

1 INTRODUCTION

1.1 Plan Purpose

The explosive population, employment and housing growth in Las Vegas is an outstanding example of what is happening throughout the “sunbelt” states. Since 1980, Clark County has tripled in population from 462,087 in 1980 to 1,747,025 in 2004. Federal, state and local officials recognize the need to confront the impacts of urban growth in America. The following chapters in this report will document in detail the levels of this growth. In addition, this chapter will consider the organizational structures that local officials have developed to address this problem.

The Regional Transportation Commission of Southern Nevada (RTC) is the regional organization that develops transportation plans to meet the needs of the area. Plans are all developed in coordination with the RTC member entities representing all cities and Clark County.

The Las Vegas metropolitan area is a collection of incorporated cities and unincorporated areas with interrelated employment, housing, schooling and personal and recreational services. These communities and services are linked to each other by a network of roads and streets that enable vehicular access to these services and permit them to receive materials to meet customer demands. Coordination is essential. Often, when these municipalities work to meet the transportation needs of their constituents, there are conflicts with the needs of an adjacent jurisdiction. Limited funding for transportation projects from federal, state and local funding sources requires some agreement on how the money will be allocated so that local and regional needs are in balance. RTC coordinates agreement on project priorities, so that the planned projects can be funded with the resources available over time.

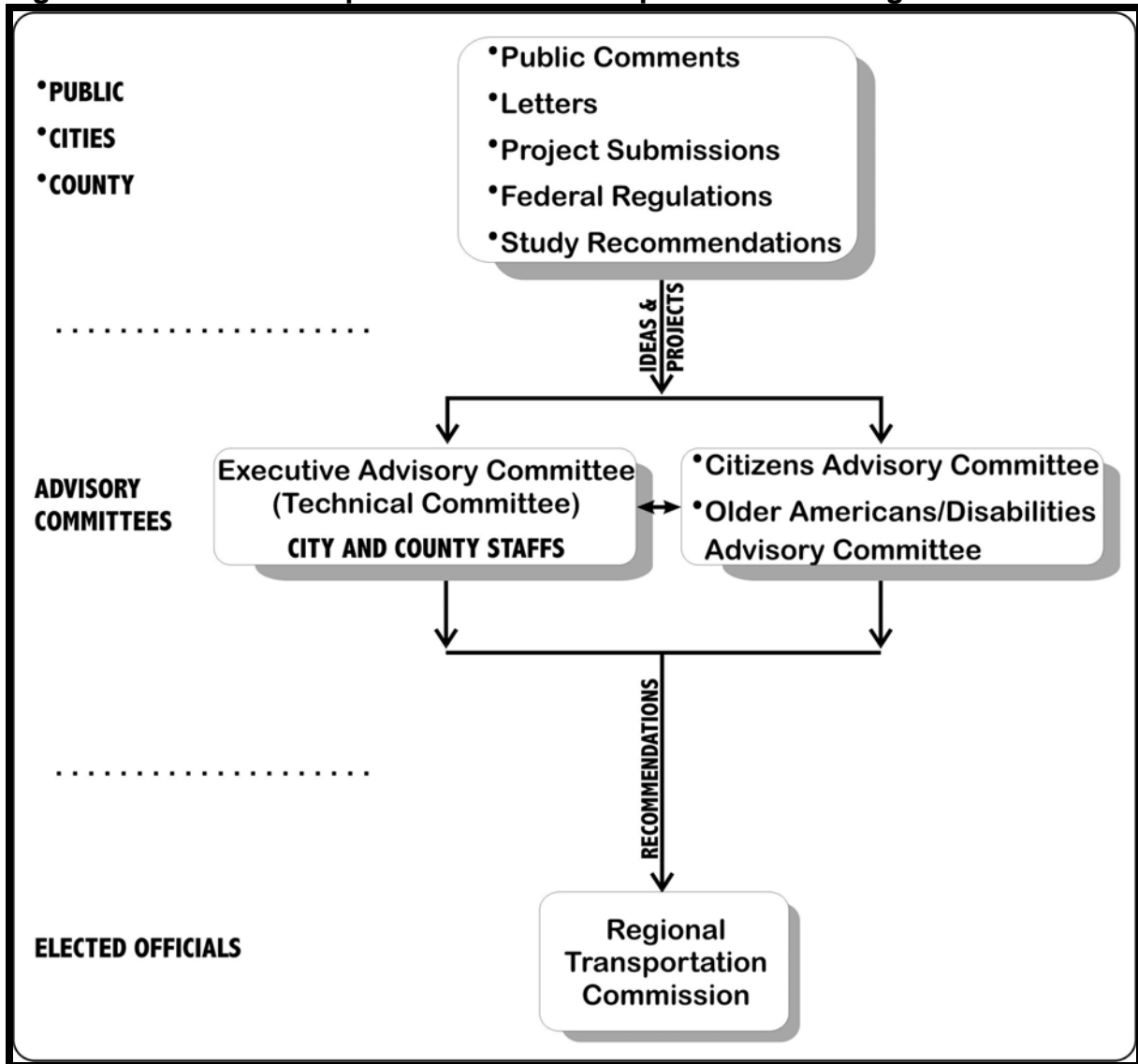
Air pollution, a by-product of rapid urban growth and tail pipe emissions, has added another layer of complexity to the transportation planning process. Now local officials and transportation planners must consider the change in pollutants and pollution concentrations for every proposed project. The air pollutant “budget” determined for every urban area must not be exceeded without concern for losing federal funds and degrading resident health.

The RTC’s plans meet these needs by setting out proposed transportation measures in our plans. The long range transportation plan (20+ years), officially known as the *Regional Transportation Plan FY 2006-2030* (RTP), and the detailed amendment to the 3-year *Transportation Improvement Program FY 2006-2008* (TIP) are two tools that local officials use to express regional transportation needs to both federal funding authorities and local citizens concerned about government response to transportation growth issues.

