

# **REGIONAL ROAD IMPACT FEE PROGRAM**

## **CAPITAL IMPROVEMENTS PLAN**

**8<sup>TH</sup> EDITION**



## **TABLE OF CONTENTS**

- I. INTENT AND HISTORY
- II. SERVICE AREAS/BENEFIT DISTRICTS
- III. RRIF NETWORK
- IV. STREET PROJECTS AND FACILITY EXPANSIONS NECESSITATED BY AND ATTRIBUTABLE TO NEW DEVELOPMENT
- V. SERVICE UNIT - VEHICLE MILES OF TRAVEL (VMT)
- VI. IMPACT FEE SCHEDULE EQUIVALENCY TABLE
- VII. PROJECTED VEHICLE MILES OF TRAVEL (VMT) FOR EACH SERVICE AREA
- VIII. COST PER VEHICLE MILES TRAVELLED (VMT) FOR EACH SERVICE AREA
- IX. RRIF FEE SCHEDULE

## **EXHIBITS**

EXHIBIT A – RRIF FEE SCHEDULE

EXHIBIT B – RRIF SERVICE AREAS/BENEFIT DISTRICTS

EXHIBIT C – RRIF CIP STREET PROJECTS AND FACILITY EXPANSIONS

## **REGIONAL ROAD IMPACT FEE SYSTEM CAPITAL IMPROVEMENTS PLAN**

### **I. INTENT AND HISTORY**

The Regional Road Impact Fee (RRIF) program was established in November 1995 pursuant to NRS chapter 278B, *Impact Fees for New Development*. The collection of RRIF fees began in February 1996.

The RRIF program was established by Washoe County, the City of Reno, the City of Sparks, and the Regional Transportation Commission of Washoe County (RTC), within the framework of an interlocal cooperative agreement as authorized by the *Interlocal Cooperation Act* in NRS chapter 277. The RRIF General Administrative Manual (the "RRIF GAM") establishes the guidelines and procedures by which Washoe County, the City of Reno, the City of Sparks, and the RTC jointly administer the RRIF program.

RRIF fees are a charge imposed on new development to finance the costs of certain "street projects" and "facility expansions" necessitated by and attributable to new development. NRS 278B.020; NRS 278B.050; NRS 278B.130. The RRIF program is a way to charge new development its proportionate fair share of those costs.

Pursuant to NRS 278B, impact fee programs require the preparation and adoption of a "capital improvements plan." This 8<sup>th</sup> Edition of the RRIF capital improvements plan (this "RRIF CIP") was prepared and adopted in connection with the 8<sup>th</sup> Edition of the RRIF GAM.

This RRIF CIP complies with the requirements in NRS 278B.170 by both establishing and explaining the methodology used to calculate the amount of the RRIF fees, as shown on the fee schedule presented in Exhibit A. The City of Reno, the City of Sparks, and Washoe County have each adopted ordinances that authorize the automatic annual adjustment of impact fees for inflation, in accordance with NRS 228B.225. Additionally, this RRIF CIP establishes the complete and exclusive list of "street projects" and "facility expansions" that may be funded with RRIF fees, and against which credits may be issued when a developer constructs all or part of a listed project.

RTC is the designated Metropolitan Planning Organization (MPO) for the urbanized area of Reno, Sparks and Washoe County. As the MPO, RTC is responsible for developing and approving the long-range Regional Transportation Plan, the short-range Regional Transportation Improvement Plan, and other related planning documents. This RRIF CIP incorporates data and analysis developed by RTC's Planning Department, including the 2050 Regional Transportation Plan Update (the "2050 RTP"). Adjustments to that analysis have been made to serve the specific purposes of this document.

## II. SERVICE AREAS/BENEFIT DISTRICTS

Impact fees must be assessed uniformly within defined “service areas” as outlined in NRS 278B.100. These service areas serve two distinct purposes. First, they are used for fee calculation (the impact fee schedule applies to all new development within a defined service area). Second, they show benefit to fee-paying development (the impact fees collected within a service area must be spent within that same service area).

The RRIF program was originally established using a single service area with three benefit districts based on the assumption that one regional service area is appropriate for a regional road network. This network operates as an integrated system designed to facilitate traffic movement across the region. Travel on the network during peak-hours, the most critical travel periods, tends to be dominated by relatively long commuting trips.

The benefit districts are shown in Exhibit B and are defined as follows:

- Northwest Benefit District – Starting at the southwest corner of the district at the California Nevada state line and Interstate 80, follow the state line north to the northern boundary of the Washoe County North Valleys Area (i.e., northern boundary of the Red Rock Hydrographic Basin boundary), then east along the northern boundary of the North Valleys Planning Area (i.e. northern boundary of the Red Rock and Bedell Flat Hydrographic Basin boundary), then south along the eastern edge of the North Valleys Planning Area (i.e. eastern boundary of the Bedell Flat and Antelope Valley Hydrographic Basin boundary) to the western edge of the Washoe County Sun Valley Planning Area boundary, then continue south along the western edge of the Sun Valley Planning Area to US 395 at the Sutro Street terminus then southeast along the US 395 alignment to Interstate 80, then west along Interstate 80 to the state line.
- Northeast Benefit District – Starting at the southwest corner of the district at the US395/Interstate 80 interchange, follow US 395 northwest to the Sutro Street terminus, then continue north along the western edge of the Washoe County Sun Valley Planning Area to the eastern edge of the Washoe County North Valleys Planning area, then north to the western edge of the Washoe County Warm Springs Planning Area, then north to the northwest corner of the Warm Springs Planning Area, then east along the northern boundary of the Warm Springs Planning Area, then southwest and south along the boundary of the Warm Springs Planning Area, then west along the southern boundary of the Warm Springs Planning Area to the eastern edge of the Washoe County Spanish Springs Planning Area and the Washoe County Truckee Canyon Planning Area, then southwest along the western edge of the Truckee Canyon Planning Area to Interstate 80, then west along Interstate 80 to US 395.

- South Benefit District – Starting at the northwest corner of the district at the California/Nevada line and Interstate 80, follow Interstate 80 east to the western edge of the Washoe county Truckee Canyon Planning Area, then south along the Washoe County/Storey County line to the Washoe County/Carson City line, then west along the Washoe County/Carson City line to the southern jurisdictional line of the Tahoe Regional Planning Agency and the Washoe County Tahoe Planning Area, then north along the California/Nevada line to Interstate 80.

During the update to the 5<sup>th</sup> Editions of the RRIF GAM and CIP, the geographic area defining the service boundary was modified to meet the requirements of NRS 278B.100 as amended in 2007. As amended, NRS 278B.100 prohibits a single service area from incorporating an entire city (or county) whose population is over 15,000. To meet this requirement, a North Service Area was created by combining the former Northeast and Northwest Benefit Districts, while the South Benefit District was retained as the boundary of the South Service Area. These revised service area boundaries divide both the City of Reno and the City of Sparks, to meet the requirements of NRS 278B.100. The service areas are shown in Exhibit B.

