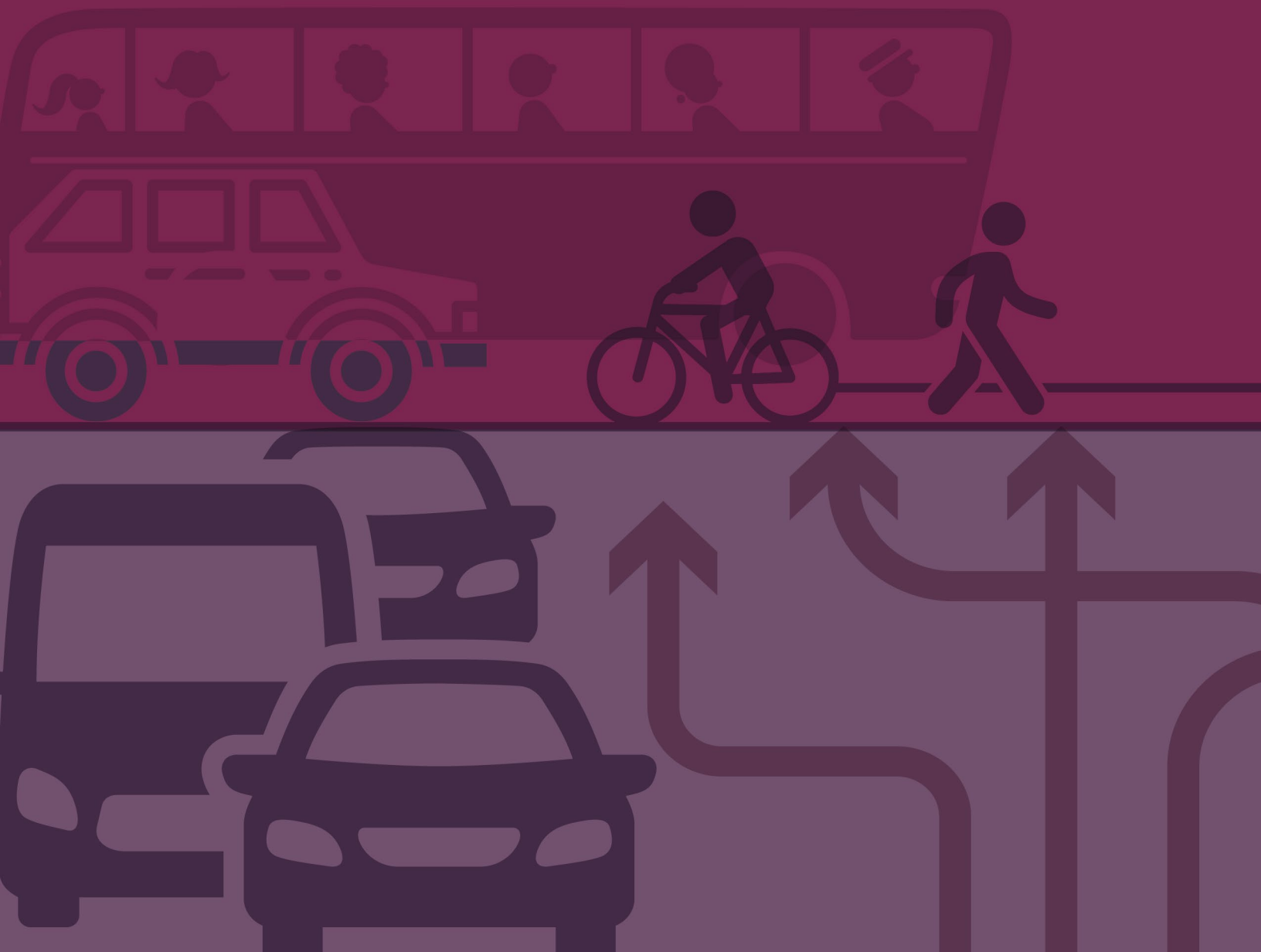
Appendix J: Supporting Materials



APPENDIX J: SUPPORTING MATERIALS

1. Introduction

This appendix provides a variety of background materials that were not included in the main body of the Let's Go 2050 Plan so that it could remain a brief and more readable document. These items provide additional information but are not necessary for understanding the basic and core content of Let's Go 2050. The supporting materials include the following:

- Section 2 – About the RTC
- Section 3 – Planning Factors
- Section 4 – Congestion Management and Air Quality Program Project Prioritization Process
- Section 5 – Acronyms
- Section 6 – Transportation Alternatives Set-Aside Program (TAP)
- Section 7 – RTP/TIP Amendment Process

2. About the RTC

The Regional Transportation Commission of Southern Nevada (RTC) is the agency designated by the State of Nevada to act as the metropolitan planning organization (MPO) for Clark County. As the MPO, the RTC coordinates transportation planning activities with member agencies within the metropolitan planning area. The planning process brings together the RTC, local government agencies, transit operators, local public service organizations, and the Nevada Department of Transportation (NDOT) to discuss regional priorities and to select and program planning activities for inclusion in the Unified Planning Work Program (UPWP).

Regional Planning Prospectus

The Federal Highway Administration (FHWA) requires that a metropolitan planning agreement be developed among the various parties involved in the regional transportation planning process.

This agreement must clearly define the roles and responsibilities of each party in cooperatively carrying out the transportation planning process and must include specific provisions for cooperatively developing and sharing information related to the development of financial plans that support the Regional Transportation Plan (RTP), the Transportation Improvement Program (TIP), and development of the annual listing of obligated projects.

In response to this federal requirement, the RTC has coordinated with NDOT and local jurisdictions to develop the Southern Nevada Regional Planning Prospectus. This document, which is available from the RTC website (www.rtcsnv.com), outlines the specific roles and responsibilities of RTC, NDOT, and local agencies in carrying out the federal transportation planning process in the Southern Nevada region.

Metropolitan Planning Area

The Las Vegas Metropolitan Planning Area is often referred to as Southern Nevada to distinguish the activities of regional agencies from the jurisdictional functions of the Clark County government. Additional population data for Clark County and the member jurisdictions is provided in Chapter 4 of the Let's Go 2050 Plan.

3. Planning Factors

The Infrastructure Investment and Jobs Act (IIJA)/Bipartisan Infrastructure Law (BIL) expanded the required federal planning factors that must be addressed in developing regional transportation plans and programs. The planning factors are presented in Chapter 2 of the Let's Go 2050 Plan, and additional details about how projects included in the plan support each factor are provided here.

1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.

A broad range of projects are incorporated into the Let's Go 2050 RTP that support economic vitality. By improving the safety and reliability of the transportation system, RTC will be supporting global competitiveness, productivity, and efficiency. Major transit investments on Charleston Boulevard and Boulder Highway will support access to employment opportunities, supporting the region's world-renowned resort and entertainment destinations. Operational and safety improvements on I-15 and I-11 will support interstate freight movement and the growing manufacturing and logistics sectors in Southern Nevada.

2) Increase the safety of the transportation system for motorized and nonmotorized users.

