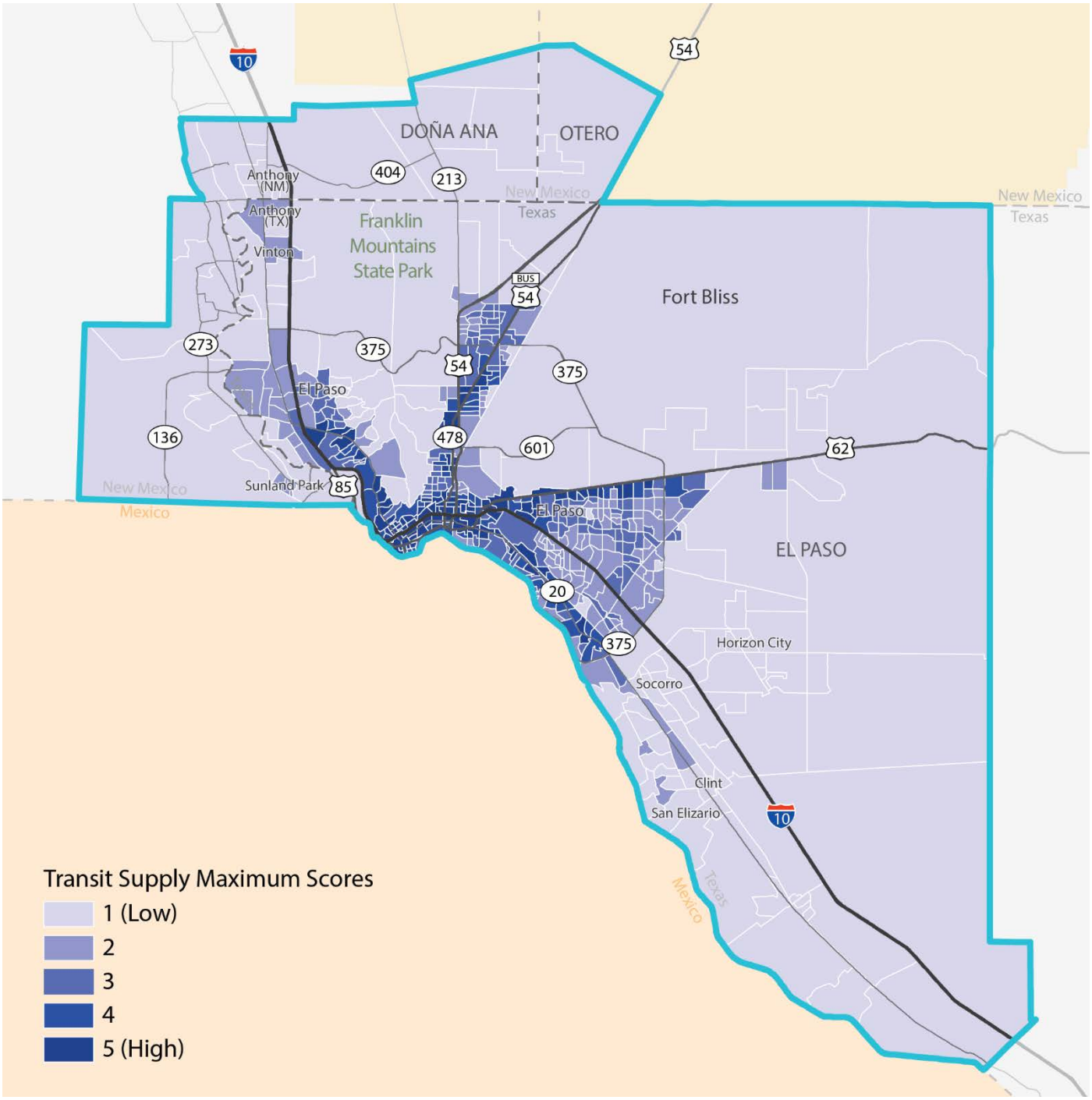
MAXIMUM SERVICE SCORE	POPULATION COVERED	PERCENT OF TOTAL REGIONAL POPULATION COVERED	EMPLOYMENT COVERED	PERCENT OF TOTAL REGIONAL EMPLOYMENT COVERED
0	620,668	45%	102,238	22%
1	15,114	1%	2,365	1%
2	305,584	22%	113,354	24%
3	218,751	16%	102,234	22%
4	11,635	1%	1,733	0%
5	201,805	15%	144,905	31%
Total	1,373,557	100%	466,829	100%

FIGURE 3.21: TRANSIT SUPPLY (EXISTING + COMMITTED TRANSIT NETWORK)



To facilitate the gap analysis process, the supply scores for the existing and planning route buffers were translated to the block group level. The scores were distributed based on the percentage of the block group covered by each score.

FIGURE 3.22: SUN METRO TRANSIT SUPPLY MAX SCORES



GAP ANALYSIS

Once the supply and demand analyses were complete and a comparable 1-5 score generated for both supply and demand, the "transit gap" was measured by subtracting the future network supply score from the existing demand score. This analysis highlights the areas where there is likely high demand for transit currently but existing or planned transit service is lacking. Identifying these areas is a way of measuring the effectiveness of the transit system as well as a way of identifying transit needs in the current and future transportation network. This analysis – in conjunction with the overlay of expected growth and potential transit mode share – can help shape the types of transit projects that the MPO and its planning partners can consider for inclusion in the Destino 2045 MTP to help the region meet its long-term goals to enhance sustainability and expand multimodal accessibility as it continues to grow and evolve.

