

Appendix M

Transportation Impact Study

Kearny Mesa Community Plan Update

Transportation Impact Study

Draft Report

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Prepared for:



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1.0 Introduction

1.1 Purpose of the Report

This Transportation Impact Study (TIS) serves to identify and document potential CEQA transportation impacts related to buildout of the Kearny Mesa Community Plan Update proposed land uses and mobility network (Proposed Project), and alternatives evaluation, as well as to recommend improvements/mitigation measures as appropriate.

Figure 1-1 displays Kearny Mesa's location in the San Diego Region.

Study Scenarios

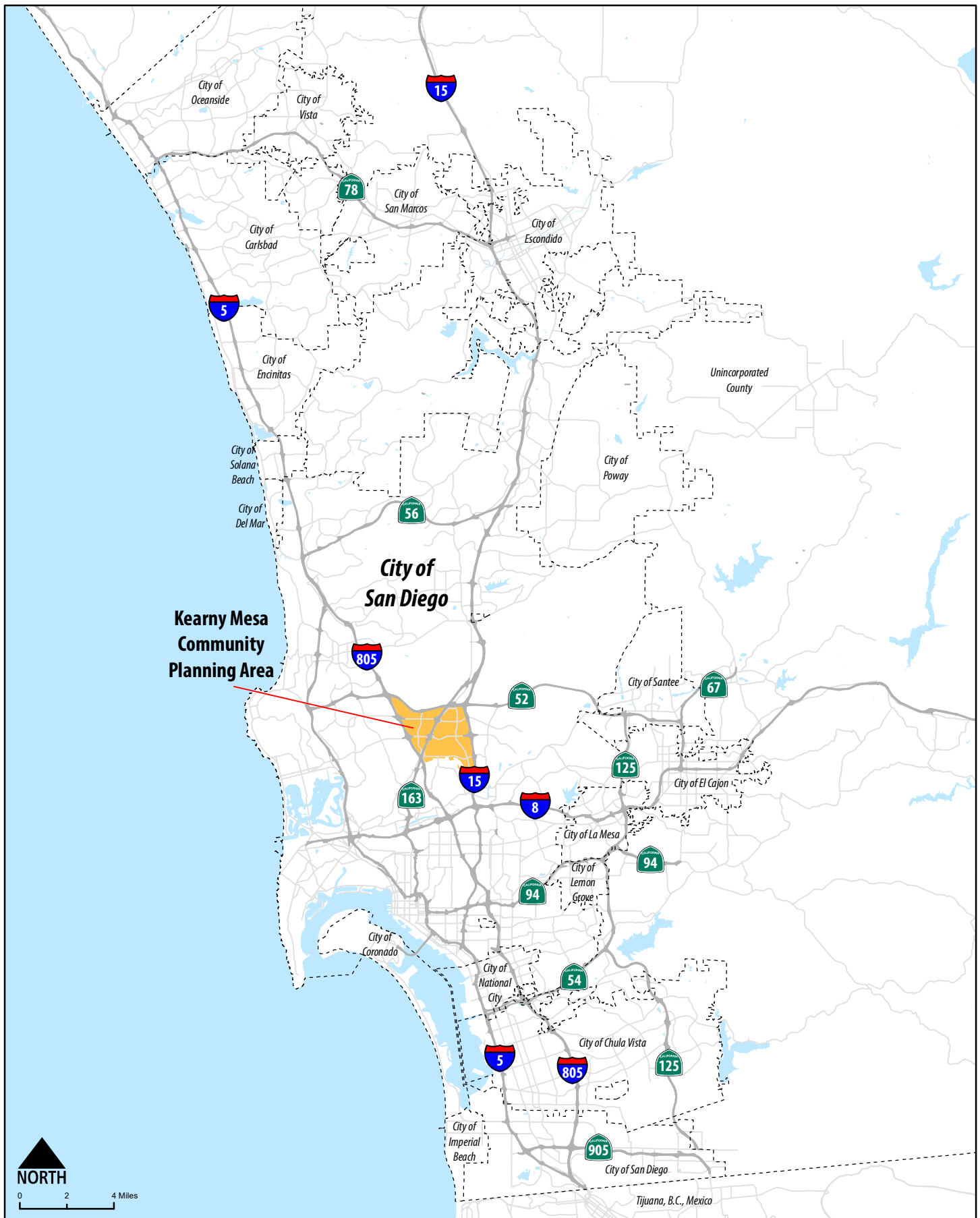
Seven (7) mobility scenarios were evaluated, including five (5) alternatives based on the Kearny Mesa Community Plan Update (CPU) land uses. The seven scenarios consist of the following:

- **Base Year (2012)** – establishes the existing baseline VMT within the project study area based on the SANDAG Series 13 Regional Model Base Year (2012) calibrated for Kearny Mesa.
- **Proposed Community Plan Update (Proposed Project)** – represents buildout of the Proposed Project land uses and mobility network, which were developed in collaboration with community members, City staff, and the project consultant team. A summary of the proposed land uses is provided in Chapter 2 of this report, while the detailed network development process and recommendations are provided in Chapter 4.
- **No Project (Adopted Community Plan)** – represents buildout of the Kearny Mesa currently Adopted Community Plan land uses and mobility network as they apply today, including all amendments to the Community Plan from its original adoption in 1992 to the most recent amendment in 2018.
- **Alternative 1 (Reduced Density Alternative)** – represents the same proposed mobility network but retains more of the existing industrial and business park areas within the CPU area and would increase the floor area ratio (FAR) limits for commercial and industrial zones.
- **Alternative 2 (Reduced Height Alternative)** – represents the same proposed mobility network, and land uses (i.e. type and total quantity) as the Proposed Project but would implement reduced height limits in the proposed village areas.
- **Alternative 3 (Reduced Industrial Employment Alternative)** – represents the proposed mobility network, but assumes an increased overall employment compared to the Proposed Project by increasing the scale of commercial development in industrial zones.
- **Alternative 4 (Residential Option)** - represents the same proposed mobility network and land uses as the Proposed Project but would redistribute a portion of the dwelling units on Clairemont Mesa Boulevard.

All study scenarios were modeled using the calibrated SANDAG Series 13 Regional Model – Kearny Mesa Community Plan Update Subarea Model (the “Model”). This customized Model assumed buildout of the proposed Kearny Mesa land uses and the respective mobility networks for Kearny Mesa, as well as the Horizon Year 2050 land uses and transportation improvements for the rest of the San Diego region. Detailed modeling information and documentation can be found in Chapter 4 of the *Mobility Technical Report*.

This report has been prepared in accordance with the City’s compliance with the SB 743 legislation specified by the Governor’s Office of Planning (OPR). SB 743 removes traffic Level of Service (LOS) as a metric for determining significant environmental impacts for transportation and replaces it with Vehicle Miles Traveled (VMT) as the primary measure of transportation impacts.

For the purpose of the transportation impact study, Plan-to-Ground analysis was conducted by comparing the Proposed Project and the various alternatives to Base Year (2012), which is representative of baseline conditions.



1.2 Report Organization

The remainder of this report is organized into the following chapters:

- 2.0 *Project Description* – This chapter summarizes the land uses for the Base Year, Adopted Plan, and Proposed Community Plan Update (Proposed Project).
- 3.0 *Analysis Methodology* – This chapter describes the methodologies and standards utilized to analyze the VMT conditions for all scenarios.
- 4.0 *Project Impacts* – This chapter discusses the VMT analysis and potential CEQA transportation impacts of the Proposed Project. Mitigation measures for significant transportation impacts are identified, as necessary.
- 5.0 *Vehicle Miles Traveled for GHG Analysis Purposes* – This chapter discusses the VMT data required for the Greenhouse Gas (GHG) Emissions analysis of the Proposed Project. As opposed to the VMT metric used in evaluating project transportation impacts, which is an efficiency metric (Resident VMT per Capita or Employee VMT per Employee), the VMT for GHG analysis is based on the project VMT generated. This VMT for GHG analysis was provided for the Base Year, Adopted Plan, and the Proposed Project.
- 6.0 *Alternatives Analysis* – This chapter discusses the VMT analysis and potential transportation impacts of the five project alternatives including the No Project Alternative.

2.0 Project Description

The Proposed Project includes an update of the currently Adopted Community Plan to address future growth and development in the Kearny Mesa community. **Table 2.1** summarizes key Kearny Mesa land uses for the Base Year, Adopted Plan, and Proposed Project.

Table 2.1 Land Use Summary

Land Use ¹	2012 Base Year	2050 Adopted Plan	2050 Proposed Project
Dwelling Units	2,857	5,882	25,826
Retail + Visitor (sf ²)	7,815,123	9,677,820	12,953,174
Office (sf)	11,654,234	13,537,017	20,713,682
Industrial (sf)	11,865,171	16,865,661	19,089,750
Institutional + Education (sf)	3,583,855	4,808,397	4,638,427

Source: City of San Diego (2019)

Notes:

¹ Land uses provided in this summary table reflect the primary vehicular traffic generating uses in the community. Land uses not included this table include parks and recreational uses, open space, transportation/utilities (e.g. airport runways, transit stop facilities, etc.), and vacant areas.

² sf = square feet

The Kearny Mesa Community Plan Update plans to provide better jobs and housing balance, increasing transit usage by leveraging future investments of robust transit infrastructure and service enhancements near new residences and employment hubs, and making the community more walkable and bikeable. The plan strives to be in alignment with the City's General Plan and Climate Action Plan (CAP).

Between the Base Year to Adopted Plan, the number of dwelling units would more than double (2,857 to 5,882), but under the Proposed Project scenario, the number of dwelling units would increase by 804% (2,857 to 25,826), eight times the Base Year scenario's dwelling units. As a result, the Proposed Project scenario substantially increases the dwelling unit capacity beyond what is currently available and what is proposed in the Adopted Plan. Most of the additional dwelling units would be added along Clairemont Mesa Boulevard and would increase densities around transit stops and mixed-use development.

The commercial retail would increase moderately by 24% (7,815,123 sf to 9,677,820 sf) from the Base Year to Adopted Plan and would increase significantly by 66% (7,815,123 sf to 12,953,174 sf) in the Proposed Project. Similarly, the office and industrial uses would increase moderately by 29% (23,519,405 sf to 30,402,678 sf) from the Base Year to Adopted Plan and would increase significantly by 69% (23,519,405 sf to 39,803,432 sf) in the Proposed Project.

Kearny Mesa's transition to a more urbanized, high-intensity land use pattern under the Community Plan Update would require equally supportive mobility infrastructure, public improvements, and policies focused on better serving pedestrians, bicyclists and transit users, in addition to motorists. Therefore, to supplement these land use changes, the Proposed Project also includes transportation network changes to address existing and forecasted mobility needs and deficiencies. Details on the network development process and recommendations can be found in Chapter 4 of this report.

3.0 Analysis Methodology

This chapter describes the CEQA transportation impact analysis methodology that was prepared in accordance with the City's compliance with the SB 743 legislation and the California Environmental Quality Act (CEQA) project review process.

3.1 Data Sources and Methods

The following data and metrics were obtained from the San Diego Association of Governments' (SANDAG) Series 13 Activity Based Model (ABM), which was calibrated and customized for the Kearny Mesa Community Plan Update. The ABM is a travel demand forecasting model that incorporates census data and travel surveys to inform the algorithms of the model's projections. It uses a simulated population based on existing and projected demographics to match residents to employment and forecasts the daily travel on the regional transportation network. In addition, the model is able to track the daily travel of individuals in the simulated population, including origins, destinations, travel distances and mode choices. The Series 13 ABM has four (4) forecast scenarios: 2012, 2020, 2035, and 2050. The regional forecast for the listed years can be found at SANDAG's Transportation Forecast Information Center (<http://tfic.sandag.org/>).

SANDAG's regional ABM was customized for the Kearny Mesa community and calibrated at the local level. For the KM CPU, the 2012 forecast was calibrated using detailed land use inputs for the Kearny Mesa study area. In addition, the local transportation network was refined to better match ground conditions in 2012. By refining land use and network assumptions, a Base Year scenario was developed that closely matched baseline conditions in 2012. With the calibrated base year model as a foundation, the Proposed Project, Adopted Plan, and project alternatives scenarios were also developed with a build-out year of 2050. These scenarios provided the relevant traffic data and metrics for the analysis.

In consultation with SANDAG modelers, additional model output data was provided to support the Kearny Mesa CPU efforts and some of these methodologies are documented in the *Vehicle Miles Traveled Calculation Using the SANDAG Regional Travel Demand Model – Technical White Paper* (San Diego Institute of Transportation Engineers, May 2013) provided in **Appendix A**. SANDAG produced relevant metrics and reports specific to the Kearny Mesa modeling scenarios. These reports include the following:

- Vehicle Miles of Travel Report (SB 743 metrics for residential and employment) – **Appendix B**
- Disaggregated VMT for Kearny Mesa Select Zone (VMT for GHG Analysis) – **Appendix C**

Activity Based Model (ABM) Background

The ABM is a complex travel demand model that can track the characteristics of each person and can analyze the travel patterns of a wide area throughout a whole day. When simulating a person's travel patterns, the ABM takes into consideration a multitude of personal and household attributes to ensure that people move from one place to another in a plausible manner. Each model run represents a specific year, land use type, or transportation network type and is considered a "scenario". After a scenario is conducted using the ABM, it produces a loaded roadway network that has the projected daily vehicle traffic (travel) on each link in the network. In addition, the region is geometrically divided into Traffic Analysis Zones (TAZs), and the land uses in these zones generate the traffic that is projected on the roadway network through zone-connectors. Detailed modeling information and documentation can be found in Chapter 4 of the *Mobility Technical Report*.

3.2 Determination of CEQA Significant Impacts

Project-specific significance thresholds for the Kearny Mesa Community Plan Update have been developed to guide a programmatic analysis for the Proposed Project, a significant transportation impact could occur if the Proposed Project would:

1. Result in a conflict with an adopted program, plan, ordinance, or policy addressing the transportation system, including transit, roadways, bicycle and pedestrian facilities;
2. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment); or
3. Result in vehicle miles traveled (VMT) exceeding thresholds for City of San Diego's compliance with SB 743 legislation, as identified in **Table 3.1, Significance Thresholds for Transportation VMT Impacts by Land Use Type**.

Table 3.1 Significance Thresholds for Transportation VMT Impacts by Land Use¹

Land Use Type	Threshold for Determination of a Significant Transportation VMT Impact
Residential	15% below regional average ² Resident VMT/Capita
Employment	15% below regional average ² Employee VMT/Employee
Retail	Zero net increase in VMT generated by retail uses

Source: City of San Diego (2019)

Notes:

¹ The thresholds included in this table are for the pertinent land use types of the Proposed Project. Other land use thresholds (e.g. hotel, institutional, mixed-use, etc.) have been excluded as those thresholds are more land use specific and for project-level analyses.

² The regional average is determined using the Base Year (2012) of the current version of the SANDAG Regional Travel Demand Model (Series 13, version 13.3.2) that has been calibrated for Kearny Mesa.

These VMT thresholds provided in Table 3.1 were developed based on SB 743 legislation and the Governor's Office of Planning and Research's (OPRs) *Technical Advisory on Evaluating Transportation Impacts in CEQA*, which covers specific changes to the CEQA guidelines and contains OPR's technical recommendations related to the use of VMT, as the preferred CEQA transportation metric.

The following definitions describe how VMT is referred to, calculated, and accounted for in this CEQA impact analysis:

- Resident VMT/Capita includes, for all San Diego County residents, all vehicle-based resident travel grouped and summed to the home location of the individual. It includes *all* resident vehicle travel: home-based and non-home-based. The VMT for each individual is then summed for all individuals residing in a particular census tract and divided by the population of that census tract to arrive at Resident VMT/Capita.

- Employee VMT/Employee includes, for all San Diego County residents, all vehicle-based employee travel grouped and summed to the work location of the individual. This includes *all* employee travel, not just work-related trips. The VMT for each work location is then summed for all work locations in a particular census tract and divided by the number of employees of that census tract to arrive at Employee VMT/Employee. This does not include employees whose work location is specified as home.
- Kearny Mesa Total Retail VMT is the sum of all vehicle trips generated by retail uses in the community multiplied by their associated trip lengths.

4.0 Impact Analysis

This chapter presents the assessment of transportation impacts resulting from the Proposed Project.

4.1 Issue 1: Conflicts with Current Plans/Policies

Would the Proposed Project conflict with an adopted program, plan, ordinance, or policy addressing the transportation system, including transit, roadways, bicycle and pedestrian facilities?

This issue focuses on whether the Proposed Project conflicts with an adopted program, plan, ordinance, or policy related to the transportation system. For the purposes of this analysis, a significant transportation impact could occur if the Proposed Project would conflict with the General Plan Mobility Element or other adopted transportation programs, plans, ordinances, or policies such as the City's Bicycle Master Plan.

The Proposed Project would be consistent with the Mobility Element of the General Plan and other adopted policies, plans, or programs supporting the transportation system, as it strives to improve mobility through a balanced, multi-modal transportation network with planned improvements to pedestrian, bicycle, transit, and roadway facilities. Additionally, the Proposed Project would provide policies that support such multi-modal improvements. Thus, the Proposed Project would not conflict with adopted policies, plans, or programs related to the transportation system as discussed below.

Pedestrian Facilities

The Proposed Project includes a network of planned pedestrian facilities to support the level of pedestrian traffic in the area. The following pedestrian facilities are planned for the Kearny Mesa community as part of the Proposed Project.

Pedestrian Route Types

Pedestrian route types are used to categorize pedestrian facilities along roadways based on adjacent uses and characteristics of the walking environment. The City of San Diego Pedestrian Master Plan (City 2006) defines route types, each suggesting a level of treatments or features that best supports the specific area's walking environment. Corridor, Connector, and District route types are particularly suitable within the context of Kearny Mesa.

Connector route types run along roadways with lower pedestrian activity levels, thus requiring more basic treatments such as landscaped buffers between the sidewalk and roadway, and mandatory features like standard sidewalk widths, ADA-compliant curb ramps, and marked crosswalks at signalized intersections with advance stop bars. Connectors also offer key circulation connections that feed more prominent Corridor and District roadways.

Corridor route types are present along roadways that support business and shopping districts with moderate pedestrian activity levels and consist of features of those identified under Connector route types with the addition of more enhanced treatments such as above minimum sidewalk widths (>5 feet), visual and audible pedestrian signal heads, lead pedestrian intervals, high visibility crosswalks, pedestrian lighting, and trees to shade walkways.

District route types support high pedestrian activity levels in mixed-use urban areas and major community thoroughfares, consisting of features designed to support higher volumes of pedestrians in an environment

where heavier vehicular traffic is also likely. Districts are intended to include improvements that provide premium comfort and priority for pedestrians. District features consist of those identified under Connector and Corridor route types with the addition of wider walkway widths for forming promenades/paseos/linear parks, decorative crosswalks and/or pavement materials, street furnishings, bulb outs/curb extensions, and median refuges and/or pedestrian actuated controls at crossings.

Figure 4-1 displays the Proposed Project's District, Corridor, and Connector pedestrian route types. Based on the defined pedestrian route types, improvements are included in the Proposed Project to help create a safer, connected, and accessible pedestrian environment that would make walking a more attractive transportation choice. Examples of proposed pedestrian treatments are described in the subsequent subsections. Overall, such pedestrian treatments will be implemented at the time of need and as Kearny Mesa revitalizes.

Intersection Pedestrian Enhancements

All crossing points at signalized intersections are planned to be upgraded to current City standards, to include the following:

- ADA compliant pedestrian ramps;
- High visibility continental crosswalks;
- Advanced stop bar placement; and
- Pedestrian count down signals.

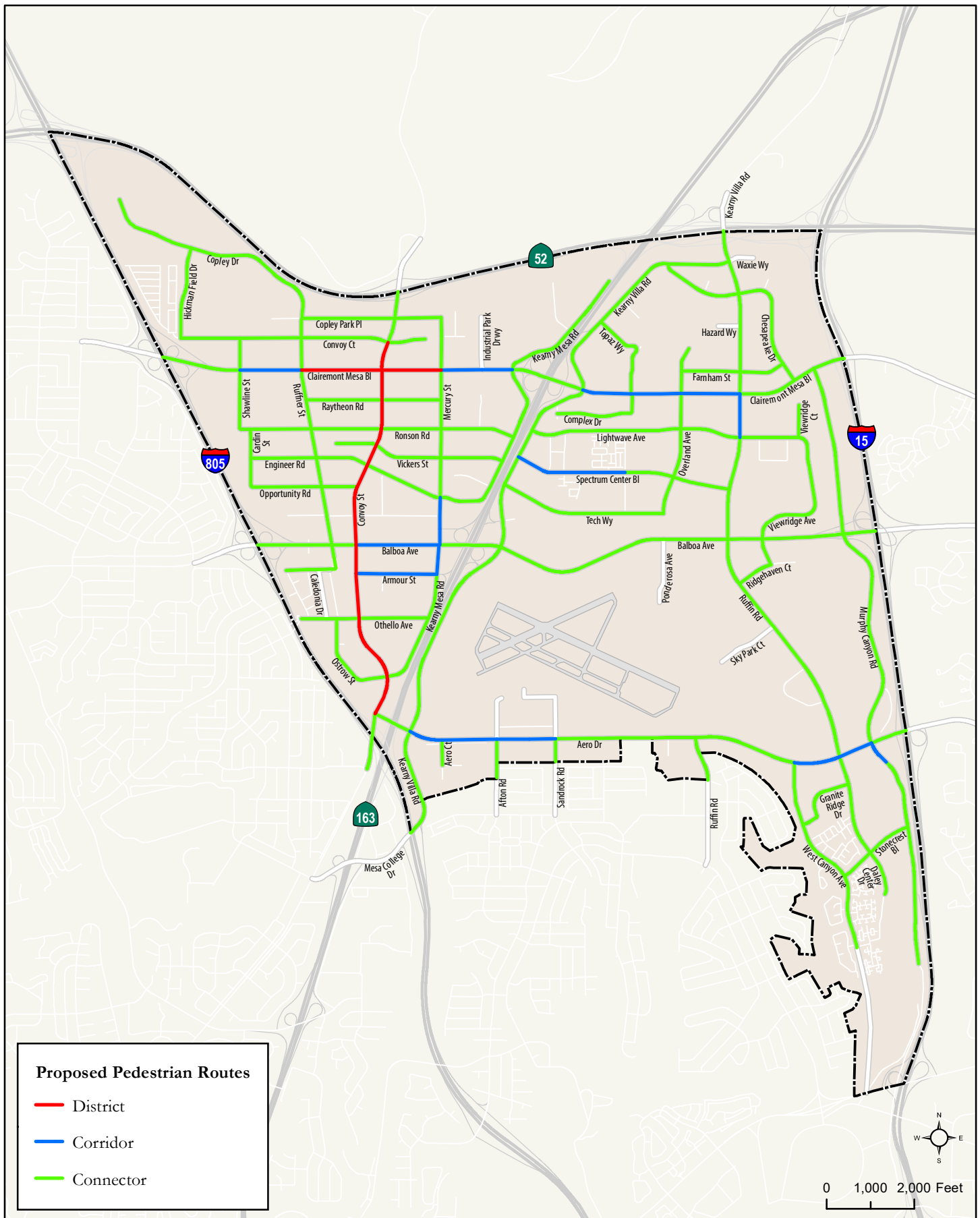
For unsignalized intersections, features such as ADA-compliant curb ramps, advanced stop bar placement, and high visibility continental crosswalks are to be included along the intersection leg with the traffic control (i.e., stop sign).

Districts and Corridors Pedestrian Enhancements

Corridors and Districts include additional operational and physical treatments beyond the basic pedestrian amenities to support the heavier pedestrian activity levels that traverse along such roadways. As previously defined, the more enhanced and premium pedestrian improvements that can be implemented along the proposed project's Corridors and Districts include, but are not limited to, walkways greater than 5 feet, pedestrian actuated traffic control devices and signals, early pedestrian start at crossing signals (i.e., LPIs), bulb outs, and pedestrian furnishings and lighting, where appropriate. Listed below are the Proposed Project's identified Corridors and Districts, where enhanced and/or premium pedestrian treatments will be implemented to strengthen the community's pedestrian network.

Corridor route types will be present along the following roadways under the Proposed Project:

- Clairemont Mesa Boulevard, from Shawline Street to Ruffner Street;
- Clairemont Mesa Boulevard, from Mercury Street to Kearny Mesa Road;
- Clairemont Mesa Boulevard, from Kearny Villa Road to Ruffin Road;
- Spectrum Center Boulevard, from Kearny Villa Road to Paramount Drive;
- Balboa Avenue, from Convoy Street to Mercury Street;
- Armour Street, from Convoy Street to Kearny Mesa Road;
- Aero Drive, from Kearny Villa Road to Sandro Rock Road;
- Aero Drive, from West Canyon Avenue to Murphy Canyon Road;
- Kearny Villa Road, from Clairemont Mesa Boulevard to Lightwave Avenue/Ruffin Court;
- Mercury Street, from Engineer Road to Armour Street; and
- Murphy Canyon Road, from Aero Drive to Wal-Mart Driveway.



Districts route types will be present along the following roadways under the Proposed Project:

- Clairemont Mesa Boulevard, from Ruffner Street to Mercury Street; and
- Convoy Street, from Convoy Court to Aero Drive.

Lead Pedestrian Intervals

Lead Pedestrian Intervals (LPIs) are recommended by the Proposed Project to improve pedestrian safety and efficiency at signalized intersection locations along District and Corridor pedestrian route types and at signalized intersections with high existing pedestrian volume locations (defined as thirty or more pedestrians during AM and PM peak periods). Additionally, locations where Lead Bicycle Intervals are recommended can accommodate LPIs without any additional modification to the signal timing. LPIs are recommended at the following intersections and legs where pedestrian crossings are permitted:

- Convoy Street & Convoy Court (north, south, west, east legs)
- Shawline Street & Clairemont Mesa Boulevard (north, south, east legs)
- Ruffner Street & Clairemont Mesa Boulevard (north, south, west, east legs)
- Convoy Street & Clairemont Mesa Boulevard (north, south, west, east legs)
- Mercury Street & Clairemont Mesa Boulevard (north, south, west, east legs)
- Kearny Mesa Road & Clairemont Mesa Boulevard (north, south, west legs)
- Kearny Villa Road & Clairemont Mesa Boulevard (north, south, east legs)
- Complex Drive & Clairemont Mesa Boulevard (north, south, west, east legs)
- Overland Avenue & Clairemont Mesa Boulevard (north, south, west, east legs)
- Convoy Street & Ronson Road (north, south, west, east legs)
- Ruffin Road & Lightwave Avenue/Ruffin Court (north, south, west, east legs)
- Convoy Street & Engineer Road (north, south, west, east legs)
- Mercury Street & Engineer Road (north, south, west, east legs)
- Ruffner Street & Balboa Avenue (north, south, west, east legs)
- Convoy Street & Balboa Avenue (north, south, west, east legs)
- Mercury Street & Balboa Avenue (north, south, west, east legs)
- Convoy Street & Armour Street (north, south, west, east legs)
- Mercury Street & Armour Street (north, south, west, east legs)
- Convoy Street & Othello Avenue (north, south, west, east legs)
- Convoy Street & Ostrow St/Kearny Mesa Road (north, south, west, east legs)
- Aero Court & Aero Drive (north, south, east legs)
- Afton Road/Glenn H. Curtiss Road & Aero Drive (south, east legs)
- Broadstone Driveway & Aero Drive (south, east legs)
- Sandrock Road/John J. Montgomery Drive & Aero Drive (north, south, west, east legs)
- West Canyon Avenue & Aero Drive (south, east legs)
- Murphy Canyon Road & Aero Drive (north, south, west legs)

New Sidewalks

Sidewalk facilities would be implemented along new roadways as well as the following segments where missing sidewalks were identified through the existing conditions analysis. Note that certain segments may have parcel-specific sidewalks in place, but those segments listed below currently lack fully connective sidewalks.