1.1.1 Plan Development

When citizens, local officials or planning staff develop recommendations for problems, or want to consider the effectiveness of competing solutions, their ideas are entered into the same transportation planning process that develops and approves the RTP and TIP and is described in Figure 1-1. The RTC committees review this information, comment on it and make recommendations to the RTC Commissioners for final determination. Anyone can present ideas to the RTC Commissioners or the RTC committees at any point in this process.

Figure 1-1: Plan Development and the Transportation Planning Process



Source: Regional Transportation Commission 2005

1.1.2 Plan Content

According to the federal Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) of 2005, the scope of Regional Transportation Plan must include the following:

(1) IN GENERAL.—The metropolitan planning process for a metropolitan planning area under this section shall provide for consideration of projects and strategies that will—

(A) support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency;

(B) increase the safety of the transportation system for motorized and nonmotorized users;

(C) increase the security of the transportation system for motorized and nonmotorized users;

(D) increase the accessibility and mobility of people and for freight;

(E) 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 and economic development patterns;

(F) enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;

(G) promote efficient system management and operation; and

(H) emphasize the preservation of the existing transportation system (Section 3005, §5303 (h)(1)).

1.2 RTC and the Metropolitan Planning Organization

The Regional Transportation Commission of Southern Nevada (RTC) is a regional government organization composed of elected officials appointed from each of the local governments within Clark County. The RTC performs the following functions:

- Oversees the federally mandated transportation planning process for the region;
- Directs the expenditure of funds generated from the Federal Transit Administration (FTA), the Federal Highway Trust Fund, the County Option Motor Vehicle Fuel Tax for regional street and highway construction, county sales tax designated for transportation;
- Ensures that transportation plans and programs conform to approved air quality standards;
- Provides public mass transportation within Southern Nevada; and
- Administers the region's trip reduction program, Club Ride Commuter Services.

Under federal regulations, a state's governor designates a "Metropolitan Planning Organization" (MPO) for transportation for each major urban area. The RTC is the designated MPO for Southern Nevada. As the MPO, the RTC is responsible to the State and federal governments for maintaining a continuing, cooperative and comprehensive transportation planning process. Metropolitan Planning Organization (MPO) activities are guided by SAFETEA-LU. The MPO planning process is a

prerequisite for the area to receive federal funds for airport, transit and highway improvements.

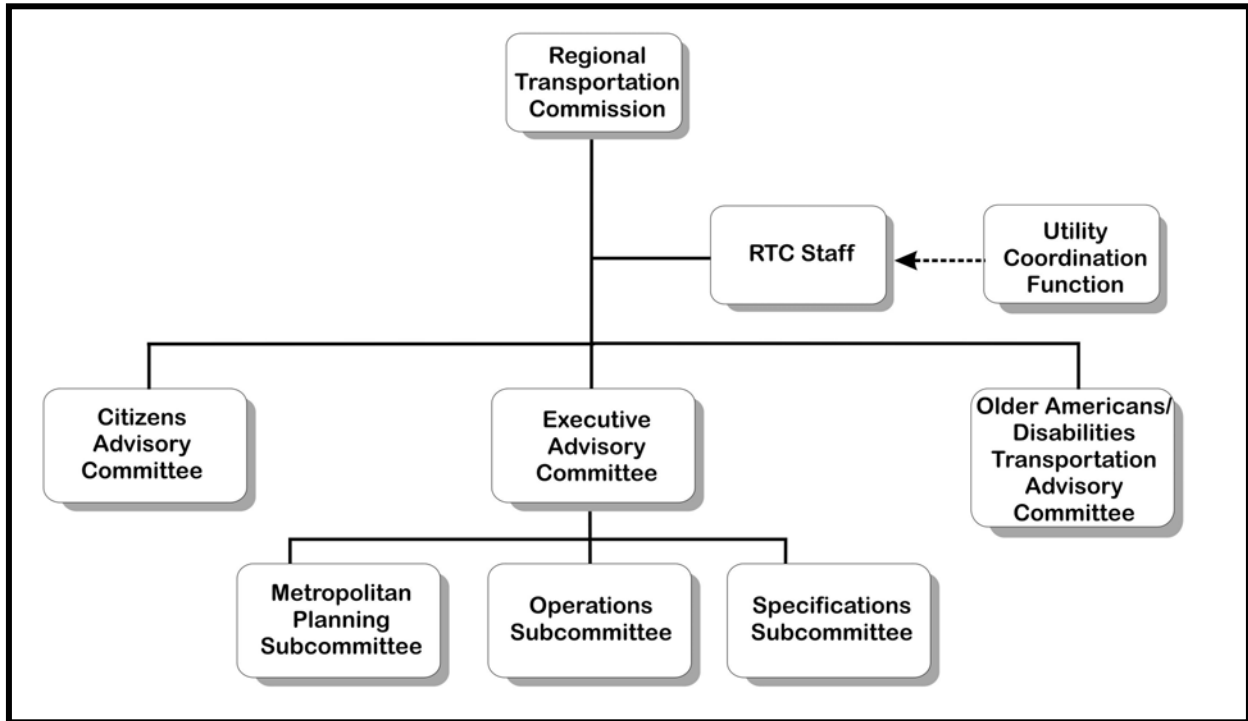
1.2.1 RTC Commissioners

Membership on the Commission is set by state statute (NRS 373.040) and consists of two members from the Board of Clark County Commissioners, two members from the city council of the largest incorporated city and one member from the city council of every other incorporated city in the county. The City of Las Vegas is now the largest incorporated city in the county.