The Las Vegas Vision Zero program has developed multiple safety initiatives that are incorporated in Let's Go 2050. Regional Safe Routes to School (SRTS) programs are also funded though this plan, which will improve crosswalks, add flashing beacons, and slow vehicle travel speeds. In addition to Complete Streets projects, multiple off-street trails will provide area residents with safer places to walk and bike. Examples include the Red Rock Legacy Trail, Upper Las Vegas Wash Trail Connections, and Cimmaron Bike Path.

3) Increase the security of the transportation system for motorized and nonmotorized users.

RTC staff has been trained in the recognition of potential terrorist activity and appropriate reactions, which provides an important step toward enhancing security of the transportation system in the metropolitan region. The Freeway and Arterial System of Transportation (FAST) has developed state-of-the-art technology to monitor the regional highway system. The FAST monitoring system provides enhanced security to the highway network and improved opportunities for quick response to incident management. Funds are programmed in the TIP to implement ITS-based network improvements. The Freeway Service Patrol has been providing emergency on-site assistance to drivers for smooth traffic flow and for any incidents that may occur due to vehicle breakdown.

4) Increase the accessibility, and mobility of people and for freight.

Many priority projects and services increase accessibility and mobility for people, including the RTC Bike Share program, RTC Club Ride/College Pass, and high-capacity transit projects on Charleston Boulevard and Boulder Highway. Freight will also benefit from improvements on I-15 and I-11.

5) Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth, housing, and economic development patterns.

Let's Go 2050 supports multiple low- and no-emission investments. This includes regional electric vehicle charging infrastructure in Henderson and RTC bus replacements

6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

Complete Streets improvements improve mobility and integrate safer transportation options for walking, bicycling, riding transit, and driving. Complete Streets improvements also improve workforce access to industrial employment opportunities and improve safety for freight transportation. Examples in the Let's Go 2050 Plan include:

- Historic Westside Complete Streets
- North 5th Street
- Rancho Drive Complete Streets

7) Promote efficient system management and operation.

RTC FAST is partnering with NDOT and jurisdictions in the region to integrate advanced intersection analytics to improve operations and planning for intersection safety. Las Vegas citywide traffic signal improvements will construct new traffic signal and intersection improvements to enhance safety and efficiency.

8) Emphasize the preservation of the existing transportation system.

Pavement preservation initiatives are used to extend the useful life of existing pavements and improve safety. Examples in Let's Go 2050 include Desert Inn Road, Jones Boulevard, Flamingo Road, Needles Highway, and Sunset Road. RTC will also improve the state of good repair for the transit system by improving bus shelters and replacing aging buses with cleaner vehicles.

9) Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.

Many of the projects included in Let's Go 2050 address resiliency and reliability, including design features such as street trees and stormwater improvements. The transit and active transportation projects in this plan provide alternatives to driving and reduce emissions to mitigate the adverse impacts of climate change.

10) Enhance travel and tourism.

Southern Nevada is renowned for its world-class resorts and entertainment. Addressing the unique travel demands of a tourism-driven economy includes many aspects, a few of which are outlined below.

- Focusing on the employee experience and ensuring convenient job access for the local workforce that supports the tourism industry.
- Managing transportation needs to and through the major visitor access points, including the Harry Reid International Airport and I-15 corridor.
- Offering 24-hour transit mobility solutions.
- Managing travel demand for multiple simultaneous major events using ITS solutions.
- Providing a range of multimodal transportation options for residents and visitors to reduce reliance on automobile travel.

4. Congestion Mitigation and Air Quality Project Prioritization Process

Overview of the CMAQ Program

The Congestion Mitigation and Air Quality Improvement (CMAQ) program was created under the Intermodal Surface Transportation Efficiency Act of 1991. Subsequently, it has been reauthorized under each of the following federal transportation bills, including most recently the BIL/IIJA.

The purpose of the CMAQ program is to fund transportation projects or programs that contribute to attainment or maintenance of the national ambient air quality standards (NAAQS) for ozone, carbon monoxide (CO), and particulate matter (PM). Eligible transportation projects meet one or more of the following criteria:

- Contribute to attainment or maintenance of NAAQS.
- Be in the approved State Implementation Plan and have air quality benefits.
- Is likely to contribute to attainment of NAAQS through reduction in vehicles miles traveled, fuel consumption, or other factors.
- Operate a traffic monitoring, management, or control facility that contributed to attainment of NAAQS.
- Improved traffic flow, including through signalization, high-occupancy vehicle lanes, improved intersections, and intelligent transportation systems (ITS).

The BIL continues all prior CMAQ eligibilities and adds four new eligibilities:

- Shared micromobility, including bike-sharing and shared scooter systems.
- Purchase of diesel replacements or medium-duty or heavy-duty zero emission vehicles and related charging equipment.
- Modernization or rehabilitation of a lock and dam or a marine highway corridor.
- In alternative fuel projects, vehicle refueling infrastructure that would reduce emissions from nonroad vehicles and nonroad engines used in construction projects or port-related freight operations.

The BIL allows CMAQ funds to be used for transit operating assistance (without time limitation) in association with a transit system in a nonattainment or maintenance area.

No funds may be used for the construction of new capacity for single-occupant vehicles.

Specifically for CO, Clark County was redesignated to attainment by the U.S. Environmental Protection Agency (EPA) due to approval of the CO Maintenance Plan. EPA made nonattainment designation for the 2015 ozone NAAQS on June 4, 2018, for many areas. The Las Vegas region is one of these areas. EPA's nonattainment area designations for the 2015 ozone NAAQS were effective August 3, 2018, and transportation conformity for the 2015 ozone NAAQS applies 1 year after the effective date of the designations, on August 3, 2019. Clark County area was redesignated as nonattainment area effective August 3, 2019.

Located within these various plans are daily "budgets" for transportation activities. The RTC ensures that the agency's policies and programs do not contribute to an exceedance of the NAAQS through the transportation conformity process (with the exception of ozone). By providing funding to transportation projects that reduce emissions, the overall CMAQ program helps Clark County maintain the NAAQS.

The CMAQ program supports two important goals of the U.S. Department of Transportation (USDOT): Improve air quality and relieve congestion. Reducing pollution and other adverse environmental effects of transportation projects and transportation system inefficiency have been longstanding objectives of the USDOT. The strategic plans for both USDOT and FHWA include performance measures specifically focused on reducing air pollution from transportation facilities. The CMAQ program provides funding for a broad array of tools to accomplish these goals. By choosing to fund a CMAQ project, a state or local government can improve air quality and make progress toward achieving attainment status and ensuring compliance with the transportation conformity provisions of the Clean Air Act.

CMAQ Project Selection Process

The process used to prioritize proposed CMAQ projects is fully integrated into the Let's Go 2050 Plan call for projects and prioritization process. The Let's Go 2050 call for projects, documented in Chapter 6 of the plan, was used to prioritize multiple federal funding sources, including CMAQ, Surface Transportation Block Grant (STBG), TAP, and Carbon Reduction Program (CRP).

Identifying Potential Projects

To identify potential investments for this plan, RTC conducted a region-wide call for projects. RTC sought project recommendations from each local jurisdiction, NDOT, and community partners. These project concepts build on the many plans that each agency has been advancing through other, coordinated initiatives.

