#### OFFICIAL NOTICE

#### **AMENDMENT NO. 3 TO 2050 REGIONAL TRANSPORTATION PLAN**

#### PUBLIC COMMENT/PARTICIPATION NOTICE

The Regional Transportation Commission of Washoe County (RTC), the Metropolitan Planning Organization (MPO) for the Reno/Sparks urbanized area, pursuant to federal law (23 USC 134), hereby provides the residents of this metropolitan area an opportunity to review and comment on Amendment No. 3 to the 2050 Regional Transportation Plan (RTP).

The RTP is one of the most important transportation documents of the region containing all regionally significant transportation programs and projects through 2050, including but not limited to, streets and highways, public transportation, bicycle and pedestrian facilities, and transportation system and demand management programs. Any street and highway or transit project proposed to be built with federal funds must be consistent with the 2050 RTP.

RTC staff is proposing Amendment No. 3 to the 2050 RTP to change the project schedule for a project led by the Nevada Department of Transportation (NDOT). The project—operational and capacity improvements to I-80 between Vista Boulevard and USA Parkway—is being updated to reflect the new construction schedule. Although the project will still fall within the RTP's 2031 – 2050 project time period, the model year for the project is required to mirror the change in schedule from 2050 to 2040.

An air quality conformity analysis for the proposed RTP amendment is required as the project is a capacity project and is therefore not exempt from transportation conformity requirements. An air quality conformity analysis was conducted as a part of the RTP amendment process. Emissions were estimated using EPA's MOVES4 model and compared with the Motor Vehicle Emission Budgets. The air quality conformity analysis report was updated to reflect the change and included in the RTP amendment. Based on existing and planned commitments, the air quality analysis demonstrates that the required air quality conformity determination can be made. The RTP is shown to be in conformance with federal air quality regulations. The Interagency Air Quality Consultation Group met on June 18, 2024 and subsequently recommended approval of the air quality analysis.

Copies of Amendment No. 3 to the RTP, which includes complete details of the proposed changes, is available for viewing and comment on the RTC website (<a href="www.rtcwashoe.com">www.rtcwashoe.com</a>) starting on Wednesday, June 26, 2024, and ending on Tuesday, July 16, 2024. A public hearing will be held by the RTC Board on Friday, July 19, 2024, following the public comment period. Any comments received will be forwarded to the RTC Board.

Interested parties can send comments on the proposed amendment during the public review period to the following address by mail, telephone, facsimile, or electronically:

RTC Planning Offices 1105 Terminal Way, Suite 211, Reno, NV 89502 775.348.0480 775.348.0450 FAX Xwang@rtcwashoe.com

# APPENDIX C – AIR QUALITY ANALYSIS & CONFORMITY DETERMINATION (12/20/2023)

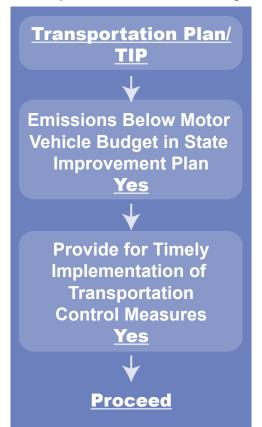
The Clean Air Act Amendments (CAAA) of 1990 require that each state environmental agency develop a State Implementation Plan (SIP). The SIP shows how the state will implement measures designed to improve air quality to meet NAAQS for each criteria air pollutant, according to the schedules included in the CAAA.

Since emissions from motor vehicles make a significant contribution to air pollution, the CAAA also requires that transportation officials make a commitment to programs and projects that will help achieve air quality goals including:

- Providing for greater integration of the transportation and air quality process.
- Ensuring that transportation plans, programs and projects conform with the SIP.
- Reduction in the growth in VMT and congestion in areas that have not attained the Environmental Protection Agency's (EPA) air quality standards.

Conformity for the RTP and the Transportation Improvement Program (TIP) are demonstrated when projected regional emissions generated by the plan and TIP do not exceed the region's motor vehicle emissions budgets as established by the SIP. While the MPO is ultimately responsible for making sure a conformity determination is made, the conformity process depends on federal, state and local transportation and air quality agencies working together to meet the transportation conformity requirements. The roles and responsibilities of the partner agencies involved in the air quality conformity analysis are defined in the Washoe County Transportation Conformity Plan. The plan was adopted by RTC and the Washoe County District Board of Health in January 2013.

#### **Transportation Conformity**



# STATUS OF AIR QUALITY POLLUTANTS

Criteria pollutants are considered on a county-wide basis if actual pollutant levels are exceeded outside of the core area of the Truckee Meadows. The core area of the Truckee Meadows is designated as the Hydrographic Area #87 which is shown in Figure D-1. The current status of the various pollutants in Washoe County is listed below:

CO (8-hr): Attainment/Maintenance for Hydrographic Area #87.