1.2.2 Committee Structure

The three committees, three subcommittees and utility coordination function displayed on Figure 1-2 play an important role in the decision-making process at the RTC. Both citizens' committees and technical advisory committees provide input, recommendations and suggestions to the Commission. All meetings are open to the public and participation is welcomed and encouraged. A full discussion of these committees, their membership and responsibilities is provided in the Citizen Participation Plan element of this Plan.

Figure 1-2: RTC Committees



1.3 Planning Study Boundaries

The RTC is the designated MPO for all of Clark County. The state and its physical relationship to neighboring states and the highway system connecting Clark County with its neighboring states are displayed on Figure 1-3.

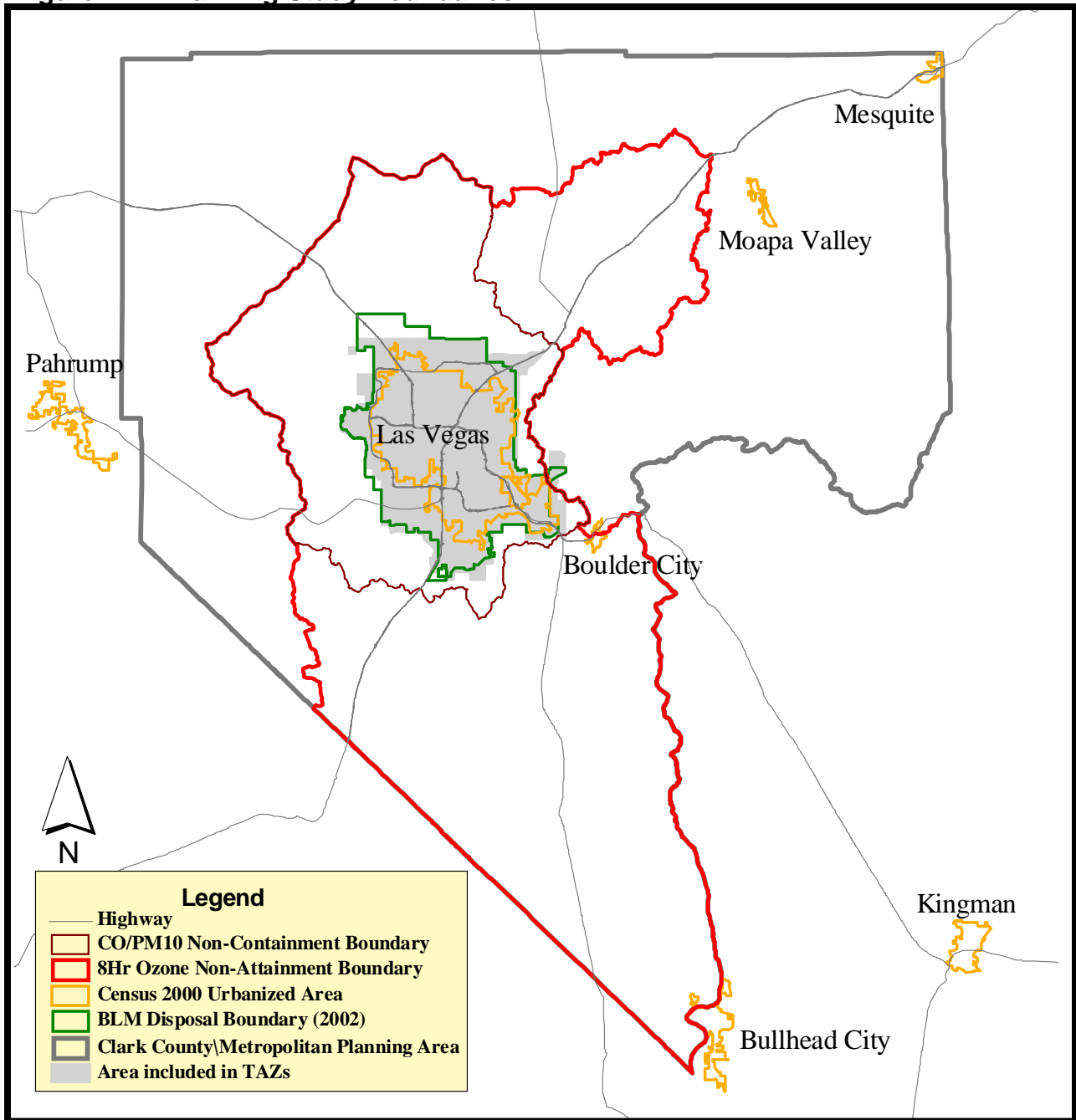
Figure 1-3: Clark County



Source: NationalAtlas.gov, 2006

Most of the MPO transportation planning activities are focused within the area that is roughly coincidental with the Bureau of Land Management Disposal boundary in Figure 1-4: Planning Study Boundaries. The Non-Attainment area is roughly coincidental with the watersheds. The area within the Transportation Analysis Zones (TAZs) encompasses the developed area within the Las Vegas Valley and it is almost entirely within the disposal boundary. Rapid growth within the region has made the Urbanized Areas designated by the 2000 Census obsolete for planning purposes. For the same reason, the urbanized areas near Las Vegas are increasingly important to the regional planning effort.