- Convoy Street, from SR-52 eastbound ramps to Copley Park Place (east side and portions of west side);

- Convoy Street, from Copley Park Place to approximately 150 feet south of Copley Park Place (east side);
- Convoy Street, from Aero Drive to southern community boundary (east side);
- Shawline Street, from Convoy Court to Clairemont Mesa Boulevard (east side);
- Raytheon Road, from approximately 240 feet east of Ruffner Street to 380 feet east of Ruffner Street (south side);
- Raytheon Road, from approximately 510 feet west of Convoy Street to 280 feet west of Convoy Street (south side);
- Clairemont Mesa Boulevard, from I-805 SB Ramps to I-805 NB Ramps (south side);
- Clairemont Mesa Boulevard, from Kearny Mesa Road to SR-163 SB Ramps (both sides);
- Ronson Road, from Mercury Street to approximately 300 feet west of Kearny Mesa Road (north side);
- Kearny Villa Road, from northern community boundary to Waxie Way (both sides);
- Kearny Villa Road, from Waxie Way to Topaz Way (west side);
- Kearny Villa Road, from Topaz Way to Clairemont Mesa Boulevard (west side);
- Kearny Villa Road, from Clairemont Mesa Boulevard to Lightwave Avenue (west side);
- Kearny Villa Road, from Lightwave Avenue to Century Park Court (west side);
- Kearny Villa Road, from Balboa Avenue to Aero Drive (both sides);
- Armour Street, approximately 790 feet east of Convoy Street to 1,040 feet east of Convoy Street;
- Kearny Mesa Road, from northern end to Clairemont Mesa Boulevard (both sides);
- Kearny Mesa Road, from Clairemont Mesa Boulevard to Engineer Road (east side);
- Kearny Mesa Road, from Othello Avenue to approximately 370 feet east of Convoy Street (east side);
- Mercury Street, from Mercury Court to Clairemont Mesa Boulevard (west side);
- Mercury Street, from approximately 375 feet north of Clairemont Mesa Boulevard to approximately 220 north of Clairemont Mesa Boulevard (east side);
- Mercury Street, from Clairemont Mesa Boulevard to Raytheon Road (east side);
- Lightwave Avenue, from Kearny Villa Road to Paramount Drive (north side);
- Ponderosa Avenue, from Balboa Avenue to southern end (both sides);
- Viewridge Avenue, from Balboa Avenue to Ridgehaven Court (both sides);
- Complex Drive, from Topaz Way to Clairemont Mesa Boulevard (east side);
- Complex Drive, from Clairemont Mesa Boulevard to Kearny Villa Way (both sides);
- Balboa Avenue, from Kearny Villa Road to Ruffin Road (both sides);
- Balboa Avenue, from Viewridge Avenue to I-15 Southbound off-ramps (south side);
- Aero Drive, from Convoy Street to Kearny Villa Road (south side);
- Aero Drive, from Kearny Villa Road to Afton Road/Glenn H. Curtiss Road (both sides);
- Aero Drive, from Sandrock Road to West Canyon Avenue (north side);
- Aero Drive, from Murphy Canyon Road to eastern community boundary (south side);
- Ruffin Road, from Spectrum Center Boulevard to Balboa Avenue (east side);
- Ruffin Road, from Balboa Avenue to approximately 530 feet south of Balboa Avenue (west side);
- Ruffin Road, from approximately 170 feet south of Ridgehaven Court to 610 feet south of Ridgehaven Court (east side);
- Ruffin Road, from Calle Fortunada (north) to approximately 830 feet north of Aero Drive (east side);
- Murphy Canyon Road, from approximately 250 feet north of Balboa Avenue overcrossing to 1,480 feet south of Balboa Avenue overcrossing (east side);

- Murphy Canyon Road, from Aero Drive to south end (both sides); and Daley Center Drive, south end of cul-de-sac.

In addition to closing gaps in the sidewalk network, seeking additional right-of-way for wider, non-contiguous sidewalks and parkway area will also occur at the project-level to help upgrade the community's pedestrian network.

Urban Pathways

A re-envisioned Kearny Mesa will include urban pathways that support the vision for a vibrant employment and residential community. Urban pathways are designed as wide, urban sidewalks for pedestrian mobility and connections within the village areas.

The environments surrounding the urban pathways will vary. Urban pathways serve as linkages, enhance the pedestrian environment, incorporate urban greening improvements, and provide a sense of place within villages. Paseos may also be implemented to provide direct routes through large parcels, adjacent to buildings, through parking lots or along parcel peripheries – all away from high speed, high volume roadways (i.e., absent from vehicular traffic altogether).

The Proposed Project includes the following four urban pathways to connect the urban villages to key destinations and transit services:

- Airport Loop
- Opportunity Trail
- Park Link
- Aero Promenade

One signature urban pathway that will provide connections between the planned mobility network and also serve as an active transportation feature for Kearny Mesa is the Airport Loop around the Montgomery-Gibbs Executive Airport. A combination of pedestrianways, bicycle facilities, and multi-use paths will make up a five-mile loop along Balboa Avenue, Ruffin Road, Aero Drive, and Kearny Villa Road. The active transportation facility types comprising the loop will vary due to physical constraints (i.e., lack of publicly available right-of-way) but could include the following:

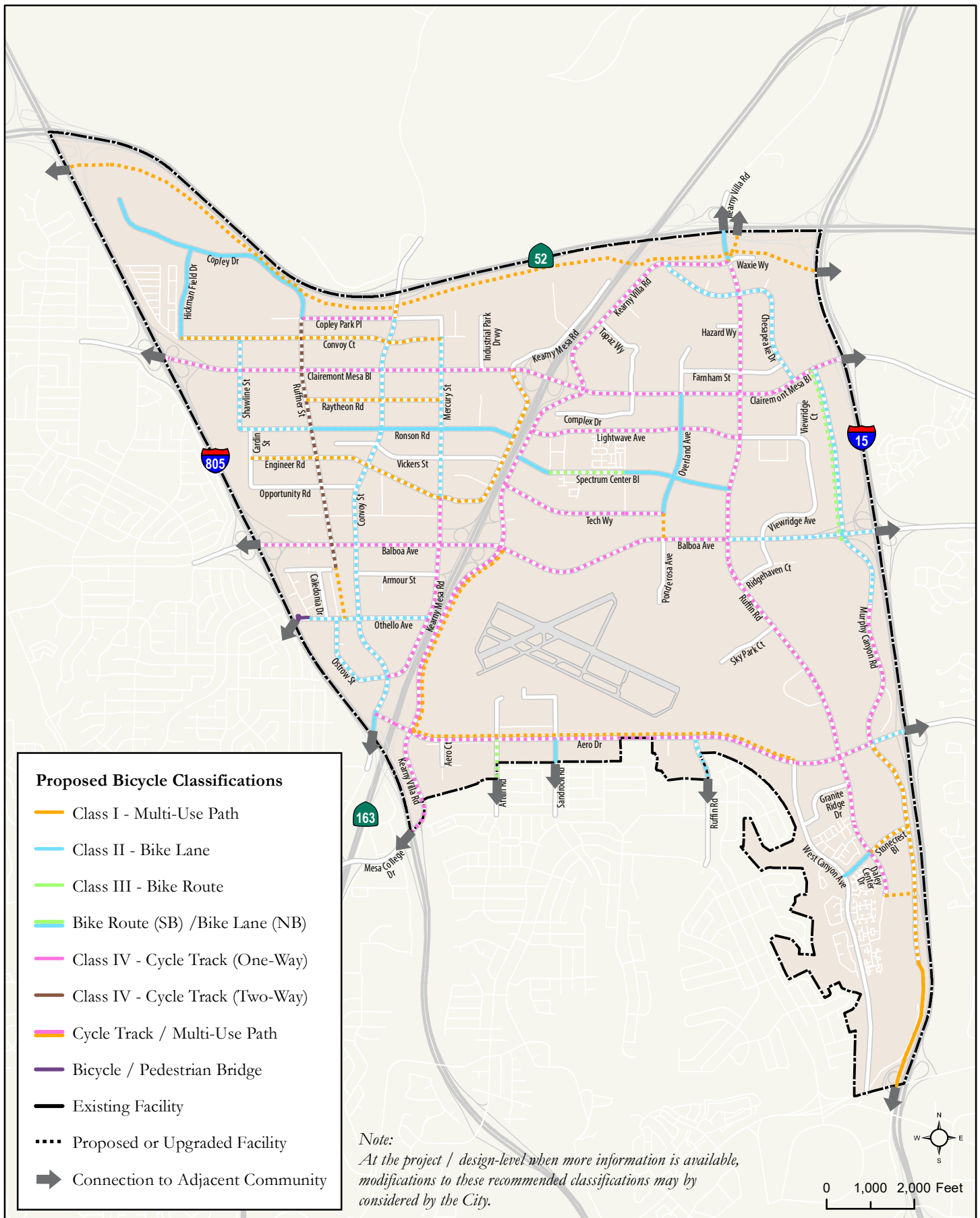
- Balboa Avenue – One-way cycle tracks plus a pedestrianway on the south side
- Ruffin Road – One-way cycle tracks and sidewalks
- Aero Drive – Multi-use path on the north side and one-way cycle track on the south side
- Kearny Villa Road – Multi-use path on the east side and one-way cycle track on the west side.

Bicycle Facilities

The Proposed Project would support existing plans and policies relative to the bicycle network. The bicycle facility network for the Proposed Project is shown in **Figure 4-2**. Bicycle-focused policies in the proposed CPU include implementation of new separated and on-street bicycle facilities, installation of bicycle parking facilities, and increasing the level of bicycle comfort and safety for all levels of bicycle riders. Proposed CPU policies support coordination with SANDAG on the planning and implementation of regional bicycle facilities and support increased bicycle comfort and safety, repurposing right-of-way for bicycle facilities, and bike sharing. Thus, implementation of the Proposed Project would not conflict with adopted policies, plans, or programs supporting bicycle facilities.

A key focus of the San Diego Regional Bike Plan prepared by SANDAG is to develop an interconnected network of bicycle corridors to improve the connectivity and quality of bicycle facilities and their supporting facilities. Similarly, the City of San Diego Bicycle Master Plan establishes guidance on achieving an ideal bicycle environment throughout the City and refines the Regional Bike Plan to include community-wide bicycle facilities. Together these facilities promote intra-community and inter-community bicycle trips to strengthen connections within the planning area and between adjacent communities.

The Proposed Project includes facilities that build on those identified in the Regional Bike Plan and City of San Diego Bicycle Master Plan, while also identifying new recommendations and improving upon existing facilities through an emphasis on protected facilities such as multi-use paths and cycle tracks. The Proposed Project recommends a variety of additional bicycle facilities on the local street network, including multi-use paths (Class I), bicycle lanes (Class II), bicycle routes (Class III), and cycle tracks (Class IV).



The following bicycle facilities are planned for the Kearny Mesa community as part of the Proposed Project, City's Bicycle Master Plan, and/or the San Diego Regional Bike Plan, Riding to 2050.

Class I Multi Use Path

- SR-52 Bikeway (San Clemente Canyon);
- Convoy Court, from Hickman Field Drive to Mercury Street;
- Raytheon Road, from Ruffner Street to Mercury Street;
- Engineer Road, from Cardin Street to Kearny Mesa Road;
- Kearny Mesa Road, from Engineer Road to Clairemont Mesa Boulevard;
- New connector, from Ruffner Street terminus to Othello Avenue;
- Stonecrest Boulevard, from Daley Center Drive to Murphy Canyon Road;
- Ponderosa Avenue, from Balboa Avenue to Tech Way;
- New connector, from southern terminus of Daley Center Drive to Murphy Canyon Road; and
- Murphy Canyon Road, from Aero Drive to existing Class I multi use path.

Class II Bike Lanes

- Chesapeake Drive, from Kearny Villa Road to Clairemont Mesa Boulevard;
- Ronson Road, from Shawline Street to Ruffner Street;
- Balboa Avenue, from Ruffin Road to eastern community boundary;
- Othello Avenue, from western terminus to eastern terminus;
- Aero Drive, from Murphy Canyon Road to eastern community boundary;
- Shawline Street, from Ronson Road to Convoy Court;
- Ostrow Street, from Othello Avenue to Convoy Street;
- Convoy Street, from Copley Park Place to Aero Drive;
- Mercury Street, from Convoy Court to Engineer Road;
- Ruffin Road, from Aero Drive to southern community boundary; and
- Murphy Canyon Road, from Balboa Avenue to approximately 1,500 feet south of Balboa Avenue

Class II Bike Lane (NB) and Class III Bike Route (SB)

- Murphy Canyon Road, from Clairemont Mesa Boulevard to Balboa Avenue

Class III Bike Routes

- Spectrum Center Boulevard, from Sunroad Centrum Lane to Paramount Drive; and
- Afton Road, from Aero Drive to southern community boundary.

Class IV Cycle Track (One-Way Cycle Tracks provided in both directions)

- Copley Park Place, from Ruffner Street to Convoy Street
- Clairemont Mesa Boulevard, from western community boundary to I-15 SB ramps;
- Lightwave Avenue, from Kearny Villa Road to Ruffin Road;
- Tech Way, from Kearny Villa Road to Overland Avenue;
- Balboa Avenue, from western community boundary to Ruffin Road;
- Aero Drive, from West Canyon Avenue to Murphy Canyon Road;
- Aero Drive, from Convoy Street to Kearny Villa Road
- Kearny Mesa Road, from Engineer Road to Convoy Street;
- Kearny Villa Road, from Ruffin Road to Balboa Avenue;
- Kearny Villa Road, from Aero Drive to southern community boundary;
- Ruffin Road, from Kearny Villa Road to Aero Drive;

- Daley Center Drive, from Aero Drive to southern terminus of roadway; and
- Murphy Canyon Road, from approximately 1,500 feet south of Balboa Avenue to Aero Drive.

Class IV Cycle Track (Two -Way)

- Ruffner Street (east side), from Copley Park Place to approximately 200 feet south of Balboa Avenue

Class I Multi Use Path and Class IV Cycle Tracks (One-Way)

- Kearny Villa Road (Class I on east side, Class IV on west side), from Balboa Avenue to Aero Drive; and
- Aero Drive (Class I on north side, Class IV on south side), from Kearny Villa Road to West Canyon Avenue.

Bicycle Signal Phasing

Bicycle signal phasing are recommended by the Proposed Project to improve cyclists' safety and efficiency at signalized intersection locations along Class IV Cycle Track facilities. Bicycle signal phasing modifications were based upon incorporating lead bike signals, which provide a three-second lead for bicyclists to enter the intersection before the start of the vehicular phase. In the case of intersections that also would include LPIs, the lead bike signal would occur at the same time as the pedestrian-only phase. These locations include:

- Ruffin Road & Kearny Villa Road/Waxie Way (all legs)
- Ruffin Road & Chesapeake Drive (north, south legs)
- Ruffin Road & Hazard Way (north, south legs)
- I-805 NB Off-Ramp & Clairemont Mesa Boulevard (east, west legs)
- Shawline Street & Clairemont Mesa Boulevard (lead bike signals on all legs with LPIs on legs with crosswalks)
- Ruffner Street & Clairemont Mesa Boulevard (signal with LPI - all legs)
- Convoy Street & Clairemont Mesa Boulevard (signal with LPI - all legs)
- Mercury Street & Clairemont Mesa Boulevard (signal with LPI - all legs)
- Industrial Park Driveway & Clairemont Mesa Boulevard (east, west legs)
- Kearny Mesa Road & Clairemont Mesa Boulevard (lead bike signals on all legs with LPIs on legs with crosswalks)
- SR-163 SB On-Ramp/SR-163 SB Off-Ramp & Clairemont Mesa Boulevard (east, west legs)
- SR-163 NB Off-Ramp/SR-163 NB On-Ramp & Clairemont Mesa Boulevard (east, west legs)
- Kearny Villa Road & Clairemont Mesa Boulevard (lead bike signals on all legs with LPIs on legs with crosswalks)
- Complex Street & Clairemont Mesa Boulevard (signal with LPI - all legs)
- Overland Avenue & Clairemont Mesa Boulevard (signal with LPI - all legs)
- Ruffin Road & Farnham Street (north, south legs)
- Ruffin Road & Clairemont Mesa Boulevard (all legs)
- Murphy Canyon Road & Clairemont Mesa Boulevard (east, west legs)
- Clairemont Mesa Boulevard & SR-52 EB & I-15 SB Off-Ramps (east, west legs)
- I-15 NB Ramps & Clairemont Mesa Boulevard (east, west legs)
- Kearny Villa Road & Lightwave Avenue (all legs)
- Overland Avenue & Lightwave Avenue (east, west legs)
- Ruffin Road & Lightwave Avenue/Ruffin Court (signals with LPI - all legs)
- Convoy Street & Engineer Road (signal with LPI - all legs)

- Kearny Villa Road & Spectrum Center Boulevard (north, south legs)
- Ruffin Road & Spectrum Center Boulevard (north, south legs)
- Mercury Street & Engineer Road (signal with LPI – all legs)
- Kearny Villa Road & Tech Way (all legs)
- Mercury Street & SR-163 SB On-Off Ramps (north, south legs)
- Kearny Villa Road & SR-163 NB On-Off Ramps/Century Park Court (north, south legs)
- Balboa Avenue & Ruffner Street (signal with LPI - all legs)
- Convoy Street & Balboa Avenue (signal with LPI - all legs)
- Mercury Street & Balboa Avenue (signal with LPI - all legs)
- Kearny Villa Road & Balboa Avenue (all legs)
- Balboa Avenue & Pennisi Driveway (east, west legs)
- Ponderosa Avenue & Balboa Avenue (east, west legs)
- Ruffin Road & Balboa Avenue (all legs)
- Mercury Street & Armour Street (signal with LPI – all legs)
- Kearny Villa Road & SR-163 On-Off Ramps (north, south legs)
- Ruffin Road & Ridgehaven Court (north, south legs)
- Ruffin Road & Sky Park Court (north, south legs)
- Convoy Street & Aero Drive (north, south, east legs)
- Kearny Villa Road & Aero Drive (all legs)
- Aero Court & Aero Drive (signal with LPI – all legs)
- Afton Road/Glenn H Curtiss Road & Aero Drive (lead bike signals on east and west legs with LPIs on legs with crosswalks)
- Broadstone Driveway & Aero Drive (lead bike signals on east and west legs with LPIs on legs with crosswalks)
- Sandrocks Road/John J Montgomery Drive & Aero Drive (signal with LPI – all legs)
- Ruffin Road & Aero Drive (east, west legs)
- West Canyon Avenue & Aero Drive (lead bike signals on east and west legs with LPIs on legs with crosswalks)
- Daley Center Drive/Ruffin Road & Aero Drive (all legs)
- Murphy Canyon Road & Aero Drive (all legs)
- Daley Center Drive & Granite Ridge Drive (north, south legs)
- Mesa College Drive/Kearny Villa Road & Berger Avenue (east, west legs)
- I-805 NB Off-Ramp & Kearny Villa Road (east, west legs)
- Murphy Canyon Road & Stonecrest Boulevard (all legs)

Protected Intersections

To facilitate cyclists safely maneuvering through a challenging intersection (i.e. intersection with high traffic volumes, wide cross-sections, unique lane configurations/signal timings, etc.), the following locations are identified in the Proposed Project as potential protected intersections¹:

- Ruffin Road and Clairemont Mesa Boulevard;

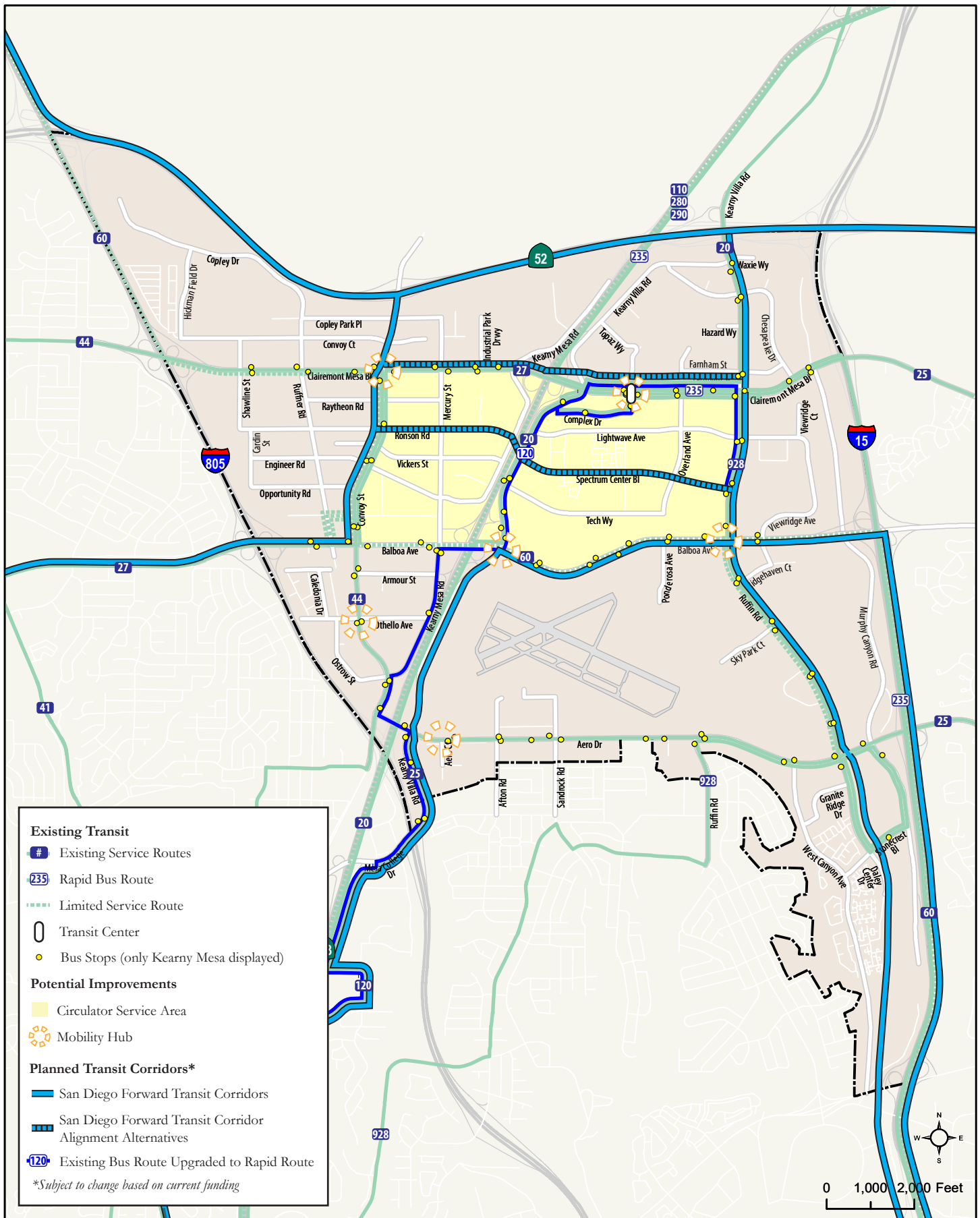
¹ Protected intersection includes at-grade physical separations to define the turning paths of motor vehicles, slow motor-vehicle turning speed, promote yielding to bicyclists and offer comfort for bicyclists waiting at a red signal or traversing through the intersection.

- Kearny Villa Road and Balboa Avenue;
- Ruffin Road and Balboa Avenue;
- Kearny Villa Road and Aero Drive; and
- Ruffin Road & Aero Drive.

Transit Facilities

Planned transit routes within the CPU area identified in SANDAG's *San Diego Forward: The Regional Plan* (2015) include Rapid Bus, LRT, and transit facilities as shown in **Figure 4-3**. The planned changes in existing transit operations to serve the Kearny Mesa community are as follows:

- *Local Bus Service* – Increase local bus service in key corridors (unidentified) to 10-minute headways. The Regional Plan currently targets approximately 2035 for this project.
- *Purple Line (Phase I)* – The initial Purple Line Trolley phase would extend from San Ysidro to Kearny Mesa via Chula Vista, National City, Southeast San Diego, Mid-City, and Kearny Mesa. Within Kearny Mesa, the alignment would run north-south, west of I-15. The Regional Plan currently targets approximately 2035 for operation of Phase I.
- *Purple Line (Phase II)* – The second Purple Line Trolley phase would extend from the anticipated endpoint of Phase I of the Purple Line, in Kearny Mesa, to Carmel Valley. The Regional Plan currently targets approximately 2050 for operation of Phase II.
- *Red Line* – The Red Line Trolley would run from Pacific Beach to the El Cajon Transit Center via Kearny Mesa. The Regional Plan currently targets approximately 2050 for operation of the Red Line.
- *BRT Route 653* – A future BRT service, that may carry a *RAPID* or different service designator, would run from Mid-City San Diego to Palomar Airport Road via Kearny Mesa, I-805, and I-5. The Regional Plan currently targets approximately 2035 for operation of this future bus route.
- *BRT Route 890* – A future BRT service, that may carry a *RAPID* or different service designator, would run from El Cajon to Sorrento Mesa via Kearny Mesa. The Regional Plan currently targets approximately 2035 for operation of this future bus route.
- *Rapid Bus Route 28* – A new Rapid bus route would run from Point Loma to Kearny Mesa via Old Town and Linda Vista. The Regional Plan currently targets approximately 2035 for operation of this future bus route.
- *Rapid Bus Route 41* – A new Rapid bus route would run from the Fashion Valley Transit Center to UTC/UC San Diego via Linda Vista and Clairemont. The Regional Plan currently targets approximately 2035 for operation of this future bus route.
- *Rapid Bus Route 120* – A new Rapid bus route would run from Kearny Mesa to Downtown via Kearny Mesa. The Regional Plan currently targets approximately 2035 for operation of this future bus route.
- *Rapid Bus Route SR-163 Direct Access Ramps (DARs)* – Kearny Mesa to Downtown via SR-163. Stations at Sharp/Children's Hospital, University Avenue and Fashion Valley Transit Center. The Regional Plan currently targets approximately 2035 for operation of this future bus route.



Note that in the Kearny Mesa Community Plan Update and *Mobility Technical Report*, the Purple Line is displayed as part of the general illustration of “San Diego Forward Transit Corridors” and reflects the alignment indicated in the adopted 2015 *San Diego Forward: The Regional Plan*. According to the Regional Plan, transit corridors include Rapid Bus and Trolley services on key corridors such as I-15, SR-52, Balboa Avenue, Convoy Street, Clairemont Mesa Boulevard, Spectrum Center Boulevard, Kearny Villa Road, and Ruffin Road.

City staff has requested that SANDAG consider the preferred alignment of the Purple Line along Ruffin Road and Clairemont Mesa Boulevard, as prescribed in the 2017 *Final Purple Line Conceptual Planning Study*, in the 2021 Regional Plan. As the first major step in the 2021 Regional Plan process, SANDAG staff introduced the key strategies, known as [5 Big Moves](#),² that will be used to identify transportation solutions for critical connections throughout the region. The Purple Line is identified as one of these critical connections.

Specific route alignments and stations are not included in the Proposed Project as future transit corridors from SANDAG are preliminary and subject to change. With the 2021 Regional Plan process underway, transit-focused policies in the proposed CPU includes to coordinate with SANDAG to plan and implement transit infrastructure and service enhancements in the upcoming Regional Plan, including light rail and/or bus rapid transit to serve areas of future residential and employment uses. This can include, but is not limited to, alignment of the planned Purple Line.

Transit Priority

As future Rapid Transit routes and community circulator routes are identified and established, additional transit priority measures will be considered in coordination with MTS and community circulator operators in an effort to maximize route efficiency and on-time performance. Transit signal priority, queue jump lanes, and transit only lanes, or shared transit/right-turn lanes are examples of measures that can be utilized to give transit priority at intersections and can be implemented as applicable at the project-level. The proposed project includes transit priority measures on the following corridors:

- *Clairemont Mesa Boulevard (SMART Corridor)* throughout the entire community planning area;
- *Balboa Avenue (SMART Corridor)* between I-805 NB and SR-163 SB ramps;
- *Balboa Avenue* between SR-163 SB ramps and I-15 NB ramps;
- *Aero Drive* between Convoy Road and I-15 NB ramps;
- *Convoy Street* between SR-52 WB ramps and Aero Drive; and
- *Ruffin Road* between Chesapeake Drive and Aero Drive.

² The 2021 Regional Plan will synchronize the 5 Big Moves to deliver a fully integrated, world class transportation system for the San Diego region. The 5 Big Moves include Complete Corridors, Transit Leap, Mobility Hubs, Flexible Fleets, and the Next OS. Complete Corridors are the backbone of a complete transportation system that leverages technology, pricing, and connectivity to repurpose how both highways and local roads are used. Transit Leap includes a complete network of high-capacity, high-speed, and high-frequency transit services that incorporates new transit modes and improves existing services. Mobility Hubs are places of connectivity where a variety of travel options converge to deliver a seamless travel experience. Flexible Fleets include on-demand, shared, electric vehicles that connect to transit and travel between Mobility Hubs along the network of Complete Corridors. And lastly, Next OS is the “brain” of the transportation system that will make all of the strategies work together.

Roadway Facilities

A list of Proposed Project roadway, intersection, and freeway improvements are presented below. Planned bicycle facility improvements within the specified roadway extents are also identified, however, the full list of recommended bicycle facility improvements is provided in the previous sections. The roadway improvements are predominantly based on the future year traffic volumes and accommodating the planned multi-modal improvements.