Separate capital improvement plans and corresponding RRIF fees are calculated for each service area. Revenue generated from the payment of RRIF fees can only be spent within the service area in which it was collected.

### **III. RRIF NETWORK**

NRS chapter 278B authorizes the imposition of an “impact fee” for a “street project” defined as “arterial or collector streets or roads which have been designated on the streets and highways master plan adopted by the local government pursuant to NRS 278.220, including all appurtenances, traffic signals and incidentals necessary for any such facilities.” See NRS 278B.130 (definition of “street project”). NRS chapter 278B also authorizes the imposition of an “impact fee” for a “facility expansion” defined as “the expansion of the capacity of an existing facility associated with a capital improvement to serve new development.” See NRS 278B.040 (definition of “facility expansion”).

The RRIF Program relies on RTC’s transportation planning efforts, as reflected in the 2050 RTP, to define the network of regional roads, either existing or planned within the first 10 years of the 2050 RTP (the “RRIF Network”). RTC maintains a database of all arterial and collector streets and roads, including segment lengths and number of lanes. For purposes of the RRIF Program, the RRIF Network consists of existing or planned arterial or collector streets and roads that meet the following criteria:

1. State operated arterials.
2. Arterials listed in the 2050 RTP.
3. Collectors that have a forecast volume of at least 14,000 annualized average daily trips at “build-out,” which is defined as full development based on the approved land use assumptions in each jurisdiction.
4. Freeway and highway ramps that connect to arterial or collector streets and roads that are included in the RRIF Network are considered arterial or collector streets and roads.

The RRIF Network includes only those arterial or collector streets and roads that meet the criteria above and are either existing or planned within the first 10 years of the RTP.

#### **IV. STREET PROJECTS AND FACILITY EXPANSIONS NECESSITATED BY AND ATTRIBUTABLE TO NEW DEVELOPMENT**

NRS 278B.170(1) requires that this RRIF CIP include “[a] description of the existing capital improvements and the costs to upgrade, improve, expand or replace those improvements to meet existing needs or to comply with more stringent safety, environmental or regulatory standards.” NRS 278B.170(2) requires that this RRIF CIP include “[a]n analysis of the total capacity, level of current usage and commitments for usage of capacity of the existing capital improvements.” NRS 278B.170(3) requires that this RRIF CIP include “[a] description of any part of the capital improvements or facility expansions and the costs necessitated by and attributable to the new development in the service area based on the approved land use assumptions.” NRS 278B.170(7) requires that this RRIF CIP include “the projected demand for capital improvements or facility expansions required by new service units projected over a period not to exceed 10 years.”

The 2050 RTP describes the existing capital improvements in each service area by identifying the existing arterial and collector streets and roads included in the RRIF Network. However, the 2050 RTP does not identify which planned projects (or percentages of projects) include costs to upgrade, improve, expand or replace those capital improvements to meet existing needs or more stringent safety, environmental or regulatory standards. Further analysis (described below) is required to identify those projects (or percentages of projects) and costs.

The 2050 RTP analyzes the existing capital improvements in terms of total capacity, level of current usage, and commitments for usage of the capacity by analyzing the regional road network as a whole over a period of 30 years. It also establishes the desired level of service for the RRIF Network and includes a comprehensive list of all planned capital improvements and facility expansions needed to meet that level of service throughout the 30-year planning period.

This RRIF CIP uses the list of projects included in the 2050 RTP to identify planned capital improvements and facility expansions for the RRIF Network for the first 10 years of the 2050 RTP. Sound engineering and planning judgment was then applied to refine this list through the following adjustments:

1. Programs of projects that are not necessitated by and attributable to new development were removed.
2. Programs of projects (without specifically identified projects) were excluded to ensure clarity about which specific capital improvements or facility expansions are included.
3. Each project was analyzed to determine the percentage of its total cost attributable to adding capacity to the RRIF Network, as opposed to upgrading, improving, expanding, or replacing existing capital improvements.
4. Each project was analyzed to determine the percentage attributable to new development in the service area, based on approved land use assumptions.
5. For projects that extend cross service area boundaries, costs were proportionally allocated based on the project length within each service area.

After applying these adjustments, the resulting project list reflects only those capital improvements and facility expansions that are necessitated by and attributable to new development within each service area. The list of projects for each service area is provided in Exhibit C.

The project costs shown in Exhibit C reflect the portions of each project (and resulting costs) that is necessitated by and attributable to new development. The total cost of eligible projects in the North Service Area is \$465,466,576, and in the South Service Area is \$311,945,850. The combined total cost is \$777,412,426.

## **V. SERVICE UNIT - VEHICLE MILES OF TRAVEL (VMT)**

NRS chapter 278B requires this RRIF CIP to use a “service unit” defined as a “standardized measure of consumption, use, generation or discharge which is attributable to an individual unit of development calculated for a particular category of capital improvements or facility expansions.” See NRS 278B.110 (definition of “service unit”).

This RRIF CIP uses average weekday Vehicle Miles of Travel (VMT) as the service unit. VMT is the product of vehicle trips generated by type of land use, multiplied by the average trip length.

## **VI. IMPACT FEE SCHEDULE EQUIVALENCY TABLE**

NRS 278B.170(5) requires this RRIF CIP to include “[a]n equivalency or conversion table which establishes the ratio of a service unit to each type of land use, including but not limited to, residential, commercial and industrial uses.”

This section describes the determination of appropriate equivalency rates that estimate the VMT generated by each type of land use. Trip generation rates, expressed as average weekday Vehicle Trip Ends (VTE) by land use type, are from the Institute of Transportation Engineers (ITE) Trip Generation Manual (11<sup>th</sup> Edition). Rates were established for specific land use types within the broader categories of residential, office, commercial, industrial, and institutional land uses. Rates are per dwelling unit, 1,000 square feet of gross floor area, or other appropriate unit of development.

Since ITE rates represent the total number of trips (both inbound and outbound) associated with a specific land use, all trip rates have been divided by two to avoid double-counting any single trip. This approach allocates the burden of travel equally between the trip's origin and destination.

Trip adjustment factors also account for pass-by and diverted trips. Pass-by trips are those made by vehicles already traveling along a route for another purpose, which make a stop at a particular development located along that route. For example, a stop at a convenience store on the way home from work is considered a pass-by trip for the convenience store. Because these trips do not generate new traffic or place additional burden on the street system, they are not included in the calculation of impact fees. Diverted trips are similar to a pass-by trip, but involve a short deviation from the regular route to make an interim stop before continuing to the original destination. On a system-wide basis, diverted trips also do not increase the overall burden on the street system and are therefore excluded from impact fee assessments.

In addition, residential development has a larger trip adjustment factor of 52.7% to account for commuters leaving Washoe County for work. In other words, residential development is assigned all inbound trips plus 2.7% of outbound trips to account for job locations outside of Washoe County, calculated as follows. According to the 2022 National Household Travel Survey weekday work trips are typically 24.75% of production trips (i.e., all out-bound trips). As shown in the Census Bureau's web application, OnTheMap indicates that approximately 22.1% of resident workers traveled outside the county for work in 2022. In combination, these factors ( $0.2475 \times 0.50 \times 0.221 = 0.027$ ) support the additional 2.7% allocation of trips to residential development.