Figure 1-4: Planning Study Boundaries



Sources: Clark County, Regional Transportation Commission, Census 2000

1.4 Acronyms

Acronym	Meaning
AASHTO	American Association of State Highway and Transportation Officials
A(A)DT	Average (Annual) Daily Traffic
ADA	Americans with Disabilities Act of 1990
AMPO	Association of Metropolitan Planning Organizations
APTA	American Public Transit Association
ATE	Advanced Truck Stop Electrification Systems
ATIS	Advanced Traveler Information System
AAWVMT	Annual Average Weekday Vehicle Miles Traveled
BLM	Bureau of Land Management
BMP	Best Management Practice
BPE	Bicycle/Pedestrian Element
BRT	Bus Rapid Transit
CAA	Clean Air Act
CAC	Citizens Advisory Committee
Caltrans	California Department of Transportation
CAT	Citizens Area Transit
CCDAQEM	Clark County Dept. of Air Quality & Environmental Mgmt.
CCITT	Central City Intermodal Transit Terminal
CFR	Code of Federal Regulations
CMAQ	Congestion Mitigation and Air Quality
CMS	Congestion Management System
CNG	Compressed Natural Gas
CO	Carbon Monoxide
DEIS	Draft Environmental Impact Statement
DMS	Dynamic Message Sign
DMU	Diesel Multiple Unit
DOT	Department of Transportation
DTC	Downtown Transportation Center
DUI	Driving Under the Influence
EA	Environmental Assessment
EAC	Executive Advisory Committee
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
EX	"Exempt" Project or project exempt from regional emissions analysis
EX-A	Exempt alternate mode project
EX-T	Exempt transit project
FAA	Federal Aviation Administration
FAR	Floor Area Ratio
FAST	Freeway and Arterial System of Transportation
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

Acronym	Meaning
FTA	Federal Transit Administration – formerly Urban Mass Transportation Administration (UMPTA)
FY	Fiscal Year
GIS	Geographic Information System
GPS	Global Positioning System
HOT	High Occupancy/Toll
HOV	High Occupancy Vehicle
HPMS	Highway Performance Monitoring System
ISTEA	Intermodal Surface Transportation Efficiency Act
ITS	Intelligent Transportation System
LOS	Level of Service
JDP	Joint Development Program
LRT	Light Rail Transit
LVACTS	Las Vegas Area Computer Traffic System
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
NAAQS	National Ambient Air Quality Standards
NDOT	Nevada Department of Transportation
NEPA	National Environmental Policy Act (PL 91-190)
NHS	National Highway System
NO _x	Nitrous Oxide compounds
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
OA/DTAC	Older Americans/Disabilities Transportation Advisory Committee
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 non-exempt project - not modeled
ONX-T	Other non-exempt transit project - not modeled
P&R	Park and Ride
PCA	Project Conflict Avoidance
PL	Metropolitan Planning Area Program
PM ₁₀	Particulate matter less than 10 microns in diameter
ROW	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

Acronym	Meaning
SAAM	Small Area Allocation Model
SAFETEA-LU	Safe, Accountable, Flexible and Efficient Transportation Equity Act: A Legacy for Users
SIP	State Implementation Plan
SNRPC	Southern Nevada Regional Planning Coalition
SNTC	Southern Nevada Transit Coalition
SOV	Single Occupant Vehicle – driver only
SR	State Route
S RTP	Short Range Transit Plan
STB	Surface Transportation Board
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
STTAC	Statewide Transportation Technical 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
TE	Transportation Enhancement
TEA-21	Transportation Equity Act for the 21 Century
TIP	Transportation Improvement Program
TMIP	Travel Model Improvement Program
TOD	Transit Oriented Development
TPS	Transit Performance Standards
UCC	Utility Coordination Committee
UNLV	University of Las Vegas Nevada
UPRR	Union Pacific Railroad
UPWP	Unified Planning Work Program
V/C	Vehicle/Capacity Ratio
VHT	Vehicle Hours of Travel
VMT	Vehicle Miles of Travel
VOC	Volatile Organic Compounds
XTDM	Project outside travel demand model area
XNAA	Project outside non-attainment area

1.5 GLOSSARY

- Access/Egress - The ability to enter a site from a roadway and exit a site onto a roadway by motorized vehicle.
- Acre - 43,560 square feet. There are 620 acres to a square mile (section) and thirty-six square miles in a township.
- Activity Center – A major concentration of employment and commercial activity that may be found in suburban areas as well as in downtown areas.
- Actuated Signal – A traffic signal equipped to detect a vehicle as it passes and to communicate information about traffic flow to a master traffic signal controller.
- Adverse Impact - A negative consequence from an action or project on the physical, social or economic environment.
- Alternate Work Schedule – A program that eliminates employee work trips or shifts them to off peak periods. Such schedules include the so-called “4-40”, working four 10-hour days each week, and “9-40”, working eight 9-hour and one 8-hour day every two weeks.
- Average (Annual) Daily Traffic -- The number of vehicles using a facility on an average day. It is calculated by dividing the total yearly volume vehicles by 365.
- Arterial, Major - Medium-speed (30-45 mph), medium-capacity (10,000 to 35,000 average daily trips) roadway that provides intra-community travel and access to the area-wide freeway system. Access to major arterials should be provided at minor arterials, collector roads and local streets, because direct access from abutting properties can reduce the number of vehicles the roadway can accommodate.
- Arterial, Minor - Roadways for which mobility and access to abutting land uses are important functions. Minor arterials are connected to major arterials to provide a free flow for trips of moderate lengths within relatively small geographical areas.
- Arterial, Principal – Interstate System – Serves major traffic movements within urbanized areas, connecting central business districts, outlying residential area, major intercity communities, and major suburban centers. Optimally the system carries the major portion of trips entering and leaving the urban area, as well as the majority of through movements preferring to bypass the central city.
- Arterial, Super – Also called “junior expressway”, is characterized by speed limits up to 55 miles per hour, no traffic signals, a concrete median barrier between opposing traffic and pedestrian areas, grade separations major street crossings, and no curb cuts or driveways to adjacent property.
- Beltway – A beltway is a freeway that encircles all or part of a metropolitan area.
- Bicycle Route (Bike Route) – A shared roadway which has been designated by signing as a preferred route for bicycle use.
- Bicycle Lane (Bike Lane) – A portion of a roadway that has been designated by striping, signing and pavement markings for the preferential or exclusive use of bicycles.
- Bicycle Path (Bike Path) – A bikeway physically separated from motorized vehicular traffic by an open space or barrier and either within the highway right-of-way or

