

BRT SYSTEM PERFORMANCE MEASURE

May 2022

El Paso MPO

In the following report two performance measures that are discussed in the Congestion Management Process under Tier 2 related to the exiting BRT system will be addressed in further detail. These two performance measures include the Percentage of Population Living within half-a-mile of a BRT Station and Percentage of Jobs within ½ mile of a BRT Station. These types of measure help to improve connection between people’s residencies and their job. These can help provide a framework to analyze the improvement in the transit system of the region with improved connectivity and provide an incentive to reduce the use of the vehicle as a higher percentage of the population and jobs fall within the half-a-mile criteria.

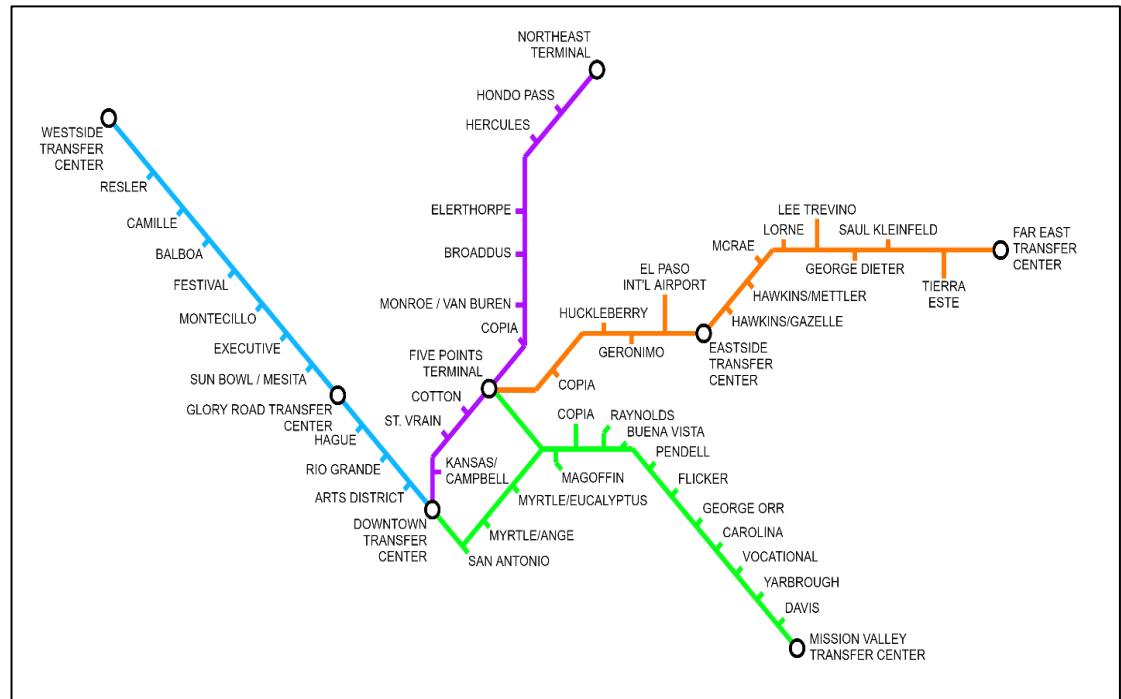


Figure 1-BRT Routes

For the purpose of the analysis, only the BRT system was analyzed as these types of systems have the goal of increasing reliability and improve speeds to help get passengers to their destination faster. In this BRT system the goal has been to have stations separated by no more than a mile, which creates a half-a-mile buffer which is usually the distance a rider is willing to walk between stations. Currently, three routes are in operation, which include the Mesa Corridor in blue, the Alameda Corridor in green, and Dyer Corridor in purple. In addition, there is a project underway to expand the system to include a Montana Corridor shown in orange. Since not all routes have been completed by the time the analysis was performed, the performance measure was divided into exiting stations and planned stations.