RESULTS

El Paso has unique geographic characteristics that limit where development can and cannot occur. Mountains, an international border, a military base, and large swathes of undeveloped desert confine both development and transit to a relatively small geographic area. This means that current and planned transit service throughout the region does a fairly good job reaching riders in terms of geographic coverage. However, there are still some gaps in the service area where people who might benefit from transit do not have easy access to transit or could benefit from a higher level of transit service. See Figure 3.23 for a detailed map of the existing network's transit gap. Besides gaps in service there are also areas where service levels and demand levels may not be matched appropriately. Looking at the supply and demand levels reveals areas in El Paso that could benefit from a comprehensive service evaluation and realignment to better match higher levels of service with areas that have a higher demand or propensity for transit. High priority gaps identified through stakeholder and public outreach as part of the Destino 2045 visioning process – and corroborated through this analysis – include Sunland Park, Central East El Paso, portions of the lower Mission Valley, and Tornillo.

TABLE 3.5: TRANSIT DEPENDENT POPULATION COVERAGE

ROUTE SCORE	TRANSIT DEPENDENT POPULATION COVERAGE	PERCENT OF TOTAL REGIONAL TDP COVERED BY SCORE
0	106,002	38%
1	4,933	2%
2	85,840	31%
3	69,488	25%
4	4,460	2%
5	10,116	4%
Total	280,839	100%

Table 3.5 further breaks down transit demand by attributing TDP population to transit coverage by route score, with 5 representing the highest quality coverage provided and 1 the lowest. Scores were based on performance measures with a capture radius of a quarter-mile. The majority of the region's TDP falls within transit coverage with route scores of 2 and 3. Overall, the existing and committed transit system covers roughly 62% of the region's estimated 282,000 transit dependent residents.