- within an independent right-of-way. Pedestrian, skaters, wheelchair users, joggers and other non-motorized users may also use shared use paths.
- Bikeway** – Any road, street, path, or right-of-way that is specifically designed for bicycle travel including those shared with other vehicles or pedestrians.
- Branch Line** – A secondary line of a railway, typically stub-ended.
- Bulk Transfer** – The transfer of bulk products, such as plastic pellets or liquid sweeteners, from one mode of transportation to another. Bulk transfer permits shippers and receivers without direct rail access to combine rail's long-haul efficiencies with truck's convenient door-to-door delivery.
- Busway** – A special roadway designed for exclusive use by buses. A busway may be located in a separate right-of-way or as a separate lane within a highway or roadway right-of-way.
- Carbon Monoxide (CO)** – Air pollutant that is a highly toxic, odorless, colorless gas. Automobile emissions are the primary source of CO.
- Carload** – Shipment of freight required to fill a rail car.
- Carpool** – An arrangement among two or more people to share use and/or costs of traveling in privately owned automobiles between fixed points on a regular basis.
- Centroid** – The center of a traffic analysis zone. It is a hypothetical place where trips begin or end and, typically, has characteristics such as dwelling units and employment assigned to it.
- Centroid Connector** – A hypothetical route connecting the center of a traffic analysis zone and the street network.
- Changeable Message Sign** - A message board device that provides drivers with real-time information concerning driving conditions. These signs can advise motorists of congestion, road or ramp closures, accidents or alternate routes. They are also used for "Amber Alerts."
- Class I Bike Path** – A travelway completely separate from the roadway and shoulder that is designated for cycling by means of signs and sometimes striping and other identifying markings. The travelway may be within or outside of the highway right-of-way.
- Class II Bike Lane** – A restricted travelway or shoulder, designated for cycling along a specific section of the roadway or shoulder by means of signs and sometimes striping and other identifying markings. A physical barrier may or may not be employed to separate cycling from motorized traffic.
- Class III Shared Roadway** – A travelway, part of a roadway, which is designated for cycling by means of signs and sometimes striping and other identifying markings without a physical separation of cycling from motorized traffic.
- Cold start** - The starting of an engine that is significantly below normal operating temperature. Cold starts are important in understanding vehicle emissions, because the rate and composition of emissions vary with engine temperature. Cold start mode, the period of operation to which cold start emissions rates apply, is defined by EPA for catalyst-equipped vehicles as the first 505 seconds after start of an engine which has been turned off for one hour or more (four hours for non-catalyst-equipped vehicles). (Source: TMIPClearinghouseManual of Regional Transportation Modeling Practice for Air Quality Analysis USDOT)

Collector - Relatively low-speed (25-30 mph), relatively low-volume (5,000-20,000 average daily trips) street that provides circulation within and between neighborhoods. Collectors usually serve short trips and are intended for collecting trips from local streets and distributing them to the arterial network.

Conformity - In general, the agreement of transportation plans and programs with assumptions and commitments designed to attain federal and state air quality standards. Specifically, conformity to a SIP means conformity to the plan's purpose of eliminating or reducing the severity and number of violations of the national ambient air quality standards (NAAQS), and the avoidance of activities that might cause or contribute to a new violation of any standard, increase the frequency or severity of an existing violation, or delay timely attainment of any standard or interim milestone. In addition, transportation plans and programs can be found to conform only if: (1) emissions from such plans and programs are consistent with emissions projections and reductions assigned to those transportation plans and programs in the SIP, i.e., are consistent with the emissions budgets or targets; and (2) the plans and programs provide for timely implementation of SIP TCMs consistent with SIP schedules. (Source: TMIPClearinghouseManual of Regional Transportation Modeling Practice for Air Quality Analysis USDOT)

Congestion – The level at which transportation system performance is no longer acceptable to the traveling public due to traffic interference. The level of acceptable system performance may vary by type of transportation facility, geographic location, public tolerance, and/or time of day.

Congestion Management System (CMS) The Transportation Equity Act of the 21st Century, commonly referred to as TEA-21, requires development of a CMS as part of the transportation planning process in all urbanized areas. The objective of a CMS is to: identify locations of existing and future congestion, specify strategies to minimize or eliminate congestion, evaluate effectiveness of implemented strategies, and provide input to the long range transportation plan.

Congestion Mitigation and Air Quality Improvement Program (CMAQ) – A categorical funding program created as part of the Intermodal Surface Transportation Efficiency Act of the 21st Century (ISTEA), it directs funding to projects that contribute to meeting national air quality standards in non attainment areas. CMAQ funds generally may not be used for projects that result in the construction of new capacity available to single occupancy vehicles.

Corridor – In planning, a broad geographical band that encompasses all travel modes connecting one location with another.

Dedication - The process of an owner or developer of private land turning that land over for public use, and the acceptance of land for such use by the governmental agency having jurisdiction over the public function for which it will be used. Often dedications for roads, parks, school sites, or other public uses often are made into conditions for approval of a development by a village, city, or county.

Disability – In the Americans with Disabilities Act (ADA), the term disability is defined to include any physical or mental impairment that substantially limits one or more major life activity, a record of such impairment, or being regarded as having such an impairment. Major life activities include caring for one's self, performing

manual tasks, walking, seeing, hearing, peaking, breathing, learning, and working. Persons with cognitive disabilities and those with contagious or noncontagious disease (including tuberculosis and HIV disease) are specifically included in this definition.