The first performance measure to be discuss is the percentage of jobs within half-a-mile of the BRT system. Based on the United States Census Bureau, it is estimated that there were 311,661 jobs in the El Paso MPO study area in 2018. After the data was collected and analyzed it was determined from the existing BRT station, about 66,680 jobs fall within the half-a-mile criteria, which represent a 21.39% of the total number of jobs. In addition, once all the routes are completed, it has been estimated that about 105,363 jobs will fall within the ½ mile criteria or 33.89%, which represent a 12% increase once Montana is completed.

The second performance measure to be discuss is the percentage of population within ½ mile of the BRT system. It has been estimated using information from the United States Census Bureau that there is a total population of 900,183 people in El Paso MPO study area in 2018. From the information obtained it was determined that about 11.94% of the population live within half-a-mile of an existing BRT station or about 107,568 people. In addition, once the planned station of Montana is completed, it has been estimated that about 145,898 persons will live within half-a-mile of a BRT station or about 16.2%, which represent a 4% increase.

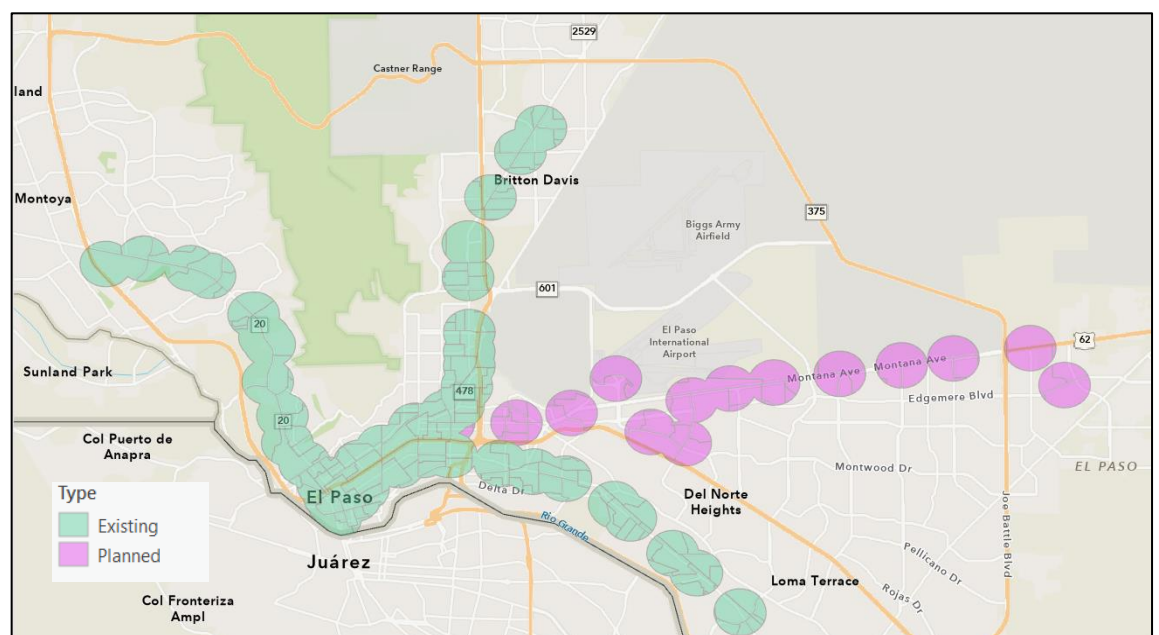


Figure 2- BRT Jobs and Population Analysis

In addition, as mentioned in the RMS 2050 MTP Chapter 4 document, the MPO is proposing a conceptualized densified scenario. In this scenario, the anticipated population growth between 2022 and 2050 will be concentrated in a 1.5-mile corridor corresponding to major roadways. With this scenario a transit-oriented development approach was taken and the possibility to further expand the BRT system to include additional north-south BRT corridors to have a total of nine corridors was explored. These nine corridors are comprised of areas where growth can be expected to be concentrated as data from the Texas State Demographer suggest employment will grow by about 30,000 between 2022 and 2050. The proposed new routes shown in Fig. 3 include currently identified congested corridors such as Yarbrough and Lee Trevino.