For commercial development, the trip adjustment factor is less than 50% because retail development attracts vehicles as they pass by on arterial and collector roads. For an average shopping center, ITE data indicate 34% of the vehicles that enter are passing by on their way to some other primary destination. The remaining 66% of attraction trips have the commercial site as their primary destination. Because attraction trips are half of all trips, the trip adjustment factor is 66% multiplied by 50%, or approximately 33% of the trip ends.

Many institutional land uses, like schools, also have significant pass-by and diverted link trips as children are dropped off and picked up by parents on their way to some other primary destination. Given this travel pattern, the pass-by adjustment for schools and daycare utilized the commercial trip adjustment factor.

The average trip length, measured in miles, is derived from the regional travel demand model that the RTC Planning Department created as part of the 2050 RTP. The recommended trip lengths by service area for the regional road network excludes travel on local streets and freeways. The average trip length is 2.91 miles for the North Service Area and 2.47 miles for the South Service Area.

Trip length weighting factors are used to account for trip length variations by the type of land use. Per the 2022 National Household Travel Survey, vehicle trips from residential development account for 121% of the average trip length. Conversely, shopping trips associated with commercial development are roughly 66% of the average trip length while other non-residential development typically accounts for trips that are 73% of the average for all trips.

The result of combining trip generation and trip length information is an equivalency table establishing the number of VMT generated by various land use types per unit of development. The equivalency rates are presented in Tables 1 and 2.

**Table 1**  
**North Service Area**  
**Service Unit Generation by Land Use**

| <i>Land Use Type</i>               | <i>Development Unit</i> | <i>Avg Wkdy Veh Trip Ends</i> | <i>Trip Rate Adjustment</i> | <i>Trip Length Adjustment</i> | <i>8<sup>th</sup> Ed North VMTs</i> |
|------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------------------|
| <b>Residential</b>                 |                         |                               |                             |                               |                                     |
| Single Unit                        | Dwelling                | 9.24                          | 53%                         | 121%                          | 17.24                               |
| 3+ Units per Structure             | Dwelling                | 5.75                          | 53%                         | 121%                          | 10.73                               |
| <b>Industrial</b>                  |                         |                               |                             |                               |                                     |
| Light Industrial                   | 1000 Sq Ft              | 4.87                          | 50%                         | 73%                           | 5.17                                |
| Manufacturing                      | 1000 Sq Ft              | 4.75                          | 50%                         | 73%                           | 5.05                                |
| Warehouse                          | 1000 Sq Ft              | 1.71                          | 50%                         | 73%                           | 1.82                                |
| Mini-Warehouse                     | 1000 Sq Ft              | 1.45                          | 50%                         | 73%                           | 1.54                                |
| <b>Commercial</b>                  |                         |                               |                             |                               |                                     |
| Retail and Eating/Drinking Places  | 1000 Sq Ft              | 37.01                         | 33%                         | 66%                           | 23.46                               |
| Casino Gaming Area                 | 1000 Sq Ft              | 46.05                         | 50%                         | 73%                           | 48.91                               |
| <b>Office &amp; Other Services</b> |                         |                               |                             |                               |                                     |
| Lodging                            | Room                    | 3.35                          | 50%                         | 73%                           | 3.56                                |
| Public Park                        | Acre                    | 0.78                          | 50%                         | 73%                           | 0.83                                |
| Schools and Daycare                | 1000 Sq Ft              | 22.50                         | 33%                         | 73%                           | 15.77                               |
| Hospital                           | 1000 Sq Ft              | 10.77                         | 50%                         | 73%                           | 11.44                               |
| Nursing Home                       | 1000 Sq Ft              | 6.75                          | 50%                         | 73%                           | 7.17                                |
| Office and Other Services          | 1000 Sq Ft              | 10.84                         | 50%                         | 73%                           | 11.51                               |
| Medical Office                     | 1000 Sq Ft              | 36.00                         | 50%                         | 73%                           | 38.24                               |

The VMT for each land use type is the resulting calculation of Average Weekday Vehicle Trip Ends x Trip Rate Adjustment x Trip Length Adjustment x Average Trip Length for the North Service Area (2.91 miles).

**Table 2**  
**South Service Area**  
**Service Unit Generation by Land Use**

| <i>Land Use Type</i>               | <i>Development Unit</i> | <i>Avg Wkdy Veh Trip Ends</i> | <i>Trip Rate Adjustment</i> | <i>Trip Length Adjustment</i> | <i>8th Ed South VMT's</i> |
|------------------------------------|-------------------------|-------------------------------|-----------------------------|-------------------------------|---------------------------|
| <b>Residential</b>                 |                         |                               |                             |                               |                           |
| Single Unit                        | Dwelling                | 9.24                          | 53%                         | 121%                          | 14.63                     |
| 3+ Units per Structure             | Dwelling                | 5.75                          | 53%                         | 121%                          | 9.10                      |
| <b>Industrial</b>                  |                         |                               |                             |                               |                           |
| Light Industrial                   | 1000 Sq Ft              | 4.87                          | 50%                         | 73%                           | 4.39                      |
| Manufacturing                      | 1000 Sq Ft              | 4.75                          | 50%                         | 73%                           | 4.28                      |
| Warehouse                          | 1000 Sq Ft              | 1.71                          | 50%                         | 73%                           | 1.54                      |
| Mini-Warehouse                     | 1000 Sq Ft              | 1.45                          | 50%                         | 73%                           | 1.31                      |
| <b>Commercial</b>                  |                         |                               |                             |                               |                           |
| Retail and Eating/Drinking Places  | 1000 Sq Ft              | 37.01                         | 33%                         | 66%                           | 19.91                     |
| Casino Gaming Area                 | 1000 Sq Ft              | 46.05                         | 50%                         | 73%                           | 41.52                     |
| <b>Office &amp; Other Services</b> |                         |                               |                             |                               |                           |
| Lodging                            | Room                    | 3.35                          | 50%                         | 73%                           | 3.02                      |
| Public Park                        | Acre                    | 0.78                          | 50%                         | 73%                           | 0.70                      |
| Schools and Daycare                | 1000 Sq Ft              | 22.50                         | 33%                         | 73%                           | 13.39                     |
| Hospital                           | 1000 Sq Ft              | 10.77                         | 50%                         | 73%                           | 9.71                      |
| Nursing Home                       | 1000 Sq Ft              | 6.75                          | 50%                         | 73%                           | 6.09                      |
| Office and Other Services          | 1000 Sq Ft              | 10.84                         | 50%                         | 73%                           | 9.77                      |
| Medical Office                     | 1000 Sq Ft              | 36.00                         | 50%                         | 73%                           | 32.46                     |

The VMT for each land use type is the resulting calculation of Average Weekday vehicle Trip Ends x Trip Rate Adjustment x Trip Length Adjustment x Average Trip Length for the South Service Area (2.47 miles).