Easement - Usually the right to use property owned by another for specific purposes or to gain access to another property. For example, utility companies often have easements on the private property of individuals to be able to install and maintain utility facilities. Usually buildings cannot be placed within an easement, but the land covered by them can be used to calculate land available for development.

Emergency Ride Home (ERH) – Refers to a program that encourages employees to carpool, use transit, bike or walk to work by guaranteeing them a ride home in the event that they cannot take the same mode home, e.g., if they need to work late or if a family member becomes ill.

Eminent Domain - The right of a public entity to acquire private property for public use by condemnation, and the payment of just compensation. In Nevada, a governmental entity can exercise the right of eminent domain over land owned by another governmental entity, if the need of the condemning agency for use of the land is more immediate than that of the agency responsible for the land.

Encroachment – The use of one property by another. Municipal government issues an encroachment permit that allows other entities to place facilities within the dedicated right-of-way. The permit does not confer the same rights to control the use of surrounding areas as does the easement. Those rights remain with the entity issuing the permit.

Enhanced Bus Service – Includes a range of improved services including express bus service, shorter headways, or exclusive operating corridor. Conventional bus vehicles are used.

Express Bus Service – A bus route with a limited number of stops. Stops may include intersections with other transit routes and major employment or shopping centers.

Fee Simple – The ownership of all the available rights associated with a given parcel of land. Fee simple absolute includes all rights: surface, subsurface, and air rights to use and resources. In practice such ownership no longer exists. Fee simple is normally conveyed by a deed transferring title from one owner to another.

Fixed Cost – A service cost that remains relative constant regardless of how many people use the service, e.g., the cost of buying, operating, and maintaining the bus.

Fixed Guideway Transit – Transit service provided with its own operating corridor, not usually shared with other types of transportation. In urban areas, transit using a paved surface may share the corridor with bicycles. Rail corridors may be shared with freight service. Transit vehicle types can include all types of passenger rail, bus, and bus rapid transit.

Fixed Route Service – Service provided on a repetitive, fixed schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed route trip serves the same origins and destinations, unlike demand responsive and taxicab service.

- Flexi-Fare - Flexi-fare transit passes use magnetic card reading technology that tracks and records each trip taken on the bus. The passes are good for one year. Employers that subsidize their employees' transit expenses are only charged for transit trips actually taken rather than purchasing a standard pass for a preset amount and good for only a month. Employers offer the benefit on a pre-tax basis.
- Freeway – A divided multi-lane roadway for through traffic with control of access and with grade separations at major intersections. Also called an expressway.
- Freeway Service Patrol – Customized patrol vans that drive a continuous loop along their specified routes to provide cost-free assistance to motorists for a wide variety of roadway incidents, including but not limited to: disabled vehicles, accident scenes, lost motorists, sick or injured motorists, pedestrians on the roadway, animals on the roadway, travel lane or shoulder debris, vehicle fires, fuel leaks, and other incidents that can be mitigated by FSP personnel (NDOT website, April 2005).
- Headway - The time interval between consecutive vehicles passing a given point. Generally used to define transit service. Used in the following context: “Peak period transit buses generally run on fifteen-minute headways or less.”
- Horizon Year – The years identified as those used for air quality modeling and project funding. The years must begin “no more than 10 years from the base year used to validate the transportation demand planning model,” be no more than 10 years apart and end no later than the plan. (40CFR93.106)
- HOV Facility – A lane(s) or roadway dedicated to the exclusive use of specific high-occupancy vehicles, including buses, carpools, vanpools or a combination thereof, for at least a portion of the day.
- Implementation - Actions, procedures, programs, or techniques that carry out policies.
- Infrastructure - Public services and facilities, such as sewage disposal systems, water supply systems, other utility systems, and roads.
- Intelligent Transportation System – strategies that reduce congestion by addressing with the operation of existing highways, transit systems, and freight services. Such strategies may include incident detection, signal coordination, real time roadway operating information, freeway message boards.
- Intermodal Facility – A facility designed to connect different modes of transportation.
- Interstate Highway – A freeway or expressway through more than one state.
- Interstate Commerce Commission (ICC) - Former transportation regulating authority, eliminated by the ICC Termination Act of 1995. Replaced by the Surface Transportation Board (STB).
- Inverse Condemnation - The effective taking, or substantial reduction in value, of property as a result of governmental action, in contrast with a direct taking through eminent domain. Owners of property impacted by inverse condemnation may recover the property value lost through legal action.
- Inversion – A layer of the atmosphere through which the temperature increases with altitude. An inversion may be found at ground level or aloft.
- Level of Service - Roadway level of service (LOS) is means of describing the level of roadway congestion. There are separate descriptions for freeways and signalized intersections. LOS is represented by the letters "A" through "F", with