FIGURE 3.23: EXISTING + COMMITTED NETWORK TRANSIT GAP ANALYSIS

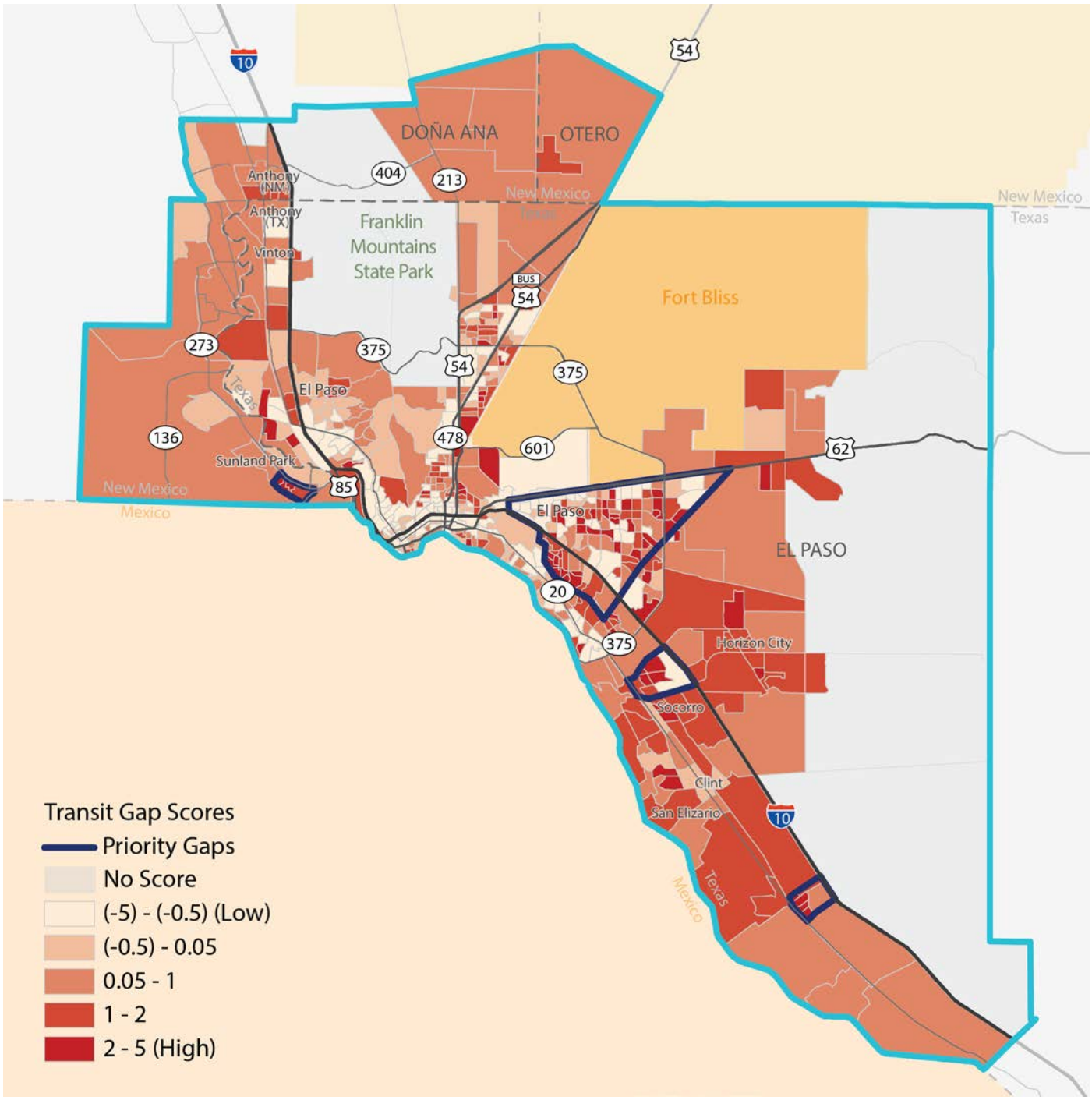
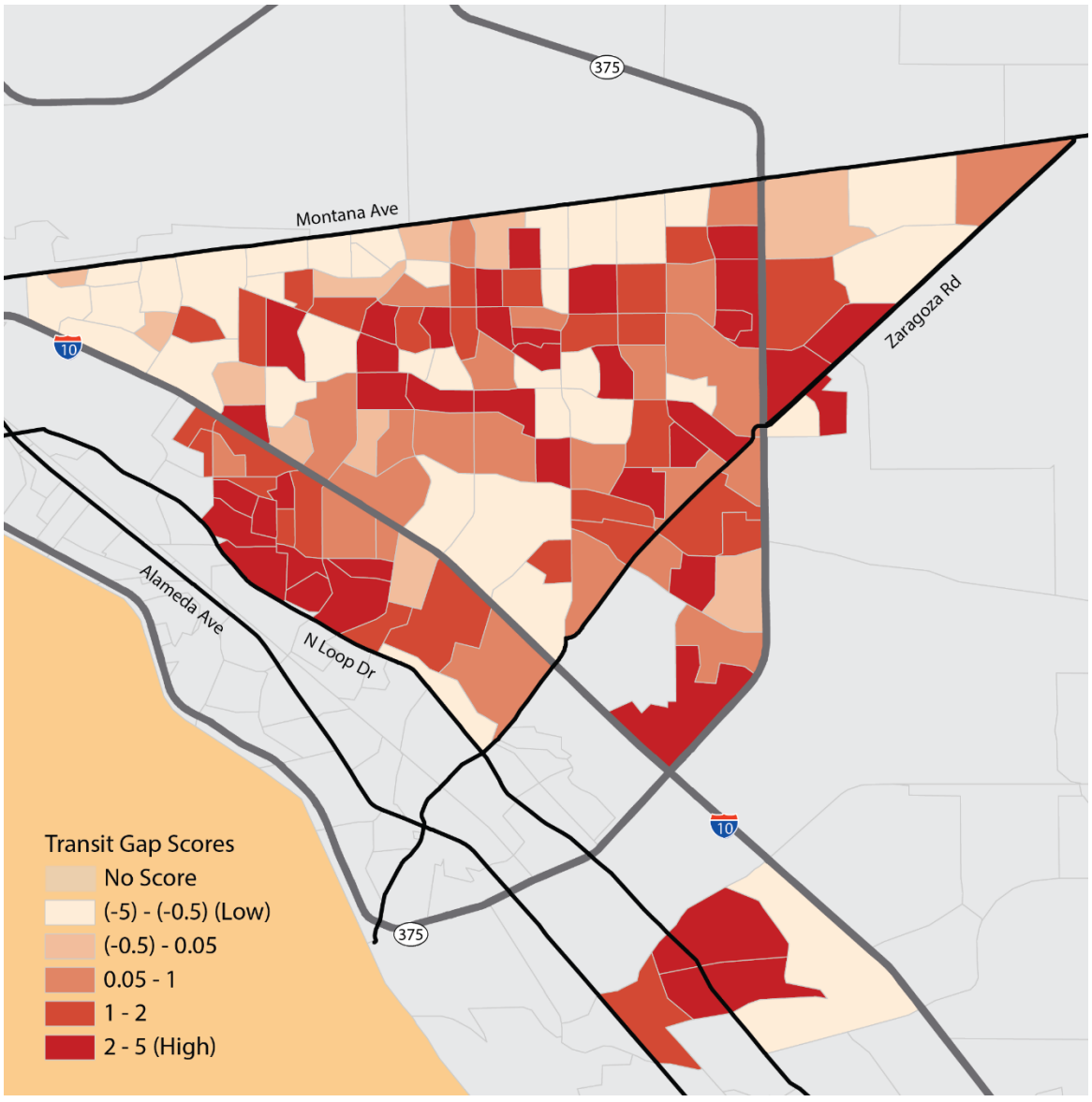


Figure 3.24 reveals the most notable gap in the service region, which is the area in East El Paso where most of the transit service provides good coverage but not the highest level of service. Most of the transit in the area has a low service quality score of two with a few transit lines that have an average service quality score of three. This area contains some of the highest transit demand scores in the region, and could be an ideal location to evaluate how the existing Sun Metro network is structured and how service can be reimagined to improve the experience for existing users while at the same time attracting new riders.

Another gap visible in Figure 3.24 occurs at the neighborhood just southwest of the intersection of N. Loop Drive and N. Moon Road in southeast El Paso. Transit service reaches the streets that surround this neighborhood, but most of the residences are more than half a mile from a transit stop, which is further than people are usually willing to walk to access transit.