Attainment/Unclassifiable for the rest of Washoe County.

PM<sub>10</sub> (24-hr): Attainment/Maintenance for Hydrographic Area #87.

Attainment/Unclassifiable for the rest of Washoe County.

All other pollutants (all averaging times): Attainment/Unclassifiable for the entire county.

In 2015, EPA strengthened the 8-hour ozone standard from 0.075 to 0.070 ppm. EPA formally designated the entire county as Attainment/ Unclassifiable in 2018.

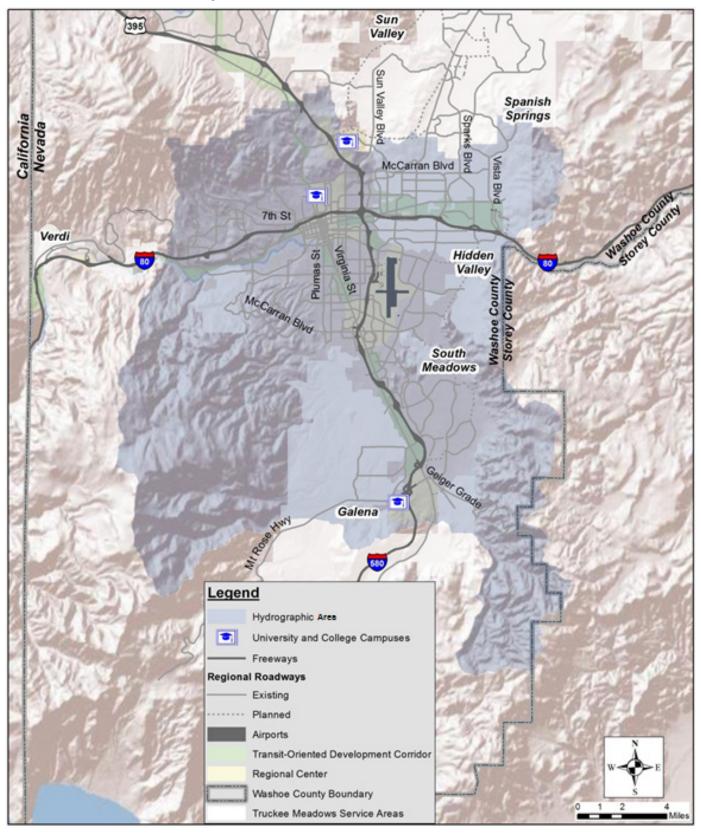
In 2006, EPA strengthened the 24-hour PM<sub>2.5</sub> in aerodynamic diameter from 65 micrograms per cubic meter (µg/m3) to 35 µg/m3. This final rule became effective on December 18, 2006 and Washoe County was designated as Attainment/Unclassifiable.

Regional emissions analyses were performed for CO and PM<sub>10</sub> to demonstrate document conformity with Motor Vehicle Emissions Budgets in the CO and PM<sub>10</sub> State Implementation Plans. The RTC, in collaboration with the local agencies, has also been implementing programs that reduce motor vehicle emissions in the region.

# TRAVEL FORECASTING MODEL & MOVES EMISSION MODEL

The RTC's travel demand model was developed on the TransCAD platform. The model uses the 2020 Consensus Forecast population and employment provided by the Truckee Meadows Regional Planning Agency.

Figure D-1
RENO/SPARKS HYDROGRAPHIC AREA #87



EPA's MOtor Vehicle Emission Simulator (MOVES) is a state-of-thescience emission modeling system that estimates emissions for mobile sources at the national, county, and project level for criteria air pollutants, greenhouse gases, and air toxics. MOVES4 is now the latest official version of MOVES. The analysis uses MOVES4 to calculate emission data.

# AIR QUALITY ANALYSIS PLAN REQUIREMENTS

Federal regulations are specific in defining the level of air quality analysis necessary for incorporation into the RTP. Section 93, Title 40 of Code of Federal Regulations (CFR) dated August 15, 1997 (effective September 15, 1997), pertains to the criteria and procedures necessary to analyze the air quality impacts of the RTP. For the purposes of an air quality determination, the analysis years are 2020, 2025, 2030, 2040, and 2050. No air quality analysis is required for the street and highway projects identified as unfunded needs. A summary of requirements is listed below:

- A. The RTP must contribute to emission reductions in CO non attainment/maintenance areas.
- B. Air quality analysis years must be no more than 10 years apart.
- C. In CO and PM<sub>10</sub> non-attainment/ maintenance areas, analysis must be performed for both pollutants.