Projects were submitted through a project input form that was linked to the project benefits calculator. Information requested included the project location and description, estimated cost, traffic/roadway characteristics, federal performance measures addressed, primary RTP strategy addressed, and other attributes.

Evaluating Projects

All project requests were evaluated through a merit-based screening tool, referred to as the project benefits calculator, based on their ability to deliver benefits aligned with the federal and RTP goal areas: safety, mobility (including vehicle miles traveled [VMT] reduction and increased active transportation trips), equity, preservation, economic benefit, and environment (incoming emissions reductions). Projects were assigned a benefit score and ranked accordingly. Additionally, sponsoring agencies provided prioritized rankings for each of their requests. These two scores were combined to generate an overall score. The proposed project prioritization also considered project readiness, regional equity, and eligible uses for available federal funding sources.

RTC sought community input on the proposed project ranking. The draft project listing was presented during Stakeholder Workshop #3 and at the August Executive Advisory Committee (EAC) meeting, and it was made available online for public comment through the project website.

Assignment of Eligible Funding

To meet fiscal constraint requirements, RTC assessed what funding sources would be eligible for each project. Because CMAQ is one of the more restrictive funding sources, RTC used federal guidance to identify what projects meet the eligibility requirements for CMAQ use, as outlined in this section. Examples of eligible projects that produce emissions benefits and support attainment on NAAQS include the Club Ride/ College Pass Program, City of Las Vegas ITS Master Plan Upgrades, Via Inspirada Trail, RTC Bike Share Program, and Spencer Greenway Trail.

5. Acronyms

This section provides a list of common transportation acronyms as a reference.

Table 1: List of Transportation Acronyms

Acronym	Meaning
AASHTO	American Association of State Highway and Transportation Officials
AADT	Average (Annual) Daily Traffic
ACEC	Area of Critical Environmental Concern
ADA	Americans with Disabilities Act of 1990
AMPO	Association of Metropolitan Planning Organizations
APTA	American Public Transit Association
AQIP	Air Quality Implementation Plan
ATE	Advanced Truck Stop Electrification Systems
ATIS	Advanced Traveler Information System
AV	Autonomous Vehicle(s)
BIA	Bureau of Indian Affairs
BIL	Bipartisan Infrastructure Law
BLM	Bureau of Land Management
BMP	Best Management Practice
BNSF	Burlington Northern Santa Fe Railroad
BPE	Bicycle/Pedestrian Element
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAAA	Clean Air Act Amendment of 1990

Acronym	Meaning
CALTRANS	California Department of Transportation
CAT	Citizens Area Transit (now known as RTC Transit)
C/AV	Connected or Autonomous Vehicle(s)
CCTV	Closed Circuit Television
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality
CMP	Congestion Management Process
CNG	Compressed Natural Gas
CO	Carbon Monoxide
DAQ	Clark County Department of Air Quality (formerly DAQEM)
DEIS	Draft Environmental Impact Statement
DMS	Dynamic Message Sign
DOT	Department of Transportation
DUI	Driving Under the Influence
EA	Environmental Assessment
EAC	Executive Advisory Committee
EIS	Environmental Impact Statement
EJ	Environmental Justice
EPA	U.S. Environmental Protection Agency
EX	"Exempt" project or project exempt from regional emissions analysis

Acronym	Meaning
EX-A	Exempt alternate mode project
EX-T	Exempt transit project
FAA	Federal Aviation Administration
FAST	Freeway and Arterial System of Transportation
FAST ACT	Fixing America's Surface Transportation Act
FEIS	Final Environmental Impact Statement
FFY	Federal Fiscal Year – October 1 to September 30
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FRI	Fuel Revenue Indexing
FTA	Federal Transit Administration
FY	Fiscal Year
GID	General Improvement District
GIS	Geographic Information System
GPS	Global Positioning System
HC	Hydrocarbons
HIA	Health Impact Assessment
HOT	High Occupancy/Toll
HOV	High Occupancy Vehicle
HPMS	Highway Performance Monitoring System
HIS	Interstate Highway System
IIJA	Infrastructure Investment and Jobs Act

Acronym	Meaning
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation Systems
JDP	Joint Development Program
LNG	Liquefied Natural Gas
LOS	Level of Service (traffic flow rating)
LRT	Light Rail Transit
MAP-21	The Moving Ahead for Progress in the 21st Century Act – the successor to SAFETEA-LU
MAX	Metropolitan Area Express
MIS	Major Investment Study
MPO	Metropolitan Planning Organization
MUD	Multiple Use Development (Clark County Zoning)
MUTCD	Manual on Uniform Traffic Devices
MVFT	Motor Vehicle Fuel Tax
NAAQS	National Ambient Air Quality Standards
NCA	National Conservation Area
NDOT	Nevada Department of Transportation
NEPA	National Environmental Policy Act (PL 91-190)
NHP	Nevada Highway Patrol
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration

Acronym	Meaning
NOX	Oxides of Nitrogen, collectively one of the precursors of ozone
NRS	Nevada Revised Statute
NRS-M	Non-regionally significant project included in travel demand forecast model
NRS-T	Non-regionally significant project included in mode split model
O^3	Ozone
OCM	Other control measure for which emissions credit could be calculated
OCM-A	Other alternate mode project for which emissions credit could be calculated
OCM-T	Other transit project for which emissions credit could be calculated
O-D	Origin Destination Study
OHV	Off Highway Vehicle
ONX	Other nonexempt project – not modeled
ONX-T	Other nonexempt transit project – not modeled
P&R	Park and Ride
PCA	Project Conflict Avoidance
PL	Metropolitan Planning Area Program funds
PLSS	Public Land Survey System
PM^{10}	Particulate matter less than 10 microns in diameter
RFP	Request for Proposal

Acronym	Meaning
ROD	Record of Decision
ROW or R/W	Right-of-Way
RTC	Regional Transportation Commission of Southern Nevada
RTP	Regional Transportation Plan
RS	Regionally Significant Project
RS-T	Regionally significant transit project included in mode split model
SAAM	Small Area Allocation Model
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users (replaced by MAP-21 October 1, 2012)
SIP	State Implementation Plan
SMF	Sunset Maintenance Facility
SNRPC	Southern Nevada Regional Planning Coalition
SNS	Southern Nevada Strong
SNTC	Southern Nevada Transit Coalition
SOV	Single Occupant Vehicle – driver only
SR	State Route
SSTT	South Strip Transfer Terminal
STB	Surface Transportation Board
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
STTAC	Statewide Transportation Technical Advisory Committee

Acronym	Meaning
TAAC	Transportation Access Advisory Committee
TAZ	Transportation Analysis Zone
TCM	Transportation Control Measure including those identified in the State Implementation Plans (SIP)
TCM-A	Alternate Mode Transportation Control Measure identified in the SIP
TCM-T	Transit Transportation Control Measure identified in the SIP
TDF(M)	Travel Demand Forecast (Model)
TDM	Transportation Demand Management
TEA-21	Transportation Equity Act for the 21 Century
TIFIA	Transportation Infrastructure Finance and Innovation Act of 1998
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TMC	Traffic Management Center
TMIP	Travel Model Improvement Program
TNC	Transportation Network Company
TOD	Transit Oriented Development
TPS	Transit Performance Standards
TRB	Transportation Research Board
UA	Urbanized Area
UCC	Utility Coordination Committee