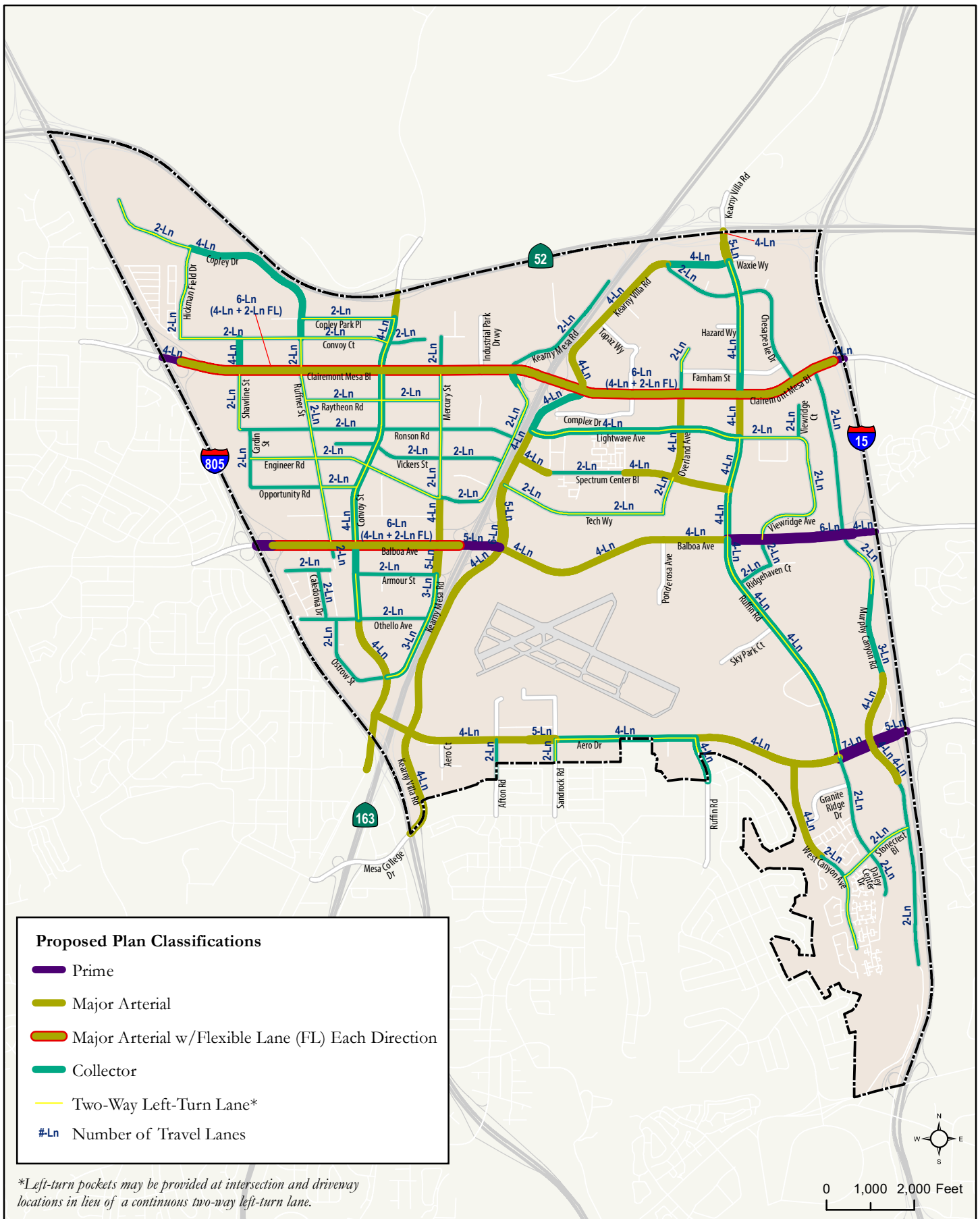
The Proposed Project incorporates Sustainable Mobility for Adaptable and Reliable Transportation, “SMART Corridors”, to further SANDAG’s 5 Big Moves strategy. A SMART Corridor is a six-lane major arterial roadway that provides access to or between at least two freeways, whereby mobility improvements are planned for transit and other congestion reducing mobility forms through the repurposing of roadway space. This repurposing creates facilities with general purpose lanes plus flexible lanes, that may be used by a combination of non-single occupancy vehicles, connected/autonomous vehicles, or other emerging mobility concepts. SMART corridors would increase safety, capacity, and efficiency; provide dedicated space for efficient transit and other pooled services; manage demand in real-time; and maximize use of existing roadways. The lane configuration and type of use is contingent upon time of need.

The roadway facility network in the Proposed Project is shown in **Figure 4-4**, and the identified roadway modifications are described in the following section.

Roadway Modifications

- *Balboa Avenue, from I-805 NB On-Ramp to SR-163 SB On-Ramp* – Reclassify this segment from a 6-Lane Major Arterial with raised median and intermittent on-street parking to a SMART Corridor, with two general purpose travel lanes, one flexible lane, and a one-way Class IV Cycle Track provided in each direction in lieu of on-street parking.
- *Clairemont Mesa Boulevard, from I-805 NB On-Ramp to I-15 SB On-Ramp*– Reclassify this segment from a 6-Lane Major Arterial with raised median and intermittent on-street parking to a SMART Corridor, with two general purpose travel lanes, one flexible lane, and a one-way Class IV Cycle Track provided in each direction in lieu of on-street parking.
- *Copley Park Place, from Copley Drive to Convoy Street* – Reclassify this segment from a 4-Lane Collector with two-way left-turn lane to a 2-Lane Collector with two-way left-turn lane (TWLTL), repurposing the additional width as one-way Class IV Cycle Track provided in each direction.
- *Daley Center Drive, from Aero Drive to Stonecrest Boulevard* - Reclassify this segment from a 4-Lane Major with raised median to a 2-Lane Collector without TWLTL, repurposing the additional width as one-way Class IV Cycle Track provided in each direction.
- *Kearny Mesa Road, from Armour Street to Convoy Street* – Reclassify this segment from a 4-Lane Collector with striped median or two-way left-turn lane to a 3-Lane collector (2 southbound and 1 northbound) with a TWLTL, repurposing the additional width as one-way Class IV Cycle Track provided in each direction. Two southbound lanes are needed to serve the higher vehicle volumes, whereas one northbound lane is sufficient to serve the lower vehicle volumes. Intermittent parking loss may be required to accommodate the cycle tracks
- *Kearny Villa Road, from Ruffin Road to Chesapeake Drive* – Reclassify this segment from a 3-Lane Collector with two-way left-turn lane, 2 eastbound lanes, and 1 westbound lane to a 4-lane collector without TWLTL, with one-way Class IV Cycle Track provided in each direction.

- *Kearny Villa Road, from Chesapeake Drive to Clairemont Mesa Boulevard* – Reclassify this segment from a 2-Lane Collector with two-way left-turn lane with on-street parking to a 4-Lane Major Arterial, repurposing existing Class II Bike Lanes, on-street parking, and two-way left-turn lane for additional lanes and one-way Class IV Cycle Track provided in each direction.
- *Tech Way, from Kearny Villa Road to Overland Avenue* – Reclassify this segment from a 4-Lane Collector with two-way left-turn lane to a 2-Lane Collector with two-way left-turn lane (TWLTL), repurposing the additional width as one-way Class IV Cycle Track provided in each direction.
- *Murphy Canyon Road, from 1,300 feet south of Balboa Avenue Overcrossing to 1,600 feet north of Aero Drive* – Reclassify this segment from a 3-lane Collector with two-way left-turn lane, 2 northbound lanes, and 1 southbound lane to a 3-lane Collector with no median, 2 northbound lanes, and 1 southbound lane to accommodate Class IV Cycle Tracks.
- *Ronson Road, from Shawline Street to Ruffner Street* – Reclassify this segment from a 2-lane collector with two-way left-turn lane to 2-lane collector without TWLTL, to accommodate Class II Bike Lanes.
- *Ruffner Street, south of Balboa Avenue* – Remove this segment by truncating the 2-Lane collector of Ruffner Street segment south of Balboa Avenue at the existing driveway and create a Class I multi-use path.



Intersection Modifications

Several intersections are proposed to be modified to accommodate buildout of the roadway segment and bicycle classifications, as well as to support the pedestrian treatments associated with the pedestrian route typologies. Improvements are aimed at enhancing operation and safety for all travel modes. These intersection improvements can include, but are not limited to, restriping, lane reconfiguration, new intersection legs, signal modifications, new signals, and other modifications to accommodate the proposed project's active transportation facilities, transit corridors, and the SMART corridors. In addition to the listings of intersections recommended for LPIs and bicycle signal phasing in the previous sections, **Table 4.1** lists the intersections with proposed improvements to accommodate buildout of the roadway segment classifications. Details of those improvements are provided in Chapter 3 of the *Mobility Technical Report*.

Table 4.1 List of Planned Intersections with Planned Modifications Within the CPU Area

Intersection	Geometry Modification ¹	Signal Modification ²	New Signal
Kearny Villa Road & SR-52 WB Ramps		✓	
Ruffin Road & Chesapeake Drive	✓	✓	
Convoy Street & Convoy Court	✓	✓	
Shawline Street & Clairemont Mesa Boulevard	✓	✓	
Ruffner Street & Clairemont Mesa Boulevard	✓	✓	
Convoy Street & Clairemont Mesa Boulevard	✓	✓	
Mercury Street & Clairemont Mesa Boulevard	✓	✓	
Industrial Park Driveway & Clairemont Mesa Boulevard	✓	✓	
Kearny Mesa Road & Clairemont Mesa Boulevard	✓	✓	
SR-163 SB On-Ramp/SR-163 SB Off-Ramp & Clairemont Mesa Boulevard	✓	✓	
SR-163 NB Off-Ramp/SR-163 NB On-Ramp & Clairemont Mesa Boulevard	✓	✓	
Kearny Villa Road & Clairemont Mesa Boulevard	✓	✓	
Complex Drive & Clairemont Mesa Boulevard	✓	✓	
Overland Avenue & Clairemont Mesa Boulevard	✓	✓	
Ruffin Road & Farnham Street	✓	✓	
Ruffin Road & Clairemont Mesa Boulevard	✓	✓	
Murphy Canyon Road & Clairemont Mesa Boulevard	✓	✓	
Mercury Street & Engineer Road		✓	
Ruffner Street & Balboa Avenue	✓		✓
Convoy Street & Balboa Avenue	✓	✓	
Mercury Street & Balboa Avenue	✓	✓	
Kearny Villa Road & Balboa Avenue	✓	✓	

Table 4.1 List of Planned Intersections with Planned Modifications Within the CPU Area

Intersection	Geometry Modification ¹	Signal Modification ²	New Signal
Ruffin Road & Balboa Avenue	✓	✓	
Viewridge Avenue & Balboa Avenue	✓	✓	
Mercury Street/Kearny Mesa Road & Armour Street/SR-163 SB Ramps	✓	✓	
Ruffin Road & Ridgehaven Court	✓	✓	
Kearny Villa Road & Aero Drive	✓	✓	
Sandrock Road/John J Montgomery Drive & Aero Drive		✓	
Daley Center Drive/ Ruffin Road & Aero Drive	✓	✓	
Daley Center Drive & Granite Ridge Drive	✓	✓	

Source: City of San Diego and Chen Ryan Associates 2020

Notes:

¹ Geometry modifications are changes to the intersection configuration and examples include: restriping, lane addition or removal, new intersection legs, new turn pockets, and channelization of turning movements. It is assumed that implementation of the Proposed Project's protected intersections will include intersection reconfiguration.

² Signal modifications are changes to the phasing and key timings and examples include: change in left-turn phasing (i.e., protected phasing, permissive phasing) and addition or removal of a right-turn overlap. It is assumed that intersections along the proposed SMART corridors will have signal modifications associated with the mobility concept. Additionally, this listing of intersections does not include locations with only recommended LPIs and/or bicycle signal phasing and focus more on signal modifications related to vehicular movement and associated with accommodating buildout of the proposed project's roadway classifications.

Freeway Improvements

Freeway improvements within the Kearny Mesa study area are identified within this section. The improvements were derived from the Revenue Constrained scenario of SANDAG's *San Diego Forward: The Regional Plan* (2015), the currently adopted regional transportation plan, and are anticipated to be implemented by 2050.

SR-52, from I-805 to SR-125

Two reversible managed lanes will be added to this segment of SR-52. This segment will consist of six general purpose lanes and two managed lanes. Further, two general purpose lanes will be added to this segment between SR-125 and Mast Boulevard to provide six general purpose lanes throughout the entirety of the segment. The additional general-purpose lanes are anticipated to be implemented by 2035, with managed lanes implemented by 2050.

I-15, from I-8 to SR-163

Two managed lanes will be added to this segment of I-15, one in each direction. This segment will consist of eight freeway lanes and two managed lanes. This improvement is anticipated to be implemented by 2035.

I-805, from SR-15 to SR-163

Four managed lanes will be added to this segment of I-805, two in each direction. This segment will consist of eight/ten freeway lanes and four managed lanes. This improvement is anticipated to be implemented by 2050.

Conclusion

As discussed above, the Proposed Project would be consistent with the Mobility Element of the General Plan and other adopted policies, plans, or programs supporting the transportation system, including pedestrian, bicycle, transit, and roadway facilities. Policies contained in the proposed Community Plan Update (CPU) would support improvements to pedestrian, bicycle, transit, and roadway facilities. It should be noted that implementation of some of these transportation infrastructure improvements, such as multi-use paths and higher quality bicycle facilities, may necessitate on-street parking removal, additional right-of-way, and/or require the redevelopment of adjacent properties. All transportation facilities would be designed in accordance to applicable City standards. Thus, the Proposed Project would not conflict with adopted policies, plans, or programs related to the transportation system. Impacts would be less than significant.

4.2 Issue 2: Hazardous Design Features

Would the Proposed Project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

This issue relates to whether transportation infrastructure meets design standards as identified in the City's Street Design Manual or other transportation infrastructure-related codes and regulations enforced by the City Engineer.

The Proposed Project proposes repurposing the roadways to accommodate all modes of transportation, which would alter the existing street geometry of some roadways in the CPU area. The design of roadways in the CPU area, however, would be required to conform with applicable Federal, State, and City of San Diego's design criteria which contain provisions to minimize roadway hazards. Compliance with these standards and designed to the satisfaction of the City of San Diego's City Engineer would avoid impacts related to roadway hazards due to a design feature or incompatible uses. Furthermore, the Proposed Project would improve existing transportation deficiencies by providing higher quality bicycle facilities and improving pedestrian connectivity with the closure of facility gaps. These multi-modal enhancements are intended to improve safety for bicycle and pedestrians on the roadway. Therefore, impacts related to hazardous design features would be less than significant.

4.3 Issue 3: Vehicle Miles Traveled – SB 743 Analysis

Would the Proposed Project result in vehicle miles traveled (VMT) exceeding thresholds for City of San Diego's compliance with SB 743 legislation?

This issue focuses on whether the Proposed Project would have a significant impact if proposed new residential, office, or retail land uses would in aggregate exceed the respective VMT by land use thresholds in Table 3.1.

On September 27, 2013, Governor Jerry Brown signed Senate Bill (SB) 743 into law and started a process intended to fundamentally change transportation impact analysis as part of the California Environmental Quality Act (CEQA) compliance. The Office of Planning and Research (OPR) published its latest recommended *Technical Advisory on Evaluating Transportation Impact in CEQA* in December 2018. This Technical Advisory provides recommendation on how to evaluate transportation impacts under SB 743. The OPR guidance covers specific changes to the CEQA guidelines and recommends elimination of auto delay for CEQA purposes and the use of Vehicle Miles Traveled, or VMT, as the preferred CEQA transportation metric.

VTM is positively correlated with growth and as the region is expected to grow, VMT is also expected to increase. However, where the growth occurs plays a significant role to determine how much the VMT will increase. Growth in areas with access to high quality transit such as Transit Priority Areas (TPAs)³ with a complete active transportation network and complementary land use mixes are projected to be more VMT efficient. In their *Technical Advisory on Evaluating Transportation Impacts on CEQA* (December 2018), OPR recommends the use of VMT metrics when analyzing land use projects and plans. For residential uses, the recommended efficiency metric is Resident VMT per Capita; and for employment uses, the recommended efficiency metric is Employee VMT per Employee. However, for retail uses, the recommended metric is a net change of total area (i.e. Kearny Mesa) VMT due to the nature of retail trips typically redistributing shopping trips rather than creating new trips. Consistent with the OPR Technical Advisory, the significance thresholds are shown in **Table 3.1**.

As described in Chapter 3, SANDAG's Activity Based Model (ABM) was used to calculate the Proposed Project's VMT. The proposed land uses and mobility network were inputs to the model to develop future roadway forecasts and VMT. It should be noted that the land use inputs that were modeled were slightly different from the Proposed Project. This difference includes a slight shift in dwelling units from a few parcels along Clairemont Mesa Boulevard. Under the Proposed Project, the dwelling units were redistributed amongst several adjacent parcels around the Clairemont Mesa Boulevard and Convoy Street intersection easterly to parcels between Mercury Street and Overland Avenue along Clairemont Mesa Boulevard. Though the model is not exactly replicative of the Proposed Project's land use distribution, the difference is considered insignificant as it relates to VMT since the land uses are only being shifted to immediately adjacent parcels and not changing the land use type or total quantity. Therefore, the model used in the analysis was still considered to accurately represent the Kearny Mesa's VMT for the Proposed Project.

Table 4.2 presents the Kearny Mesa resident and employee VMT efficiency metrics for Base Year conditions. For Kearny Mesa, under Base Year conditions, the community is above the 85 percent threshold (i.e., exceeding 15 percent below the Base Year average) for both efficiency metrics at 89 percent and 107.1 percent of the Base Year regional averages for both average Resident VMT per Capita and average Employee VMT per Employee, respectively.

Table 4.2 Kearny Mesa Base Year VMT Metrics for Transportation Impact Analysis

VMT Metric ¹	Base Year (2012)			% of Regional Base Year	
	Region	City	KM	City	KM
Resident VMT/Capita	17.3	15.1	15.4	87.3%	89.0%
Employee VMT/Employee	25.4	25.2	27.2	99.2%	107.1%

Source: SANDAG and Chen Ryan Associates (2019)

Note:

¹ Kearny Mesa Base Year VMT efficiency metrics were obtained from the SANDAG's Vehicle Miles of Travel Report specific to the Kearny Mesa modeling scenario. Data is provided in Appendix B.

³ Transit Priority Areas, within the context of Kearny Mesa, include areas within one-half mile of existing or planned trolley stations or the intersection of two or more major bus routes, each having a frequency of service of 15 minutes or less during the morning and afternoon peak commute periods.

By 2050 with the implementation of the Proposed Project, the VMT efficiency of Kearny Mesa substantially improves. **Table 4.3** presents the Kearny Mesa average resident and employee VMT for the Proposed Project. Kearny Mesa is projected to have an average Resident VMT per Capita at 9.2 and an average Employee VMT per Employee at 20.5, which are 53.2 percent and 80.7 percent, respectively, of the Base Year regional averages for these efficiency metrics. These reductions assume implementation of the SANDAG 2015 Regional Plan and Sustainable Communities Strategy. VMT associated with residential and employment land uses would not exceed the 85 percent thresholds at buildout of the Proposed Project. Therefore, impacts related to VMT for residential and employment land uses would be less than significant.

Table 4.3 Kearny Mesa Proposed Project
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses

VMT Metric ¹	Base Year (2012)	2050 Proposed Project			% of Regional Base Year		Significant Impact?
	Region	Region	City	KM	City	KM	KM
Resident VMT/ Capita	17.3	14.6	12.5	9.2	72.3%	53.2%	NO
Employee VMT/ Employee	25.4	21.5	19.9	20.5	78.3%	80.7%	NO

Source: SANDAG and Chen Ryan Associates (2019)

Note:

¹ Kearny Mesa Base Year and Proposed Project VMT efficiency metrics were obtained from the SANDAG's Vehicle Miles of Travel Report specific to the Kearny Mesa modeling scenarios. Data is provided in Appendix B.

Between the Base Year to buildout of the Proposed Project, Kearny Mesa's commercial retail square footage would in aggregate increase by 66% (7,815,123 sf to 12,953,174 sf). With this significant increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the Proposed Project, which would exceed the applicable significance threshold for retail uses. Therefore, impacts related to VMT for retail land uses would be significant.

4.4 Significance of Impacts

Conflicts with Current Plans/Policies

Pedestrian Facilities

The Proposed Project would be consistent with and would implement the General Plan's safety and accessibility, connectivity, and walkability policies. Pedestrian-focused policies contained in the proposed include enhancements to pedestrian travel within the CPU area, such as implementing the multi-use urban pathway system, constructing sidewalk and intersection improvements, and installing missing sidewalks and curb ramps⁴. In addition, the impact fee study (IFS) for the Proposed Project would include planned pedestrian improvements to install curb ramps, sidewalks, and audible pedestrian signals to meet ADA standards. Implementation of the Proposed Project would not restrict or impede pedestrian connectivity and would not conflict with any adopted policies or plans addressing pedestrian facilities. Thus, impacts would be less than significant.

⁴ See Policies for Mobility MO-4.6 through MO-4.11, MO-4.12, MO-4.15, MO-4.18, and MO-4.20.

Bicycle Facilities

The Proposed Project includes facilities that build on those identified in the Regional Bike Plan and City of San Diego Bicycle Master Plan, while also identifying new recommendations and improving upon existing facilities through an emphasis on protected facilities such as multi-use paths and cycle tracks. Bicycle-focused policies contained in the proposed CPU are consistent with current Regional and City plans that include providing and supporting a continuous network of safe, convenient, and attractive bicycle facilities throughout the community, and enhancing safety, comfort, and accessibility for all levels of bicycle riders⁵. The Proposed Project supports improvements such as wayfinding marking, bicycle signals, buffered bicycle lanes, and protected bicycle facilities. Implementation of the Proposed Project would not restrict or impede bicycle connectivity and would not conflict with any adopted policies or plans addressing bicycle facilities. Thus, impacts would be less than significant.

Transit Facilities

The General Plan includes policies for supporting the provision of higher-frequency transit services and implementing transit priority measures to help bypass congested areas. Transit-focused policies contained in the proposed CPU support implementation of the transit improvements identified in the Regional Plan by prioritizing the transit system and improving efficiency of transit services⁶. The Proposed Project includes implementation of transit priority signals on key transit corridors and roadway right-of-way specifically for high-quality transit facilities. In addition, the Proposed Project provides for a complete bicycle and pedestrian network connecting with and improving access to transit. Thus, implementation of the Proposed Project would not interfere with implementation of planned transit improvements and would provide policy support for their implementation. Impacts related to conflicts with plans or policies addressing existing or planned transit facilities. Thus, impacts would be less than significant.

Roadway Facilities

The Proposed Project would support goals and policies included in the General Plan, which is to provide a balanced, multi-modal transportation network where each travel mode can contribute to an efficient network of services meeting varied user needs. The General Plan advocates for interconnected street networks within and between community, and the Proposed Project would support this effort by creating a walkable and bicycle-friendly environment, and supporting transit as a primary mode of travel for many users. Roadway improvements includes, but not limited to, repurposing vehicle travel lanes to provide protected bicycle facilities and flexible lanes for SMART corridors, signal operational improvements for corridor management, reserving right-of-way to implement multi-use paths, and providing bicycle and pedestrian signal enhancements to improve safety. Implementation of the Proposed Project would not conflict with any adopted policies or plans addressing roadway facilities. Thus, impacts would be less than significant.

Hazardous Design Features

The design of roadways in the CPU area would be required to conform with applicable Federal, State and City of San Diego's design criteria which contain provisions to minimize roadway hazards. Compliance with these standards and designed to the satisfaction of the City of San Diego's City Engineer would avoid roadway hazards. Impacts would be less than significant.

⁵ See Policies for Mobility MO-4.6, MO-4.12 through MO-4.20.

⁶ See Policies for Mobility MO-4.1 through MO-4.5, and MO-4.23.

Vehicle Miles Traveled per Capita – SB 743 Analysis

Residential Land Uses

The Proposed Project would not create a significant impact for residential land uses as the VMT would be under the 85 percent threshold (i.e. 15 percent below the Base Year regional average) for this efficiency metric. **Figure 4-5** displays the citywide and Kearny Mesa Resident VMT per Capita as a percentage of the Base Year's regional average Resident VMT per Capita. As shown, with the Proposed Project, the average Resident VMT per Capita for Kearny Mesa is lower than the 85 percent threshold. Furthermore, the citywide average Resident VMT per Capita is also below the 85 percent threshold under the Proposed Project. Kearny Mesa's Resident VMT per Capita for the Proposed Project is 53.2 percent of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered less than significant.

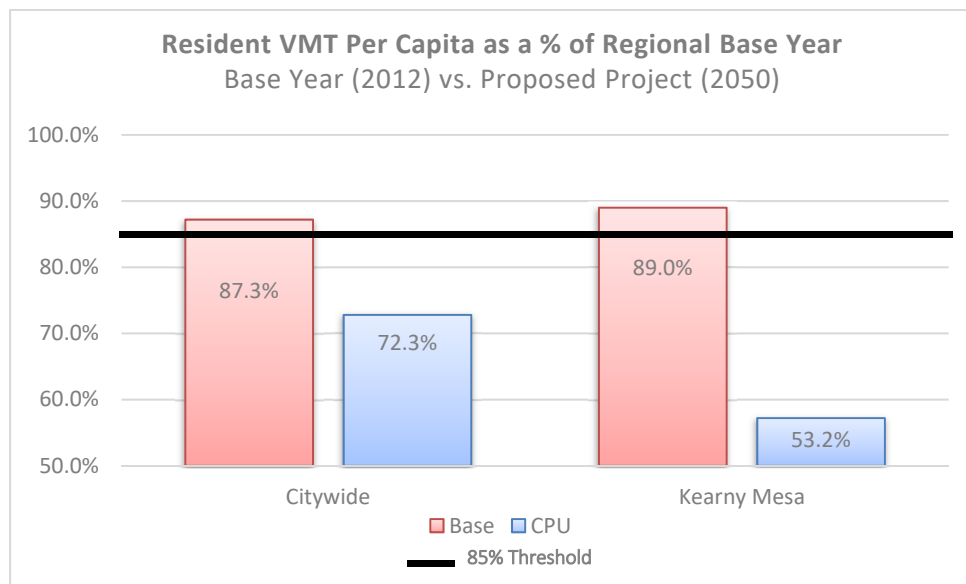


Figure 4-5 Resident VMT Per Capita

Employment Land Uses

The Proposed Project would not create a significant impact for employment land uses as the VMT would be under the 85 percent threshold (i.e. 15 percent below the Base Year regional average) for this efficiency metric. **Figure 4-6** displays the citywide and Kearny Mesa Employee VMT per Employee as a percentage of Base Year's regional average for Employee VMT per Employee. As shown, with the Proposed Project, the average Employee VMT per Employee for Kearny Mesa is lower than the 85 percent threshold. Furthermore, the citywide average Employee VMT per Employee is also below the 85 percent threshold under the Proposed Project. Kearny Mesa's Employee VMT per Employee for the Proposed Project is 80.7 percent of the Base Year regional average, and therefore, the transportation impacts related to employment uses are considered less than significant.

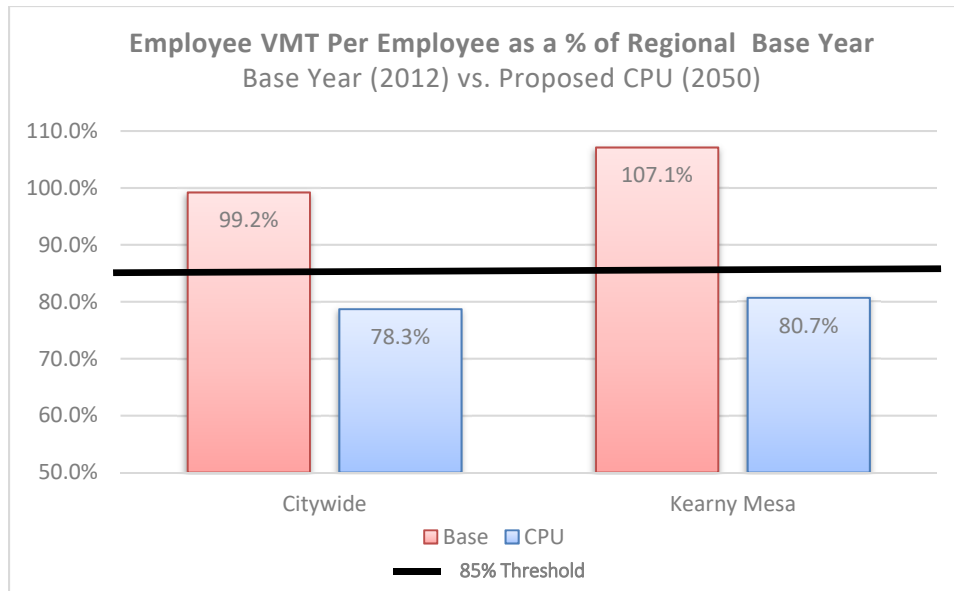


Figure 4-6 Employee VMT Per Employee

Overall, Kearny Mesa CPU's lower residential and employment related VMT compared to the Base Year is largely because the Proposed Project was designed to self-mitigate by increasing the transportation efficiency in the community guided by the General Plan and Climate Action Plan which also align with Statewide goals. The Proposed Project is also consistent with the City of San Diego's Complete Communities initiative, which includes planning strategies that work together to create incentives to build homes near transit, provide more mobility choices, enhance opportunities for places to walk, bike, relax and play, and more quickly bring neighborhood benefits where needed the most⁷. As a result, the Proposed Project improves not only the community's VMT efficiencies, but also the citywide VMT efficiencies for the Resident VMT per Capita and the Employee VMT per Employee.