- D. The last year of the RTP (2050) shall also be an analysis year.
- E. An analysis must be performed for each year contained in the motor vehicle emission budget (MVEB) for the Hydrographic Area #87 for both CO and PM<sub>10</sub>, as budgets have been established for these pollutants.
- F. For both CO and PM<sub>10</sub>, the analysis of emissions for the required years cannot exceed the MVEB.

# AIR QUALITY ANALYSIS CREDITING PROVISIONS

Federal regulations also allow for crediting procedures over the life of the RTP for the implementation of Transportation Control Measures (TCMs) in which emissions reductions can be quantified. These TCMs are critical to areas such as Washoe County that have and are expected to have continued growth in population and VMT. Several specific TCM measures are in progress or planned in Washoe County that will have quantifiable emissions reductions. These include:

- A. Traffic Signal Optimization Program
- B. Conversion of the Public Transit Fleet Cleaner Fuels
- C. Implementation of Trip Reduction Programs

These TCMs have been the focus of studies to quantify the air quality benefit of each. The TCMs are described below. The RTC is not taking any credit for reduced emissions associated with these TCMs but may choose to take credit in the future, if conditions warrant.

# TRAFFIC SIGNAL OPTIMIZATION/TIMING UPGRADE PROGRAM

Traffic signal coordination and improvements seek to achieve two primary objectives: 1) improved traffic flow resulting in improved level of service and 2) mobile source emission reductions through decreased delay, fewer accelerations/decelerations and a decreased number of stops. The RTC has reviewed several studies and federally accepted models to quantify the reduction of mobile emissions from signal coordination programs. These include signal coordination studies conducted by several cities in southern California and the California Department of Transportation (CALTRANS). A comparison of before and after field studies was conducted and the improvements in all three peak periods were noted. Examples included a statewide average reduction of 14 seconds in stop delay and a 12% reduction in the number of stops per mile in the afternoon peak period. Several methodologies were used to take the results of studies to quantify the emission reductions from signal coordination programs.

The pollution reduction results (tons/ per day or percentage reduction) from each model vary as some models focus on corridor specific reductions while the others are more of an areawide reduction projection. Pollutant reductions ranged from 11% along specific corridors to 3% to 4% on a regional level.

The RTC has initiated a regionwide traffic signal optimization and improvements program to enhance the capacity of the existing system and reduce traffic congestion in the region. This is an ongoing program that will allow nearly 400 intersections in the Truckee Meadows to be coordinated.

#### CONVERSION OF RTC ACCESS & RTC RIDE FLEETS TO ALTERNATIVE OR CLEANER BURNING FUELS

Almost 8 million annual passengers with 2.9 million miles are provided service by the RTC RIDE public transit and RTC ACCESS paratransit. While this is a small percentage of total daily travel, it is important in terms of air quality. All RTC RIDE buses are comprised of electric, hybrid dieselelectric and bio-diesel vehicles. RTC ACCESS cut-away vehicles are fueled by Compressed Natural Gas (CNG). These vehicles can reduce mobile emission totals.

Estimates by the California Air Resources Board between standard urban diesel and biodiesel or CNG determined that NOx emissions from vehicles with CNG or cleaner burning diesels were reduced approximately 60%.

RTC currently has 23 zero emission electric buses and will be adding 8 more to the Virginia Line RAPID corridor over the coming years. In addition, RTC is exploring hydrogen fuel cell technology for the next generation of zero emission vehicles.

#### TRIP REDUCTION PROGRAMS

The RTC's trip reduction program, RTC SMART TRIPS, encourages the use of sustainable travel modes and trip reductions strategies such as telecommuting, compressed work weeks, and trip chaining. Major components of the program include a bus pass subsidy program in which the RTC matches an employer's contribution to their employees' 31-day transit passes up to 20%; a subsidized vanpool program, RTC VANPOOL; and an on-line trip matching program, RTC TRIP MATCH, that makes it quick, easy, and convenient to look for carpool partners as well as bus, bike, and walking buddies for either recurring or one time trips. One of the most common deterrents to ridesharing is the fear of being "stranded."

Consequently, people who either carpool or vanpool to work can sign up for the Guaranteed Ride Home program and be reimbursed for a taxi ride home up to four times a year if an unexpected event prevents normal ridesharing arrangements from working. Making trips safely on foot and by bicycle are also promoted by the RTC SMART TRIPS program throughout the year.

The goals of these programs are to promote trip reduction on a regionwide level, improve air quality, and reduce vehicle miles of travel and traffic congestion. During the period from July through September 2020 the air quality benefits of the program were substantial, as shown in Table C-1. The data included the number of people in each vanpool and the average daily trip mileage. The air pollution calculation was obtained by multiplying the number of passenger trips for each vanpool per month by the average daily trip mileage for each vanpool per month and totaling those results to estimate the total VMT eliminated through the program due to the vanpool passengers not driving alone to work. The reduction in VMT was then multiplied by the pollutant factors per mile with those results outlined in the chart below. The emissions factors per mile for each pollutant were provided by WCHD-AQMD.