Acronym	Meaning
UNLV	University of Las Vegas Nevada
UPRR	Union Pacific Railroad
UPWP	Unified Planning Work Program
US	United States Route
V/C	Vehicle/Capacity Ratio
VHT	Vehicle Hours of Travel
VMS	Variable Message Sign
VMT	Vehicle Miles of Travel
VOC	Volatile Organic Compounds
XTDM	Project outside travel demand model area
XNAA	Project outside nonattainment area

6. Transportation Alternatives Set-Aside Program

The Transportation Alternatives Set-Aside from the STBG Program, also known as TAP or TA, provides federal funds for community-based projects that expand travel choices and enhance the transportation experience. These projects are intended to integrate modes of travel and improve the cultural, historic, and environmental aspects of our transportation infrastructure. Funding may be made available for projects such as pedestrian and bicycle facilities, construction of turnouts, overlooks and viewing areas, community improvements (including historic preservation of transportation facilities and vegetation management), environmental mitigation related to stormwater and habitat connectivity, recreational trails, SRTS projects, and vulnerable road user safety assessments. Federal guidelines specify that projects must be selected based on a competitive process (BIL Section 11109; United States Code for Title 23, Section 133(h) [23 USC § 133(h)]).

The most recent TA Set-Aside program implementation guidance was published by the FHWA on March 30, 2022.

The BIL establishes suballocations within the TAP Set-Aside funds that are apportioned to each state. Recreational Trails Program funds are first deducted from the state apportionment, and 59% of the remaining funds are suballocated based on population. Funding suballocated to urbanized areas with populations over 200,000, such as RTC, is administered through a competitive process by the MPO. The remaining 41% of TAP Set-Aside funds are available for state departments of transportation to administer statewide. NDOT updated their TAP process in 2023 and issued a statewide TAP call for projects.

Eligible TAP applicants include:

- Local governments.
- Regional transportation authorities.
- Transit agencies.
- Natural resource or public land agencies.
- School districts, local education agencies, or schools.
- Tribal governments.
- MPOs that serve an urbanized area with a population of 200,000 or less.
- Nonprofit entities.
- Other local or regional governmental entities with responsibility for oversight of transportation or recreational trails.
- A state, at the request of an eligible entity.

Eligible Activities

To be eligible for funding under the TAP, projects must fall under at least one of the categories outlined below, consistent with 23 USC § 133(h)(3)(A), 23 USC § 148(a), and the Transportation Alternatives Set-Aside Implementation Guidance as Revised by the Infrastructure Investment and Jobs Act:

- Construction, planning, and design of on-road and off-road trail facilities for pedestrians; bicyclists; and other nonmotorized forms of transportation, including sidewalks, bicycle infrastructure, pedestrian and bicycle signals, traffic calming techniques, lighting and other safety-related infrastructure, and transportation projects, to achieve compliance with the Americans with Disabilities Act of 1990 (ADA).
- Construction, planning, and design of infrastructure-related projects and systems that will provide safe routes for nondrivers, including children, older adults, and individuals with disabilities, to access daily needs.
- Conversion and use of abandoned railroad corridors for trails for pedestrians, bicyclists, or other nonmotorized transportation users.
- Construction of turnouts, overlooks, and viewing areas.
- Community improvement activities, including:
  - Inventory, control, or removal of outdoor advertising.
  - Historic preservation and rehabilitation of historic transportation facilities.[1]
  - Vegetation management practices in transportation rights-of-way to improve safety, prevent invasive species, and provide erosion control.
  - Archaeological activities relating to impacts from implementation of a transportation project.
- Environmental mitigation activities, including pollution prevention and pollution abatement activities and mitigation, such as:
  - Stormwater management, control, and water pollution prevention related to highway construction or due to highway runoff.
  - Reducing vehicle-caused wildlife mortality or connecting wildlife habitats.
- Recreational Trails Program.
- Planning, designing, or constructing boulevards and other roads largely in the right-of-way of former interstates or divided highways.
- Vulnerable road user safety assessments.
- Construction of micromobility projects that shift travel demand to nonpeak hours or to other transportation modes.
- SRTS programs, including infrastructure, non-infrastructure, and SRTS coordinators

The BIL expanded the scope of the SRTS program. Previous rules restricted SRTS to investments for kindergarten through 8th grade, while the BIL expanded eligibility to include 9th through 12th grades.

Ineligible Activities

Ineligible activities include MPO administrative costs; promotional activities (except SRTS); routine maintenance and operations (except as allowed under the Recreational Trails Program); and general recreation and park facilities, playground equipment, sports fields, and campgrounds.

RTC TAP Selection Process

The competitive process used to select proposed TAP projects is fully integrated into the Let's Go 2050 Plan call for projects and prioritization

[1] This includes historic preservation and rehabilitation of historic transportation buildings, structures, or facilities that are part of the intermodal transportation system and are listed on or eligible for the National Register of Historic Places. The transportation facility should be accessible to the public.

process. The Let's Go 2050 call for projects, documented in Chapter 6 of the plan, was used to prioritize multiple federal funding sources, including TAP, CMAQ, STBG, and CRP.

Identifying Potential Projects

To identify potential investments for this plan, RTC conducted a region-wide call for projects. RTC sought project recommendations from each local jurisdiction; NDOT; and community partners, including federal agencies and nonprofit organizations.

Projects were submitted through a project input form that was linked to the project benefits calculator. Information requested included the project location and description, estimated cost, traffic/roadway characteristics, federal performance measures addressed, primary RTP strategy addressed, and other attributes.

Evaluating Projects

All project requests were evaluated through a merit-based screening tool, referred to as the project benefits calculator, based on their ability to deliver benefits aligned with the federal and RTP goal areas: safety, mobility (including VMT reduction and increased active transportation trips), equity, preservation, economic benefit, and environment (incoming emissions reductions). Projects were assigned a benefit score and ranked accordingly. Additionally, sponsoring agencies provided prioritized rankings for each of their requests. These two scores were combined to generate an overall score. The proposed project prioritization also considered project readiness, regional equity, and eligible uses for available federal funding sources.

RTC sought community input on the proposed project ranking. The draft project listing was presented during Stakeholder Workshop #3 and at the August EAC meeting, and it was made available online for public comment through the project website.

Assignment of Eligible Funding

To meet fiscal constraint requirements, RTC assessed what funding sources would be eligible for each project. Because TAP is one of the more restrictive funding sources, RTC used federal guidance to identify what projects meet the eligibility requirements for TAP use, as outlined in this section. Examples of eligible TAP projects include SRTS programs, trails, and complete street improvements.

7. RTP/TIP Amendment Process

The requirements for community engagement in the RTP and TIP amendment process are identified in the RTC Public Participation Plan, which is summarized in Table 2 and provided in full in Appendix L.