- "A" generally representing free flowing traffic movements and "F" bumper-to-bumper traffic. The measure can be the relationship between roadway capacity and the volume of traffic it carries. Signalized intersections are evaluated on the basis of how long vehicles must wait.
- Light Rail – Normally defined as an electric railway with a light volume traffic capacity compared to heavy rail. Other propulsion technologies include cable, diesel and hybrid diesel/electric. Light rail may use shared or exclusive rights of way, high or low platform loading and multi car trains or single cars. Also known as LRT, streetcar, trolley car and tramway.
- Main Line - Two definitions apply. First is a designation made by each railroad of its own track, generally signifying a line over which through trains pass with relatively high frequency. A main line generally has heavier weight rail, more sophisticated signaling systems and better maintenance than branch lines. Second is a designation of the through track between any two points, even on a branch line, as distinguished from side tracks, pass tracks or spurs.
- Managed Lane – Highway facilities or designated lanes in which operational strategies are implemented and managed in real time in response to changing conditions. These include limited access lanes and so-called HOT lanes. HOT lanes require the payment of tolls that vary with the level of congestion on the remainder of the roadway.
- Master Plan of Streets and Highways – A map of all the streets in the Roadway Functional Classification for the area, as well as many other existing and planned local roads.
- Median Control – The use of a raised median curb to direct left turning movements to desired locations and to reduce conflicts between oncoming vehicles.
- Median Strip - The dividing area, either paved or landscaped, between opposing lanes of traffic on a roadway.
- Metropolitan Planning Organization – The forum for cooperative transportation decision making for a metropolitan planning area. (23CFR500.103) The MPO must be in place in every urbanized area with a population greater than 50,000 (as defined by the Census Bureau). The MPOs responsibilities include the 20 year long range plan and the transportation improvement program.
- Mixed-use - Properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site in an integrated development project with significant functional interrelationships and a coherent physical design. A "single site" may include contiguous properties.
- Mobile Source – A source of pollutants from a self propelled transportation vehicle, such as motor vehicle, boat, ship, locomotive, aircraft, or off road motor vehicle.
- Mode Split – The percentage, or share, of trips captured by the various transportation modes.
- Mode Shift – The change in mode by an individual. A person may shift modes when the relative cost in terms of time, money, and convenience between modes changes. For example, if people who once drove alone to work decide to take the bus instead, these individuals shift from the automobile mode to the bus mode.
- National Ambient Air Quality Standard – Federal air quality standards established pursuant to §109 of the Clean Air Act that apply to outside air everywhere and

are set to protect public health. Included are standards for carbon monoxide (CO), ozone (O₃) and particulate matter (PM₁₀).

Non-attainment area - An area that does not achieve one or more federal national ambient air quality standards.

Official Map - A map of legally established public streets, waterways, and public areas. All features and boundaries shown on an official map should be fixed or determined by a physical or aerial photographic survey.

Objective – A measurable step toward achieving a goal.

Operational improvement.— A capital improvement for installation of traffic surveillance and control equipment, computerized signal systems, motorist information systems, integrated traffic control systems, incident management programs, and transportation demand management facilities, strategies, and programs, and NOT resurfacing, restoring, or rehabilitating improvements, construction of additional lanes, interchanges, and grade separations, and construction of a new facility on a new location. (23 U.S.C. 101(a)) [emphasis added]

Ordinance - A legislative enactment of a county or city. It is a governmental statute or regulation and its adoption requires a public hearing and publication of the text in a local newspaper.

Ozone (O₃) – An air pollutant that is a toxic, colorless gas which is the product of the reaction of hydrocarbons (HC) and oxides of nitrogen (NO_x) in the presence of sunlight. Automobile emissions are the primary source of HC and NO_x.

Paratransit - Transportation service required by the Americans with Disabilities Act (ADA) of 1990 for individuals with disabilities who are unable to use fixed route transportation systems.

Park And Ride Lot – A designated parking area where individual drivers can park and board transit vehicles or meet carpools and vanpools.

Parkway – A term applied to freeways that are heavily landscaped or restrict the maximum weight of vehicles allowed to use it. The term is also applied to a landscaping strip between the sidewalk and the roadway.

Parking Ratio – the number of parking spaces provided per square foot of floor area in non-residential areas, or dwelling unit or bedroom in residential areas.

Peak Period – Whether categorized by purpose or by geographic area, trips occur at different rates at different times of the day. A graph of trips by time of day typically reveals one or more peaks. These peaks play a key role in conventional travel demand analysis, which focuses on maximum infrastructure need in each corridor. The dominant weekday peaks are in the morning ("AM Peak") and the late afternoon ("PM Peak"), related to the timing of work trips. A peak can be characterized by its maximum trip rate (in trips per unit time) or by a duration over which some threshold trip rate is maintained. The portions of the peak before and after the peak hour are called the "shoulders of the peak". (Source: TMIP Clearinghouse Manual of Regional Transportation Modeling Practice for Air Quality Analysis USDOT)

Pedestrian Shed - An area defined by the average distance that may be traversed at an easy walking pace from its edge to its center. This distance is applied to determine the size of a Neighborhood or extent of a Community. A standard Pedestrian Shed is one quarter of a mile radius or 1,320 feet. With transit

- available or proposed, a Long Pedestrian Shed has an average walking distance of a half-mile or 2,640 feet. Pedestrian Sheds are oriented toward a central destination containing one or more important intersections, meeting places, civic spaces, civic buildings and the capacity to accommodate other facilities in the future. Sometimes called a walkshed or walkable catchment.
- Preferential Parking – Designating the most desirable parking spaces, such as those closest to building entrances, for the exclusive use of carpools and vanpools.
- Priority, Bus and Emergency Vehicle – An electronic signal system that changes the traffic signal to green as buses and emergency vehicles approach the intersection. The system is designed to reduce times these vehicles wait at intersections.
- Rail Yard – A system of tracks within limits provided for switching cars, making up trains, storing cars, and other purposes.
- Ramp Metering – A traffic signal located on an entry ramp to a freeway. The purpose is to regulate the number of vehicles that can enter the freeway.
- Regionally Significant Project – A transportation project on a facility that meets regional transportation needs, including all principal arterials, freeways, most transportation terminals, and all fixed guideway transit projects that offer an alternative to regional highway travel.
- Reversionary Interest – A condition accompanying the conveyance of land for a specific use that returns the property to its prior owner if the use specified in the conveyance document is discontinued.
- Ridesharing - Providing multiple person trips per vehicle trip. Ridesharing modes include carpools, vanpools, taxis (sometimes), shuttles, jitneys, dial-a-ride, etc. Bus and rail transit, are technically forms of ridesharing although they are generally treated as a separate mode.
- Right-of-Way – The equivalent of an easement, it is usually used in reference to a corridor or alignment for a road or utility line. When used in reference to a public roadway, the right-of-way is normally a fee interest in the land that is transferred by the abutting property owner to the municipal government.
- Rural Areas— All areas of Nevada not included in urban areas.
- Semi-Actuated Traffic Signal – A traffic signal with detection equipment operating on less than all roadways coming into the intersection or equipment that operates less than 24 hours a day.
- Setback - The horizontal distance between the property line and any structure.
- Signal Network (System) – A group of traffic signals along an arterial roadway or in a grid pattern which are able to communicate to a master traffic controller and operate in coordination.
- Signalization – The process of converting a group of traffic signals into a signal network.
- Slope - Land gradient ratio calculated by dividing the vertical rise by the horizontal run, and expressed in percent.
- Street Furniture - Those fixtures associated with a street that are intended to enhance the street's physical character and use by pedestrians, such as benches, trash receptacles, kiosks, lights, and newspaper racks.