## VII. PROJECTED VEHICLE MILES OF TRAVEL (VMT) FOR EACH SERVICE AREA

NRS 278B.170(4) requires “[a] table which establishes the specific level or quantity of use, consumption, generation or discharge of a service unit for each category of capital improvements or facility expansions.”

This RRIF CIP uses the regional travel demand model that the RTC Planning Department created as part of the 2050 RTP to determine the 10 year growth in VMT. The travel demand model uses TMRPA’s Population & Employment model based on the 2024 Consensus Forecast to predict where and what type of growth will occur. Information on that future growth is incorporated into the travel demand model by location (travel analysis zones). Population is converted to number of housing units and housing types based on statistical data from the 2023 American Community Survey for Washoe County. Employment is broken down into employment categories and total square footage using

standardized square foot per employee by employment type. Projections are calculated for 2025 and 2035 and prorated for the intermediate years to determine the 10-year growth.

Table 3 and Table 4 below show the projected 10-year growth in VMT per service area (highlighted in green).

**Table 3**  
**North Service Area Travel Demand**

| <b>North Service Area</b>                    | <b>2025</b> | <b>2035</b> | <b>2025-2035 Increase</b> |
|----------------------------------------------|-------------|-------------|---------------------------|
| <b>Total Population</b>                      | 335,845     | 366,859     | 31,014                    |
| <b>Total Housing Units</b>                   | 127,334     | 138,962     | 11,628                    |
| <b>Single Housing Units</b>                  | 89,944      | 98,157      | 8,213                     |
| <b>2+ Housing Units</b>                      | 37,391      | 40,805      | 3,414                     |
| <b>Industrial Jobs</b>                       | 26,606      | 29,321      | 2,715                     |
| <b>Commercial Jobs</b>                       | 10,891      | 12,176      | 1,285                     |
| <b>All Other Services Jobs</b>               | 58,926      | 67,212      | 8,286                     |
| <b>Total Jobs</b>                            | 96,423      | 108,709     | 12,286                    |
| <b>KSF</b>                                   |             |             |                           |
| <b>Industrial KSF</b>                        | 78,573      | 86,591      | 8,018                     |
| <b>Commercial KSF</b>                        | 5,446       | 6,088       | 643                       |
| <b>All Other Services KSF</b>                | 18,047      | 20,585      | 2,538                     |
| <b>Vehicle Trips</b>                         |             |             |                           |
| <b>Single Unit Trips</b>                     | 470,512     | 513,478     | 42,965                    |
| <b>2+ Units Trips</b>                        | 134,670     | 146,968     | 12,297                    |
| <b>Industrial Trips</b>                      | 67,180      | 74,036      | 6,855                     |
| <b>Commercial Trips</b>                      | 66,508      | 74,355      | 7,847                     |
| <b>All Other Services Trips</b>              | 97,817      | 111,572     | 13,755                    |
| <b>Total Vehicle Trips</b>                   | 836,688     | 920,407     | 83,720                    |
| <b>Weekday Vehicle Miles of Travel (VMT)</b> | 2,609,147   | 2,862,585   | 253,438                   |

**Table 4**  
**South Service Area Travel Demand**

| <b>South Service Area</b>                    | <b>2025</b> | <b>2035</b> | <b>2025-2035 Increase</b> |
|----------------------------------------------|-------------|-------------|---------------------------|
| <b>Total Population</b>                      | 220,162     | 240,493     | 20,331                    |
| <b>Total Housing Units</b>                   | 83,474      | 91,096      | 7,622                     |
| <b>Single Housing Units</b>                  | 58,962      | 64,346      | 5,384                     |
| <b>2+ Housing Units</b>                      | 24,511      | 26,750      | 2,238                     |
| <b>Industrial Jobs</b>                       | 48,960      | 51,489      | 2,529                     |
| <b>Commercial Jobs</b>                       | 17,030      | 18,328      | 1,298                     |
| <b>All Other Services Jobs</b>               | 149,696     | 157,977     | 8,281                     |
| <b>Total Jobs</b>                            | 215,686     | 227,794     | 12,108                    |
| <b>KSF</b>                                   |             |             |                           |
| <b>Industrial KSF</b>                        | 144,589     | 152,058     | 7,469                     |
| <b>Commercial KSF</b>                        | 8,515       | 9,164       | 649                       |
| <b>All Other Services KSF</b>                | 45,848      | 48,384      | 2,536                     |
| <b>Vehicle Trips</b>                         |             |             |                           |
| <b>Single Unit Trips</b>                     | 308,443     | 336,608     | 28,166                    |
| <b>2+ Units Trips</b>                        | 88,283      | 96,344      | 8,062                     |
| <b>Industrial Trips</b>                      | 123,624     | 130,010     | 6,386                     |
| <b>Commercial Trips</b>                      | 103,996     | 111,923     | 7,926                     |
| <b>All Other Services Trips</b>              | 248,495     | 262,242     | 13,746                    |
| <b>Total Vehicle Trips</b>                   | 872,841     | 937,127     | 64,286                    |
| <b>Weekday Vehicle Miles of Travel (VMT)</b> | 2,026,196   | 2,183,691   | 157,494                   |

#### **VIII. COST PER VEHICLE MILES TRAVELLED (VMT) FOR EACH SERVICE AREA**

This RRIF CIP determines the cost per VMT by dividing the unfunded portion of the costs of the projects listed in Exhibit C (the “RRIF Share”) by the projected increase in VMT in each service area. A separate cost per VMT is determined for each service area.

In order to determine the unfunded portion, this RRIF CIP takes into account other available funding sources (federal, state and local funds) that are available to pay for the costs of the projects listed in Exhibit C. Those other available funding sources are accounted for in order to avoid possible double payment for growth-related improvements from those funding sources. The amount of other available fundings sources is determined using the financial plans and revenue projections developed in conjunction with the first 10 years of the 2050 RTP, with further detail and adjustments for purposes of this RRIF CIP. See 2050 RTP, Chapter 11 – Investing Strategically. The following table presents the results of those calculations:

**Table 5**  
**Funding Needs and Available Funding Sources**

| <b>Funding Source</b>                              | <b>2025-2034 Total</b> |
|----------------------------------------------------|------------------------|
| Total Cost                                         | \$777,412,426          |
| Available Local, State and Federal Funding Sources | \$627,507,765          |
| Unfunded Portion (i.e., the RRIF Share)            | \$149,904,660          |

The other available funding sources are regional in nature and are not required to be used in one service area or the other. Therefore, this RRIF CIP developed a formula to determine the percentage of the RRIF Share that should be attributable to each service area. This RRIF CIP calculated the total costs of all projects listed in Exhibit C by service area. This RRIF CIP then divided the total costs in each service area, by the combined cost of both service areas, to determine the percentage of the total RRIF Share for each service area. The following table presents the results of those calculations:

**Table 6**  
**Percentage of RRIF Share by Service Area**

| <b>Project Costs</b>                       | <b>North Service Area</b> | <b>South Service Area</b> | <b>2025-2034 Total</b> |
|--------------------------------------------|---------------------------|---------------------------|------------------------|
| 2050 RTP:<br>Capacity Related Improvements | \$465,466,576             | \$311,945,850             | \$777,412,426          |
| % Capacity Related RTP                     | 59.87%                    | 40.13%                    | 100%                   |

For purposes of this RRIF CIP, 59.87% of the RRIF Share is attributable to the North Service Area and 40.13% of the RRIF Share is attributable to the South Service Area. The RRIF Share in each service area was then divided by the projected increase in VMT in each service area to determine the cost per VMT in each service area. The following table presents the results of the calculations above:

**Table 7**  
**Cost per Vehicle Miles Traveled (VMT)**

| <b>Description</b>         | <b>North Service Area</b> | <b>South Service Area</b> |
|----------------------------|---------------------------|---------------------------|
| Total RRIF Share           | \$149,904,660             |                           |
| % RRIF Eligible RTP        | 59.87%                    | 40.13%                    |
| RRIF Share by Service Area | \$89,753,658              | \$60,151,002              |
| VMT Growth by Service Area | 253,438                   | 157,494                   |
| \$/VMT for RRIF Share      | \$354.14                  | \$381.93                  |

## IX. RRIF FEE SCHEDULE

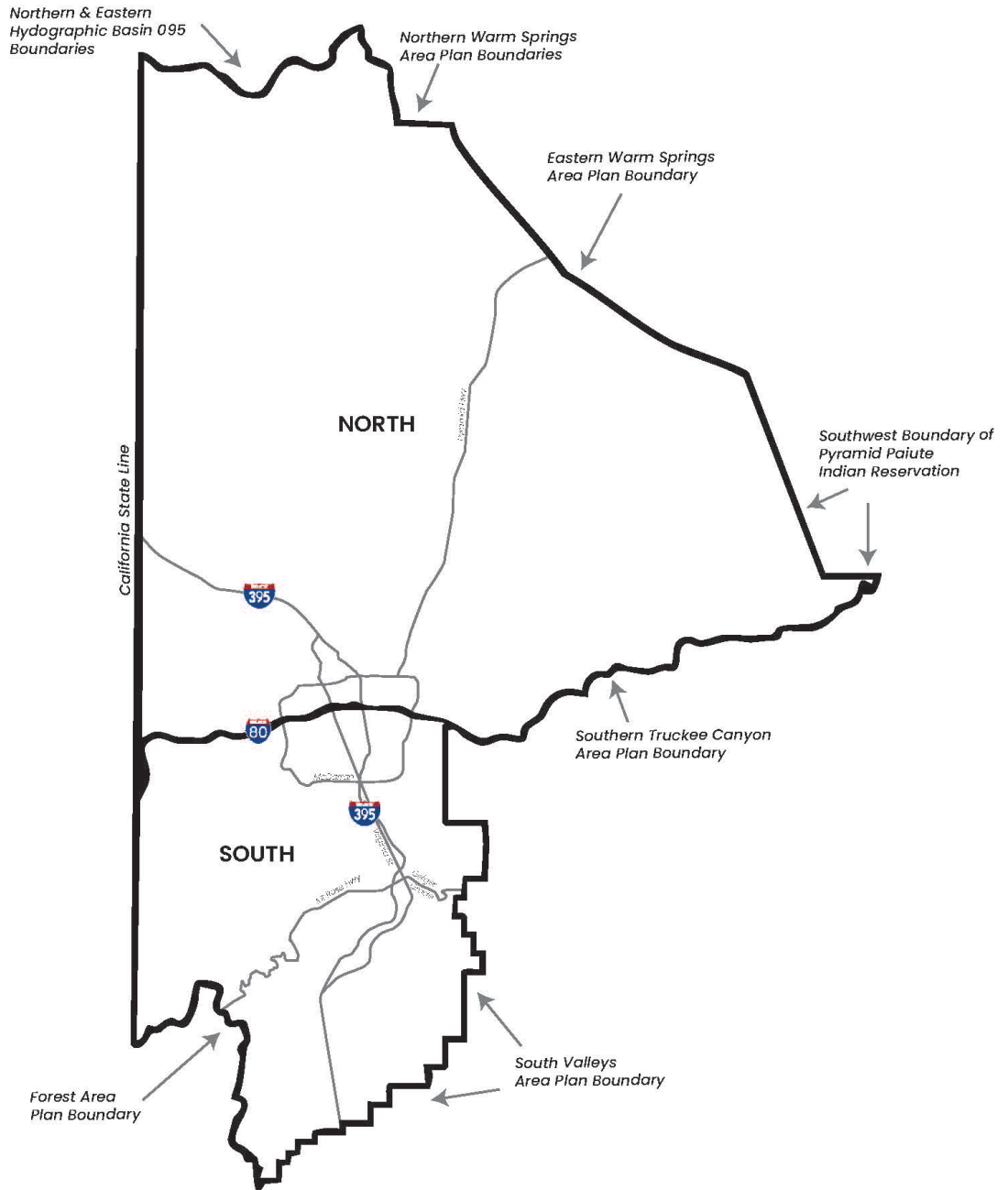
The RRIF fee for a given land use type is the product of the VMT generated by each type of land use and the cost per VMT. The RRIF fees for each land use type in each service area are presented in Exhibit A.