Table 2: MPO Public Involvement Process [1]

Document	Action	Public Comment Period	Public Information Meeting(s) [2]	Board and Committee Public Meetings	Social Media and Technology	Outreach Lead Department(s)
Regional Transportation Plan	4-Year Update	30-day public comment period is required. An additional 7 days may be required if the 30-day period results in substantial changes.	Three public information meetings are required. An additional meeting in an outlying area may also be held.	Executive Advisory Committee RTC Board	RTC website Social media	MPO Planning leads and coordinates with Government Affairs, Media & Marketing (GAMM)

Document	Action	Public Comment Period	Public Information Meeting(s)[2]	Board and Committee Public Meetings	Social Media and Technology	Outreach Lead Department(s)
Regional Transportation Plan	Amendment	21-day public comment period is required. An additional 7 days may be required if the 21-day period results in substantial changes.	At least one public information meeting is required.	Executive Advisory Committee RTC Board	RTC website	MPO Planning leads and coordinates with GAMM
Transportation Improvement Program (TIP)/High-Priority Investment Program (HPIP)	4-Year Update	30-day public comment period is required. An additional 7 days may be required if the 21-day period results in substantial changes.	At least one public information meeting is required.	Executive Advisory Committee RTC Board	RTC website Social media	MPO planning leads and coordinates with GAMM
Transportation Improvement Program (TIP)/High-Priority Investment Program (HPIP)	Amendment See TIP Revision Process.	21-day public comment period is required, with the following exceptions: 1) added exempt project with a total cost of $400K or less, which is not subject to a public comment period, and 2) project with an air quality conformity determination, which requires a 30-day public comment period.	Public information meeting is not required except for projects with air quality determinations, which require one public information meeting.	Executive Advisory Committee RTC Board	RTC website	MPO planning leads and coordinates with GAMM
Transportation Improvement Program	Administrative Modification See TIP Revision Process.	Public comment period is not required.	Public information meeting is not required.	Executive Advisory Committee RTC Board	RTC website	MPO planning leads and coordinates with GAMM
Unified Planning Work Program	Development and Amendment	Public comment period is not required.	Public information meeting is not required.	Executive Advisory Committee RTC Board	RTC website	MPO planning

Document	Action	Public Comment Period	Public Information Meeting(s)[2]	Board and Committee Public Meetings	Social Media and Technology	Outreach Lead Department(s)
Public Participation Plan	Development and Amendment	45-day comment period is required.	One public information meeting is required.	Executive Advisory Committee RTC Board	RTC website Social media	MPO planning leads and coordinates with GAMM
Planning Studies	Development	Public comment period is not required.	Public information meeting is not required.	Executive Advisory Committee RTC Board	RTC website Social media	MPO Planning leads and coordinates with GAMM
Capital Projects	Development and Amendment	Public comment period is not required.	Public information meeting is not required.	Executive Advisory Committee RTC Board	RTC website	MPO Streets and Highways
National Environmental Policy Act Document	Development	Refer to NEPA process (40 CFR §§ 1500-1508) for public participation requirements.				Project sponsor

1 Public involvement requirements are consistent with federal regulations shown in Table 1. Additional public outreach, comment periods, public meetings, and/or public hearings may be completed at the discretion of the RTC and/or agency lead(s).

2Public information meetings may be held in person and/or online. Comments are recorded by staff, through comment cards, or tablet computers; a court reporter is not required, but may be provided as determined by the RTC.

Transportation Improvement Program Revisions

The Las Vegas Metropolitan Area TIP, a list of upcoming transportation projects also known as the High Priority Investment Program, is updated at least every 4 years in cooperation with area agencies. The TIP is also incorporated into the Nevada's Statewide Transportation Improvement Program (STIP). As projects move toward implementation, changes to the TIP (e.g., project budget increases, added or deleted projects) may be needed. Federal regulations and the RTC MPO's procedures to modify and amend the TIP are provided in this section.

Federal Regulations

An MPO may revise the TIP at any time under procedures agreed to by the cooperating parties consistent with the procedures established in this part for its development and approval. In nonattainment or maintenance areas for transportation-related pollutants, if a TIP amendment involves nonexempt projects (per Title 40 Code of Federal Regulations [CFR] or is replaced with an updated TIP, the MPO, FHWA, and Federal Transit Administration (FTA) must make a new conformity determination. In all areas, changes that affect fiscal constraint must take place by amendment of the TIP. The MPO shall use public participation procedures consistent with 23 CFR 450.316(a) in revising the TIP, except that these procedures are not required for administrative modifications. Definitions from 23 CFR 450.104 follow:

- Administrative Modification – Means a **minor revision** to a long-range statewide or metropolitan transportation plan, TIP, or STIP that includes minor changes to project/project phase costs, minor changes to funding sources of previously included projects, and minor changes to project/project phase initiation dates. An administrative modification is a revision that **does not require public review and comment**, a redemonstration of fiscal constraint, or a conformity determination (in nonattainment and maintenance areas).
- Amendment – Means a revision to a long-range statewide or metropolitan transportation plan, TIP, or STIP that involves a **major change** to a project included in a metropolitan transportation plan, TIP, or STIP, including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects). Changes to projects that are included only for illustrative purposes do not require an amendment. An amendment is a revision that **requires public review and comment** and a redemonstration of fiscal constraint. If an amendment involves "nonexempt" projects in nonattainment and maintenance areas, a conformity determination is required.

NDOT eSTIP Portal

NDOT in 2015 introduced the Electronic Statewide Transportation Improvement Program (eSTIP) portal to manage statewide TIP. The RTC and MPOs statewide utilize eSTIP to print TIP project lists and manage TIP amendments and modifications. The entire TIP revision process from project submittal to FHWA approval is processed in the eSTIP portal.

To initiate a proposed TIP revision, agencies (i.e., NDOT, RTC, Las Vegas, North Las Vegas, Henderson, Clark County, Clark County Department of Air Quality, Clark County School District, Clark County Aviation, Las Vegas Monorail Company) contact the RTC MPO by email or phone. RTC staff reviews the proposed change, opens an eSTIP action, and assigns the proper TIP revision category. Agencies then add project details through the eSTIP portal.

RTC TIP Revisions

TIP revisions are needed for projects that utilize federal or state funding and/or are regionally significant. There are two categories of revisions: A) administrative modifications and B) amendments. The RTC MPO is responsible for coordinating TIP revisions and facilitating the review, approval, and public participation process, as outlined below.

A. Administrative Modifications

1. Revisions Acceptable through Administrative Modifications

   a. Minor Changes to Project Costs – Project funding increase is less than 25% of the total project cost and no more than $2 million.

   b. **Minor Changes in Unprogrammed Balances**

      i. A positive change in the unprogrammed balance forward is received for an existing project in the TIP, and the positive change is less than 25% of the total project cost and no more than $2 million.

      ii. A negative change in the unprogrammed balance forward is received for an existing project in the TIP for any dollar amount.

   c. Minor Changes to Project Dates – The project fiscal year is revised without impact on air quality horizon years, as follows:

      i. Project is moved within the STIP/TIP as follows: 1) the third or fourth year to the first or second year, or 2) the second year to the first year. Project to be completed sooner/moved forward does not affect the air quality horizon years and/or the project is exempt.

      ii. Project is moved within the STIP/TIP as follows: 1) the first year to the second, third, or fourth year, or 2) the second or third year to the fourth year. Project to be completed later/moved back, and this change does not affect air quality horizon years and/or the project is exempt.

   d. Minor Changes to Project Description and Limits – A minor change to the project description, scope, or limits is proposed; the proposal is not a major change as described in Section B.1.b.