Table C-1
RTC VANPOOL Air Pollution
Reductions (July-September 2020)

Volatile organic	12,617.3 lbs
compounds	
(VOC)	
Nitrogen Oxide	7,088.4 lbs
(NOx)	
Carbon	93,920.2 lbs
Monoxide (CO)	
PM <sub>10</sub>	50.5 lbs
Particulate Matter	47.0 lbs
(PM <sub>2.5</sub> )	
Carbon Dioxide	3,783,407.0 lbs
(CO <sub>2</sub> )	

RTC SMART TRIPS program continues to grow and add more participants. RTC TRIP MATCH is a web-based carpool, bike, bus and walking buddy matching service that eliminates single occupant travel miles.

# RTC TRAVEL DEMAND MODEL

2020, 2025, 2030, 2040 and 2050 networks were established for this RTP air quality analysis. The 2020 network consists of the current roadway network and the current transit network. Each of the remaining networks is comprised of the previous model year network with the capacity related projects and transit service changes included in the RTP.

#### **AIR QUALITY ANALYSIS**

An emission test on both CO and PM<sub>10</sub> must be successfully completed to make a finding of conformity. The area of analysis for these pollutants is the Hydrographic Area #87. As stated previously, the CO and PM<sub>10</sub> emissions for the required analysis years cannot exceed the established motor vehicle emissions budget. Analysis is performed for, 2025, 2030, 2040 and 2050 for both pollutants.

To initiate the air quality conformity determination, the emission levels for the pollutants in each analysis year are generated. The VMT for each facility type is derived from the RTC's travel demand model. Many local roads are approximated as centroid connectors in the model network. Since centroid connectors are not actual roads, the VMT's for local roads are estimated as 11.67% (urban) and 6.57% (rural) of the total VMT's based on NDOT's 2019 Annual Vehicle Miles of Travel Report (August 2020). Average speed by facility type from RTC's travel demand model is provided as an input to the MOVES model. Total emissions for each facility type are then added to get a daily emission total for the roadway system in the analysis area. Emission totals are shown in pounds per day (lbs./day). The Interagency Air Quality Consultation Team recommended approval of the air quality analysis on February 23, 2021.

#### **CO ANALYSIS**

The MVEB for carbon monoxide (CO), effective October 31, 2016, is shown in Table D-2, which also includes the CO emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table C-2
CO Emissions Analysis (lbs/day)

Analysis	MVEB	RTP
Year		Analysis
2020	172,670	64,477
2025	171,509	55,270
2030	169,959	44,484
2040	169,959	32,303
2050	169,959	32,371

### PM<sub>10</sub> ANALYSIS

The MVEB for PM<sub>10</sub>, effective January 6, 2016, is shown in Table D-3, which also includes the PM<sub>10</sub> emissions for all analysis years of the RTP. All RTP analysis years are within the MVEB. The tables supporting this analysis are contained at the end of this chapter.

Table C-3 PM<sub>10</sub> Total Emissions (lbs/day)

Analysis	MVEB	RTP
Year		Analysis
2020	6,088	3,514
2025	6,473	3,535
2030	6,927	3,718
2040	6,927	3,972
2050	6,927	4,373

#### **SUMMARY**

A strong commitment to fund and implement feasible TCM measures must be made if acceptable air quality standards are to be sustained. The local jurisdictions and NDOT, through the RTP process, have made the commitment to fund TCMs such as ridesharing, traffic flow improvements, signal coordination, and conversion of public transit fleet to cleaner burning fuels. The 2050 RTP includes significant investments in bicycle and pedestrian infrastructure, consistent with the Complete Streets Master Plan adopted by RTC in 2016. Based on existing and planned commitments, the air quality analysis conducted in this chapter demonstrates that the required air quality conformity determination can be made and the RTP shown to be in conformance with federal air quality regulations.

### AIR QUALITY ANALYSIS SUPPORT DOCUMENTATION

Table C-4
Paved Road Fugitive Emission Factors (lb/VMT)

Facility	2020	2020-2050
Type		
Interstate	0.00013	0.00012
Other	0.00013	0.00012
Fwys		
Major	0.00013	0.00012
Arterial		
Minor	0.00034	0.00033
Arterial		
Collector	0.00083	0.00080
Local	0.00209	0.00201

#### Notes:

Emission factors for Paved Roads PM<sub>10</sub> are calculated from an equation in EPA's AP42, Section 13.2.1, 1/11. The 2020 emission factors are calculated based on actual 2020 climatic data for Reno, whereas the 2025 to 2050 emission factors are calculated based on the 30-year Normal Climate data for Reno from 1981 to 2010.