Streetscape - The urban element that establishes the major part of the public realm.

The streetscape is composed of thoroughfares, including travel lanes for vehicles and bicycles, parking lanes for cars, and sidewalks or paths for pedestrians, as well as the visible private frontages and the amenities of public frontages such as street trees and plantings, benches, streetlights, and street furniture.

"Topo" - Topography or configuration of the surface of the ground.

Traffic Calming - Street design techniques to reduce the negative effects of vehicles and to improve conditions for walking or bicycling.

Traffic Signal Synchronization – A process used to create an efficient flow of traffic through signalized intersections by ensuring as many as possible are green when the traffic flowing through them arrives.

Transit Dependent – People dependent on public transit for meeting their transportation needs. Such people include those who are unable to drive, do not own a car, not licensed to drive.

Transit Oriented Development – Transit Oriented Development (TOD) is moderate to higher density development, located within an easy walk of a major transit stop, generally with a mix of residential, employment and shopping opportunities designed for pedestrians without excluding the auto. TOD can be new construction or redevelopment of one or more buildings whose design and orientation facilitate transit use. (Terry Parker and GB Arrington, *Statewide Transit-Oriented Development Study: Factors for Success in California*, for California Department of Transportation, Final Report, September 2002)

Transit Skimming – Modeling term used to refer to the results of a process to find the zone-to-zone travel times for a given network.

Transportation Control Measure (TCM) – Measures that include reducing driving through increased cost in time or money, transit improvements, land use changes and employer efforts and emissions reductions through lowered emissions or improved traffic flow.

Transportation Demand Management – Programs intended to reduce the number of trips rather than to increase the capacity of transportation facilities. Programs include transit and ridesharing and staggered work hours.

Transportation Enhancement Activities – Any of the following activities if such activity relates to surface transportation: provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists, acquisition of scenic easements and scenic or historic sites, scenic or historic highway programs (including the provision of tourist and welcome center facilities), landscaping and other scenic beautification, historic preservation, rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals), preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails), control and removal of outdoor advertising, archaeological planning and research, environmental mitigation to address water pollution due to highway runoff or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity, and establishment of transportation museums. (23 U.S.C. 101(a))

Transportation Management Area (TMA) – An urbanized area with a population over 200,000 (as determined by the latest decennial census) or other area when TMA designation is requested by the Governor and the MPO (or affected local officials), and officially designated by the Administrators of the FHWA and the FTA. The TMA designation applies to the entire metropolitan planning area(s). (23CFR500.103)

Transportation System Management – Increasing the flow of traffic through minor modifications to the existing roadway system. Projects might include removal of parking, freeway ramp metering, freeway incident management and signal synchronization.

Transportation Terminals -- Major ports, airports, intermodal freight facilities, and transit terminals.

Travel Time Index – The ratio of travel time in the peak period to the travel time the rest of the day. For example, a value of 1.35 indicates a 20-minute trip will take 27 minutes at peak periods. (Texas Transportation Institute)

Urbanized Area – “An urbanized area is a statistical geographic area defined by the Census Bureau, consisting of a central place(s) and adjacent densely settled territory that together contain at least 50,000 people, generally with an overall population density of at least 1,000 people per square mile.” (41CFR102-83.60) An area with a population of 50,000 or more designated by the Bureau of the Census, within boundaries to be fixed by responsible State and local officials in cooperation with each other, subject to approval by the Secretary. Such boundaries shall encompass, at a minimum, the entire urbanized area within a State as designated by the Bureau of the Census. (23 U.S.C. 101(a))

Vanpool – An arrangement in which a group of passengers share the use and cost of a van in traveling together between pre-arranged destinations and work. Vanpools may also be sponsored by employers who provide the van for use by groups of employees.

Vision – A particular conception of the future.

Volume-to-Capacity Ratio – A measure of Roadway capacity. The ratio of the existing number of vehicles using a roadway to the capacity of the roadway.

Sources: Puget Sound Regional Council, *Destination 2030*, May 24, 2001; TMIP Clearinghouse Manual of Regional Transportation Modeling Practice for Air Quality Analysis USDOT; American Planning Association, Nevada Chapter, “Planning Commissioners Reader”; Illinois Department of Transportation, *Strategic Regional Arterial Design Concept Report*, 1991; US EPA and US DOT, “Best Working Places for Commuters,” web page, March 2005, Florida Department of Transportation, *2004 Freight Rail Component of the Florida Rail Plan*, June 2005; Terry Parker and GB Arrington, *Statewide Transit-Oriented Development Study: Factors for Success in California*, for California Department of Transportation, *Final Report*, September 2002

THIS PAGE INTENTIONALLY BLANK