2. **Review and Approval Process for Administrative Modifications**

   a. Agency Request – Agency staff submits the request to RTC staff, allowing 2 weeks for staff and management review.

   b. RTC Staff Review – RTC staff reviews the request for completeness and determines if it falls under administrative modifications. RTC staff consults with management staff (planning manager and/or director) regarding the requested change. Following management concurrence, RTC staff approves the administrative modification in eSTIP portal.

   c. NDOT Review – NDOT reviews and approves the administrative modification in eSTIP portal.

   d. EAC Informed – The EAC is notified of staff-approved administrative modification(s) through the consent agenda.

   e. RTC Board Informed – RTC Board is informed of staff-approved administrative modification

through the consent agenda; RTC Board and FHWA approval are not required.

3. **Timelines**

   a. Requests for administrative modifications are accepted on an ongoing basis. The review and approval process is approximately 2 months.

B. **Amendments**

1. Revisions Acceptable Through Amendments

   a. Project Added or Deleted – A federally or state-funded exempt project or activity defined under 40 CFR 93.126 or a regionally significant project is added or deleted. A regionally significant project serves regional transportation needs, such as access to and from the area outside the region, major activity centers in the region, major planned developments (e.g., new retail malls, sports complexes, or employment centers), or transportation terminals) and is included in the MPO's transportation network modeling. At a minimum, this includes all principal arterial highways and all fixed guideway transit facilities that offer an alternative to regional highway travel.

   b. Major Change in Project Cost or Public Funding Source – The existing project funding increase is more than 25% of the total project budget or over $2 million, or project funds change from private to public funding, or there is a change in the public funding category.

   c. Major Change to Project/Project Phase Initiation Dates – The horizon year completion date changes for regionally significant projects.

   d. Major Change to Project Description and Limits – A major change is proposed, such as: 1) reducing or increasing the project limits/lengths; 2) significant addition or deletion of pedestrian paths, bike lanes, landscaping elements, bus turnouts, stops, and stations; or 3) significant change in number of equipment, buses, technology change, or site relocation.

   e. Major Design Concept or Design Scope Change – Major changes to the project scope, such as extending project termini, adding traffic lanes, changes to system capacity, changes to resulting system access. For regionally significant projects included in the modeled conformity analysis, a change in the design concept or scope is proposed or a change to the implementation of Transportation Control Measures identified in the State Implementation Plans is requested.

2. **Review and Approval Process**

   a. Agency Approved Request – NDOT, RTC, or a sponsoring agency requests an amendment to the TIP through eSTIP portal. Amendments proposed by NDOT must be signed by the assistant director of Planning. Amendments proposed by local agencies must be signed by the director of Public Works.

   b. RTC Staff Review – RTC staff consults management staff (planning manager and/or director) of the requested change. Following the management concurrence, RTC staff begins the planning, public participation, and approval process.

c. Air Quality Conformity Process

i. Exempt Project – Roadway and transit projects listed in 40 CFR 93.126 (e.g., pavement resurfacing, adding medians) are typically exempt from the requirement to determine air quality conformity unless the MPO, in consultation with other agencies, identifies potentially adverse emissions impacts.

ii. Conformity Statement – This applies to actions that affect the design concept, scope, or alignment of regionally significant projects that are outside the area included in the travel demand forecast model network but are within an air quality nonattainment area.

To expedite program delivery, RTC will in certain cases approve a TIP amendment based on a conformity statement that the proposed amendment will have such minimal effect on emissions that a full conformity analysis is not warranted. RTC staff will determine on a case-by-case basis if the proposed amendment requires a conformity statement or a new conformity analysis. RTC will consult with NDOT and FHWA together or separately as appropriate in making this determination.

If a conformity statement is appropriate, RTC staff prepares a conformity statement justifying why the existing conformity finding is not affected by the proposed amendment. In the case of projects that are outside the model network, estimates of VMT and emissions will be developed by the FHWA for the RTP conformity finding.

iii. Conformity Analysis – Added or major changes to regionally significant projects and changes to the implementation of Transportation Control Measures require conformity analysis. RTC staff initiates the Air Quality Working Group consultation process to determine the air quality modeling methodology and prepares a conformity analysis and conformity determination after consulting with other agencies.

d. Public Participation – A 21-day comment period is conducted for amendments, except for: 1) added exempt projects with a total cost of $400K or less, which are not subject to a public comment period; and 2) projects with air quality conformity determinations, which require a 30-day public comment period and a public information meeting.

e. EAC Recommends Adoption – The EAC recommends approval through the nonconsent agenda.

f. RTC Board Adoption – RTC Board adoption is required though consent agenda.

g. eSTIP – RTC staff submits the project(s) in the eSTIP portal.

h. NDOT, FHWA, and/or FTA Approval – NDOT, FHWA, and/or FTA review and approve the amendment through eSTIP.

i. eSTIP Approval Notification – The amendment requestor, RTC, and NDOT receive the final amendment approval through eSTIP.

3. **Timelines**

   a. Quarterly and Annual Amendment Requests

   Amendments to the TIP that are exempt from air quality conformity determinations and require a 21-day public comment period will be considered and processed on a quarterly basis within a calendar year. The RTC Board of Commissioners convenes the second Thursday of every month, requiring receipt of amendment information from project sponsors by RTC staff 12 weeks prior to RTC Board meetings in March, June, September, and December.

   TIP amendments requiring air quality conformity determinations will be processed once in a calendar year if necessary. RTC staff should receive all project information required to run the Travel Demand Model and determine air quality conformity 24 weeks prior to the RTC Board meeting in that calendar year. February is the target month for the RTC Board to consider air quality conformity determinations but may be adjusted at the discretion of RTC staff while considering the varying needs of project sponsors.

   b. **Review and Approval**

   Amendments for new projects exempt from the requirement to determine air quality conformity are typically reviewed and approved in 3 months. Amendments for projects requiring an air quality conformity analysis typically require approximately 6 months for modeling, review, public involvement, and approval.