Emission factors for On-Road CO and PM<sub>10</sub> are not available, they are calculated in MOVES4 and the output is generated as total emissions.

Table C-5
VMT by Facility Type by Analysis Year (Hydrographic Area #87)

Facility	2020	2025	2030	2040	2050
Туре					
Interstate	2,563,692	2,885,640	3,023,333	3,103,484	3,443,850
Other	498,488	559,638	583,148	671,015	783,800
Fwys					
Major	1,861,219	1,974,116	2,110,900	2,262,280	2,379,033
Arterial					
Minor	789,911	833,641	869,343	967,319	989,704
Arterial					
Collector	237,424	250,406	262,301	268,055	284,744
Local	777,981	850,240	895,421	950,739	1,030,355
Total	6,728,714	7,353,681	7,744,446	8,222,892	8,911,485

Table C-6 Emissions (lbs/day)

Analysis	СО	On-	Diesel	Paved	Unpaved	Road	Total PM <sub>10</sub>
Year		Road	Idling	Road	Road	Construc-	Emissions
		Vehicles	PM <sub>10</sub>	Fugitive	<b>Fugitives</b>	tion PM <sub>10</sub>	
		PM <sub>10</sub>		PM10	PM <sub>10</sub>		
2020	64,477	648	0.336	1,750	877	239	3,514
2025	55,270	623	0.080	1,767	892	253	3,535
2030	44,484	632	0.035	1,870	947	269	3,718
2040	32,371	648	0.007	2,015	1,024	285	3,972
2050	31,450	699	0.003	2,236	1,136	302	4,373

**Table C-7 Capacity Projects on Model Network and Model Years** 

2021-2025 Projects	Limits	Model Year
US 395 - Add SB Lane, Aux	N McCarran to Golden Valley	2025
Lanes, NB & SB		
Spaghetti Bowl Phase 1	Multiple locations	2025
I-80 Widening	W McCarran Blvd to	2025
	Keystone Ave	
Lemmon Drive Segment 1 -	US 395 and Military Rd	2025
Widen 4 to 6 Lanes		
Lemmon Drive Segment 2 -	Fleetwood Dr to Ramsay	2025
Widen 2 to 4 Lanes/Reconstruct		
McCarran Blvd Intersection	Kietzke to Greensboro	2025
& Operations		
Mill St	Kietzke to Terminal	2025
Pyramid Hwy	Queen Way to Golden View	2025
Sky Vista Pkwy - Widen	Silver Lake Rd to Lemmon Dr	2025
2 to 4 Lanes		
Sparks Blvd	Greg Street to N side of	2025
	Baring Blvd	
Damonte Ranch Pkwy	Veterans Pkwy to Rio	2025
Extension	Wrangler Pkwy	
Daybreak Regional Rd Network	Multiple locations	2025
(South Meadows)		
Dolores Drive Extension	West to Lazy 5 Pkwy	2025
Highland Ranch Pkwy -	Pyramid Highway to 5 Ridges	2025
Widening	entrance	
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Kiley Pkwy	Wingfield Hills Rd to Henry Orr Pkwy	2025
Lazy 5 Pkwy	W Sun Valley Arterial to Pyramid Hwy	2025
Meridian & Santerra Regional Road Network (Verdi)	Multiple locations	2025
N/S Connector Rd	Stonebrook Pkwy to Wingfield Hills Rd	2025
Rio Wrangler Pkwy Extension (North)	Bucephalus Pkwy to South Meadows Pkwy	2025
Rio Wrangler Pkwy Extension (South)	Damonte Ranch Pkwy to Veterans Pkwy	2025
South Meadows Extension	Mojave Sky Dr to Rio Wrangler Pkwy	2025
Stonebrook Pkwy	N/S Connector Rd to Pyramid Hwy	2025
Wingfield Hills Rd Extension	West to David Allen Pkwy	2025
White Lake Pkwy - Widen	395 Interchange to North Town Center Rd	2025
5th Street - Multimodal	Keystone to Evans	2025
E 6th Street - Bicycle Facility & Safety Improvements	Virginia St to 4th St	2025
2026-2030 Projects	Limits	Model Year
US 395 - Additional Lane in Each Direction	Golden Valley to Stead Blvd	2030
Spaghetti Bowl Phase 2	Multiple locations	2030
Buck Dr - Widen 2 to 4 Lanes	Lemmon Dr to N Hills Blvd	2030
Damonte Ranch Pkwy - Widen	Double R to I 580	2030
Geiger Grade - New 4 Lane Rd	Virginia St to Toll Rd	2030
Military Rd - Widen 2 to 4 Lanes	Lemmon Dr to Echo Ave	2030
Moya Blvd - Widen 2 to 4 Lanes	Red Rock Rd to Echo Ave	2030
Moya Blvd Extension	Red Rock Dr to Echo Ave	2030
N Hills Blvd	Golden Valley Rd to Buck Dr	2030
N Virginia St - Widen 2 to 4	Davidson Du ta Otasal Dhad	2030
lanes & Multimodal	Panther Dr to Stead Blvd	
	McCarran to Veterans	2030
lanes & Multimodal		