FIGURE 3.24: CENTRAL EAST EL PASO AND MISSION VALLEY TRANSIT GAPS



POINTS OF INTEREST

Key destinations and points of interest were collected and mapped in relation to the El Paso region's transit system. Figure 3.25 illustrates points of interest that lie outside the existing transit system coverage area. Destinations are mapped by type, and certain key destinations are labeled to identify places where further service adjustments could be made to enhance access.

FIGURE 3.25: KEY DESTINATIONS AND POINTS OF INTEREST PART

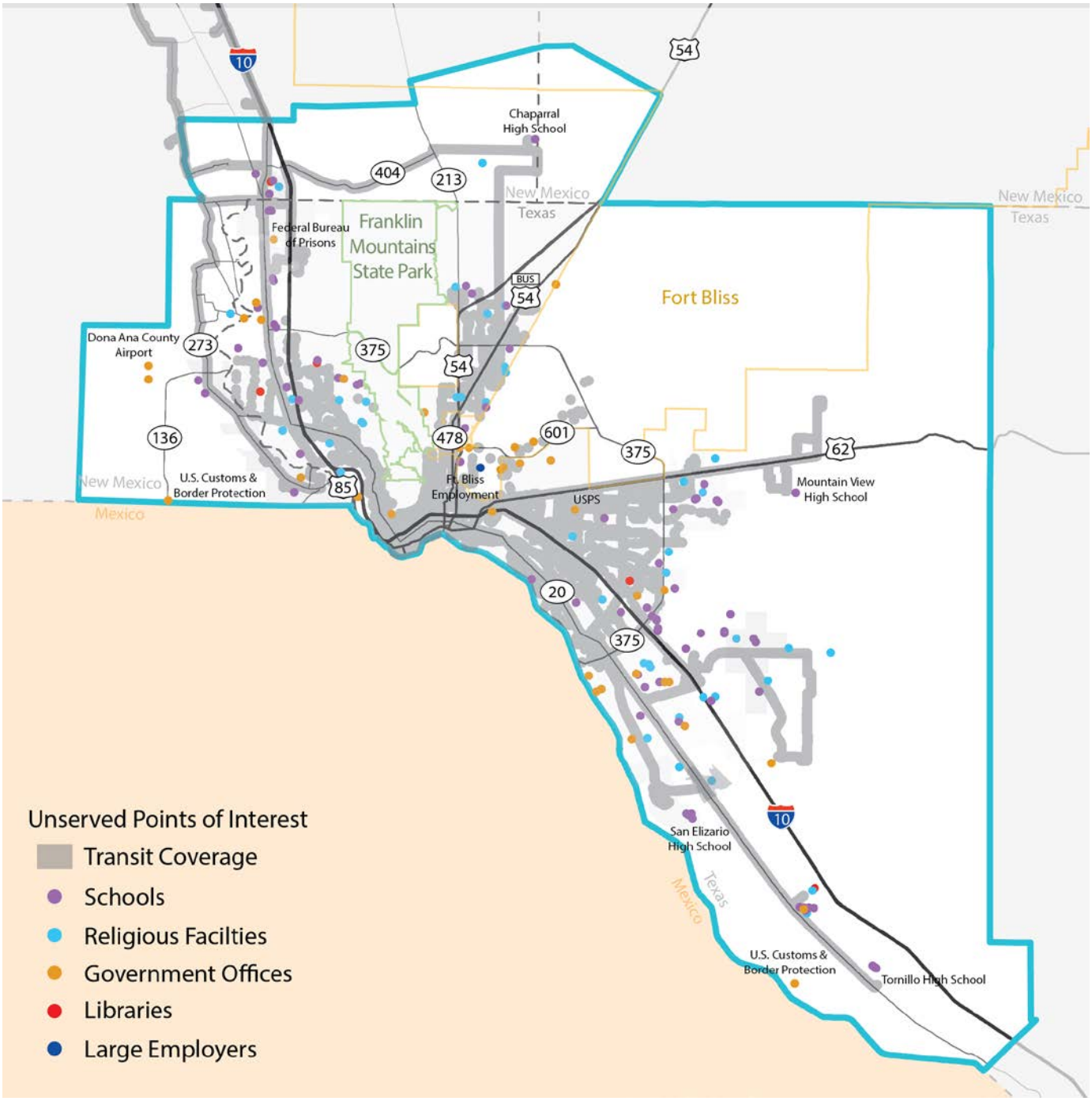


Table 3.7 shows the number and percentage of facilities within each supply area, as well as within the entire transit service area. The clear majority of key destinations are within the transit service area, with all the higher education facilities and hospitals within the transit service area.