Retail Land Uses

According to OPR's recommendations, a retail impact is considered significant when there is a net increase in total area (i.e. Kearny Mesa) VMT related to the new retail and commercial uses that could be developed with the adoption of the proposed CPU. Kearny Mesa Total Retail VMT is anticipated to increase with the buildout of the proposed project when compared to the present condition due to all the retail growth anticipated to occur in the future throughout the community. While some of the proposed project's retail uses would be intended to be locally serving, much of Kearny Mesa's existing commercial uses, such as uses on Convoy Street, Clairemont Mesa Boulevard, or Balboa Avenue, have more regional drawing characteristics due to the uniqueness of those uses (e.g. car dealerships, specialty grocery markets, restaurants, etc.). With the proposed project, it is anticipated that further redevelopment would maintain and possibly expand these unique retail and commercial destinations. This potential increase in VMT related to the regionally serving retail and commercial uses would be a significant transportation impact under the VMT thresholds.

⁷ City of San Diego's Complete Communities Initiative (<https://www.completecommunitiesd.org/>)

Mitigation Measures

VMT is positively correlated with growth and as the region is expected to grow, VMT is also expected to increase. However, where the growth occurs plays a significant role in determining how much VMT will increase. Growth in areas with access to high-quality transit such as Transit Priority Areas (TPAs), a complete active transportation network, and complementary land uses mixes are more VMT efficient. Guided by the City's General Plan and Climate Action Plan, SANDAG's Regional Plan, as well as state of the practice urban planning principles (i.e., such as Transit Oriented Development and Complete Streets), the Proposed Project land uses focus growth in transit corridors and providing a complementary mix of uses. With a fully connected active transportation network, this mix of uses in the locations proposed are planned for the purpose of eliminating and reducing vehicular trips, thereby results in reduced VMT. The key theme behind the Proposed Project is the *connected community*⁸. The Proposed Project envisions this community as a sub-regional employment center adaptable to future employment trends and technologies that would bring in a diversified workforce. New development would be focused in mixed-use villages, that would introduce new residential, retail and employment opportunities consolidated around transit corridors with a supportive and balanced mobility system to serve the needs of all current and future users. This system would provide an active transportation network that would be a viable and enjoyable option for traveling within the community in addition to providing connections to transit to get to and from destinations around the region. By bringing in varied and complementary uses in transit corridors and a mobility network that supports and encourages alternative mode choice, the Proposed Project plans a more VMT efficient and sustainable future for the community.

Residential Land Uses

As shown in Table 4.3 and Figure 4-5, the Proposed Project's impact for its proposed residential land uses would be less than significant, therefore, no mitigation measures are required.

Employment Land Uses

As shown in Table 4.3 and Figure 4-6, the Proposed Project's impact for its proposed employment land uses would be less than significant; therefore, no mitigation measures are required.

Retail Land Uses

For the Proposed Project's retail land uses, there is a potentially significant impact due to existing and planned retail and commercial uses that would be regionally serving, as well as locally serving. Overall, the proposed CPU is a planning document intended to guide future development throughout Kearny Mesa. It provides detailed policies and implementation guidance that would be applicable to many specific details of future development as applications are filed and future implementing actions are considered. Due to the programmatic nature of the proposed CPU, it does not propose any specific development projects, and thus, cannot adequately anticipate specific project-level requirements at this time. To mitigate the potential impact to less than significant, future development under this proposed CPU would need to be mitigated on a project basis. This could be accomplished through a citywide VMT reduction ordinance that would require development projects to reduce their VMT to the extent feasible by providing on-site VMT reducing infrastructure such as those found in CAPCOA⁹, the SANDAG Mobility Management Toolbox¹⁰, or

⁸ Mentioned in Section 5: Urban Design of the *Kearny Mesa Community Plan*, March 2020 version.

⁹ "Quantifying Greenhouse Gas Mitigation Measures." August 2010. (<http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf>)

¹⁰ The SANDAG Mobility Management Toolbox was released as a local public resource in July 2019. It is currently housed on their iCommute website. (<https://www.icommutesd.com/planners/TDM-local-governments>)

other sources that have been vetted through peer-review research; or pay a fee that would fund active transportation infrastructure and transit improvements to reduce citywide VMT.

Mitigation Measure MM-TR-1: Adopt and implement a VMT reduction ordinance that would require future development projects within the City to provide on-site VMT reducing infrastructure or pay a fee that would fund active transportation infrastructure and transit improvements intended to reduce vehicle miles traveled resulting from retail uses.

However, because this action by a decision-making body cannot be ensured to occur, and analysis of the implementation of such an ordinance has not been included in the Programmatic Environmental Impact Report (PEIR), this mitigation while potentially feasible, is not implementable at this time. This VMT impact is significant and unavoidable.

4.5 Level of Significance After Mitigation

Should MM-TR-1 be adopted by City Council, and implemented, VMT would be reduced by individual projects that maybe permitted and constructed under the proposed CPU. A citywide VMT reduction ordinance could reduce community and citywide VMT for projects both ministerial and discretionary, thereby mitigating the potential impact identified in the previous section. The effectiveness of the VMT reducing infrastructure included in such an ordinance would need to be context sensitive and would vary depending on the individual project site such as the location, access to transit, etc. For this reason, and because it is uncertain if, or when such regulations would become effective, MM-TR-1 would not fully mitigate the VMT impact for retail land uses. However, through continued updates to community plans in transit priority areas, further reductions in citywide VMT would potentially occur. Thus, transportation impacts due to the Proposed Project's retail land uses would remain significant and unavoidable.

5.0 Vehicle Miles Traveled for GHG Analysis Purposes

To more accurately describe the VMT attributable to a smaller geography, such as a community planning area, it is necessary to track the trips and distances to and from the community that goes beyond the boundary of the geography. As shown with previous metrics, the ABM has this capability designating the Kearny Mesa community as a *select zone*. This is further described in Appendix A.

By selecting Kearny Mesa as a *select zone*, any vehicle-based trip that has an origin, destination, or both in the community are tracked and all of the VMT of these trips are aggregated as the Select Zone VMT for Kearny Mesa. **Table 5.1** presents the VMT for greenhouse gas (GHG) emissions analysis for the Kearny Mesa community. As shown, the Proposed Project scenario's VMT is greater than both the Base Year and Adopted Plan scenarios. This is a result of the increased residential and employment land uses.

The select zone VMT includes all the VMT from any trip that originates or ends in that select zone. However, for External-to-Internal (E-I)¹¹ or Internal-to-External (I-E)¹² trips that only have one trip end in the select zone, it is not entirely accurate to attribute that entire trip length to the community as it originated or ended elsewhere, whereas all of the Internal-to-Internal (I-I)¹³ trip lengths are included in select zone. The International Council for Local Environment Initiatives (ICLEI) method was developed to appropriately calculate the VMT attributable to the community for GHG purposes. Essentially the equation is as follows:

$$\text{ICLEI VMT} = 100\% (\text{I-I VMT}) + 50\% (\text{E-I, I-E VMT})$$

As shown, the Proposed Project's VMT would be 49.3% greater than the Base Year and 31.6% greater than the Adopted Plan for the Kearny Mesa community using the ICLEI method.

Table 5.1 Vehicle Miles Traveled for GHG Analysis

Kearny Mesa	2012 Base Year (BY)	2050 Adopted Plan (ACP)	2050 Proposed Project (CPU)	% Change		
				ACP vs. BY	CPU vs. BY	CPU vs. ACP
KM VMT for GHG (ICLEI) ¹	2,477,173	2,809,408	3,698,527	13.4%	49.3%	31.6%

Source: SANDAG and Chen Ryan Associates (2019)

Notes:

¹ Kearny Mesa's VMT for GHG analysis was calculated using the information provided through the disaggregated VMT for Kearny Mesa Select Zone model output from SANDAG, which is provided in Appendix C.

5.1 Vehicle Miles Traveled for GHG Analysis per Service Population

VMT per service population is an informative metric to understand the growth in VMT in relation to community growth. **Table 5.2** provides the population, employment, and service population for the Kearny Mesa community for the three (3) scenarios.

¹¹ Trips that originate outside of the Community and end within the Community.

¹² Trips that originate within the Community and end outside of the Community.

¹³ Trips that both the origin and destination are within the Community limits.

Table 5.2 Kearny Mesa Population and Employment

Kearny Mesa	2012 Base Year (BY)	2050 Adopted Plan (ACP)	2050 Proposed Plan (CPU)	% Change		
				ACP vs. BY	CPU vs. BY	CPU vs. ACP
Dwelling Units	2,857	5,883	25,826	105.9%	804.0%	339.0%
Residents ¹	6,387	13,411	57,516	110.0%	800.5%	328.9%
Employees ¹	86,861	84,851	106,927	-2.3%	23.1%	26.0%
Service Population ²	93,248	98,262	164,443	5.4%	76.4%	67.4%

Source: SANDAG and Chen Ryan Associates (2019)

Notes:

¹ Residents and employment values taken from model output provided in the Vehicle Miles of Travel Reports provided in Appendix B. Slight variations than existing and proposed employment numbers due to model synthesis.

² Service population is the sum of residents and employees within Kearny Mesa.

The Adopted Plan's dwelling units and residents would be more than double the Base Year by the projected build-out of 2050, while the employments generally stay the same.

The goals of the Proposed Project include bringing in closer origins and destinations, increasing transit usage by leveraging the major investment of robust transit infrastructure and service enhancements near new residences and employment hubs, and making the community more walkable and bikeable. These goals are in alignment with the City's General Plan and CAP.

As a result, the Proposed Project substantially increases the dwelling unit capacity well beyond what is proposed in the Adopted Plan, and would moderately increase the employment and retail components within the community. Most of the additional dwelling units would be added along Clairemont Mesa Boulevard and would increase densities around transit stops and mixed-use development.

In the Proposed Project scenario, the number of residents would increase by 800.5% (6,387 to 57,516), almost eight times the Base Year Scenario's population. The service population of Kearny Mesa is the sum of residents and employees within Kearny Mesa. As expected, the service population under the Proposed Project is greater than the Adopted Plan due to increase in residents and results towards a population and employment balance. Development under the Proposed Project's Community Plan Update constitutes infill development that represents increased intensity and density compared to the Base Year's land use conditions and the development type allowable through Adopted Community Plan of Kearny Mesa.

Table 5.3 presents the VMT via the ICLEI method per service population for Kearny Mesa using the projected service populations for each scenario.

Table 5.3 Kearny Mesa Vehicle Miles Traveled for GHG Analysis Per Service Population

Kearny Mesa	2012 Base Year (BY)	2050 Adopted Plan (ACP)	2050 Proposed Project (CPU)	% Change		
				ACP vs. BY	CPU vs. BY	CPU vs. ACP
ICLEI VMT per Service Population	27	29	22	7.64%	-15.3%	-21.3%

Source: SANDAG and Chen Ryan Associates (2019)

The Proposed Project scenario shows a decrease in VMT per Service Population of 15.3% when compared to the Base Year scenario and over a 21% reduction seen in the Adopted Plan scenario. As described in the previous chapter, the reduction in VMT per Service Population is due to the more balanced land use network and the comprehensive multi-modal mobility network.

6.0 Alternatives Analysis

The California Environmental Quality Act (CEQA) mandates consideration and analysis of alternatives to the Proposed Project. According to CEQA Guidelines, the range of alternatives “shall include those that could feasibly accomplish most of the basic purposes of the project and could avoid or substantially lessen one or more of the significant impacts” (CEQA Guidelines Section 15126.6 (d) (2)). The discussion must also include an evaluation of the No Project Alternative to allow decision-makers to compare the impacts of approving the Proposed Project against the impacts of not approving it.

The alternatives discussion need not be exhaustive and are subject to a construction of reasonableness. The impacts of the alternatives may be discussed “in less detail than the significant effects of the project proposed” (CEQA Guidelines Section 15126.6 (d)). Additionally, the CEQA Guidelines generally permit analysis of alternatives at a less detailed level for general plans and other program EIRs than what is required for project EIRs. The CEQA Guidelines do not specify what constitutes an adequate level of detail, though an EIR must provide sufficient information to allow meaningful evaluation, analysis, and comparison of each alternative. The CEQA Guidelines require that this analysis identify the environmentally superior alternative among those analyzed.

This chapter discusses the vehicle miles traveled (VMT) under the five (5) project alternatives. The primary difference between all the alternatives, with the exception of the No Project Alternative, is changes to the land uses. The mobility networks for Alternatives 1 through 4 are the same as the Proposed Project. The No Project Alternative includes a different mobility network and land use plan than the Proposed Project. The Vehicle Miles of Travel Reports (SB 743 metrics for residential and employment) for all project alternatives are included in **Appendix D**.

6.1 No Project Alternative (Adopted Community Plan)

The purpose of evaluating the No Project Alternative is to allow decision makers to compare the potential impacts of approving the Proposed Project with the potential impacts of not approving the Proposed Project. The No Project Alternative represents what would reasonably be expected to occur in the foreseeable future if the proposed CPU were not approved. The No Project Alternative would consist of the Adopted Community Plan’s land use designations and proposed mobility network as they apply today, including all amendments to the Community Plan from its original adoption in 1992 to the most recent amendment in 2018. The majority of Kearny Mesa is designated for industrial uses. Adopted Community Plan land use designations are intended to retain the mix of industrial, business park, scientific and research, and heavy commercial land uses. Table 2.1 summarizes buildout under the No Project Alternative (Adopted Plan) compared to the Base Year and Proposed Project.

Table 6.1 presents the Kearny Mesa average resident and employee VMT for No Project conditions. As shown, Kearny Mesa is projected to have an average Resident VMT per Capita at 13.0 and an average Employee VMT per Employee at 22.2 under the No Project Alternative, which is 75.1% and 87.4%, respectively, of the 2012 regional averages for these efficiency metrics.

**Table 6.1 Kearny Mesa No Project
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses**

VMT Metric	Base Year (2012)		2050 Proposed Project			2050 No Project	
	VMT	VMT	% of Regional	SI?	VMT	% of Regional	SI?
	Region		Base Year			Base Year	
			KM			KM	
Resident VMT/ Capita	17.3	9.2	53.2%	NO	13.0	75.1%	NO
Employee VMT/ Employee	25.4	20.5	80.7%	NO	22.2	87.4%	YES

Source: SANDAG and Chen Ryan Associates (2019)

Between the Base Year to buildout of the No Project Alternative, Kearny Mesa’s commercial retail square footage would in aggregate increase by 24% (7,815,123 sf to 9,677,820 sf). With this increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the No Project Alternative compared to Base Year conditions.

Significance of Impacts

Residential Land Uses

As shown in Table 6.1, the No Project Alternative would not create a significant impact for its residential land uses as the VMT is under the 85% threshold (i.e., 15% below the Base Year regional average). Kearny Mesa’s Resident VMT per Capita for the No Project Alternative is 75.1% of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered *less than significant*.

Employment Land Uses

As shown in Table 6.1, the No Project Alternative would result in a significant impact for its employment land uses as the VMT is greater the 85% threshold (i.e., 15% below the Base Year regional average). Due to the minimal increase in office space and continued housing imbalance under No Project conditions compared to Base Year conditions, Kearny Mesa’s Employee VMT per Employee for the No Project Alternative is 87.4% of the Base Year regional average, and therefore, the employee uses are considered *to have a significant transportation impact*.

Retail Land Uses

The No Project Alternative could potentially increase Kearny Mesa’s Total VMT generated by retail uses, therefore, per the significance criteria, the retail component would have a *significant transportation impact*.

6.2 Alternative 1 (Reduced Density Alternative)

Compared to the Proposed Project, Alternative 1 retains more of the existing industrial and business park areas with the CPU area. Similar to the Proposed Project, Alternative 1 would increase the FAR limits for commercial and industrial zones. Although more lot coverage would be allowed compared to the adopted Community Plan (No Project Alternative), under Alternative 1, the total increase in employment would be slightly less than under the Proposed Project.

Table 6.2 presents the Kearny Mesa average resident and employee VMT for Alternative 1. As shown, Kearny Mesa is projected to have an average Resident VMT per Capita at 10.1 and an average Employee VMT per Employee at 21.5 under Alternative 1 conditions, which is 58.4% and 84.6%, respectively, of the 2012 regional averages for these efficiency metrics.

**Table 6.2 Kearny Mesa Alternative 1
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses**

VMT Metric	Base Year (2012)	2050 Proposed Project			2050 Alternative 1		
	VMT	VMT	% of Regional	SI?	VMT	% of Regional	SI?
	Region		Base Year			Base Year	
			KM			KM	
Resident VMT/ Capita	17.3	9.2	53.2%	NO	10.1	58.4%	NO
Employee VMT/ Employee	25.4	20.5	80.7%	NO	21.5	84.6%	NO

Source: SANDAG and Chen Ryan Associates (2019)

Between the Base Year to buildout of the Alternative 1 scenario, Kearny Mesa's commercial retail square footage would in aggregate increase by 66% (7,815,123 sf to 13,008,168 sf). With this significant increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the Alternative 1 compared to Base Year conditions.

Significance of Impacts

Residential Land Uses

As shown in Table 6.2, Alternative 1 would not create a significant impact for its residential land uses as the VMT is under the 85% threshold (i.e., 15% below the Base Year regional average). Kearny Mesa's Resident VMT per Capita for Alternative 1 is 58.4% of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered *less than significant*.

Employment Land Uses

As shown in Table 6.2, Alternative 1 would not create a significant impact for its employment land uses as the VMT is under the 85% threshold (i.e., 15% below the Base Year regional average). Kearny Mesa's Employee VMT per Employee for Alternative 1 is 84.6% of the Base Year regional average, and therefore, the transportation impacts related to employee uses are considered *less than significant*.

Retail Land Uses

Alternative 1 could potentially increase the Kearny Mesa's Total VMT generated by retail uses, therefore, per the significance criteria, the retail component would have a *significant transportation impact*.

6.3 Alternative 2 (Reduced Height Alternative)

Alternative 2 would include the same planned land uses and land use distribution and same planned mobility network as the Proposed Project. However, Alternative 2, Reduced Height Alternative, would implement the planned land uses in the proposed village area with zones that have reduced height limits. Consequently, the transportation operations and impacts are anticipated to be exactly the same as the Proposed Project and no additional model run was conducted.

Table 6.3 presents the Kearny Mesa average resident and employee VMT for the Alternative 2 conditions. Similar to the Proposed Project, Kearny Mesa is projected to have an average Resident VMT per Capita at 9.2 and an average Employee VMT per Employee at 20.5 under Alternative 2 conditions, which is 53.2% and 80.7%, respectively, of the 2012 regional averages for these efficiency metrics.

**Table 6.3 Kearny Mesa Alternative 2
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses**

VMT Metric	Base Year (2012)	2050 Proposed Project & Alternative 2		
	VMT	VMT	% of Regional Base Year	SI? ¹
	Region		KM	
Resident VMT/ Capita	17.3	9.2	53.2%	NO
Employee VMT/ Employee	25.4	20.5	80.7%	NO

Source: SANDAG and Chen Ryan Associates (2019)

Note:

¹ SI = Significant Impact

Between the Base Year to buildout of the Alternative 2 scenario, Kearny Mesa's commercial retail square footage would in aggregate increase by 66% (7,815,123 sf to 12,953,174 sf). With this significant increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the Alternative 2 compared to Base Year conditions.

Significance of Impacts

Residential Land Uses

As shown in Table 6.3, Alternative 2 would not create a significant impact for its residential land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Resident VMT per Capita for Alternative 2 is 53.2% of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered *less than significant*.

Employment Land Uses

As shown in Table 6.3, Alternative 2 would not create a significant impact for its employment land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Employee VMT per Employee for Alternative 2 is 80.7% of the Base Year regional average, and therefore, the transportation impacts related to employee uses are considered *less than significant*.

Retail Land Uses

Alternative 2 could potentially increase Kearny Mesa's Total VMT generated by retail uses, therefore, per the significance criteria, the retail component would have a *significant transportation impact*.

6.4 Alternative 3 (Reduced Industrial Employment Alternative)

Alternative 3 proposes similar land uses to the Proposed Project; however, Alternative 3 would implement the planned land uses with zones that apply citywide development standards related to maximum lot coverage. Alternative 3 assumes that the majority of new non-residential development would consist of multi-story buildings, and that there would be additional high-rise buildings with greater lot coverage in industrial areas. These buildings would accommodate buildout of more commercial services, retail, and office space. Therefore, while Alternative 3 would result in increased overall employment compared to the Proposed Project, by increasing the scale of commercial development in industrial zones, it would result in increased commercial encroachment and reduced industrial employment.

Table 6.4 presents the Kearny Mesa average resident and employee VMT for the Alternative 3 conditions. As shown, Kearny Mesa is projected to have an average Resident VMT per Capita at 8.7 and an average Employee VMT per Employee at 20.8 under Alternative 3, which is 50.3% and 81.9%, respectively, of the 2012 regional averages for these efficiency metrics. The Resident VMT per Capita is less than the Proposed Project due to the increase in employment, resulting in a greater housing-to-jobs balance.

**Table 6.4 Kearny Mesa Alternative 3
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses**

VMT Metric	Base Year (2012)	2050 Proposed Project			2050 Alternative 3		
	VMT	VMT	% of Regional Base Year	SI?	VMT	% of Regional Base Year	SI?
	Region	Region	KM		Region	KM	
Resident VMT/ Capita	17.3	9.2	53.2%	NO	8.7	50.3%	NO
Employee VMT/ Employee	25.4	20.5	80.7%	NO	20.8	81.9%	NO

Source: SANDAG and Chen Ryan Associates (2019)

Between the Base Year to buildout of the Alternative 3 scenario, Kearny Mesa's commercial retail square footage would in aggregate increase by 88% (7,815,123 sf to 14,719,954 sf). With this significant increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the Alternative 3 compared to Base Year conditions.

Significance of Impacts

Residential Land Uses

Alternative 3 would not create a significant impact for its residential land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Resident VMT per Capita for Alternative 3 is 50.3% of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered *less than significant*.

Employment Land Uses

Alternative 3 would not create a significant impact for its employment land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Employee VMT per

Employee for Alternative 3 is 81.9% of the Base Year regional average, and therefore, the transportation impacts related to employee uses are considered *less than significant*.

Retail Land Uses

Alternative 3 could potentially increase Kearny Mesa's Total VMT generated by the retail uses, therefore, per the significance criteria, the retail component would have a *significant transportation impact*.

6.5 Alternative 4 (Residential Option)

Alternative 4 would include the same planned land uses and land use distribution, and same planned mobility network as the Proposed Project. However, Alternative 4, includes residential dwelling units in the airport easements north of Clairemont Mesa Boulevard, whereas the Proposed Project's dwelling units are located primarily south of Clairemont Mesa Boulevard between I-805 and Mercury Street and along Clairemont Mesa Boulevard east of SR-163.

Table 6.5 presents the Kearny Mesa average resident and employee VMT for the Alternative 4. As shown, Kearny Mesa is projected to have an average Resident VMT per Capita at 9.9 and an average Employee VMT per Employee at 20.5 under Alternative 4, which is 57.2% and 80.7%, respectively, of the 2012 regional averages for these efficiency metrics. The Resident VMT per Capita and Employee VMT per Employee are very similar between the Proposed Project and Alternative 4 since the main difference between the two scenarios consist of only redistributing a portion of the residential dwelling units on Clairemont Mesa Boulevard.

**Table 6.5 Kearny Mesa Alternative 4
VMT Efficiency Metrics for Transportation Impact Analysis of Residential and Employment Uses**

VMT Metric	Base Year (2012)	2050 Proposed Project			2050 Alternative 4		
	VMT	VMT	% of Regional Base Year	SI?	VMT	% of Regional Base Year	SI?
	Region		KM			KM	
Resident VMT/ Capita	17.3	9.2	53.2%	NO	9.9	57.2%	NO
Employee VMT/ Employee	25.4	20.5	80.7%	NO	20.5	80.7%	NO

Source: SANDAG and Chen Ryan Associates (2019)

Between the Base Year to buildout of the Alternative 4 scenario, Kearny Mesa's commercial retail square footage would in aggregate increase by 74% (7,815,123 sf to 13,586,154 sf). With this significant increase in commercial retail square footage and where some of these uses could have regionally-drawing characteristics, the Kearny Mesa Total VMT generated by retail uses is expected to increase under the Alternative 4 compared to Base Year conditions.

Significance of Impacts

Residential Land Uses

As shown in Table 6.5, Alternative 4 would not create a significant impact for its residential land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Resident VMT per Capita for Alternative 4 is 57.2% of the Base Year regional average, and therefore, the transportation impacts related to residential uses are considered *less than significant*.

Employment Land Uses

As shown in Table 6.5, Alternative 4 would not create a significant impact for its employment land uses as the VMT is under the 85% threshold (i.e. 15% below the Base Year regional average). Kearny Mesa's Employee VMT per Employee for Alternative 4 is 80.7% of the Base Year regional average, and therefore, the transportation impacts related to employee uses are considered *less than significant*.

Retail Land Uses

Alternative 4 could potentially increase Kearny Mesa's Total VMT generated by retail uses, therefore, per the significance criteria, the retail component would have a *significant transportation impact*.

Appendix A Vehicle Miles Traveled Calculation Using the SANDAG Regional Travel Demand Model – Technical White Paper



APPENDICES

VEHICLE MILES TRAVELED CALCULATIONS USING THE SANDAG REGIONAL TRAVEL DEMAND MODEL

San Diego, California
May 2013

APPENDIX A

GLOSSARY OF ACRONYMS & TERMS

AB	Assembly Bill
ADT	Average Daily Traffic
AML	Arc Macro Language
ATL	Average Trip Length
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CMP	Congestion Management Plan
CPA	Community Planning Area
CSV	Comma Separated Variable
E-E	External-to-External Trip Category
E-I	External-to-Internal Trip Category
EIR	Environmental Impact Report
GHG	Green House Gas
GIS	Geographic Information Systems
HHDT	Heavy-Heavy Duty Truck
HOV	High Occupant Vehicle
I-E	Internal-to-External Trip Category
I-I	Internal-to-Internal Trip Category
ICLEI	International Council for Local Environmental Initiatives
Internal Capture	Trips with an Origin and Destination within the same study area
Intra-zonal	Trips with an Origin and Destination within the same TAZ
ITE	Institute of Traffic Engineers
LHDT	Light-Heavy Duty Truck
LOS	Level of Service
MHDT	Medium-Heavy Duty Truck
MPO	Metropolitan Planning Organization
OD	Origin Destination
PHT	Person Hours of Travel
PMT	Person Miles of Travel
RC	Revenue Constrained
RTIP	Regional Transportation Improvement Plan
RTP	Regional Transportation Plan
SANTEC	San Diego Traffic Engineers' Council
SB	Senate Bill
SOV	Single Occupant Vehicle
TAZ	Traffic Analysis Zone
TDM	Travel Demand Management
TRB	Transportation Research Board
TWG	Regional Planning Technical Working Group
VHT	Vehicle Hours of Travel
VMT	Vehicle Miles of Travel

APPENDIX B

SCENARIO TRIP GENERATION REPORTS (TAZ 3491)

Base Year 2008
Trip Generation and land use by zone

----- Land Use -----					-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
3491	101	SINGLE FAMILY	du	342.0	3409	2460
3491	102	MULTI-FAMILY	du	189.0	1590	1113
3491	1409	GROUP QUARTERS	acre	0.2	1	1
3491	4112	RIGHT-OF-WAY	acre	12.8	0	0
3491	5007	STREETFRONT COMM	acre	0.6	759	550
3491	5009	OTHER COMMERCIAL	acre	0.5	59	43
3491	6102	CHURCH	acre	0.4	21	17
3491	9101	INACTIVE USE	acre	5.4	0	0
3491	TOTAL				5839	4184

2050 A
Trip Generation and land use by zone

----- Land Use -----					-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
3491	101	SINGLE FAMILY	du	335.0	3529	2549
3491	102	MULTI-FAMILY	du	231.0	2039	1425
3491	1409	GROUP QUARTERS	acre	0.2	1	0
3491	4112	RIGHT-OF-WAY	acre	12.8	0	0
3491	6102	CHURCH	acre	0.4	23	18
3491	9101	INACTIVE USE	acre	4.9	0	0
3491	9702	MIXED USE (67% COM)	acre	1.8	1647	1194
3491	TOTAL				7239	5186

2050 B
Trip Generation and land use by zone

----- Land Use -----					-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
3491	101	SINGLE FAMILY	du	200.0	2440	1703
3491	102	MULTI-FAMILY	du	1200.0	10440	7329
3491	4112	RIGHT-OF-WAY	acre	12.8	0	0
3491	6002	LOW RISE OFFICE	acre	6.0	1753	1350
3491	6102	CHURCH	acre	0.4	21	16
3491	9101	INACTIVE USE	acre	4.9	0	0
3491	9702	MIXED USE (67% COM)	acre	8.8	7582	5504
3491	TOTAL				22236	15903

2050 C
Trip Generation and land use by zone

----- Land Use -----					-----Trips-----	
Zone	Code	Name	Type	Amount	Person	Vehicle
3491	101	SINGLE FAMILY	du	200.0	2440	1703
3491	102	MULTI-FAMILY	du	1200.0	10440	7329
3491	4112	RIGHT-OF-WAY	acre	12.8	0	0
3491	6002	LOW RISE OFFICE	acre	6.0	1753	1350
3491	6102	CHURCH	acre	0.4	21	16
3491	9101	INACTIVE USE	acre	4.9	0	0
3491	9702	MIXED USE (67% COM)	acre	8.8	7582	5504
3491	TOTAL				22236	15903