Pyramid Hwy - Add southbound Lane  Red Rock Rd - Widen 2 to 4 Lanes  S. Virginia Street - Add NB Lane  Sparks Blvd - Multimodal Improvements and Widen 4 to 6 Lanes  Steamboat Pkwy and Damonte Ranch Pkwy - Widen  Vista Blvd - Widen 4 to 6 Lanes  Butch Cassidy extension  Downtown Reno bike network related lane reductions  Amended Projects  Center Street sidewalks & add bike lanes Lake St/Sinclair St/Evans Ave Vassar Street Bike Facility Vine Street - Bike Facility Vine Street - Bike Facility Rose intersection  Word Projects  Clear Acre to Parr Blvd  Clear Acre to Parr Blvd  Amended Projects  Clear Acre to Parr Blvd  Amelica Additional NB Lane  I-80 · Widening  Neil Rd to S Virginia St/ Kietzke Ln  Garson Rd to West 4th St  2030  2			
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Ranch Pkwy - Widen  Vista Blvd - Widen 4 to 6 Lanes Butch Cassidy extension  Downtown Reno bike network related lane reductions  Amended Projects  Center Street sidewalks & add bike lanes  Lake St/Sinclair St/Evans Ave Vine Street - Bike Facility  Vine Street - Bike Facility  Vine Street - Additional NB Lane  I-580 - Widening  Pkay  West end of existing Butch Cassidy to Thomas Creek/Mt. Rose intersection  Virginia Street: 5th Street to 8th Street to 8th Street to 8th Street to 8th Street  Amended Projects  Center Street sidewalks & add bike lanes  Lake St/Sinclair St/Evans Ave  2nd Street to 4th Street 2030  Vine Street - Bike Facility  Riverside Drive to University Terrace  2031-2050 Projects  Limits  Model Year Spaghetti Bowl Phases 3-5  Multiple locations 2040  Clear Acre to Parr Blvd  Traffic - Additional NB Lane  I-580 - Widening  Neil Rd to S Virginia St/ Kietzke Ln  I-80 - Widening  Garson Rd to West 4th St 2040  Arrowcreek Pkwy - Widen  Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4  Wedge Pkwy to Zolezzi Ln  2040	Improvements and Widen 4 to 6	Greg St to Baring Blvd	2030
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Cassidy to Thomas Creek/Mt. Rose intersection  Downtown Reno bike network related lane reductions  Amended Projects  Center Street sidewalks & add bike lanes  Lake St/Sinclair St/Evans Ave  Vassar Street Bike Facility  Vine Street - Bike Facility  Vine Street - Bike Facility  Riverside Drive to University  Terrace  2031-2050 Projects  Limits  Model Year  Spaghetti Bowl Phases 3-5  Multiple locations  US 395 Widen for Connector  Traffic - Additional NB Lane  I-580 - Widening  Neil Rd to S Virginia St/ Kietzke Ln  I-80 - Widening  Garson Rd to West 4th St  2040  Arrowcreek Pkwy - Widen  Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes		I-80 to Prater Way	2030
related lane reductions  Amended Projects  Center Street sidewalks & add bike lanes  Lake St/Sinclair St/Evans Ave 2nd Street to 4th Street 2030  Vassar Street Bike Facility Kietzke Ln to Terminal Way 2030  Vine Street - Bike Facility Riverside Drive to University Terrace  2031-2050 Projects Limits Model Year Spaghetti Bowl Phases 3-5 Multiple locations 2040  US 395 Widen for Connector Traffic - Additional NB Lane  I-580 - Widening Neil Rd to S Virginia St/Kietzke Ln  I-80 - Widening Garson Rd to West 4th St 2040  9th Street Extension To N Wells Ave 2040  Arrowcreek Pkwy - Widen 2 to 4 Lanes  Arrowcreek Pkwy - Widen 2 to 4 Lanes	Butch Cassidy extension	Cassidy to Thomas Creek/Mt.	2030
Center Street sidewalks & add bike lanes  Lake St/Sinclair St/Evans Ave  Vassar Street Bike Facility  Vine Street - Bike Facility  Vine Street - Bike Facility  Vine Street - Bike Facility  Riverside Drive to University  Terrace  2031-2050 Projects  Limits  Model Year  Spaghetti Bowl Phases 3-5  Multiple locations  US 395 Widen for Connector  Traffic - Additional NB Lane  I-580 - Widening  Neil Rd to S Virginia St/  Kietzke Ln  I-80 - Widening  Garson Rd to West 4th St  2040  Arrowcreek Pkwy - Widen  Wedge Pkwy to Thomas  Creek Rd  Arrowcreek Pkwy - Widen 2 to 4  Lanes			
Lake St/Sinclair St/Evans Ave Lake St/Sinclair St/Evans Ave Vassar Street Bike Facility Vine Street - Bike Facility Vine Street - Bike Facility Riverside Drive to University Terrace Limits Spaghetti Bowl Phases 3-5 Wultiple locations US 395 Widen for Connector Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln I-80 - Widening Garson Rd to West 4th St 9th Street Extension Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd Arrowcreek Pkwy - Widen 2 to 4 Lanes  Zo40  Vassar Street to 4th Street 2030  Vietzke Ln to Terminal Way 2030  Vietzke Dnive to University 2040  Clear Acre to Parr Blvd 2040  Vietzke Ln 2040	Amended Projects		