Performance-Based Benefits Calculator

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Purpose and Objectives

- Quantify anticipated benefits and return on investment on programmed and proposed projects
- The calculator will serve the following objectives:
  - ✓Limit the inputs required of project sponsors
  - ✓Be easy to use and replicate
  - ✓Communicate benefits to the public
  - ✓Assist in future project prioritization processes

Benefit Area	Benefit Indicator Estimated
Safety	▪ Crashes Reduced (Injuries and Fatalities) ▪ Crashes Reduced (Property Damage Only)
Multimodal	▪ New Miles of Facility Added ▪ Daily New Active Trips Generated ▪ Annual Vehicle Miles Traveled (VMT) Reduced
Congestion	▪ Reduced Vehicle Hours of Delay
Infrastructure	▪ Years of Infrastructure Life Extended
Environmental	▪ Reduced GHG Pollution (MT CO2e) ▪ Reduced Local Pollution (NOx, VOC, PM2.5, PM10, CO)
Economic	▪ $ Value crash reduction ▪ $ Value congestion reduction ▪ $ Value pollution reduction
Equity	▪ Equity Overlay Designation

Project Inputs from Sponsors

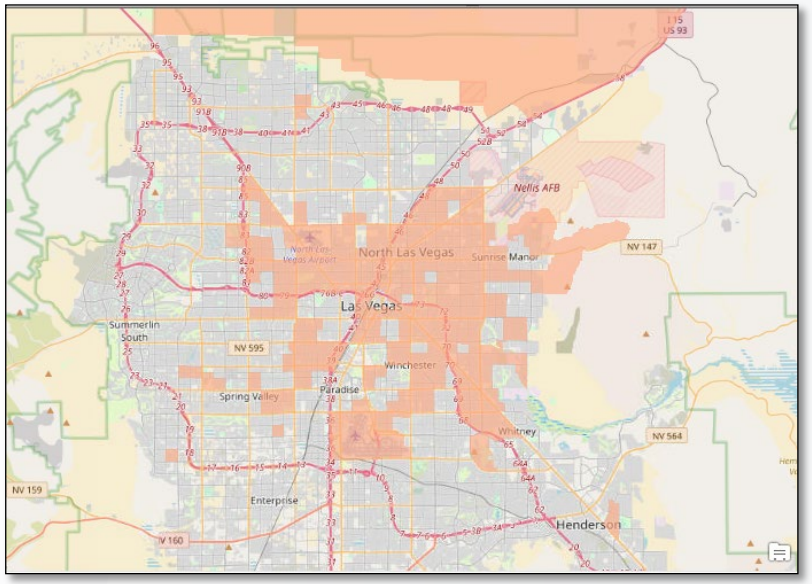
1. **Project Sponsors provide basic information** on existing conditions and project features through simple Project Input Form

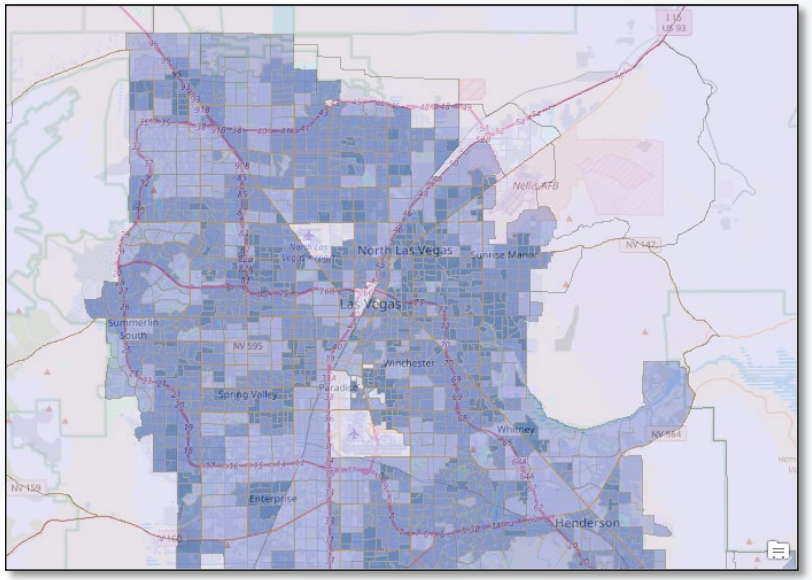
Existing Conditions	
Basic Project Information and Existing Conditions	
Project ID	ABC-123
Project Name	Sample Project ABC-123.
Project Description	*Project adds 2 miles of bike lanes in Las Vegas along Route A.*
Municipality	Las Vegas
Project Primary Roadway	Route A
From	Route B
To	Route C
Facility Type	Road Segment
Signalized	Yes
Roadway Type	Arterial
Number of Lanes	4
AADT: primary road	20,000
AADT: second road (if applicable)	

Project Scope and Features	
New Multimodal Capacity (if applicable)	
Active Transportation Features (check all that apply)	
Sidewalks	☐
Bike Lanes	☑
Protected Bike Lanes	☐
Shared Use Paths	☐
New Transit Service	
Ridership Forecast (Daily)	
Safety Countermeasures (if applicable)	
Countermeasure 1	
Select Category	Bicycle Lanes
Select Countermeasure	Install On-Street Bike Facility
Countermeasure 2	
Select Category	
Select Countermeasure	

Project Inputs from RTC

2. **RTC conducts supplemental data analysis** across all projects using several data layers, including:
   - Crash Database (Safety)
   - Census Tract Population Density (Multimodal)
   - Equity Focus Areas (Equity)
   - RITIS vehicle day (Congestion)





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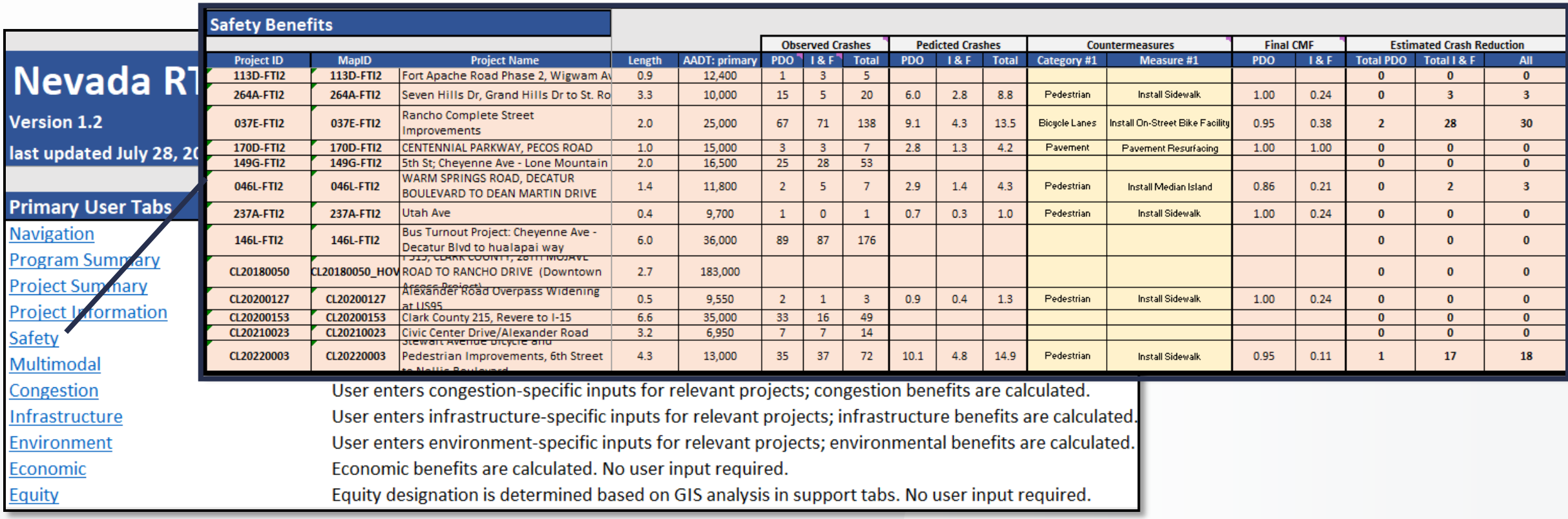
Quantify Project Benefits