### EXHIBIT A

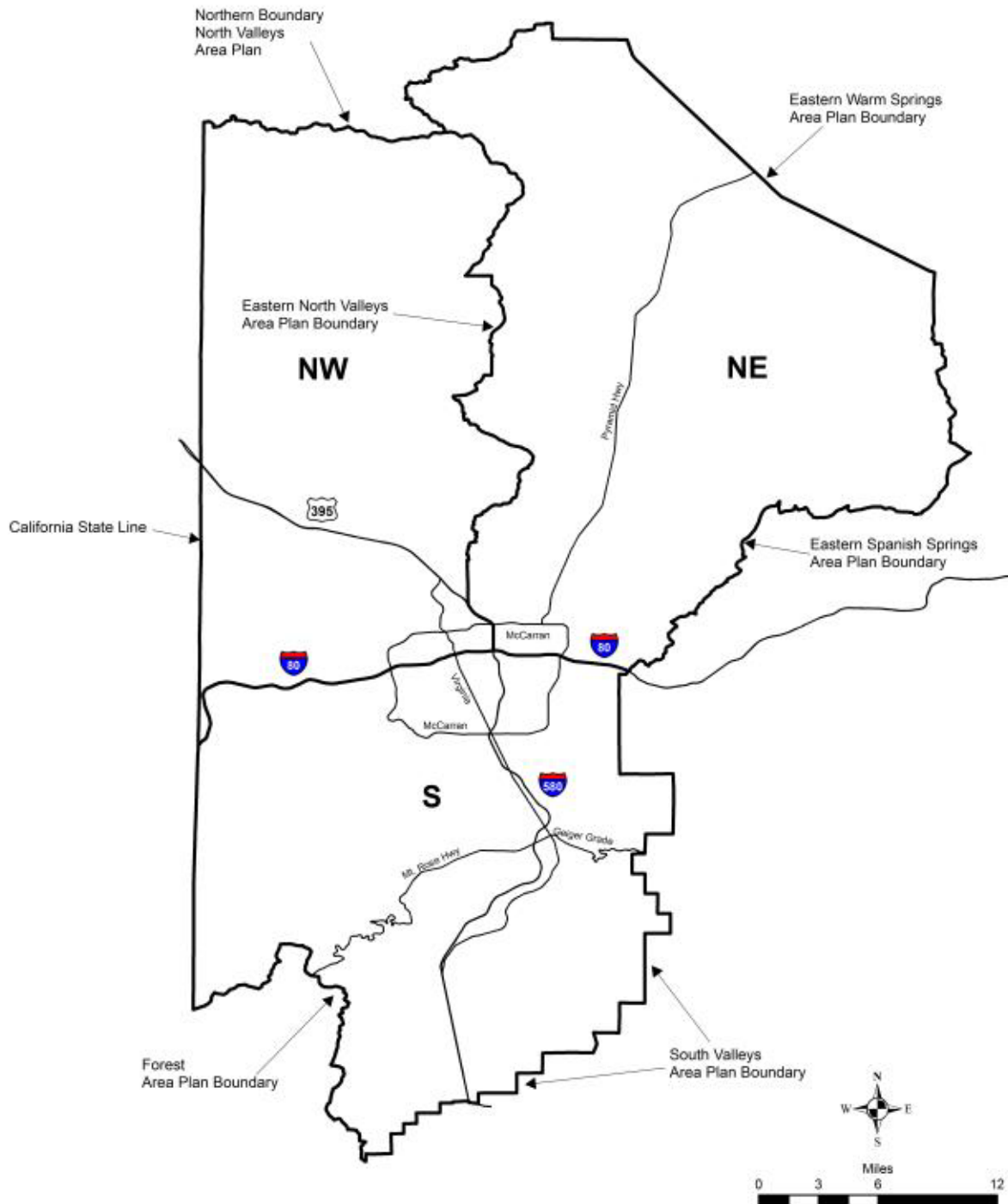
#### REGIONAL ROAD IMPACT FEE SCHEDULE – 8<sup>TH</sup> EDITION

| Development Type                          | Development Unit | North VMT's | 8 <sup>th</sup> Ed RRIF North | South VMT's | 8 <sup>th</sup> Ed RRIF South |
|-------------------------------------------|------------------|-------------|-------------------------------|-------------|-------------------------------|
| <b><i>Residential</i></b>                 |                  |             |                               |             |                               |
| Single Unit                               | Dwelling         | 17.24       | \$6,105.37                    | 14.63       | \$5,587.79                    |
| 3+ Units per Structure                    | Dwelling         | 10.73       | \$3,799.92                    | 9.10        | \$3,477.45                    |
| <b><i>Industrial</i></b>                  |                  |             |                               |             |                               |
| Light Industrial                          | 1000 Sq Ft       | 5.17        | \$1,831.85                    | 4.39        | \$1,676.88                    |
| Manufacturing                             | 1000 Sq Ft       | 5.05        | \$1,786.71                    | 4.28        | \$1,635.56                    |
| Warehouse                                 | 1000 Sq Ft       | 1.82        | \$643.22                      | 1.54        | \$588.80                      |
| Mini-Warehouse                            | 1000 Sq Ft       | 1.54        | \$545.42                      | 1.31        | \$499.28                      |
| <b><i>Commercial</i></b>                  |                  |             |                               |             |                               |
| Retail and Eating/Drinking Places         | 1000 Sq Ft       | 23.46       | \$8,307.01                    | 19.91       | \$7,604.27                    |
| Casino Gaming Area                        | 1000 Sq Ft       | 48.91       | \$17,321.70                   | 41.52       | \$15,856.35                   |
| <b><i>Office &amp; Other Services</i></b> |                  |             |                               |             |                               |
| Lodging                                   | Room             | 3.56        | \$1,260.10                    | 3.02        | \$1,153.50                    |
| Public Park                               | Acre             | 0.83        | \$293.40                      | 0.70        | \$268.58                      |
| Schools and Daycare                       | 1000 Sq Ft       | 15.77       | \$5,585.82                    | 13.39       | \$5,113.29                    |
| Hospital                                  | 1000 Sq Ft       | 11.44       | \$4,051.13                    | 9.71        | \$3,708.42                    |
| Nursing Home                              | 1000 Sq Ft       | 7.17        | \$2,539.01                    | 6.09        | \$2,324.22                    |
| Office and Other Services                 | 1000 Sq Ft       | 11.51       | \$4,077.46                    | 9.77        | \$3,732.53                    |
| Medical Office                            | 1000 Sq Ft       | 38.24       | \$13,541.39                   | 32.46       | \$12,395.84                   |