Vassar Street Bike Facility  Vine Street - Bike Facility  Riverside Drive to University Terrace  2031-2050 Projects  Limits  Spaghetti Bowl Phases 3-5  US 395 Widen for Connector Traffic - Additional NB Lane  I-580 - Widening  Neil Rd to S Virginia St/ Kietzke Ln  I-80 - Widening  Garson Rd to West 4th St 9th Street Extension  Arrowcreek Pkwy - Widen  Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes  Kietzke Ln to Terminal Way 2030  2040  Clear Acre to Parr Blvd 2040  Clear Acre to Parr Blvd 2040  Vedge Pkwy to S Virginia St/ Kietzke Ln 2040  Vedge Pkwy to Thomas Creek Rd  Wedge Pkwy to Zolezzi Ln 2040		9th Street to Moran	2030
Vine Street - Bike Facility Riverside Drive to University Terrace  2031-2050 Projects Limits Model Year Spaghetti Bowl Phases 3-5 US 395 Widen for Connector Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln I-80 - Widening Garson Rd to West 4th St 9th Street Extension Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd Arrowcreek Pkwy - Widen 2 to 4 Lanes  Riverside Drive to University 2030  Model Year 2040  2040  2040  2040  Vedge Pkwy to Solezzi Ln 2040  Vedge Pkwy to Zolezzi Ln 2040	Lake St/Sinclair St/Evans Ave	2nd Street to 4th Street	2030
Terrace  2031-2050 Projects Limits Model Year Spaghetti Bowl Phases 3-5 US 395 Widen for Connector Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln I-80 - Widening Garson Rd to West 4th St 9th Street Extension Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd Arrowcreek Pkwy - Widen 2 to 4 Lanes  Terrace  Model Year Model Year Model Year  2040  2040  2040  Clear Acre to Parr Blvd  2040  Clear Acre to Parr Blvd  2040  Veletzke Ln  2040  Veletzke Ln  Vells Ave Creek Rd  Velets Pkwy to Thomas Creek Rd  Velets Pkwy to Zolezzi Ln  2040	Vassar Street Bike Facility	Kietzke Ln to Terminal Way	2030
Spaghetti Bowl Phases 3-5 US 395 Widen for Connector Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln I-80 - Widening Garson Rd to West 4th St 9th Street Extension Arrowcreek Pkwy - Widen  Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes  Multiple locations 2040  2040  Clear Acre to Parr Blvd 2040  Xietzke Ln 2040  Kietzke Ln 2040  Wedge Pkwy to Thomas Creek Rd 2040  Wedge Pkwy to Zolezzi Ln 2040	Vine Street - Bike Facility		2030
US 395 Widen for Connector Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln Garson Rd to West 4th St 9th Street Extension Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd Arrowcreek Pkwy - Widen 2 to 4 Lanes  Clear Acre to Parr Blvd 2040  2040  2040  Creek Rd  Wedge Pkwy to Zolezzi Ln 2040	2031-2050 Projects	Limits	Model Year
Traffic - Additional NB Lane I-580 - Widening Neil Rd to S Virginia St/ Kietzke Ln I-80 - Widening Garson Rd to West 4th St 2040 9th Street Extension Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd Arrowcreek Pkwy - Widen 2 to 4 Lanes  Neil Rd to S Virginia St/ Kietzke Ln 2040  Carson Rd to West 4th St 2040  Control Creek Rd 2040  Wedge Pkwy to Thomas Creek Rd 2040  Creek Rd 2040	Spaghetti Bowl Phases 3-5	Multiple locations	2040
I-80 - Widening Garson Rd to West 4th St 2040 9th Street Extension To N Wells Ave 2040 Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes  Kietzke Ln  Garson Rd to West 4th St 2040  2040  2040  Wedge Pkwy to Thomas 2040  Creek Rd  Wedge Pkwy to Zolezzi Ln 2040		Clear Acre to Parr Blvd	2040
9th Street Extension To N Wells Ave 2040 Arrowcreek Pkwy - Widen Wedge Pkwy to Thomas Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes 2040  To N Wells Ave 2040  Wedge Pkwy to Thomas 2040  Wedge Pkwy to Zolezzi Ln 2040	I-580 - Widening		2040
Arrowcreek Pkwy - Widen Creek Rd  Arrowcreek Pkwy - Widen 2 to 4 Lanes  Wedge Pkwy to Thomas Creek Rd  Wedge Pkwy to Zolezzi Ln 2040 2040	I-80 - Widening	Garson Rd to West 4th St	2040
Arrowcreek Pkwy - Widen 2 to 4 Lanes  Creek Rd  Wedge Pkwy to Zolezzi Ln  2040	9th Street Extension	To N Wells Ave	2040
Lanes	Arrowcreek Pkwy - Widen		2040
Golden Valley Road/7th Ave N Hills to W 7th Ave 2040		Wedge Pkwy to Zolezzi Ln	2040
(O'Brien Pass)	Golden Valley Road/7th Ave (O'Brien Pass)	N Hills to W 7th Ave	2040