TABLE 3.7: POINTS OF INTEREST IN SERVICE AREA

TYPE	MAXIMUM SUPPLY SCORE													
	0	%	1	%	2	%	3	%	4	%	5	%	ALL TRANSIT	%
All	170	15%	27	2%	0	0%	72	6%	215	18%	685	59%	999	85%
Government Offices	41	10%	3	1%	0	0%	22	5%	46	11%	294	72%	365	90%
Schools	79	26%	10	3%	0	0%	20	7%	77	26%	114	38%	221	74%
Large Employers	1	17%	0	0%	0	0%	0	0%	2	33%	3	50%	5	83%
Higher Education	0	0%	1	8%	0	0%	3	25%	1	8%	7	58%	12	100%
Hospitals	0	0%	0	0%	0	0%	0	0%	2	25%	6	75%	8	100%
Religious Institutions	44	11%	12	3%	0	0%	26	6%	83	20%	248	60%	369	89%
Libraries	5	21%	1	4%	0	0%	1	4%	4	17%	13	54%	19	79%

TRANSIT SYSTEM PERFORMANCE MEASURE

Proximity to high-quality transit is one of the primary multimodal performance measures included in Destino 2045. Table 3.6 shows the breakdown of population and employment served by future high-quality transit services. “High-Quality Transit” is defined as the existing Brio route, future Brio routes, and the streetcar. Without the implementation of additional high-quality transit services, it is expected that roughly 27% of the population within the transit service area, and about 15% of the region’s total population will have access to high quality transit. Roughly 40% of the employment in the transit service area will have access to high quality transit and about 31% of the region’s employment will be near high-quality transit. These estimates provide the baseline performance for transit access that can be used to compare alternative programs of projects to be included in the final recommendations of Destino 2045.

TABLE 3.6: POPULATION AND EMPLOYMENT IN FUTURE HIGH QUALITY TRANSIT NETWORK

	TOTAL WITHIN REGION	TOTAL SERVED BY ANY TRANSIT	PERCENT SERVED BY ANY TRANSIT	TOTAL WITHIN ½ MILE OF HIGH QUALITY TRANSIT	PERCENT OF TRANSIT COVERAGE WITHIN ½ MILE OF HIGH QUALITY TRANSIT	PERCENT OF REGION WITHIN ½ MILE OF HIGH QUALITY TRANSIT
Population (2045)	1,369,000	753,000	55%	202,000	27%	15%
Employment (2045)	467,000	365,000	78%	145,000	40%	31%

COORDINATED HUMAN SERVICES TRANSPORTATION NEEDS

In addition to analyzing the fixed-route transit system, Destino 2045 also considered the needs of those that rely on Human Service Transportation providers throughout the region, which can (but doesn't necessarily) include the transit dependent population that reside within the Sun Metro service area. This section combines information gathered from The Far West Texas / El Paso Regional Human Services – Public Transportation Coordination Plan (referred to as the HSPTCP for the rest of this section) – completed in 2017 – with feedback gathered through the Destino 2045 public visioning meetings and stakeholder outreach meetings, to supplement technical analysis of paratransit demand in the El Paso Region and identify needs related to demand-responsive transit to be addressed by the Destino 2045 MTP.

HSPTCP Summary

The 2017-2022 HSPTCP was created to support the 5-year coordination plan for the region composed of Brewster, Culberson, El Paso, Hudspeth, Jeff Davis and Presidio Counties. A committee was assembled to begin the effort to assess existing transportation resources and identify gaps and duplication of services within the current public transportation system. The goal of the plan was to prioritize mobility needs and coordination strategies to better serve those needs.

Table 3.8 identifies a summary of the mobility goals and objectives of the region overall as established by the plan committee in relation to the El Paso Transportation Plan.

TABLE 3.8: 2017-2022 FAR WEST TEXAS/EL PASO REGIONAL HSPTCP GOALS AND OBJECTIVES

GOALS	SUMMARY OF OBJECTIVES
Maintain an inclusive and sustainable planning process that seeks and values public participation, communicates its goals and activities to the public and honors its Regional Plan and Priorities	Maintain a viable steering and stakeholder committee, communicate with adjacent regions by establishing a mechanism to define metric parameters for data collection and prepare and follow annual detailed workplans to guide regional coordination activities.
Fill unacceptable gaps in service, especially for transit dependent populations, through the continuous identification and assessment of changing mobility needs, expansion of financial support, increased efficiency, redeployment of redundant resources and services innovation	Encourage the expansion of Sun Metro service hours and identify resources and expand same-day options in both urban and rural demand-response systems by developing partnerships with health and human service organizations and monitoring transportation needs
Provide technical assistance and training to transit providers and encourage linkages between providers and with organizations serving transit dependent populations to create a customer-centered and seamless public transportation system	Encourage human service agencies to offer or expand fixed route transportation assistance and establish a mechanism for rural agencies to purchase transportation on rural systems, improve accessibility and reliability and improve driver availability
Ensure broad public knowledge of transit services and issues and maintain effective public awareness effort targeted to significant segments regarding specialized services and resources	Develop, pilot and implement transit consumer education and engagement program and provide comprehensive information about transit and §5310
Work to eliminate physical, financial, regulatory and operational barriers to the delivery of seamless regional transportation	Assess approaches to further reducing demand-response wait times, pick up window and travel time and developing training programs to encourage the use of fixed-route services and combine city and county transit services into a single integrated service design and adjust to increase neighborhood coverage and accessibility
Enhance the mobility of older adults and persons with disabilities through an inclusive and deliberative process that encourages coordinated services and the efficient use of limited §5310 funds to ensure the creation and continuation of mobility services where existing transportation services do not fully meet the needs of rural and urban communities	Sustain and support current urban and rural demand-response service system by supporting vehicle acquisition and replacement and sustaining coordinated service delivery enhancements that will support transportation for older adults

PROVIDERS AND SERVICES

Paratransit and rural transit services are predominantly provided by agencies that have transportation as an auxiliary function for their primary services, such as healthcare providers. Below are the providers mentioned in the HSPTCP that serve the Destino 2045 study area.