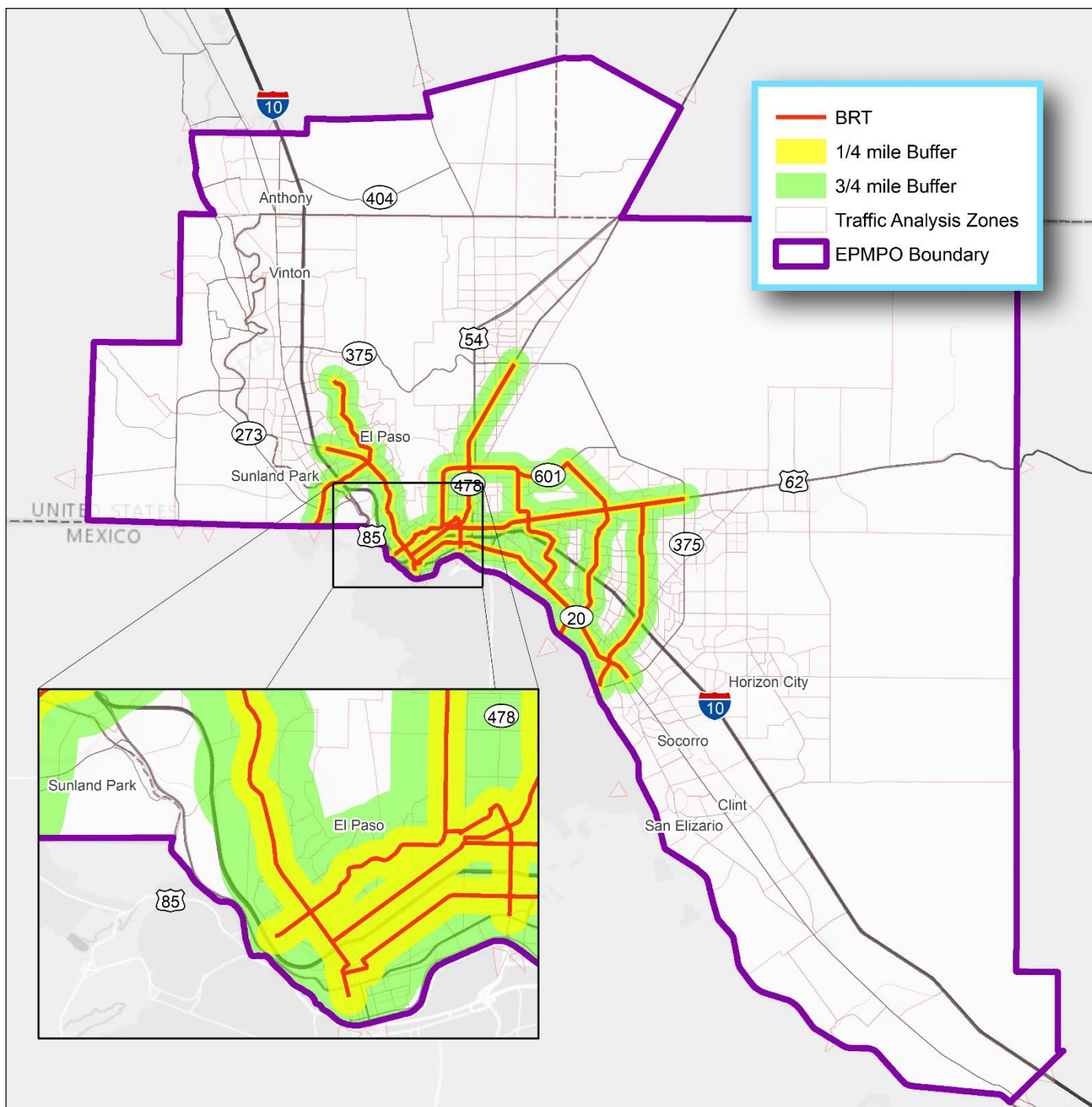


Figure 3- Demographic Growth Concentration Corridors under Densified Scenario