**EXHIBIT B**  
**RRIF SERVICE AREAS**



**EXHIBIT B**  
**RRIF BENEFIT DISTRICTS**



## EXHIBIT C

### RRIF CIP STREET PROJECTS AND FACILITY EXPANSIONS

#### NORTH SERVICE AREA

| RTP Timeframe | Service Area | Roadway Name                          | Limits                                                        | Project Description                                                                                       | RTP \$          | Capacity Related North \$ |
|---------------|--------------|---------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|-----------------|---------------------------|
| 2025-34       | N            | 4th Street (Sparks)                   | Victorian Avenue to Queen Way                                 | Bike Lanes                                                                                                | \$8,200,000.00  | \$1,640,000.00            |
| 2025-34       | N            | 9th Street/G Street                   | Wells Avenue to El Rancho Drive                               | Enhanced sidewalks and bike lanes                                                                         | \$11,300,000.00 | \$2,260,000.00            |
| 2025-34       | N            | 9th Street Extension                  | Valley Road To N Wells Avenue                                 | New 2 Lane Road                                                                                           | \$5,000,000.00  | \$1,750,000.00            |
| 2025-34       | N            | Andelin Ranch Regional Road Network*  | Extension of Scheidbar Drive, Extension of Stonebrook Parkway | Private - Widen 2 to 4 lanes                                                                              | \$9,100,000.00  | \$455,000.00              |
| 2025-34       | N            | Buck Drive                            | Lemmon Drive to N Hills Boulevard                             | Widen 2 to 4 lanes                                                                                        | \$4,000,000.00  | \$3,400,000.00            |
| 2025-34       | N            | Eagle Canyon Drive                    | Pyramid Highway to W Calle de la Plata                        | Widen 2 to 4 lanes                                                                                        | \$30,000,000.00 | \$15,000,000.00           |
| 2025-34       | N            | Evans Avenue and Highland Avenue      | Intersection Capacity                                         | Spot/Intersection Improvement                                                                             | \$850,000.00    | \$850,000.00              |
| 2025-34       | N            | Highland Ranch Parkway                | Five Ridges Parkway to Pyramid Highway                        | Private - Widen 2 to 4 lanes                                                                              | \$10,398,582.00 | \$7,798,936.50            |
| 2025-34       | N            | Lazy 5 Parkway                        | W Sun Valley Arterial to Pyramid Highway                      | Private - New 4 lane road west of Pyramid Highway transitioning to 2 lanes at future development entrance | \$32,071,200.00 | \$6,414,240.00            |
| 2025-34       | N            | Lear Boulevard                        | Military Road to Lemmon Drive (new connection)                | Widen New Road 2 to 4 lanes                                                                               | \$36,500,000.00 | \$9,125,000.00            |
| 2025-34       | N            | Lemmon Drive                          | Fleetwood Dr to Chickadee Drive                               | Widen 2 to 4 lanes - Fleetwood Drive to Chickadee Drive                                                   | \$68,000,000.00 | \$57,800,000.00           |
| 2025-34       | N            | McCarran Boulevard at Clear Acre Lane | Add intersection capacity                                     | Spot/Intersection Improvement                                                                             | \$2,000,000.00  | \$2,000,000.00            |
| 2025-34       | N            | McCarran Boulevard                    | Mae Anne Avenue/West 7th Street                               | Spot/Intersection Improvement                                                                             | \$3,100,000.00  | \$3,100,000.00            |
| 2025-34       | N            | McCarran Boulevard                    | Prater Way (Add SB left and modify rights)                    | Spot/Intersection Improvement                                                                             | \$4,400,000.00  | \$4,400,000.00            |
| 2025-34       | N            | McCarran Boulevard                    | Sutro Street (Add NB thru and modify rights)                  | Spot/Intersection Improvement                                                                             | \$2,700,000.00  | \$2,700,000.00            |
| 2025-34       | N            | McCarran Boulevard                    | Interstate 80 to Las Brisas Boulevard                         | Multimodal                                                                                                | \$3,400,000.00  | \$680,000.00              |
| 2025-34       | N            | Military Road                         | Lear Boulevard to Echo Avenue                                 | Widen 2 to 4 lanes                                                                                        | \$5,500,000.00  | \$4,675,000.00            |
| 2025-34       | N            | Military Road                         | Lemmon Drive to Lear Boulevard                                | Widen 2 to 4 lanes                                                                                        | \$38,500,000.00 | \$32,725,000.00           |
| 2025-34       | N            | Moya Boulevard                        | Red Rock Road to Echo Avenue                                  | Widen 2 to 4 lanes                                                                                        | \$23,900,000.00 | \$20,315,000.00           |
| 2025-34       | N            | Moya Boulevard Extension              | Lemmon Drive to Echo Avenue                                   | Private - New 2 lane road                                                                                 | \$86,104,200.00 | \$8,179,899.00            |
| 2025-34       | N            | Norht Hills Boulevard                 | Golden Valley Road to Buck Drive                              | Widen 2 to 4 lanes                                                                                        | \$36,500,000.00 | \$31,025,000.00           |
| 2025-34       | N            | North Virginia Street                 | Panther Drive to Stead Boulevard                              | Widen from 2 to 4 lanes and multimodal improvements                                                       | \$85,000,000.00 | \$72,250,000.00           |
| 2025-34       | N            | Panther Drive Extension               | N Virginia Street to Panther Drive to N Hills Boulevard       | Capacity                                                                                                  | \$15,500,000.00 | \$13,175,000.00           |
| 2025-34       | N            | Parr Boulevard Interchange            | At Us 395                                                     | Private – Interchange Improvements                                                                        | \$7,100,000.00  | \$3,550,000.00            |
| 2025-34       | N            | Prater Way                            | Pyramid Way to Probasco Way and Sparks Boulevard to Petes Way | Bike Lanes                                                                                                | \$15,800,000.00 | \$3,160,000.00            |
| 2025-34       | N            | Pyramid Highway                       | Egyptian Drive to Ingenuity Avenue                            | Add Southbound Lane (Operations Improvements)                                                             | \$15,000,000.00 | \$12,750,000.00           |

## EXHIBIT C

### RRIF CIP STREET PROJECTS AND FACILITY EXPANSIONS

#### NORTH SERVICE AREA

| RTP Timeframe | Service Area | Roadway Name                                    | Limits                                   | Project Description                                      | RTP \$          | Capacity Related North \$ |
|---------------|--------------|-------------------------------------------------|------------------------------------------|----------------------------------------------------------|-----------------|---------------------------|
| 2025-34       | N            | Pyramid Hwy/Sun Valley/US 395 Connector Phase 2 | Disc Drive Widening                      | Widen Disc Drive from Pyramid Highway to Vista Boulevard | \$25,250,000.00 | \$21,462,500.00           |
| 2025-34       | N            | La Posada Drive and Cordoba Boulevard           | Roundabout                               | Spot/Intersection Improvement                            | \$5,000,000.00  | \$5,000,000.00            |
| 2025-34       | N            | Silver Knolls Boulevard                         | Red Rock Road to Silver Knolls Boulevard | Private - New 2 Lane Road                                | \$86,200,000.00 | \$8,189,000.00            |
| 2025-34       | N            | Sparks Boulevard                                | Baring Boulevard to Disc Drive           | Roadway Widening                                         | \$45,700,000.00 | \$38,845,000.00           |
| 2025-34       | N            | University Area Roadway Improvements Phase 1    | Multiple Locations                       | Multimodal                                               | \$3,500,000.00  | \$350,000.00              |
| 2025-34       | N            | US 395/Stead Boulevard Interchange              | Interchange Phase Improvements           | Spot/Intersection Improvement                            | \$2,500,000.00  | \$2,500,000.00            |
| 2025-34       | N            | Victorian Avenue                                | 16th Street to Pyramid Way               | Multimodal                                               | \$5,300,000.00  | \$1,060,000.00            |
| 2025-34       | N            | Vista Knoll Parkway                             | Walmart Driveway To Lemmon Drive         | Private - New two lane road                              | \$10,200,000.00 | \$510,000.00              |
| 2025-34       | N            | West 7th Street/Golden Valley Road              | Spearhead Way to Sun Valley Boulevard    | Widen 2 to 4 lanes                                       | \$62,900,000.00 | \$53,465,000.00           |
| 2025-34       | N            | West 7th Street/Golden Valley Road              | Spearhead Way to Sun Valley Boulevard    | Safety/Multimodal                                        | \$23,700,000.00 | \$4,740,000.00            |
| 2025-34       | N            | Whitelake Parkway                               | US 395 Interchange Improvements          | Private - Interchange Improvements                       | \$32,536,000.00 | \$3,253,600.00            |
| 2025-34       | N            | Whitelake Parkway (North)                       | US 395 to Village Parkway                | Private - Widen 2 to 4 lanes                             | \$3,253,600.00  | \$813,400.00              |
| 2025-34       | N            | Whitelake Parkway (South)                       | US 395 to Stonegate Entrance             | Private - Widen 2 to 4 lanes                             | \$8,000,000.00  | \$2,000,000.00            |
| <b>Total</b>  |              |                                                 |                                          |                                                          |                 | <b>\$465,466,576</b>      |