Sun Metro Lift

Sun Metro LIFT service is contracted to MV Transportation Inc. to provide paratransit services. The LIFT service operates within the city limits and extends 1.5 miles beyond the agency's traditional fixed-route bus service. Sun Metro also used New Freedom funds for a contracted collaboration with Project Amistad, Sun City Cab and Viba Transportation to provide demand-response services that exceeds the requirement for complementary ADA paratransit through the provision of same-day service and the expansion of service hours and range. The program is being continued through the Enhanced Mobility for Seniors and Person with Disabilities program grant funding awarded to Project Amistad by the El Paso MPO.

El Paso County Rural Transit District

El Paso County receives a combination of funds from state and federal 5310 programs to provide fixed-route transit and vanpool service. Their fleet consists of wheelchair lift equipped buses that can each accommodate two wheelchairs.

Project Amistad

Project Amistad is the Managed Transportation Organization that provides free curb-to-curb, non-emergency medical transportation for Medicaid recipients through a contract with the Texas Department of State Health Services. The non-profit organization subcontracts with several service providers to provides service to 23 counties surrounding El Paso. Project Amistad was awarded the Enhanced Mobility for Seniors and Persons with Disabilities program grant to collaborate with Sun Metro to provide ADA services. It recently became the service provider for after-hours service for the LIFT. The agency also operates two rural fixed-routes in rural El Paso county that connect with Sun Metro transfer centers.

Table 3.9 describes other transportation providers in the region.

TABLE 3.9. OTHER SERVICE PROVIDERS

HUMAN SERVICE/TRANSPORTATION PROVIDER	PIMARILY TRANSPORTATION	TYPE OF SERVICE
Amerigroup Inc.	No	Information and referral of transportation services
Bienvivir Senior Health Services	No	Demand-response medical transportation for members
Big Bend Community Action Committee, Inc. (BBCAC)	Yes	Demand-response medical transportation and rural transit
The Opportunity Center for the Homeless	Yes	Transportation to health and human services and employment; issuance of bus passes
Sun City Cab	Yes	Accessible cab services for people with disabilities and the elderly
University Medical Center	Yes	Medical Transportation
Viba Transportation	Yes	Demand-Response transportation for people with disabilities and the elderly
Volar	No	Certify eligibility for Sun Metro LIFT and fixed-route travel training

STAKEHOLDER INTERVIEWS AND USER SURVEY RESULTS

HSPTCP User Survey

Consumers and members of the public in the Far West Region were surveyed by the plan committee to identify travel needs. The following information is key to giving context to mobility needs.

- 85% of respondents did not have access to a vehicle
- 90% of respondents had some type of disability, 39% of who stated their disability limited their ability to operate a vehicle
- 22% of respondents used some form of mobility device, such as a cane or wheelchair
- 6% of respondents required assistance from another person during travel

The most commonly mentioned issues identified in user survey results was the late arrival of vehicles, which made it difficult to retain employment and reach multiple destinations in the same day. User feedback and stakeholder interviews also identified other issues with demand response services.

- Same-Day service – Scheduling rides for the same day rather than advance
- Long travel times
- Lack of drivers – Need for more drivers willing to drive longer distances
- Lack of service awareness – Need for more awareness of services
- Consistent Funding – Need for more consistent funding sources to provide for continuation of services

The plan identified gaps that need to be addressed with the current system that would improve service for consumers and improve service for those who are not currently users.

- Buses arrive after scheduled pick up window
- Pick-up window excessively long
- Travel time on bus too long
- Limited same-day demand-response service
- Demand-response service needed for low-income parents who must commute to childcare then work
- Demand-response service for shelter residents or other human-service program clients who must make multiple closely spaced daily appointments
- No ability to schedule, cancel or receive trip updates on smart phone
- Passenger expectations unrealistic and operators not fully trained and engaged to make system run more timely
- Limited awareness and availability of paratransit or equivalent service outside city limits
- LIFT services not available to otherwise eligible persons without photo ID

Destino 2045 Feedback

The Destino 2045 MTP Visioning Survey also asked respondents to identify groups that would not be well served by the transportation system if service remained the same.

- 69% of respondents identified elderly populations
- 68% of respondents identified low-income individuals/families
- 66% of respondents identified people with disabilities
- 69% of respondents identified people with medical needs

When referencing paratransit and demand-response services, stakeholders interviewed as part of the Destino 2045 visioning process most often referenced Project Amistad, and described it as a helpful organization that provided exemplary service by connecting with

other service providers. This was consistent with the user survey results from the coordination plan which described demand-response transit service as excellent. Despite the overall positive impression of Project Amistad, stakeholders still described some difficulty with coordination. For example, although Project Amistad recently replaced after-hours service previously provided by Sun Metro Lift, there is currently no ability for users to transfer tickers from one service to another.