APPENDIX C

GIS SCRIPT (AML)

```

/* VMT.AML FOR SERIES 12
/* MCA 08/05/11 FOR USE WITH ARC Workstation 9.X on the PC
/*
/* RUN THIS AML AFTER A SELECT ZONE ASSIGNMENT TO PRODUCE VMT.TXT
/* MODIFIED TO INCLUDE CITY CPA's
/* REQUIRED LIST OF GIS LAYERS:
/*   A Loaded network (line)layer:  HWYCOV2
/*   A jurisdiction/City Boundary (polygon)layer:  JURCOV

/*
/* CREATE HWVMT
/*
&if [exists hwyvmt -cover] &then kill hwyvmt all
copy hwyvmt hwyvmt
additem hwyvmt.aat hwyvmt.aat avmt 12 12 i
additem hwyvmt.aat hwyvmt.aat uvmt 12 12 i
additem hwyvmt.aat hwyvmt.aat szvmt 12 12 i
&data arc info
ARC
SEL HWYVMT.AAT
CALC TMP1 = 0
Q STOP
&end

/*
/* CREATE INFO LOOKUP TABLE FOR SELECT LINK VOLUMES
/*
&if [exists info.slk -info] &then &s x = [delete info.slk -info]
&data arc info
ARC
DEFINE INFO.SLK
HWYVMT-ID,6,6,I
LENGTHX,10,10,N,3
Q1,10,10,N,3
PCT1,9,9,N,2
PCT2,1,1,C

GET ../lodselk.prn COPY ASCII
Q STOP
&end

/*
/* JOIN INFO TABLE TO HWYVMT
/*
&if [exists hwyvmt2 -cover] &then kill hwyvmt2 all
joinitem hwyvmt.aat INFO.SLK hwyvmt.aat hwyvmt-id # ordered

/*
/* OVERLAY WITH JURCOV
/*

```

```

identity hwyvmt T:\data\GIS\covs\admin\jurcov hwyvmt2 line

/*
/* CALC VMT
/*
&data arc info
ARC
SEL HWYVMT2.AAT
CALC TMP1 = 0
CALC AVMT = ( AVOL * LENGTH ) / 5280
CALC UVMT = ( UVOL * LENGTH ) / 5280
CALC SZVMT = ( Q1 * LENGTH ) / 5280
RESEL JUR1 = 0
MOVEIT 'External' TO NAME1
ASEL
RESEL JUR1 = 14
CALC JUR1 = JUR2
MOVEIT NAME2 TO NAME1
Q STOP
&end

/*
/* CREATE REPORT
/*
frequency hwyvmt2.aat hwyvmt2.tab
name1
ifc
end
avmt
uvmt
szvmt
end
&if [exists vmt.txt -file] &then &s x = [delete vmt.txt -file]
&data ARC INFO
ARC
SEL HWYVMT2.TAB
OUTPUT ../vmt.txt INIT
PRINT NAME1,IFC,AVMT,UVMT,SZVMT
Q STOP
&end

/*
/* CALC STUDY AREA LANE MILES
/*
&if [exists hwyvmtlm -cover] &then kill hwyvmtlm all
&if [exists hwyvmtlm.tab -info] &then &s x = [delete hwyvmtlm.tab -
info]
clip hwyvmt ../covs/sacov hwyvmtlm line
additem hwyvmtlm.aat hwyvmtlm.aat lanes 3 3 i
additem hwyvmtlm.aat hwyvmtlm.aat lm 12 12 n 1
&data arc info
ARC

```

```

SEL HWYVMTLM.AAT
CALC TMP2 = 1
CALC LANES = ABLNA + BALNA
CALC LM = ( LANES * LENGTH ) / 5280
Q STOP
&end
frequency hwyvmtlm.aat hwyvmtlm.tab
tmp2
end
lm
end
&if [exists lm.txt -file] &then &s x = [delete lm.txt -file]
&data ARC INFO
ARC
SEL HWYVMTLM.TAB
OUTPUT ../lm.txt INIT
PRINT LM
Q STOP
&end
&ret

```

APPENDIX D

**VALIDATION FILE
POSTLOD2.PR**

Base Year 2008

regionwide vehicle miles of travel

unadjusted daily vmt summary

functional class	vmt	vht	speed
freeway	42208325.	696965.	60.6
prime	7140439.	252908.	28.2
major	14410458.	530715.	27.2
collector	6127093.	216715.	28.3
local collector	4125602.	169530.	24.3
rural collector	1369462.	38736.	35.4
local	1267527.	53968.	23.5
fwy-fwy ramp	1675286.	41245.	40.6
ramp	2364372.	132575.	17.8
access	4399313.	188322.	23.4
total	85087878.	2321678.	36.6

11may12/07:11:25/postlod.pr

2050 A

regionwide vehicle miles of travel

unadjusted daily vmt summary

functional class	vmt	vht	speed
freeway	62128817.	1128115.	55.1
prime	9690714.	354408.	27.3
major	20762024.	776996.	26.7
collector	7547287.	283855.	26.6
local collector	7063388.	273276.	25.8
rural collector	786225.	20439.	38.5
local	1855548.	80234.	23.1
fwy-fwy ramp	2446217.	65814.	37.2
ramp	3175523.	204872.	15.5
access	6086573.	258336.	23.6
total	121542317.	3446344.	35.3

23mar12/14:22:53/postlod.pr

2050 B

regionwide vehicle miles of travel

unadjusted daily vmt summary

functional class	vmt	vht	speed
freeway	62107542.	1128811.	55.0
prime	9691910.	354366.	27.4
major	20764961.	777157.	26.7
collector	7541346.	283810.	26.6
local collector	7079767.	273990.	25.8
rural collector	785301.	20423.	38.5
local	1855127.	80239.	23.1
fwy-fwy ramp	2445554.	65740.	37.2
ramp	3177989.	205365.	15.5
access	6088362.	258414.	23.6
total	121537859.	3448315.	35.2

15may12/21:01:45/postlod.pr

2050 C

regionwide vehicle miles of travel

unadjusted daily vmt summary

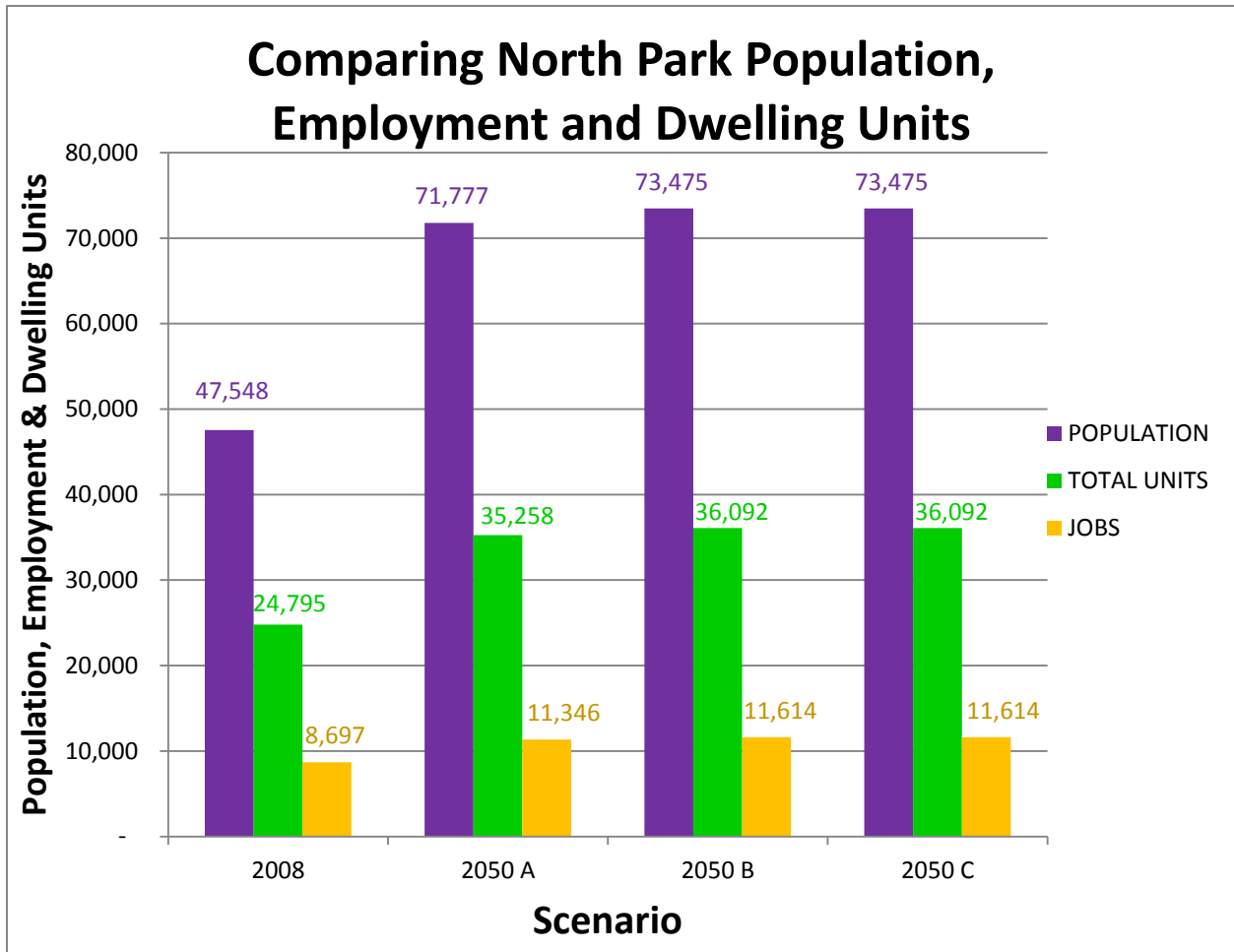
functional class	vmt	vht	speed
freeway	62111222.	1127726.	55.1
prime	9694188.	354474.	27.3
major	20761508.	776979.	26.7
collector	7557465.	284332.	26.6
local collector	7064862.	273231.	25.9
rural collector	786022.	20431.	38.5
local	1853098.	80104.	23.1
fwy-fwy ramp	2447395.	65877.	37.2
ramp	3176285.	205169.	15.5
access	6087108.	258359.	23.6
total	121539153.	3446684.	35.3

9sep12/01:30:11/postlod.pr

APPENDIX E

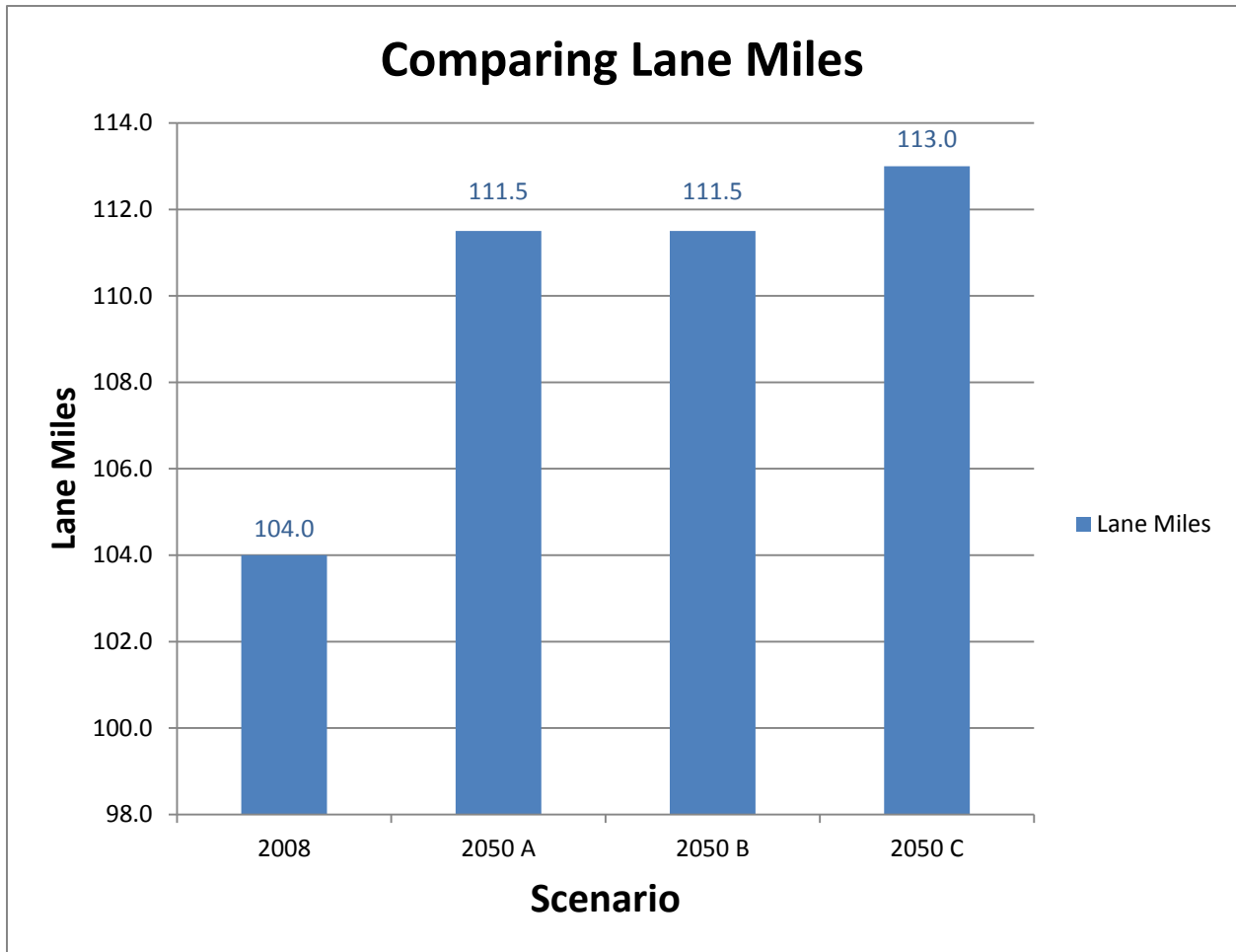
STATISTICAL RESULTS IN GRAPHICAL FORMAT

1) Demographics



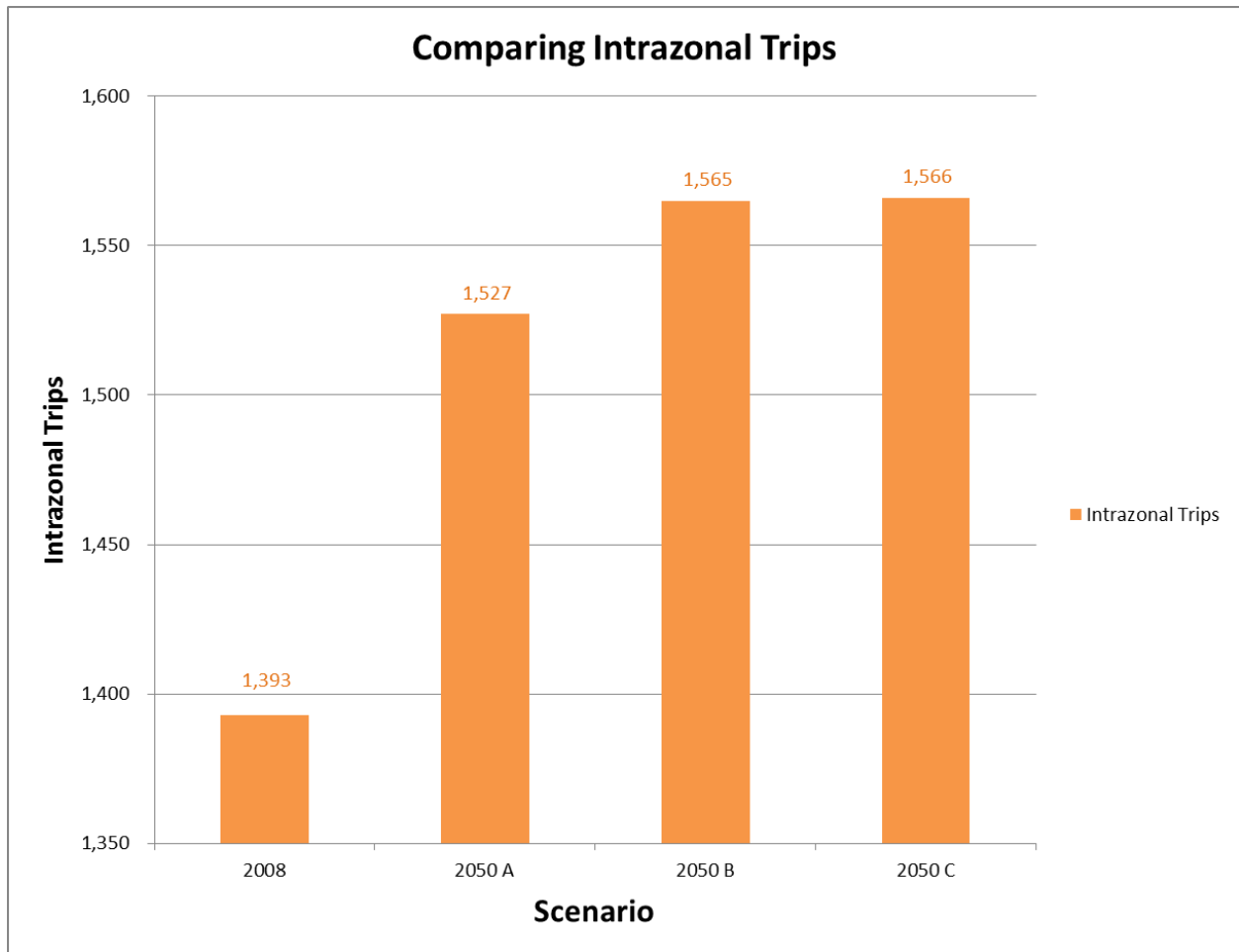
This chart displays the Population, Employment and total Dwelling Units for the four scenarios.

2) Lane Miles



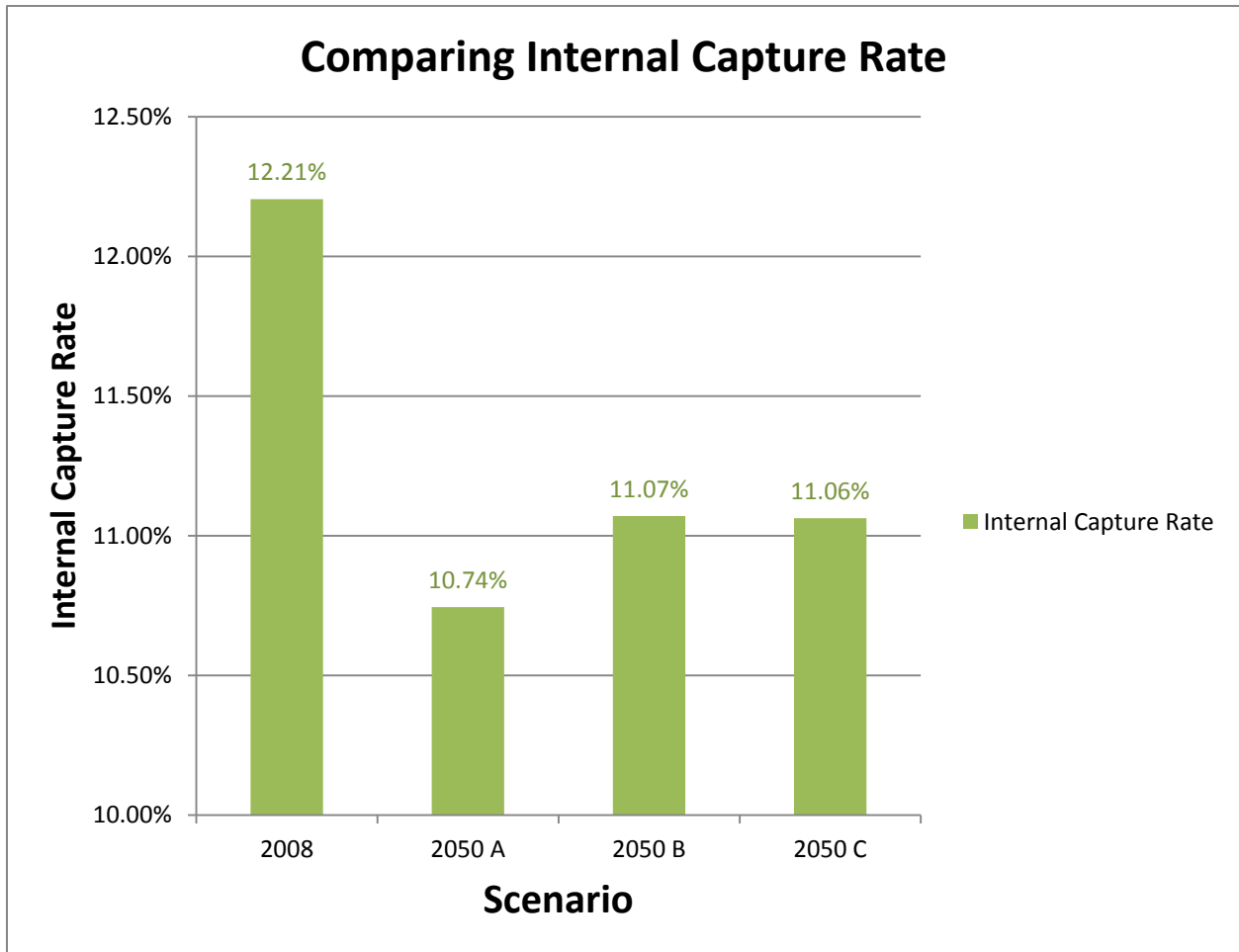
This chart shows the calculated Lane Miles for the four scenarios.

3) Intra-Zonal Trips



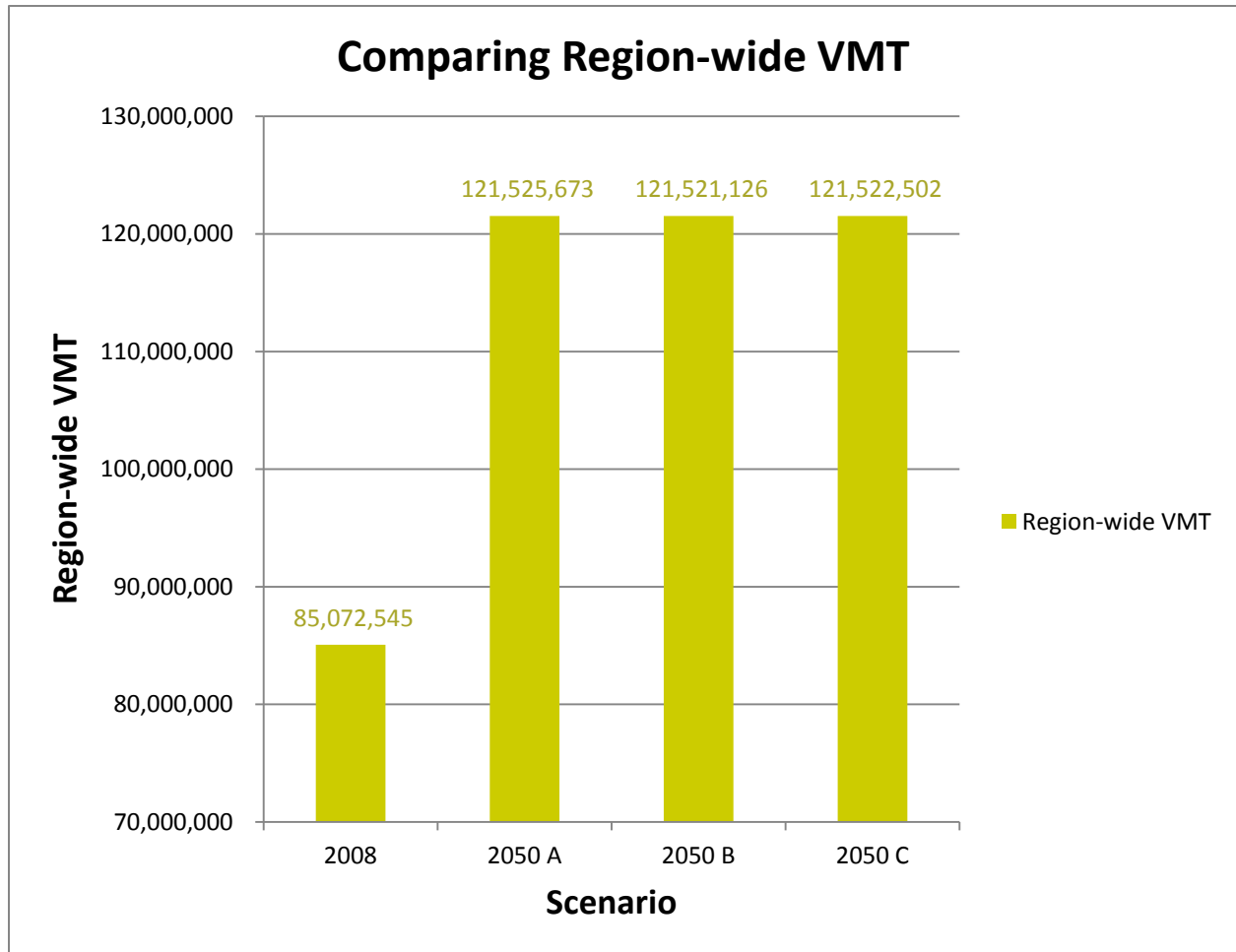
This chart compares the Intra-Zonal trips for the four scenarios.

4) Internal Capture Rate



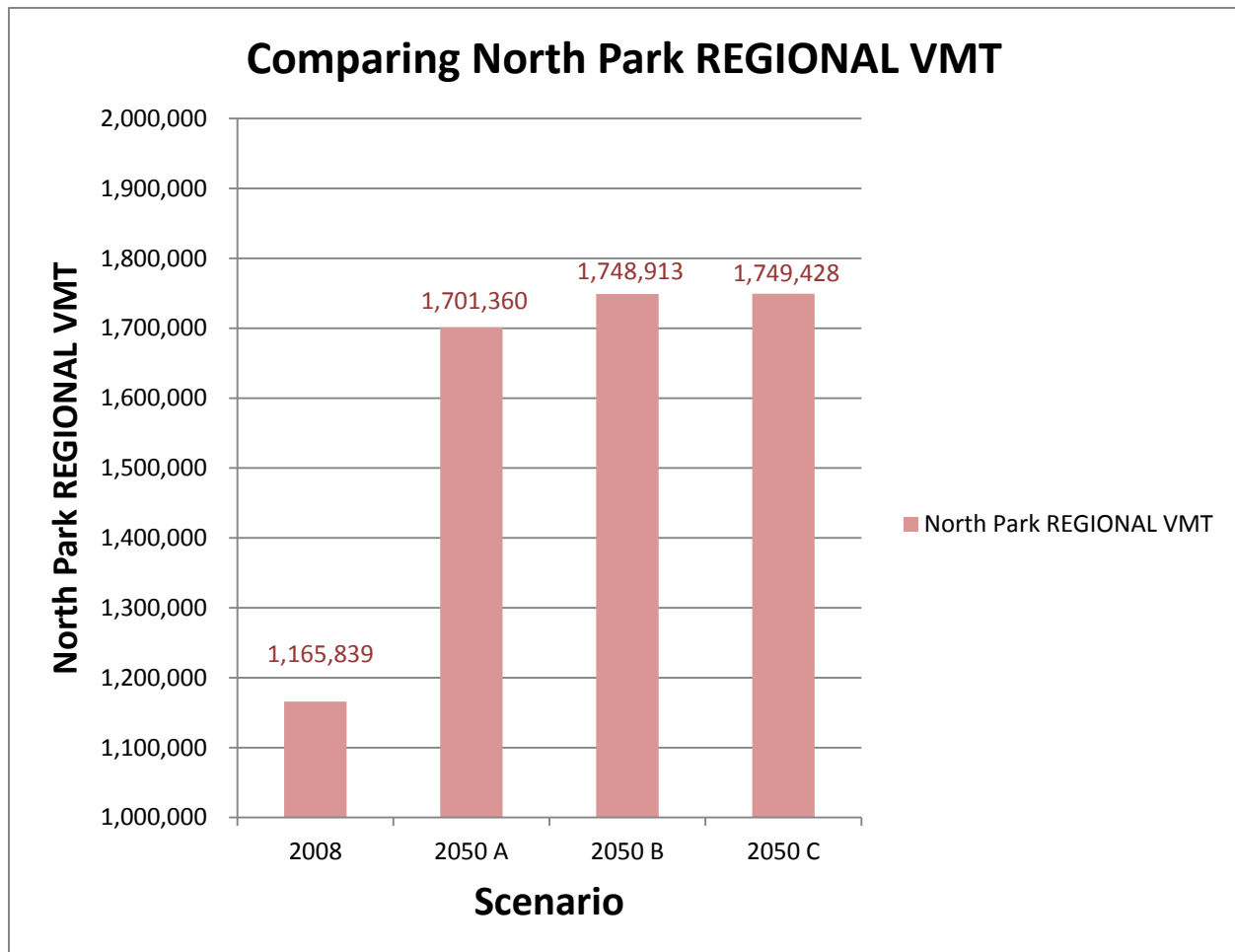
This chart relates the derived Internal Capture Rate for the four scenarios.