3. Data is migrated from input forms into Calculator interface – each page of the calculator quantifies benefits from a different category



Safety Benefits

					Observed Crashes			Pedicted Crashes			Countermeasures		Final CMF		Estimated Crash Reduction		
Project ID	MapID	Project Name	Length	AADT: primary	PDO	I & F	Total	PDO	I & F	Total	Category #1	Measure #1	PDO	I & F	Total PDO	Total I & F	All
113D-FTI2	113D-FTI2	Fort Apache Road Phase 2, Wigwam Av	0.9	12,400	1	3	5								0	0	0
264A-FTI2	264A-FTI2	Seven Hills Dr, Grand Hills Dr to St. Ro	3.3	10,000	15	5	20	6.0	2.8	8.8	Pedestrian	Install Sidewalk	1.00	0.24	0	3	3
037E-FTI2	037E-FTI2	Rancho Complete Street Improvements	2.0	25,000	67	71	138	9.1	4.3	13.5	Bicycle Lanes	Install On-Street Bike Facility	0.95	0.38	2	28	30
170D-FTI2	170D-FTI2	CENTENNIAL PARKWAY, PECOS ROAD	1.0	15,000	3	3	7	2.8	1.3	4.2	Pavement	Pavement Resurfacing	1.00	1.00	0	0	0
149G-FTI2	149G-FTI2	5th St; Cheyenne Ave - Lone Mountain	2.0	16,500	25	28	53								0	0	0
046L-FTI2	046L-FTI2	WARM SPRINGS ROAD, DECATUR BOULEVARD TO DEAN MARTIN DRIVE	1.4	11,800	2	5	7	2.9	1.4	4.3	Pedestrian	Install Median Island	0.86	0.21	0	2	3
237A-FTI2	237A-FTI2	Utah Ave	0.4	9,700	1	0	1	0.7	0.3	1.0	Pedestrian	Install Sidewalk	1.00	0.24	0	0	0
146L-FTI2	146L-FTI2	Bus Turnout Project: Cheyenne Ave - Decatur Blvd to hualapai way	6.0	36,000	89	87	176								0	0	0
CL20180050	CL20180050_HOV	[illegible] ROAD TO RANCHO DRIVE (Downtown [illegible])	2.7	183,000											0	0	0
CL20200127	CL20200127	Alexander Road Overpass Widening at US95	0.5	9,550	2	1	3	0.9	0.4	1.3	Pedestrian	Install Sidewalk	1.00	0.24	0	0	0
CL20200153	CL20200153	Clark County 215, Revere to I-15	6.6	35,000	33	16	49								0	0	0
CL20210023	CL20210023	Civic Center Drive/Alexander Road	3.2	6,950	7	7	14								0	0	0
CL20220003	CL20220003	[illegible] Pedestrian Improvements, 6th Street to Nellis Boulevard	4.3	13,000	35	37	72	10.1	4.8	14.9	Pedestrian	Install Sidewalk	0.95	0.11	1	17	18

RTC Project Input Form Instructions

Reminders

- Each project input form should correspond to *one project*
- Multiple projects will require multiple project input forms
- Each project input form should be saved as an Excel file (*not CSV*) with a unique file name that appropriately corresponds to the project

Step 1: Basic Project Information and Existing Conditions

Existing Conditions	
Basic Project Information and Existing Conditions	
RTC/Local/NDOT ID # If Available	ABC-123
Project Name	Sample Project
Project Description	*Widen roadway from 4 to 6 lanes, install bike lanes and sidewalks, resurface roadway*
Municipality / Sponsoring Agency	Las Vegas
Project Primary Roadway	Road A
From (cross street or address)	Road B
To (cross street or address)	Road C
Facility Type	Road Segment
Signalized	Yes
Roadway Functional Classification	Arterial
Existing Number of Lanes	4
AADT: primary road	20,000
AADT: second road (if applicable)	
Estimated Completion Year	2026

Fill out basic information about project and project area's existing conditions.

All fields are required, with the exception of "AADT: second road" which is only required if the Facility Type is labeled as "Intersection"

Step 2: Performance Measures

Performance Measures	
Federal Performance Measures	
Choose all that apply:	
Safety	☑
Pavement / Bridge Condition	☑
Congestion	☑
Multimodal	☑
Air Quality	☐
Primary RTP Strategy	
Select one:	Manage Congestion

Make appropriate selections for Federal Performance Measures and Primary RTP Strategy Area using the checkboxes and dropdown menus.

Step 3: Project Scope and Features

Project Scope and Features	
New Multimodal Capacity (if applicable)	
Active Transportation Features (check all that apply)	
Sidewalks	☑
Bike Lanes	☑
Protected Bike Lanes	☐
Shared Use Paths	☐
New Transit Service	
Service Type	
Ridership Forecast (Daily)	
Safety Countermeasures (if applicable)	
Countermeasure 1	
Select Category	Pedestrian
Select Countermeasure	Install Sidewalk
Countermeasure 2	
Select Category	Bicycle Lanes
Select Countermeasure	Install On-Street Bike Facility
Countermeasure 3	
Select Category	Pavement
Select Countermeasure	Pavement Resurfacing

Select new multimodal capacity features that are included in the project scope.

If the project supports new transit service, enter the appropriate information

Select any safety features included in the project scope. Important to note:

- For each safety feature, users must select the category before selecting the countermeasure
- New multimodal capacity features (e.g. sidewalks, bike lanes) are also safety features, so ensure they are also selected in the Safety Countermeasure sections

Step 3: Project Scope and Features (cont.)

Roadway Capacity and ITS (if applicable)	
Proposed Number of Lanes (if changed)	6
Improvement Type	Widening: 4 to 6 Lanes
if Improvement Type is "Other":	
Infrastructure Health (if applicable)	
Select Category	Pavement
Select Improvement	Mill and fill
Environmental Projects (if applicable)	
Zero-Emission Buses	
Number of Buses Replaced	
Fuel Type of Replaced Vehicles	
Fuel Type of Replacement Vehicles	
VRM per bus	
VRM per bus (if custom)	

Select any roadway capacity changes or ITS features aimed at reducing congestion from the dropdown (note: roadway type must be selected in step 1 before selecting improvement type)

For projects that aim to address infrastructure health, select the category, then select the improvement type

If a project replaces conventional fuel buses with zero emissions buses, fill out the appropriate information here

Step 4: Cost/Funding

Cost (in current year dollars)	
Total Funding	
Total Federal Funding Requested	5,000,000
Total State Funding Requested	5,000,000
Total Local Funding Anticipated	5,000,000
Total Project Cost/Funding	*15,000,000*
Cost By Year	
FY 2025	*n/a*
FY 2026	*n/a*
FY 2027	6,000,000
FY 2028	6,000,000
FY 2029	3,000,000
FY 2030 - FY 2035	
FY 2036 - FY 2040	
FY 2041 - FY 2045	
FY 2046 - FY 2050	
Total TIP	15,000,000
Total RTP	15,000,000

Fill out cost/funding totals based on the funding source and the fiscal year of the funding. Note: the pink cell will automatically sum the totals from the yellow cells.