FUNDING

Several funding sources were mentioned in the HSPTCP that could affect the level of service for the region. Interviews conducted by the committee and stakeholder interviews revealed that these funds are currently supporting projects that support rural, low-income, elderly and populations of disabled people. The Job Access and Reverse Commute Program (JARC) was established to help low-income individuals facing transportation challenges and develop projects that will better serve their transportation needs. JARC funding sources are set to expire or have already expired and future funding sources are not certain. The Congestion Mitigation Air Quality (CMAQ) program was developed to support transportation projects that contribute to improving air quality. This funding is awarded on a yearly basis making it difficult to determine the future of the programs it supports. Both JARC and CMAQ fund several transportation projects operated by human services in the region. Alternative funding sources need to be identified to continue these projects.

GEOSPATIAL ANALYSIS

A geospatial analysis was conducted to measure if, and to what extent, the rural transit and Sun Metro's transit served health care and social assistance destinations. Data on health care and social assistance destinations were collected and compared to the transit network. By overlaying the region's transit services over the services provided in the region, it is possible to see where services are accessible by transit, and where they are not accessible by transit. This showed a significant number of services that are not located near rural fixed route transit. To use services located in the city center, users must transfer from the El Paso County rural fixed-route transit system to Sun Metro, long commutes and inconsistency in payment systems create difficulties for rural residents to reach services.

Figure 3.26 shows the healthcare and social services providers that are located outside of the transit system coverage area, while Figure 3.27 compares existing transit system coverage to transit-dependent population concentrations and the location of existing rural transit stops.