## EXHIBIT C

### RRIF CIP STREET PROJECTS AND FACILITY EXPANSION

#### SOUTH SERVICE AREA

| RTP Timeframe | Service Area | Roadway Name                                     | Limits                                         | Project Description                            | RTP \$       | Capacity Related South \$ |
|---------------|--------------|--------------------------------------------------|------------------------------------------------|------------------------------------------------|--------------|---------------------------|
| 2025-34       | S            | Arrowcreek Parkway                               | Wedge Parkway to Zolezzi Lane                  | Widen 2 to 4 lanes                             | \$15,400,000 | \$15,400,000              |
| 2025-34       | S            | Damonte Ranch Parkway                            | Veterans Parkway to Rio Wrangler Parkway       | Private - New 2 lane road                      | \$8,250,200  | \$4,125,100               |
| 2025-34       | S            | Geiger Grade Realignment                         | Virginia Street to Toll Road                   | New 4 lane road                                | \$84,500,000 | \$42,250,000              |
| 2025-34       | S            | Keystone Avenue                                  | Truckee Bridge Replacement                     | Bridge Replacement                             | \$74,800,000 | \$26,180,000              |
| 2025-34       | S            | Lake Street                                      | At Truckee River                               | Bridge Replacement                             | \$33,500,000 | \$11,725,000              |
| 2025-34       | S            | McCarran Boulevard                               | at Cashill Boulevard                           | Spot/Intersection Improvement                  | \$5,100,000  | \$5,100,000               |
| 2025-34       | S            | McCarran Boulevard                               | at Mira Loma Drive                             | Spot/Intersection Improvement                  | \$3,400,000  | \$3,400,000               |
| 2025-34       | S            | McCarran Boulevard                               | Keitzke Lane to Greensboro Drive               | Intersection and Operations                    | \$6,500,000  | \$6,500,000               |
| 2025-34       | S            | McCarran Boulevard                               | Longley Lane to Airway Drive                   | Capacity/Safety                                | \$15,000,000 | \$15,000,000              |
| 2025-34       | S            | McCarran Boulevard                               | Plumb Lane to I-80                             | Capacity                                       | \$46,400,000 | \$46,400,000              |
| 2025-34       | S            | Meridian & Santerra (Verdi)                      | Verdi Regional Road Network                    | Private - Traffic and circulation improvements | \$31,955,000 | \$23,966,250              |
| 2025-34       | S            | Mill Street                                      | Keitzke Lane to Terminal Way                   | Roadway widening and multimodal                | \$32,000,000 | \$24,000,000              |
| 2025-34       | S            | Mt Rose Corridor Improvements (Group 1 Projects) | Douglas Fir Drive to Bordeaux Drive            | Safety/Multimodal                              | \$17,100,000 | \$17,100,000              |
| 2025-34       | S            | Peckham Lane                                     | Lakeside Drive to Airway Drive                 | Safety/Multimodal                              | \$15,100,000 | \$1,510,000               |
| 2025-34       | S            | Pembroke Drive                                   | McCarran Boulevard to Veterans Parkway         | Widen 2 to 4 lanes, multimodal                 | \$16,000,000 | \$16,000,000              |
| 2025-34       | S            | Plumb Lane Bike lanes and Sidewalks              | Keitzke Lane to Terminal Way                   | Safety/Multimodal                              | \$9,100,000  | \$1,820,000               |
| 2025-34       | S            | Ridgeview Drive                                  | End of Ridgeview Drive to McCarran Boulevard   | Private - New 2 lane road                      | \$13,300,000 | \$3,325,000               |
| 2025-34       | S            | Rio Wrangler Parkway                             | Damonte Ranch Parkway to Veterans Parkway      | Private - New 2 lane road                      | \$5,461,400  | \$2,730,700               |
| 2025-34       | S            | Rio Wrangler Parkway                             | Steamboat Parkway and McCauley Ranch Boulevard | Spot/Intersection Improvement                  | \$7,000,000  | \$7,000,000               |
| 2025-34       | S            | Rio Wrangler Parkway                             | South Meadows Parkway to Bucephalus Parkway    | Private - New 2 lane road                      | \$6,972,000  | \$3,486,000               |
| 2025-34       | S            | Robb Drive                                       | 4th Street to I-80                             | Private - New 2 lane road                      | \$28,100,000 | \$2,810,000               |
| 2025-34       | S            | South Virginia Street                            | at South Hill Drive                            | Private - Spot/Intersection Improvement        | \$1,000,000  | \$1,000,000               |
| 2025-34       | S            | S Virginia Street                                | at Holcomb Ranch Lane                          | Spot/Intersection Improvement                  | \$913,500    | \$913,500                 |
| 2025-34       | S            | South Virginia Street                            | Moana Lane to Meadowood Mall Circle            | Safety/Multimodal                              | \$16,200,000 | \$4,050,000               |
| 2025-34       | S            | South Virginia Street                            | Plumb Lane to Peppermill Lane                  | Safety/Multimodal                              | \$6,200,000  | \$1,550,000               |
| 2025-34       | S            | South Meadows Parkway                            | Mojave Sky Drive to Rio Wrangler Parkway       | Private - New 4 lane road                      | \$7,204,400  | \$3,602,200               |

**EXHIBIT C**

**RRIF CIP STREET PROJECTS AND FACILITY EXPANSION**

*SOUTH SERVICE AREA*

| RTP Timeframe | Service Area | Roadway Name                                       | Limits                                         | Project Description                            | RTP \$       | Capacity Related South \$ |
|---------------|--------------|----------------------------------------------------|------------------------------------------------|------------------------------------------------|--------------|---------------------------|
| 2025-34       | S            | Steamboat Parkway                                  | at Hampton Park Drive                          | Spot/Intersection Improvement                  | \$913,500    | \$913,500                 |
| 2025-34       | S            | Talus Valley Regional Road Network (South Meadows) | Multiple locations                             | Private - Traffic and circulation improvements | \$12,084,800 | \$9,063,600               |
| 2025-34       | S            | Veterans Parkway                                   | at Carat Avenue                                | Spot/Intersection Improvement                  | \$1,260,000  | \$1,260,000               |
| 2025-34       | S            | Veterans Parkway                                   | South Virginia Street to Damonte Ranch Parkway | Widen 4 to 6 lanes                             | \$6,090,000  | \$6,090,000               |
| 2025-34       | S            | 4th Street (Reno)                                  | Vine Street to Sierra Street                   | Safety/Multimodal                              | \$8,500,000  | \$850,000                 |
|               |              |                                                    |                                                |                                                | <b>Total</b> | <b>\$311,945,850</b>      |