5) Region-wide VMT



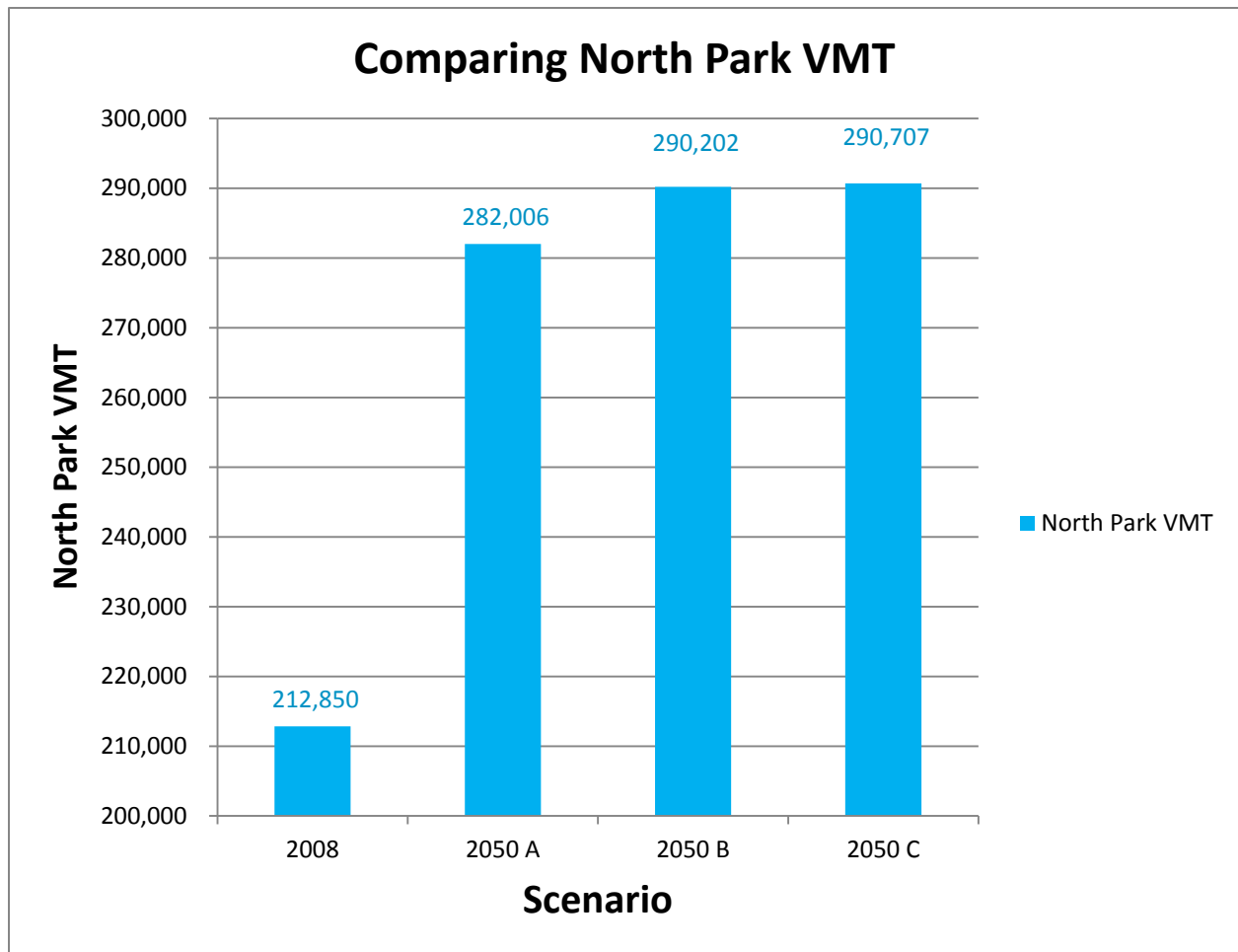
This chart compares the Vehicle Miles of Travel for the four scenarios for the whole San Diego region.

6) North Park Regional VMT



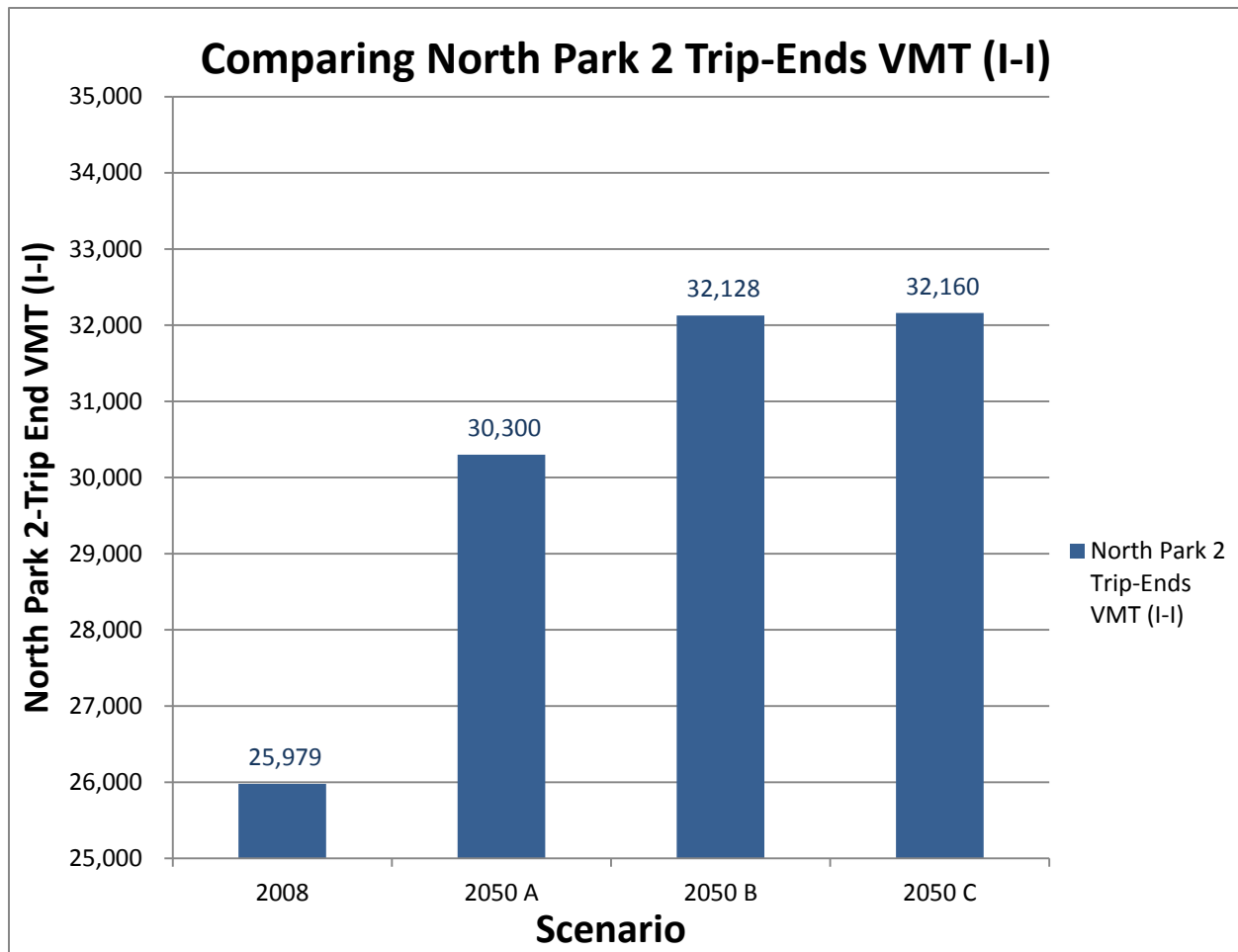
This chart tracks the North Park 1 trip-end Vehicle Miles of Travel throughout the whole San Diego region for the four scenarios.

7) North Park VMT



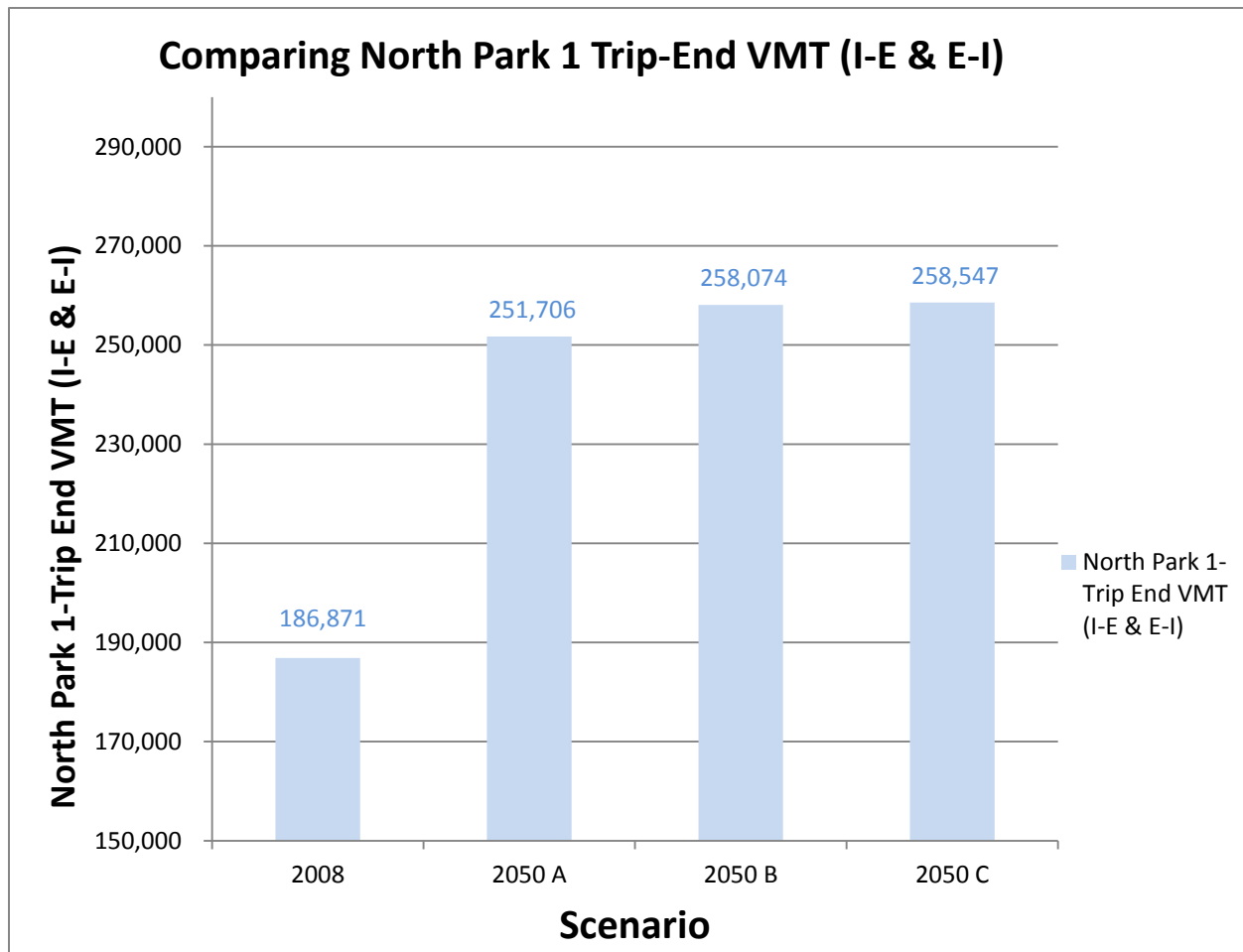
This chart compares all North Park Vehicle Miles of Travel in North Park only for the four scenarios.

8) North Park Two (2) Trip-Ends VMT (I-I)



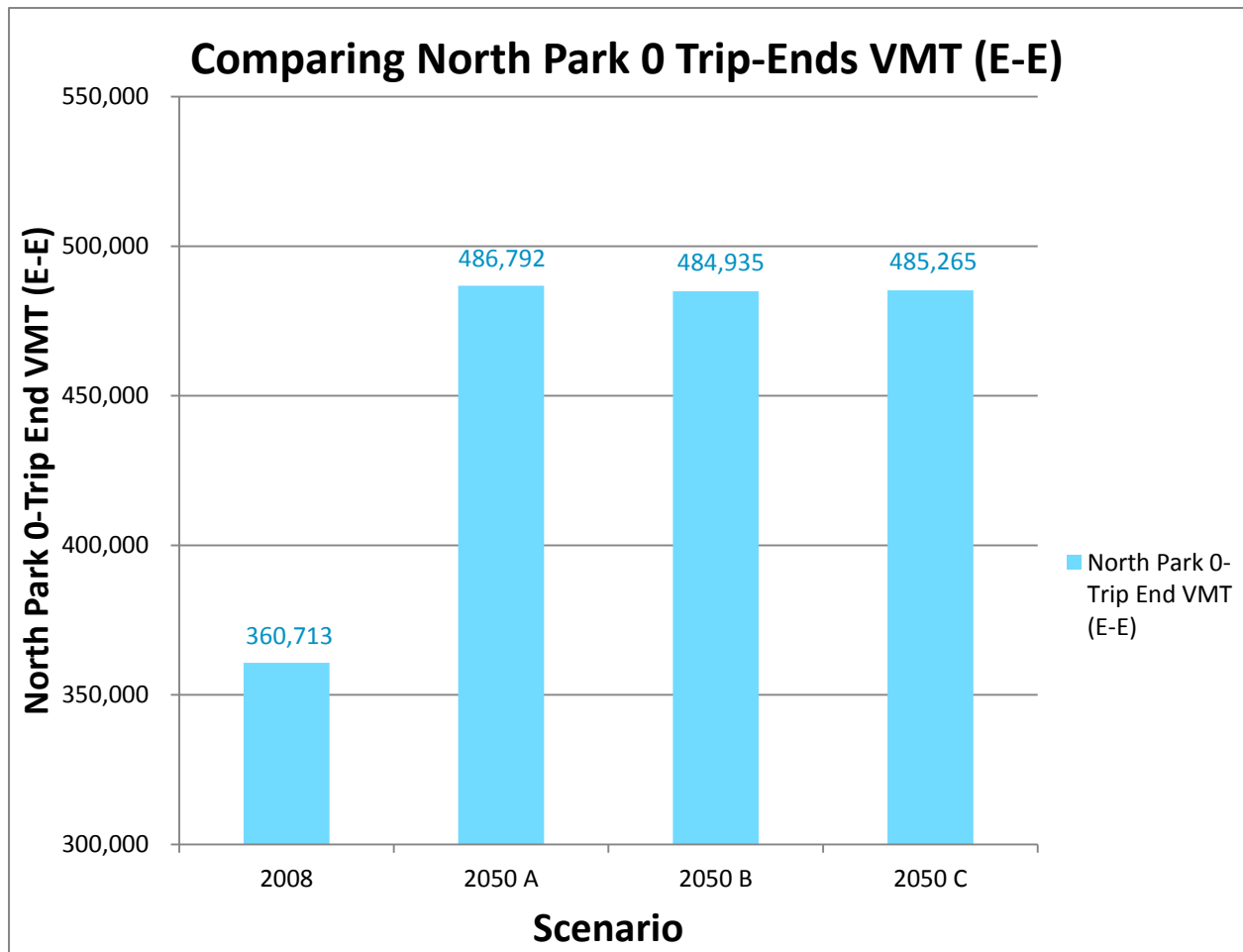
This chart compares North Park Vehicle Miles for trips where both the Origin and Destination are within North Park for the four scenarios.

9) North Park One (1) Trip-End VMT (I-E & E-I)



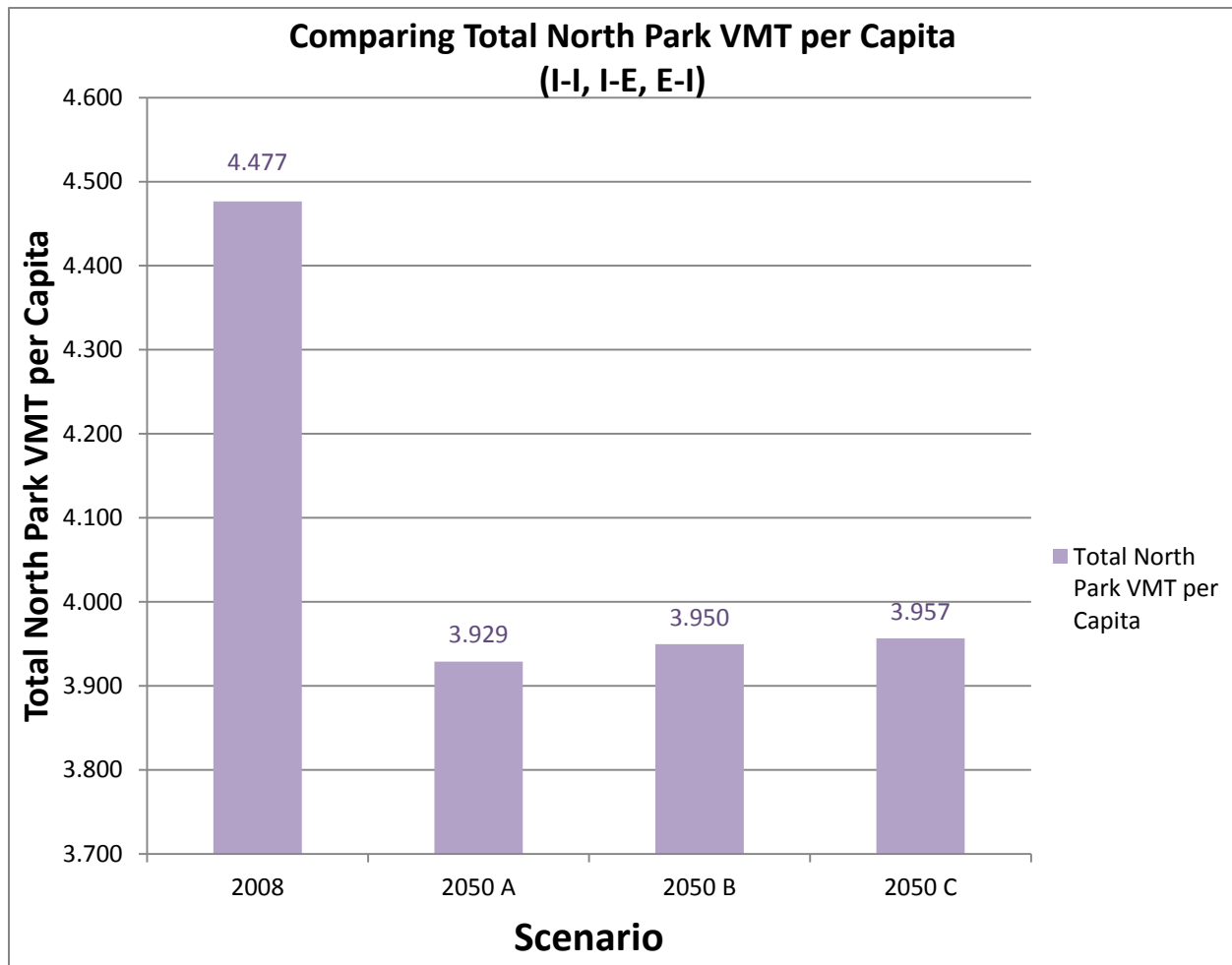
This chart compares North Park Vehicle Miles for trips where either the Origin or the Destination is within North Park for the four scenarios.

10) North Park Zero(0) Trip-Ends VMT (E-E)



This chart compares North Park Vehicle Miles for through trips where neither the Origin nor the Destination is within North Park for the four scenarios.

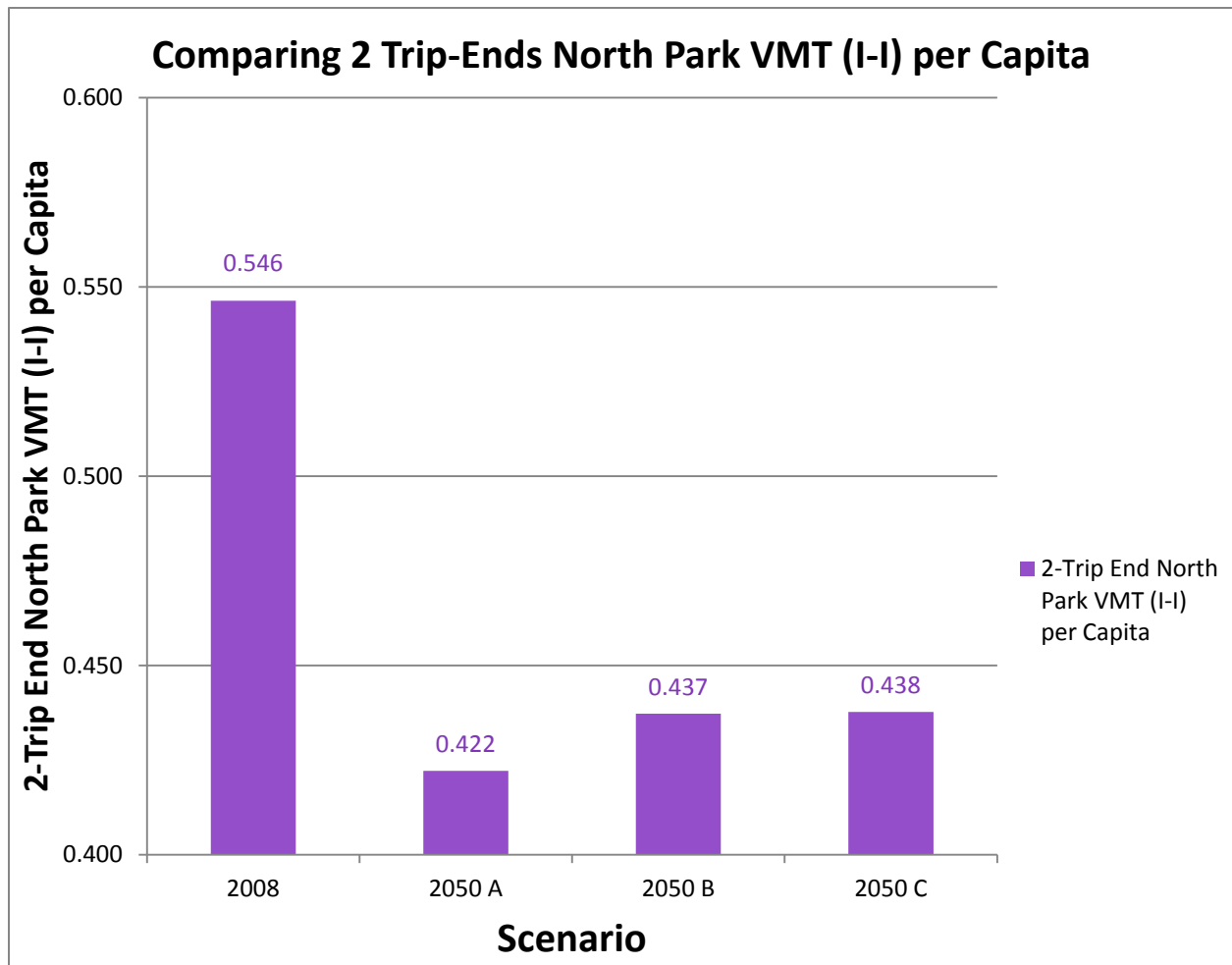
11) Total North Park VMT per Capita



This chart displays total North Park Vehicle Miles per Capita for the four scenarios by dividing the total North Park VMT by the North Park population.

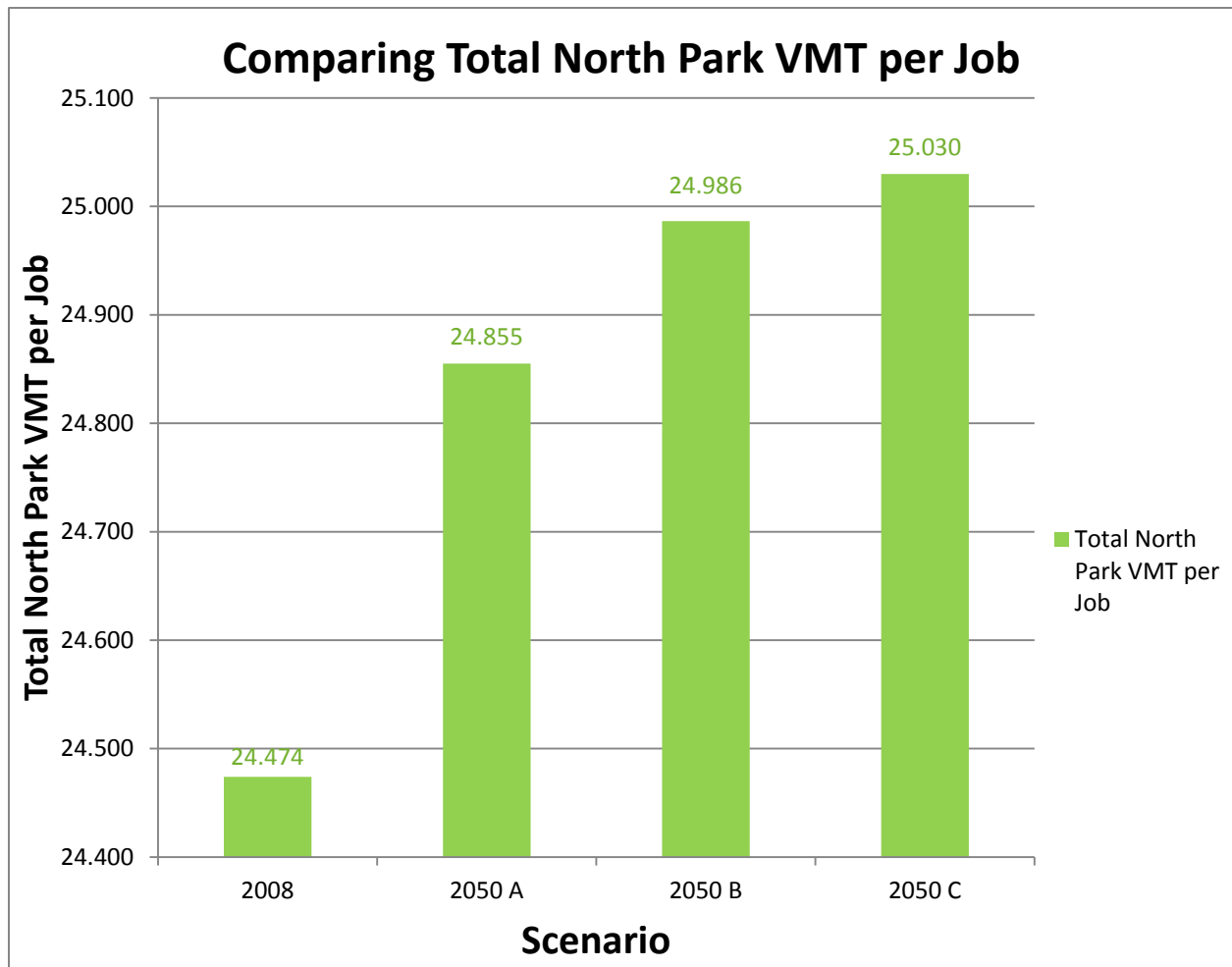
*Total North Park VMT = I-I, I-E, E-I trips

12) 2 Trip-Ends North Park VMT (I-I) per Capita



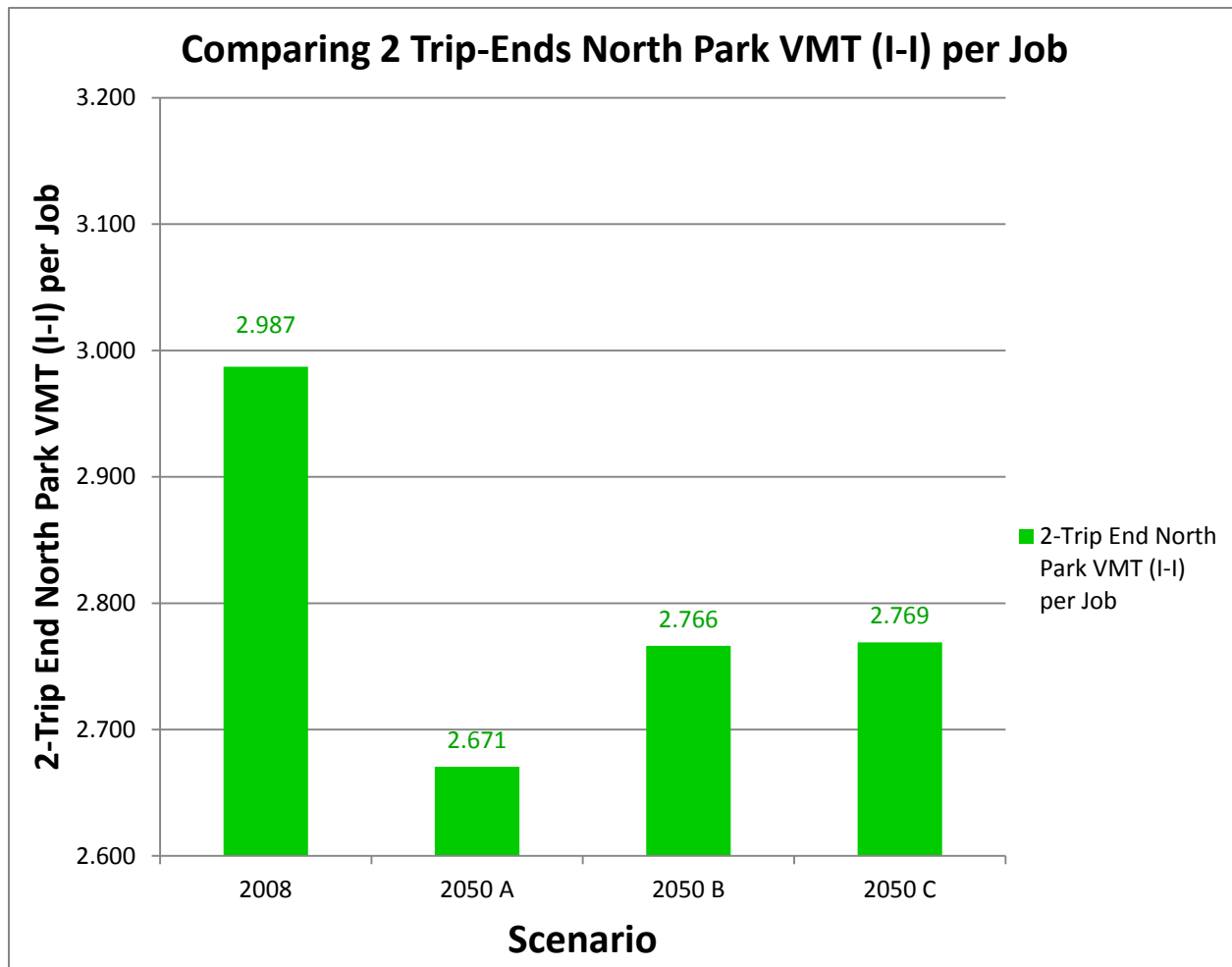
This chart reveals 2 trip-ends in North Park Vehicle Miles per Capita for the four scenarios by dividing the 2 trip-ends North Park VMT by the North Park population.