FIGURE 3.26. SERVICE PROVIDER DESTINATIONS

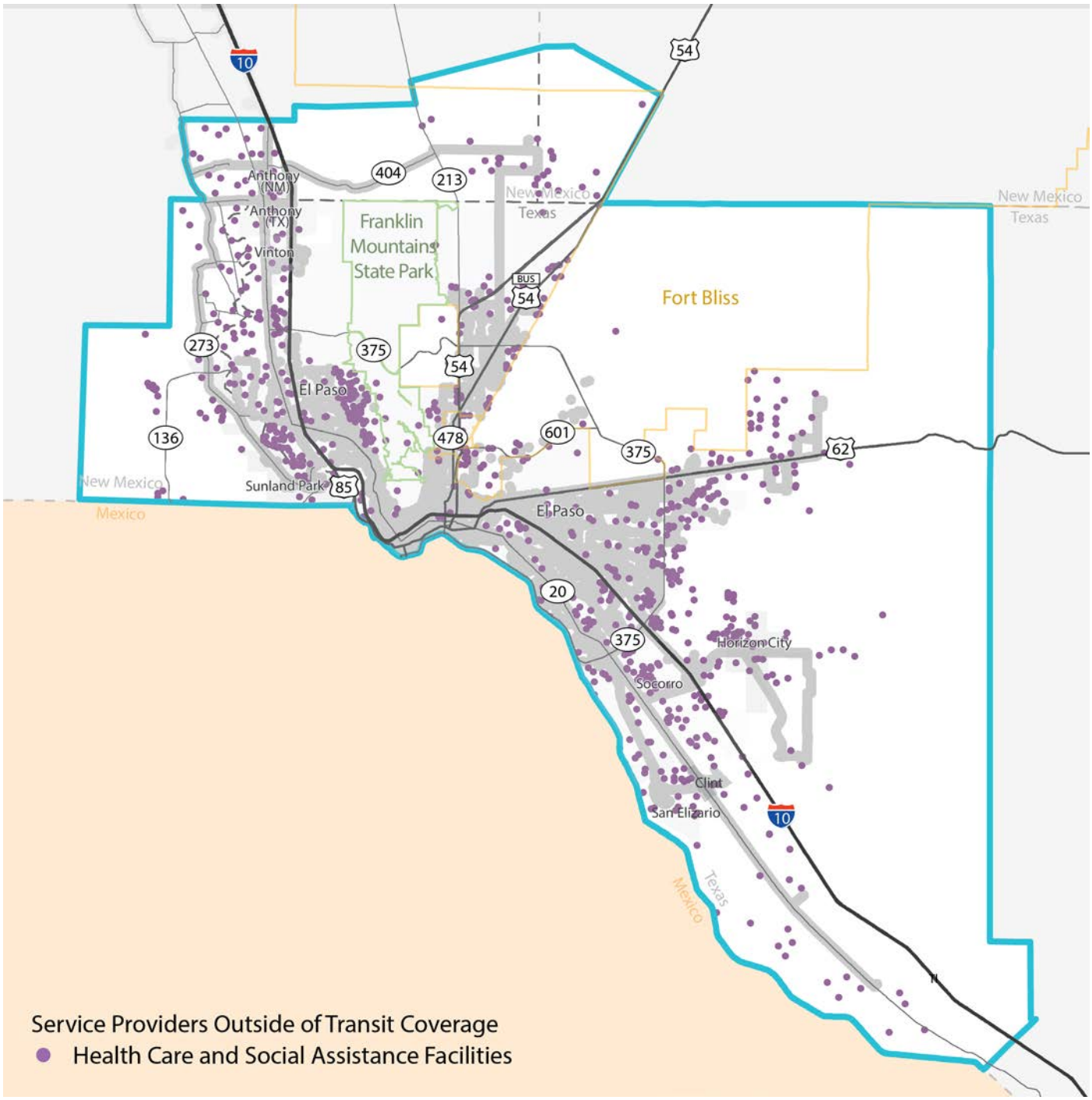
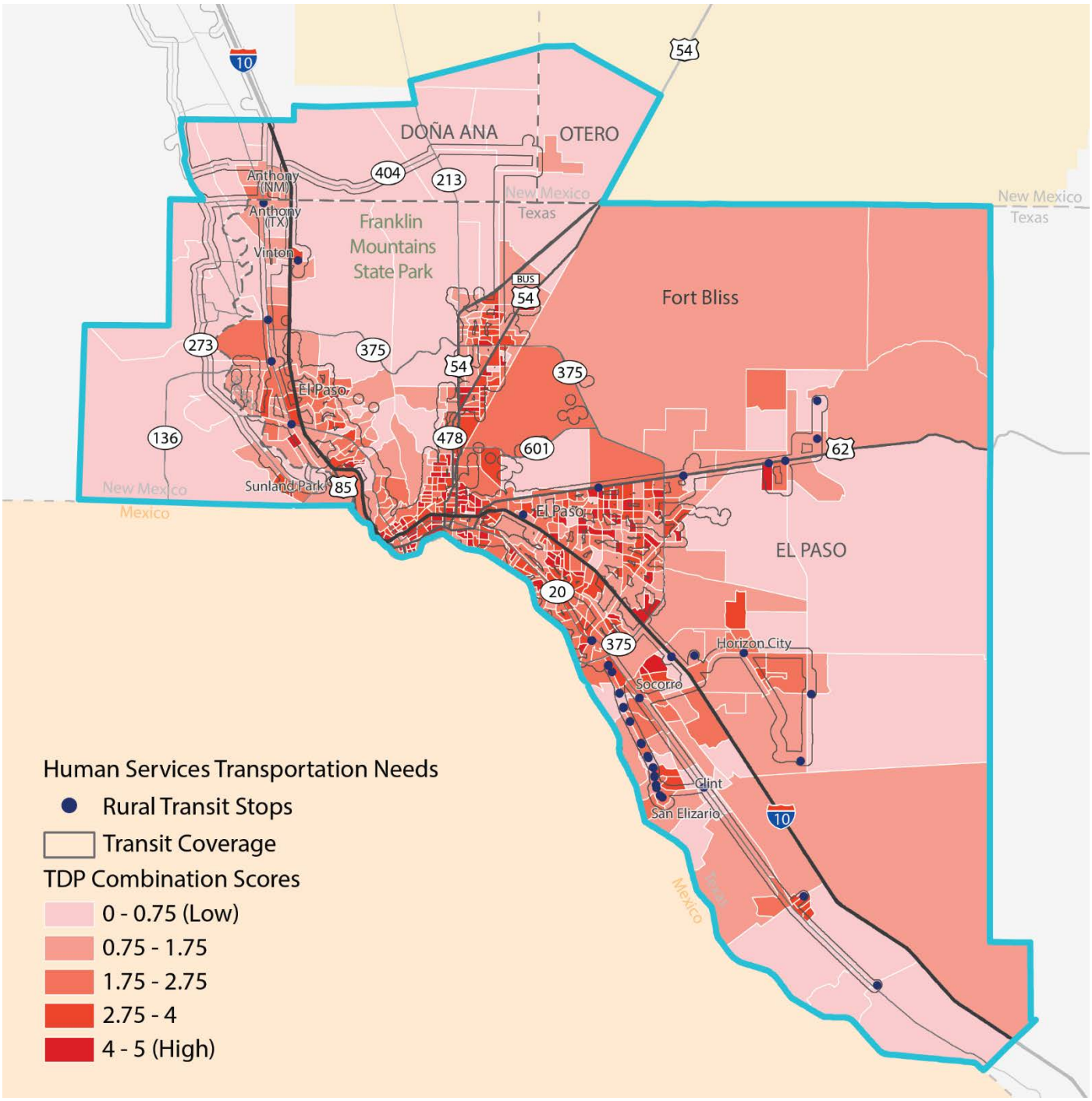


FIGURE 3.27: TRANSIT COVERAGE, RURAL TRANSIT, AND TRANSIT DEPENDENT POPULATION CONCENTRATION



SUMMARY

Stakeholders and user surveys revealed several needs in human service and demand-responsive transportation. The HSPTCP used this feedback to create strategies to address these needs and reduce service duplication. El Paso MPO should use these recommendations to improve coordination throughout the region. Improvements in fixed-route transit could help reduce the need for costly demand-response responses. Creating a uniform payment system with Sun Metro and El Paso County fixed-route systems could reduce the need for demand-response service by establishing consistency for users. Demand-response providers should increase efforts to provide same-day services to improve mobility throughout the region. Better coordination between demand-response and rural transit providers can also eliminate service redundancy and reduce costs to providers. Finally, increased awareness of services for potential users could also help to ensure that services are being used to maximum capacity and efficiency. The MPO could lead a coordinated effort with human service transportation providers to market the services they offer. Marketing efforts should include multiple avenues of communication to ensure that the community is made aware of an array of transportation options.

Stakeholders for the HSPTCP and Destino 2045 can use survey data to include users in the planning process and better inform future coordination efforts. The previously mentioned goals and objectives are a crucial starting point to ensure that coordination efforts are inclusive of the entire community.