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Highland Ranch Parkway -	Pyramid to Sun Valley Blvd	2040
Widen		
Lemmon Dr Extension	To Red Rock Rd	2040
McCarran Blvd	Plumb Ln to Mayberry Dr	2040
McCarran Blvd - Widen	El Rancho Dr to Rock Blvd	2040
4 to 6 Lanes		
McCarran Blvd - Widen	Sky Mountain Dr to I80	2040
4 to 6 Lanes		
McCarran Blvd - Widen	7th St to N Virginia St	2040
4 to 6 Lanes		
McCarran Blvd- Widening	Mayberry to 4th St	2040
Mira Loma Dr - Widen	McCarran to Veterans	2040
2 to 4 Lanes		
Panther Extension	N Virginia to Panther to N	2040
	Hills Blvd	
Pyramid/395 Connector Phase	US 395 to Pyramid Hwy south	2040
3 Construct Connector	of Sparks Blvd, Disc Dr ext	
Record St - Realignment and	Evans Ave to 9th St; Lake St	2040
Parking Garage Access	to Evans Ave	
Rio Wrangler - Widen	Spring Flower Dr to Western	2040
	Skies Dr	
Robb Dr Extension	4th Street to I-80	2040
S. McCarran - Widen	Manzanita to Plumb Ln	2040
S. McCarran - Widen	Lakeside to Manzanita	2040
Vista - Widening	Wingfield Pkwy to Hubble Dr	2040
Vista Knoll Pkwy Ext	To Lemmon Dr	2040
West Sun Valley Arterial - New	Dandini Blvd to Eagle	2040
4 Lane Road	Canyon	
Center St/Mary St - Buffered	Liberty St - Plumas St	2040
Bike Lanes		
Sutro/Kirman - Sidewalks	Truckee River to Plumb Ln	2040
Vista Blvd - Sidewalks and Bike	Greg St to S Los Altos Pkwy	2040
Lanes		
I-80 Operations & Capacity	Vista Blvd to US Pkwy	2040
US 395 - Widening	Stead to Red Rock Rd	2050
Eagle Canyon Extension	Pyramid Hwy to W Calle de la	2050
-Widen 2 to 4 Lanes	Plata	
Eagle Canyon Extension - New	Lemmon Valley to Spanish	2050
4 Lane Road	Springs	

Echo Ave Extension	Red Rock Rd to Moya Blvd	2050
Estates Dr - Reconstruct	Lemmon Dr to Golden Valley Rd	2050
Pyramid/395 Connector Phase 4 System Ramps	System Ramps at US 395	2050
Pyramid Hwy Phase 5 - Widen	6 lanes from Sparks to La Posada, 4 lanes from Egyptian to Calle de la Plata	2050
Silver Knolls Blvd - New Road	Red Rock Rd to Silver Knolls Blvd	2050
SS/ER Parkway - New Road	Red Rock Rd to Mud Spring Dr	2050
TRI Center Northern Connection	La Posada to TRI Center	2050
TRI Center Southern Connection	Eastern Daybreak Boundary to Washoe County Line	2050
White Lake Pkwy - Widen	North Town Center Rd to Village Pkwy	2050
North Virginia - New Road	Stead to White Lake	2050

#### Notes:

This table includes only projects that impact network capacity for the air quality analysis. Other non-capacity related projects in the RTP projects are not listed here.