13) Total North Park VMT per Employee



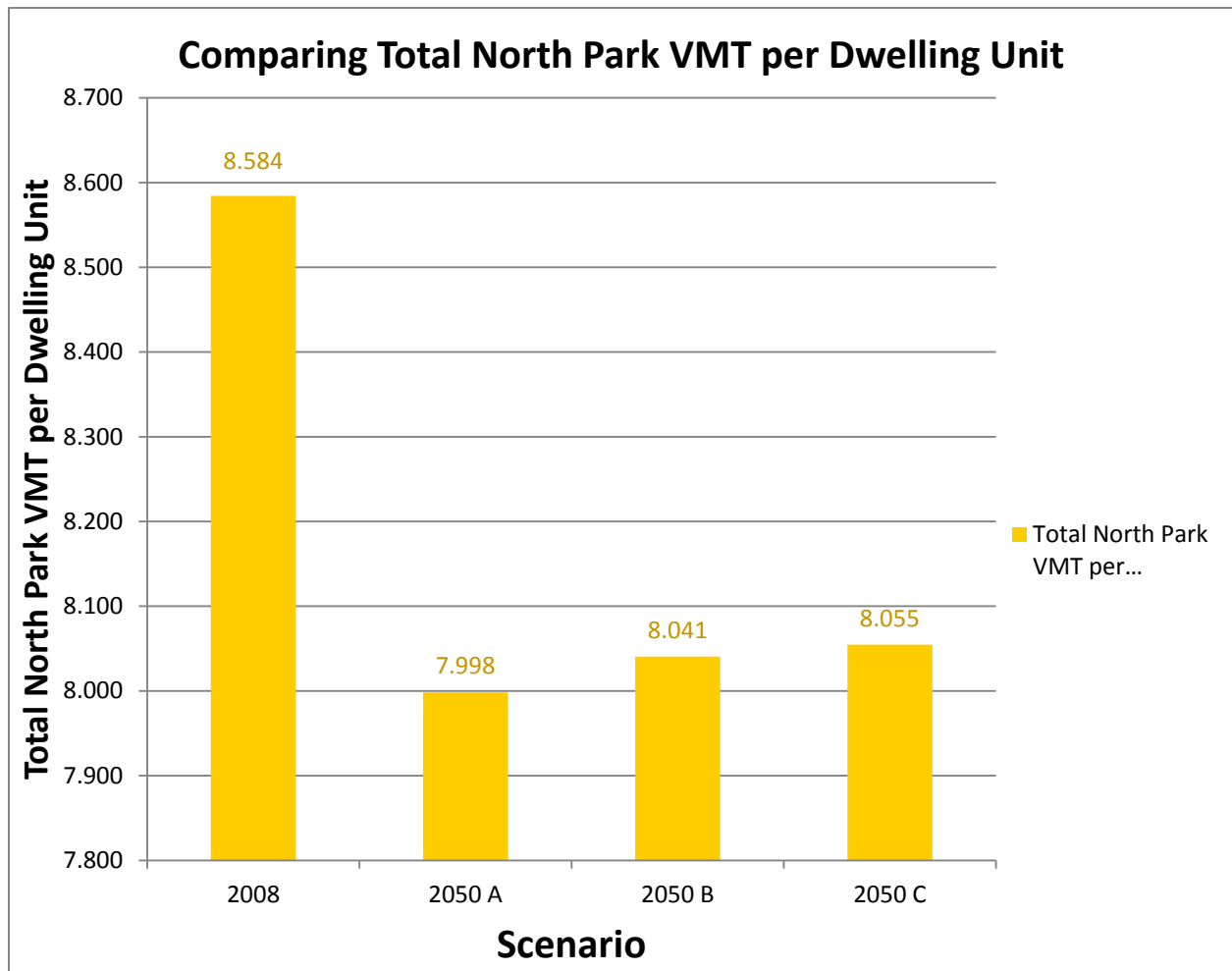
This chart displays total North Park Vehicle Miles per job for the four scenarios by dividing the total North Park VMT by the North Park employment.

14)2 Trip-Ends North Park VMT (I-I) per Employee



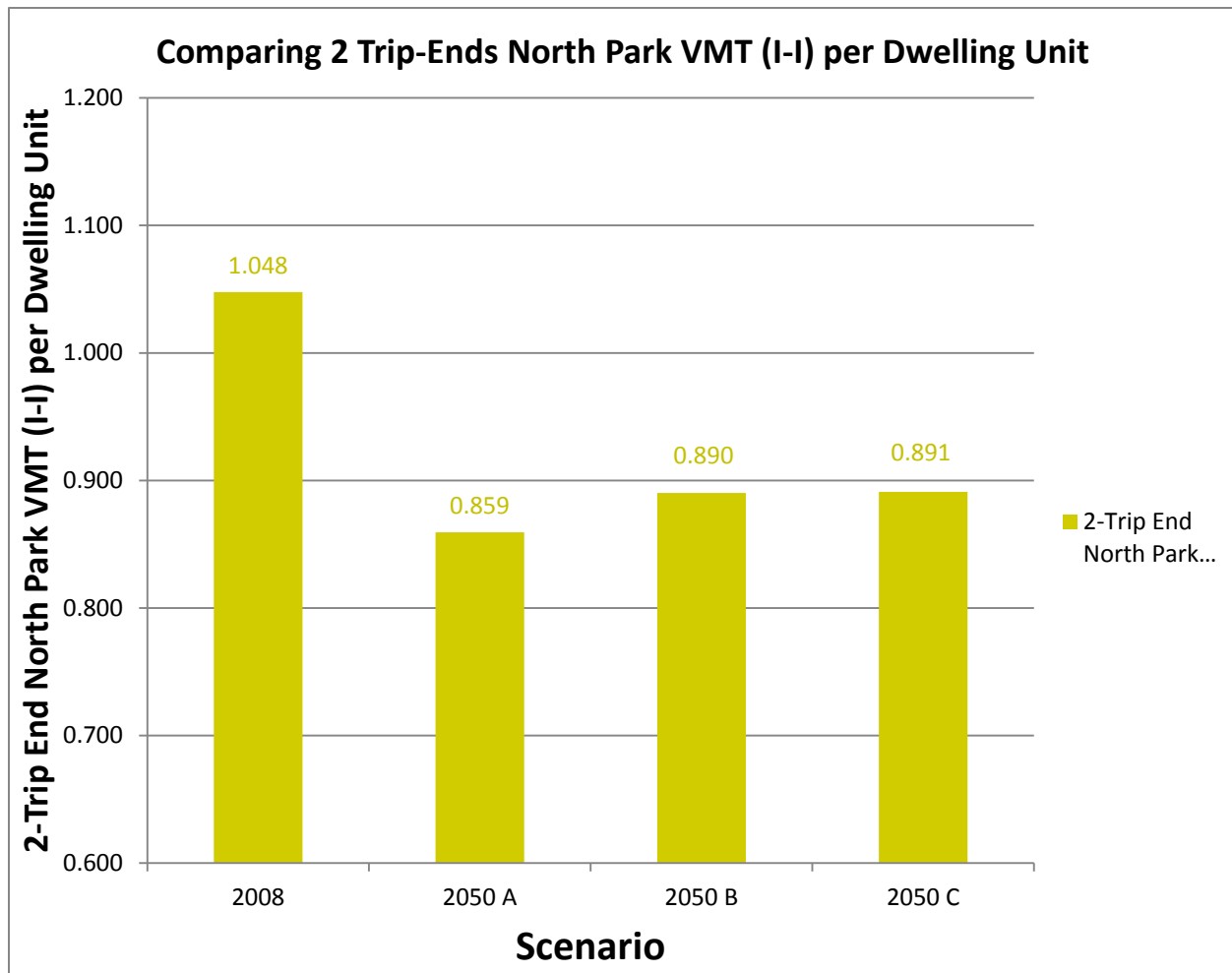
This chart reveals 2 trip-ends North Park Vehicle Miles per job for the four scenarios by dividing the 2 trip-ends North Park VMT by the North Park employment.

15) Total North Park VMT per Dwelling Unit



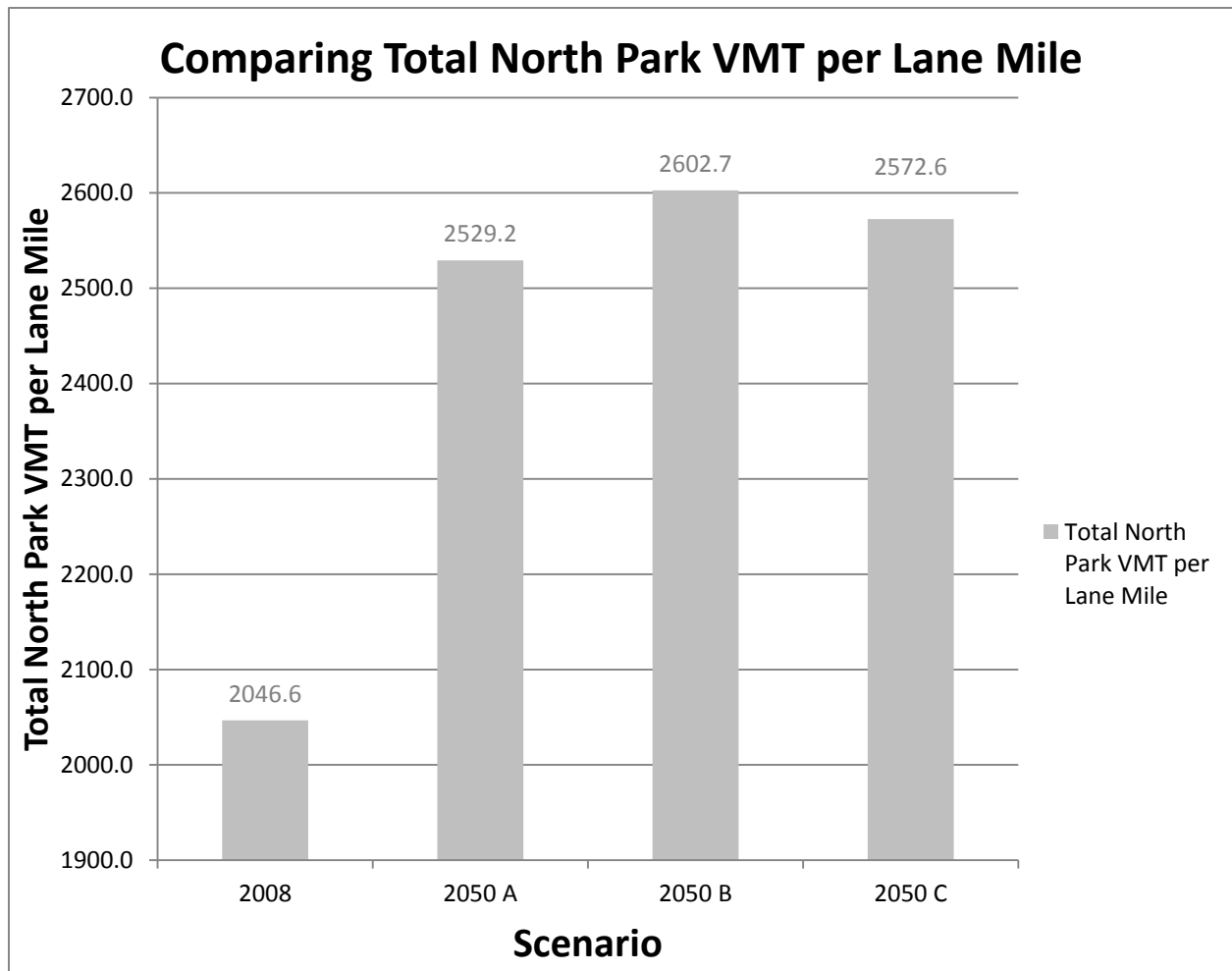
This chart shows total North Park Vehicle Miles per dwelling unit for the four scenarios by dividing the total North Park VMT by the number of dwelling units in North Park.

16)2 Trip-Ends North Park VMT (I-I) per Dwelling Unit



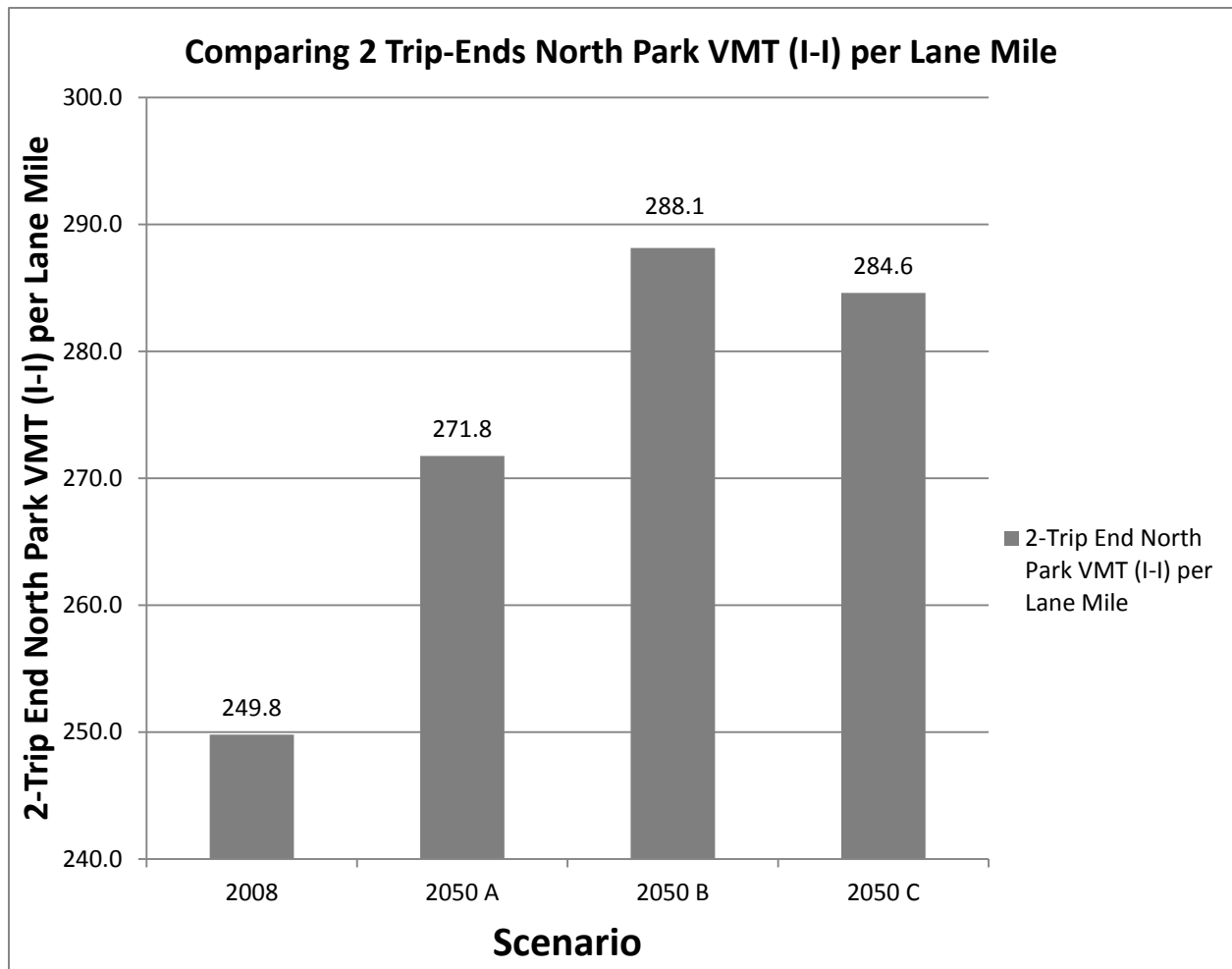
This chart displays 2 trip-ends North Park Vehicle Miles per dwelling unit for the four scenarios by dividing the 2 trip-ends North Park VMT by the number of dwelling units in North Park.

17) Total North Park VMT per Lane Mile



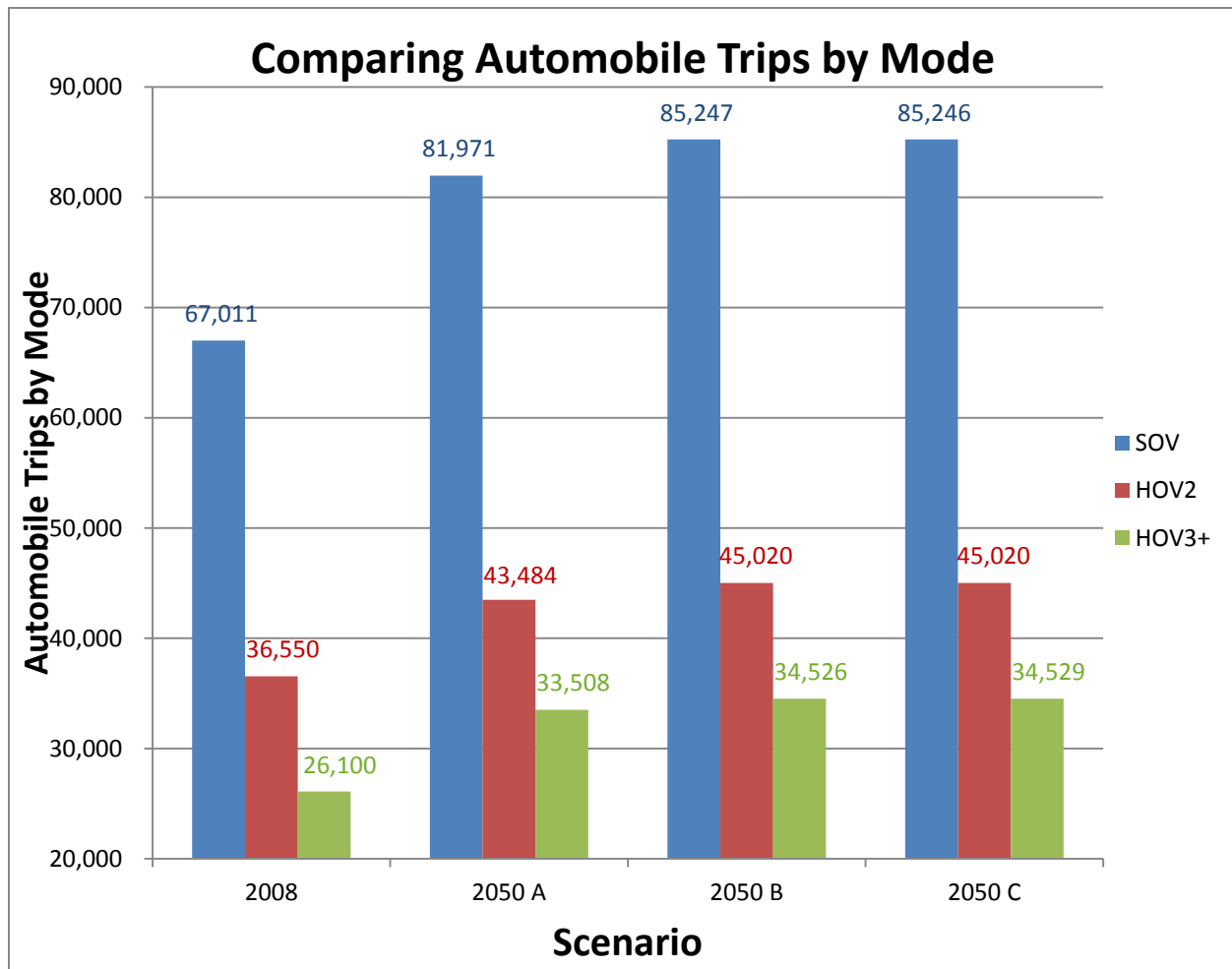
This chart demonstrates total North Park Vehicle Miles per lane mile for the four scenarios by dividing the total North Park VMT by the number of lane miles in North Park.

18)2 Trip-Ends North Park VMT (I-I) per Lane Mile



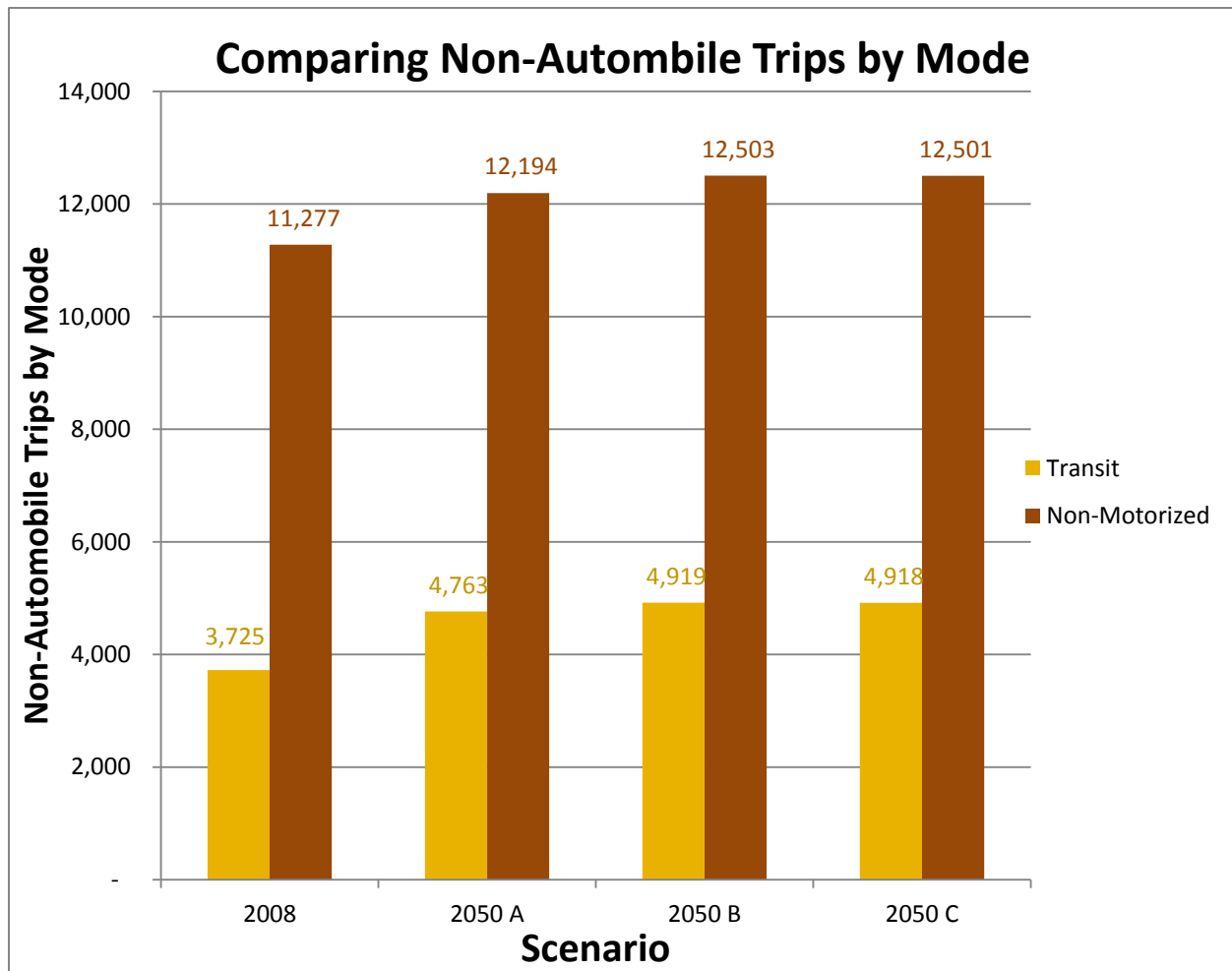
This chart illustrates 2 trip-ends North Park Vehicle Miles per lane mile for the four scenarios by dividing the 2 trip-ends North Park VMT by the number of lane miles in North Park.

19) Automobile Trips by Mode



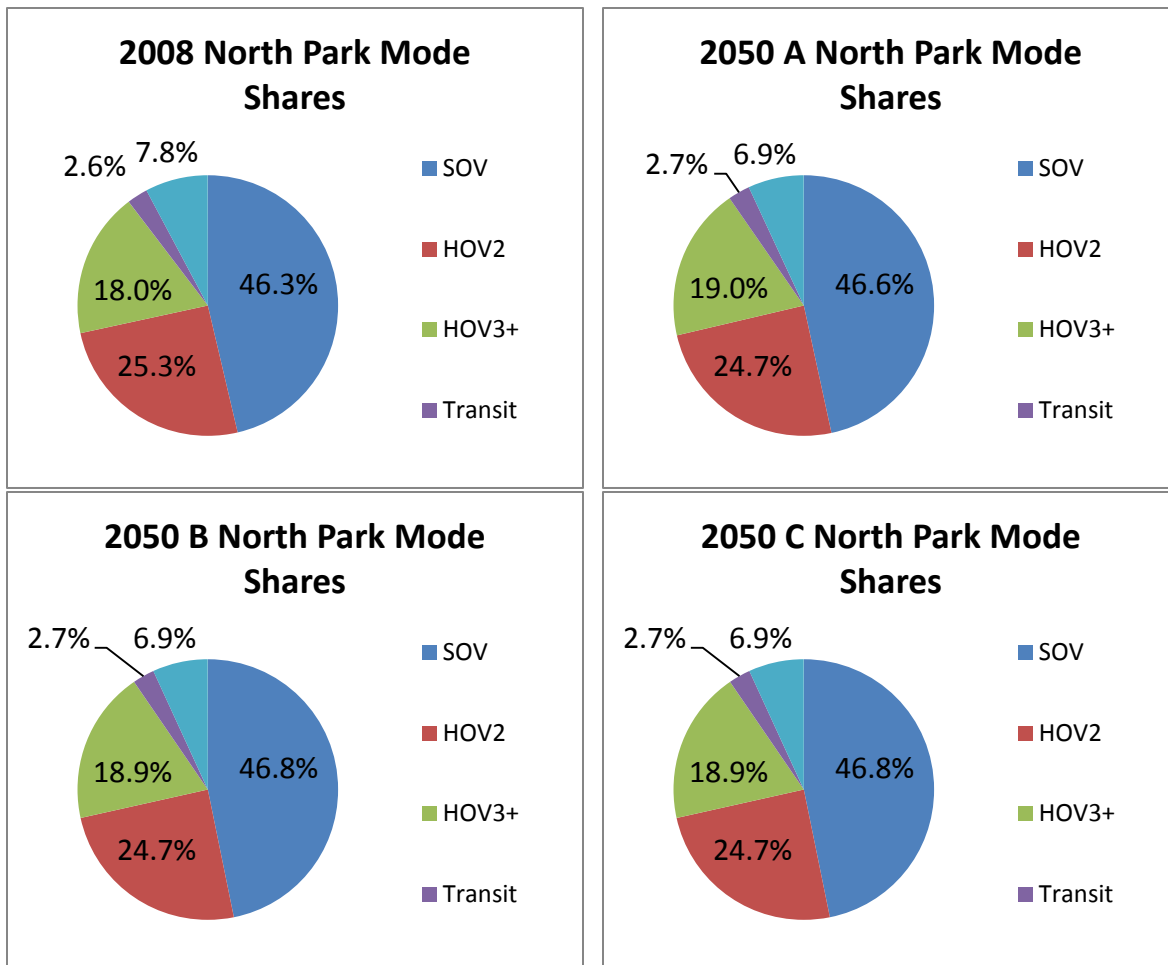
This chart displays the total number of automobile trips generated in North Park the four scenarios.

20) Non-Automobile Trips by Mode



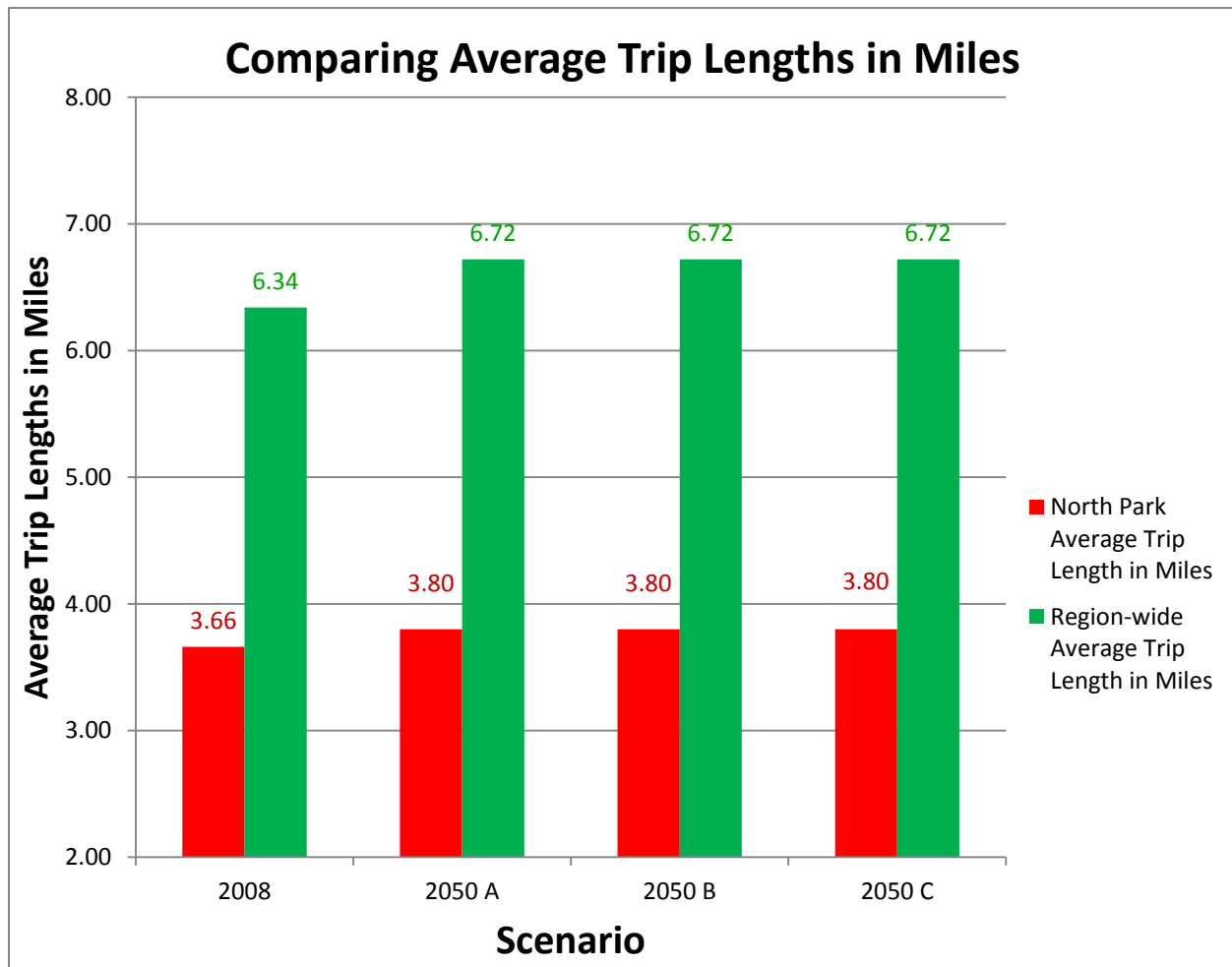
This chart displays the total number of non-automobile trips generated in North Park the four scenarios.

21) Mode Shares



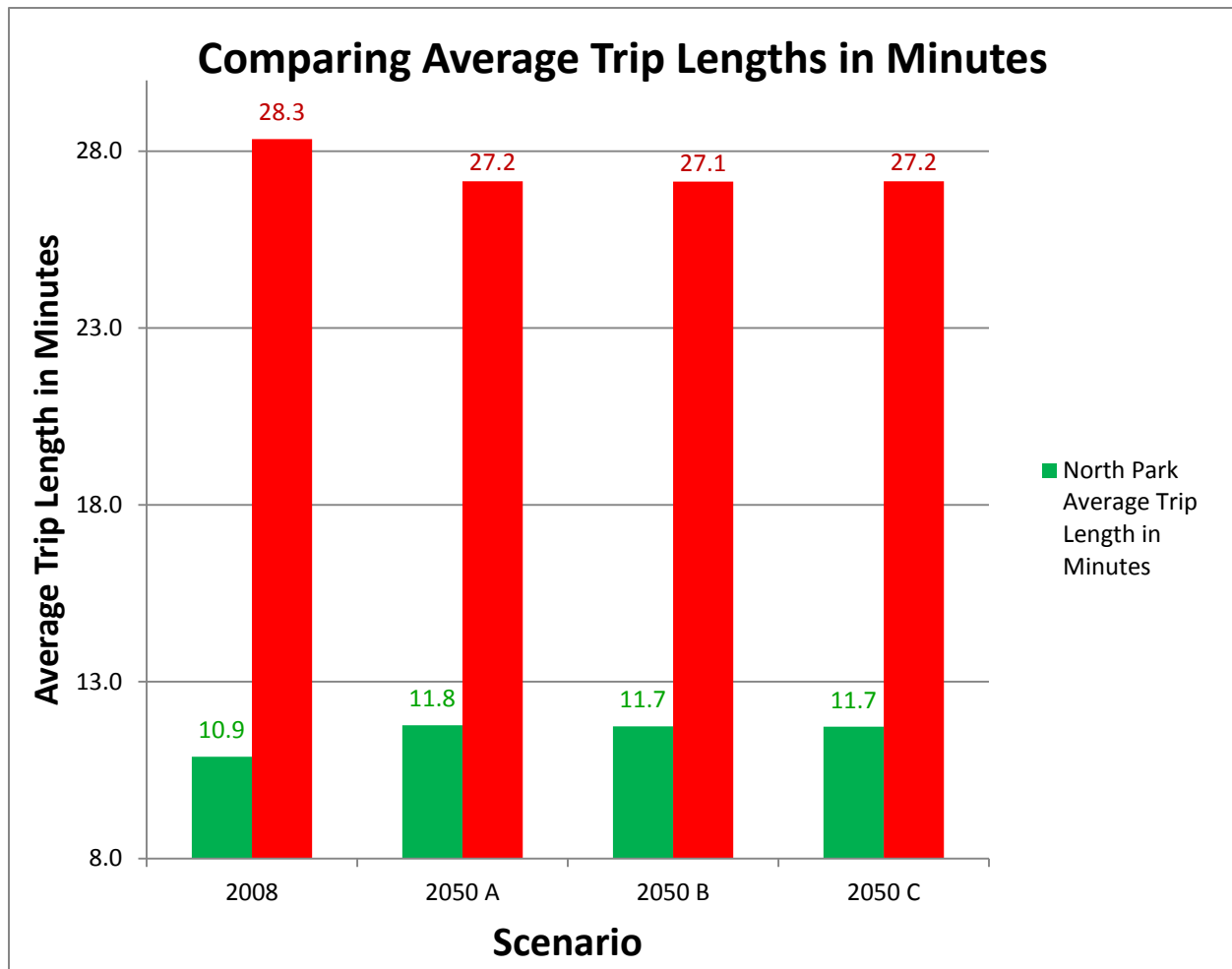
These charts depict the mode shares of all trips generated in North Park the four scenarios.

22) Average Trip Lengths in Distance



This chart displays average trip lengths in distance for the Region and for North Park for the four scenarios.

23) Average Trip Lengths in Time



This chart displays average trip lengths in time for the Region and for North Park for the four scenarios.

Appendix B Vehicle Miles Travel Report for Transportation Impact Analysis
(SB 743 metrics for residential and employment)

Vehicle Miles of Travel Report

Scenario ID 983

Kearny Mesa CPU - 2012 Cal 4 - Base Year

VMT per Resident						
		Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide		3,119,271	11,163,146	72,661,334	53,997,334	17.3
Jurisdiction	SAN DIEGO	1,308,024	4,676,126	26,965,973	19,688,397	15.1
CPA	Kearny Mesa	6,387	23,664	136,646	98,293	15.4
TAZ List	N/A					

VMT per Employee						
		Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide		1,485,425	5,204,165	43,077,518	37,726,774	25.4
Jurisdiction	SAN DIEGO	788,396	2,694,862	22,463,536	19,860,024	25.2
CPA	Kearny Mesa	86,861	310,175	2,648,543	2,360,303	27.2
TAZ List	N/A					

Report Generated: 05/03/19



Vehicle Miles of Travel Report

Scenario ID 1136

Kearny Mesa CPU - Proposed Project

VMT per Resident						
	Scenario ID	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	1136	4,136,713	14,793,744	87,108,465	60,193,855	14.6
Jurisdiction SAN DIEGO	1136	1,845,727	6,620,768	34,669,519	23,154,579	12.5
CPA Kearny Mesa	1136	57,516	209,895	871,896	526,403	9.2
TAZ List N/A						

VMT per Employee						
	Scenario ID	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1136	1,748,510	5,696,676	43,893,249	37,538,085	21.5
Jurisdiction SAN DIEGO	1136	907,629	2,817,674	20,971,912	18,101,744	19.9
CPA Kearny Mesa	1136	106,927	337,350	2,505,077	2,195,904	20.5
TAZ List N/A						

Report Generated:

10/1/2019



Appendix C Disaggregated VMT for Kearny Mesa Select Zone (VMT for GHG Analysis)

2012 Final Base Year Calibration (983)						
JURISDICTION	TOTAL VMT	TOTAL Series 13 VMT	Two Trip End Series 13 VMT	One Trip End Series 13 VMT	NON-Series 13 VMT	Series 13 Intra-Zonal VMT
	I-I, I-E and E-I	I-I	I-E and E-I	E-E	INTRA	
32nd Street Naval Station TOTAL	55,638	1,401	-	1,401	54,237	
Balboa Park TOTAL	392,288	22,507	-	22,507	369,781	
Barrio Logan TOTAL	394,116	10,578	-	10,578	383,538	
Black Mountain Ranch TOTAL	160,322	773	-	773	159,549	
CARLSBAD TOTAL	3,121,411	50,495	-	50,495	3,070,916	
CHULA VISTA TOTAL	3,604,144	85,676	-	85,676	3,518,468	
CORONADO TOTAL	434,352	10,423	-	10,423	423,929	
Carmel Mountain Ranch TOTAL	508,195	30,871	-	30,871	477,324	
Carmel Valley TOTAL	696,318	25,093	-	25,093	671,225	
Centre City TOTAL	688,613	11,624	-	11,624	676,989	
Clairemont Mesa TOTAL	1,587,082	188,747	-	188,747	1,398,335	
College Area TOTAL	574,747	50,135	-	50,135	524,612	
DEL MAR TOTAL	73,519	1,016	-	1,016	72,503	
Del Mar Mesa TOTAL	6,546	201	-	201	6,345	
EL CAJON TOTAL	1,945,859	56,361	-	56,361	1,889,498	
Southeastern Encanto Neighborhoods TOTAL	683,507	42,064	-	42,064	641,443	
ENCINITAS TOTAL	1,734,445	60,419	-	60,419	1,674,026	
ESCONDIDO TOTAL	2,676,146	68,698	-	68,698	2,607,448	
East Elliott TOTAL	126,164	24,232	-	24,232	101,932	
External TOTAL	172,428	2,428	-	2,428	170,000	
Fairbanks Country Club TOTAL	24,204	268	-	268	23,936	
Flower Hill TOTAL	33,257	1,646	-	1,646	31,611	
Greater Golden Hill TOTAL	244,494	3,909	-	3,909	240,585	
Greater North Park TOTAL	531,194	64,182	-	64,182	467,012	
Harbor TOTAL	92,118	2,959	-	2,959	89,159	
IMPERIAL BEACH TOTAL	94,129	1,293	-	1,293	92,836	
Kearny Mesa TOTAL	2,027,161	902,533	83,026	819,507	1,124,628	570
LA MESA TOTAL	1,584,691	73,361	-	73,361	1,511,330	
LEMON GROVE TOTAL	817,442	15,251	-	15,251	802,191	
La Jolla TOTAL	586,868	27,461	-	27,461	559,407	
Linda Vista TOTAL	553,686	79,251	-	79,251	474,435	
Lindbergh Field TOTAL	158,289	1,800	-	1,800	156,489	
Los Penasquitos Canyon Preserve TOTAL	68	-	-	-	68	
Mid-City/City Heights TOTAL	1,273,705	142,600	-	142,600	1,131,105	
Mid-City/Eastern Area TOTAL	473,418	13,748	-	13,748	459,670	
Mid-City/Kensington-Talmadge TOTAL	301,201	37,348	-	37,348	263,853	
Mid-City/Normal Heights TOTAL	233,432	36,536	-	36,536	196,896	
Midway-Pacific Highway TOTAL	614,236	13,653	-	13,653	600,583	
Mira Mesa TOTAL	1,795,918	137,228	-	137,228	1,658,690	
Miramar Air Station TOTAL	2,228,749	438,929	-	438,929	1,789,820	
Miramar Ranch North TOTAL	454,133	50,530	-	50,530	403,603	
Mission Bay Park TOTAL	495,080	5,732	-	5,732	489,348	
Mission Beach TOTAL	29,256	612	-	612	28,644	
Mission Valley TOTAL	2,434,899	273,592	-	273,592	2,161,307	
NATIONAL CITY TOTAL	1,576,509	68,091	-	68,091	1,508,418	

2050 Proposed_prop1B (1136)						
JURISDICTION	TOTAL VMT	TOTAL Series 13 VMT	Two Trip End Series 13 VMT	One Trip End Series 13 VMT	NON-Series 13 VMT	Series 13 Intra-Zonal VMT
	I-I, I-E and E-I	I-I	I-E and E-I	E-E	INTRA	
32nd Street Naval Station TOTAL	54,908	2,375	-	2,375	52,533	
Balboa Park TOTAL	437,427	32,520	-	32,520	404,907	
Barrio Logan TOTAL	437,437	13,498	-	13,498	423,939	
Black Mountain Ranch TOTAL	248,347	2,041	-	2,041	246,306	
CARLSBAD TOTAL	3,649,212	84,365	-	84,365	3,564,847	
CHULA VISTA TOTAL	5,249,104	106,380	-	106,380	5,142,724	
CORONADO TOTAL	405,635	13,066	-	13,066	392,569	
Carmel Mountain Ranch TOTAL	557,212	41,236	-	41,236	515,976	
Carmel Valley TOTAL	800,523	36,097	-	36,097	764,426	
Centre City TOTAL	800,684	17,180	-	17,180	783,504	
Clairemont Mesa TOTAL	1,774,076	298,600	-	298,600	1,475,476	
College Area TOTAL	692,682	67,286	-	67,286	625,396	
DEL MAR TOTAL	70,375	1,425	-	1,425	68,950	
Del Mar Mesa TOTAL	12,735	323	-	323	12,412	
EL CAJON TOTAL	2,305,487	72,522	-	72,522	2,232,965	
Southeastern Encanto Neighborhoods TOTAL	795,506	49,700	-	49,700	745,806	
ENCINITAS TOTAL	1,922,772	89,479	-	89,479	1,833,293	
ESCONDIDO TOTAL	3,098,710	101,798	-	101,798	2,996,912	
East Elliott TOTAL	151,085	34,911	-	34,911	116,174	
External TOTAL	278,357	3,645	-	3,645	274,712	
Fairbanks Country Club TOTAL	15,351	284	-	284	15,067	
Flower Hill TOTAL	36,662	2,422	-	2,422	34,240	
Greater Golden Hill TOTAL	290,584	7,248	-	7,248	283,336	
Greater North Park TOTAL	617,029	83,088	-	83,088	533,941	
Harbor TOTAL	92,531	3,715	-	3,715	88,816	
IMPERIAL BEACH TOTAL	97,559	1,163	-	1,163	96,396	
Kearny Mesa TOTAL	2,563,923	1,382,124	205,854	1,176,270	1,181,799	1,628
LA MESA TOTAL	1,921,690	90,265	-	90,265	1,831,425	
LEMON GROVE TOTAL	1,000,334	14,369	-	14,369	985,965	
La Jolla TOTAL	602,729	43,211	-	43,211	559,518	
Linda Vista TOTAL	635,645	116,521	-	116,521	519,124	
Lindbergh Field TOTAL	254,687	5,343	-	5,343	249,344	
Los Penasquitos Canyon Preserve TOTAL	61	1	-	1	60	
Mid-City/City Heights TOTAL	1,490,453	181,907	-	181,907	1,308,546	
Mid-City/Eastern Area TOTAL	589,576	16,674	-	16,674	572,902	
Mid-City/Kensington-Talmadge TOTAL	360,601	49,256	-	49,256	311,345	
Mid-City/Normal Heights TOTAL	270,883	48,375	-	48,375	222,508	
Midway-Pacific Highway TOTAL	711,655	20,570	-	20,570	691,085	
Mira Mesa TOTAL	2,067,738	199,848	-	199,848	1,867,890	
Miramar Air Station TOTAL	2,589,071	660,204	-	660,204	1,928,867	
Miramar Ranch North TOTAL	508,533	67,511	-	67,511	441,022	
Mission Bay Park TOTAL	555,519	10,273	-	10,273	545,246	
Mission Beach TOTAL	34,040	1,000	-	1,000	33,040	
Mission Valley TOTAL	2,828,666	388,035	-	388,035	2,440,631	
NATIONAL CITY TOTAL	1,820,009	86,678	-	86,678	1,733,331	

2012 Final Base Year Calibration (983)						
JURISDICTION	TOTAL VMT	TOTAL Series 13 VMT	Two Trip End Series 13 VMT	One Trip End Series 13 VMT	NON-Series 13 VMT	Series 13 Intra-Zonal VMT
	I-I, I-E and E-I	I-I	I-E and E-I	E-E	INTRA	
NCJUA Reserve TOTAL	4,391	77	-	77	4,314	
NCJUA Subarea 2 TOTAL	273,538	14,290	-	14,290	259,248	
Navajo TOTAL	774,995	69,274	-	69,274	705,721	
OCEANSIDE TOTAL	2,681,228	18,520	-	18,520	2,662,708	
Ocean Beach TOTAL	99,721	5,785	-	5,785	93,936	
Old San Diego TOTAL	180,239	5,511	-	5,511	174,728	
Otay Mesa TOTAL	687,922	10,744	-	10,744	677,178	
Otay Mesa-Nestor TOTAL	725,197	10,058	-	10,058	715,139	
POWAY TOTAL	887,059	19,913	-	19,913	867,146	
Pacific Beach TOTAL	508,172	13,899	-	13,899	494,273	
Pacific Highlands Ranch TOTAL	240,851	1,809	-	1,809	239,042	
Peninsula TOTAL	369,036	12,887	-	12,887	356,149	
Rancho Bernardo TOTAL	1,697,401	85,291	-	85,291	1,612,110	
Rancho Encantada TOTAL	13,692	498	-	498	13,194	
Rancho Penasquitos TOTAL	1,077,545	66,623	-	66,623	1,010,922	
SAN MARCOS TOTAL	1,893,004	13,570	-	13,570	1,879,434	
SANTEE TOTAL	929,176	84,950	-	84,950	844,226	
SOLANA BEACH TOTAL	580,566	28,135	-	28,135	552,431	
Southeastern/Southeastern San Diego TOTAL	1,203,060	62,617	-	62,617	1,140,443	
Sabre Springs TOTAL	308,939	26,319	-	26,319	282,620	
San Pasqual TOTAL	341,468	9,947	-	9,947	331,521	
San Ysidro TOTAL	368,884	2,905	-	2,905	365,979	
Scripps Miramar Ranch TOTAL	489,471	51,910	-	51,910	437,561	
Scripps Reserve TOTAL	824	22	-	22	802	
Serra Mesa TOTAL	801,844	179,329	-	179,329	622,515	
Skyline-Paradise Hills TOTAL	246,886	3,754	-	3,754	243,132	
Tierrasanta TOTAL	944,507	243,568	-	243,568	700,939	
Tijuana River Valley TOTAL	5,824	32	-	32	5,792	
Torrey Highlands TOTAL	198,176	1,519	-	1,519	196,657	
Torrey Hills TOTAL	467,165	31,439	-	31,439	435,726	
Torrey Pines TOTAL	1,119,229	78,575	-	78,575	1,040,654	
Unincorporated TOTAL	15,882,760	358,098	-	358,098	15,524,662	
University TOTAL	2,392,362	185,293	-	185,293	2,207,069	
Uptown TOTAL	701,731	33,678	-	33,678	668,053	
VISTA TOTAL	1,638,629	2,859	-	2,859	1,635,770	
Via De La Valle TOTAL	12,491	227	-	227	12,264	
REGIONWIDE TOTAL	79,041,960	4,870,180	83,026	4,787,154	74,171,780	570
FOR GHG PURPOSES						
Kearny Mesa Proposed Plan VMT	2,477,173					

2050 Proposed_prop1B (1136)						
JURISDICTION	TOTAL VMT	TOTAL Series 13 VMT	Two Trip End Series 13 VMT	One Trip End Series 13 VMT	NON-Series 13 VMT	Series 13 Intra-Zonal VMT
	I-I, I-E and E-I	I-I	I-E and E-I	E-E	INTRA	
NCJUA Reserve TOTAL	6,095	149	-	149	5,946	
NCJUA Subarea 2 TOTAL	308,744	20,917	-	20,917	287,827	
Navajo TOTAL	926,375	95,457	-	95,457	830,918	
OCEANSIDE TOTAL	3,092,489	31,573	-	31,573	3,060,916	
Ocean Beach TOTAL	100,750	7,349	-	7,349	93,401	
Old San Diego TOTAL	209,955	8,932	-	8,932	201,023	
Otay Mesa TOTAL	1,525,216	21,472	-	21,472	1,503,744	
Otay Mesa-Nestor TOTAL	818,813	11,969	-	11,969	806,844	
POWAY TOTAL	1,031,539	29,773	-	29,773	1,001,766	
Pacific Beach TOTAL	546,103	21,304	-	21,304	524,799	
Pacific Highlands Ranch TOTAL	322,603	4,219	-	4,219	318,384	
Peninsula TOTAL	382,670	17,132	-	17,132	365,538	
Rancho Bernardo TOTAL	1,965,852	115,925	-	115,925	1,849,927	
Rancho Encantada TOTAL	15,881	890	-	890	14,991	
Rancho Penasquitos TOTAL	1,226,003	89,834	-	89,834	1,136,169	
SAN MARCOS TOTAL	2,320,016	16,700	-	16,700	2,303,316	
SANTEE TOTAL	1,128,300	126,015	-	126,015	1,002,285	
SOLANA BEACH TOTAL	656,504	40,651	-	40,651	615,853	
Southeastern/Southeastern San Diego TOTAL	1,405,060	82,401	-	82,401	1,322,659	
Sabre Springs TOTAL	355,105	36,222	-	36,222	318,883	
San Pasqual TOTAL	369,454	11,831	-	11,831	357,623	
San Ysidro TOTAL	397,608	3,853	-	3,853	393,755	
Scripps Miramar Ranch TOTAL	555,464	72,721	-	72,721	482,743	
Scripps Reserve TOTAL	1,071	67	-	67	1,004	
Serra Mesa TOTAL	899,380	251,210	-	251,210	648,170	
Skyline-Paradise Hills TOTAL	271,172	3,461	-	3,461	267,711	
Tierrasanta TOTAL	1,189,839	393,687	-	393,687	796,152	
Tijuana River Valley TOTAL	7,828	36	-	36	7,792	
Torrey Highlands TOTAL	255,470	3,172	-	3,172	252,298	
Torrey Hills TOTAL	503,159	45,182	-	45,182	457,977	
Torrey Pines TOTAL	1,238,327	114,827	-	114,827	1,123,500	
Unincorporated TOTAL	21,533,599	623,951	-	623,951	20,909,648	
University TOTAL	2,535,254	283,263	-	283,263	2,251,991	
Uptown TOTAL	797,733	49,977	-	49,977	747,756	
VISTA TOTAL	1,913,969	2,933	-	2,933	1,911,036	
Via De La Valle TOTAL	13,811	363	-	363	13,448	
REGIONWIDE TOTAL	96,525,014	7,187,950	205,854	6,982,096	89,337,064	1,625
FOR GHG						
Kearny Mesa Prop1B VMT	3,698,527.18					
VMT Delta between Prop1B and Base	1,221,354					
	49%					

Appendix D Alternatives Vehicle Miles Travel Report for Transportation
Impact Analysis (SB 743 metrics for residential and
employment)

Vehicle Miles of Travel Report

Scenario ID 1076

Kearny Mesa CPU - No Project Alternative (Adopted Community Plan)

VMT per Resident						
		Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide		4,098,966	14,659,048	86,522,394	59,911,259	14.6
Jurisdiction	SAN DIEGO	1,807,980	6,492,463	34,278,918	22,990,398	12.7
CPA	Kearny Mesa	13,411	51,857	262,446	173,726	13.0
TAZ List	N/A					

VMT per Employee						
		Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide		1,730,665	5,660,716	43,671,169	37,378,961	21.6
Jurisdiction	SAN DIEGO	891,683	2,782,203	20,884,691	18,051,574	20.2
CPA	Kearny Mesa	84,851	276,544	2,143,432	1,883,109	22.2
TAZ List	N/A					

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Vehicle Miles of Travel Report

Scenario ID 1132

Kearny Mesa CPU - Alternative 1 (Reduced Density Alternative)

VMT per Resident						
	Scenario ID	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	1132	4,111,239	14,696,006	86,805,457	59,989,228	14.6
Jurisdiction SAN DIEGO	1132	1,820,253	6,524,547	34,375,772	22,954,005	12.6
CPA Kearny Mesa	1132	32,046	119,422	528,409	324,998	10.1
TAZ List N/A						

VMT per Employee						
	Scenario ID	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1132	1,736,087	5,660,220	43,728,913	37,398,753	21.5
Jurisdiction SAN DIEGO	1132	899,995	2,799,209	20,954,290	18,087,113	20.1
CPA Kearny Mesa	1132	98,725	318,434	2,414,187	2,122,442	21.5
TAZ List N/A						

Report Generated:

09/24/19



Vehicle Miles of Travel Report

Scenario ID 1136

Kearny Mesa CPU - Alternative 2 (Reduced Height Alternative)

VMT per Resident						
	Scenario ID	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	1136	4,136,713	14,793,744	87,108,465	60,193,855	14.6
Jurisdiction SAN DIEGO	1136	1,845,727	6,620,768	34,669,519	23,154,579	12.5
CPA Kearny Mesa	1136	57,516	209,895	871,896	526,403	9.2
TAZ List N/A						

VMT per Employee						
	Scenario ID	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1136	1,748,510	5,696,676	43,893,249	37,538,085	21.5
Jurisdiction SAN DIEGO	1136	907,629	2,817,674	20,971,912	18,101,744	19.9
CPA Kearny Mesa	1136	106,927	337,350	2,505,077	2,195,904	20.5
TAZ List N/A						

Report Generated:

10/1/2019



Vehicle Miles of Travel Report

Scenario ID 1138

Kearny Mesa CPU - Alternative 3 (Reduced Industrial Employment Alternative)

VMT per Resident						
	Scenario ID	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	1138	4,136,708	14,790,966	87,306,357	60,289,873	14.6
Jurisdiction	SAN DIEGO	1,845,722	6,616,537	34,576,165	23,032,907	12.5
CPA	Kearny Mesa	57,507	210,628	848,655	501,508	8.7
TAZ List	N/A					

VMT per Employee						
	Scenario ID	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1138	1,748,514	5,687,708	43,917,681	37,561,418	21.5
Jurisdiction	SAN DIEGO	927,827	2,878,494	21,596,403	18,659,634	20.1
CPA	Kearny Mesa	138,854	436,533	3,287,150	2,887,608	20.8
TAZ List	N/A					

Report Generated:

10/14/2019



Vehicle Miles of Travel Report

Scenario ID 1075

Kearny Mesa CPU - Alternative 4 (Residential Option)

VMT per Resident					
	Residents	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Resident
Regionwide	4,143,076	14,829,294	87,410,687	60,497,373	14.6
Jurisdiction SAN DIEGO	1,852,090	6,656,490	34,925,441	23,411,123	12.6
CPA Kearny Mesa	57,525	212,379	905,993	568,263	9.9
TAZ List N/A					

VMT per Employee					
	Employees	Total Trips	Person Miles of Travel	Vehicle Miles of Travel	VMT per Employee
Regionwide	1,752,319	5,723,459	44,148,178	37,777,866	21.6
Jurisdiction SAN DIEGO	910,414	2,833,133	21,096,599	18,217,803	20.0
CPA Kearny Mesa	106,622	337,859	2,503,351	2,190,566	20.5
TAZ List N/A					

Report Generated: 05/03/19

