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<tbody>
<tr>
<td>ADOT</td>
<td>Arizona Department of Transportation</td>
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<tr>
<td>ADT</td>
<td>Average Daily Travel</td>
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<tr>
<td>CNG</td>
<td>Compressed Natural Gas</td>
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<td>EPA</td>
<td>Environmental Protection Agency</td>
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<tr>
<td>FTA</td>
<td>Federal Transit Administration</td>
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<tr>
<td>FY</td>
<td>Fiscal Year</td>
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<tr>
<td>HURF</td>
<td>Highway User Revenue Fund</td>
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<td>IMS</td>
<td>Intermodal Management System</td>
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<td>ITS</td>
<td>Intelligent Transportation Systems</td>
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<tr>
<td>LMP</td>
<td>Limited Maintenance Plan</td>
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<tr>
<td>NAAQS</td>
<td>Natural Ambient Air Quality Standards</td>
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<td>NEAP</td>
<td>Natural Events Action Plan</td>
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<td>NHS</td>
<td>National Highway System</td>
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<td>PAG</td>
<td>Pima Association of Governments</td>
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<td>RASP</td>
<td>Regional Aviation System Plan</td>
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<td>RTA</td>
<td>Regional Transportation Authority</td>
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<td>RTP</td>
<td>Regional Transportation Plan</td>
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<td>SIP</td>
<td>Arizona State Implementation Plan</td>
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<td>TIA</td>
<td>Tucson International Airport</td>
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<tr>
<td>TICET</td>
<td>Tucson Inner City Express Transit</td>
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<tr>
<td>TIP</td>
<td>Transportation Improvement Program</td>
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<td>U of A</td>
<td>University of Arizona</td>
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<tr>
<td>VHT</td>
<td>Vehicle Hours Traveled</td>
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<td>VMT</td>
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Pima Association of Governments’ (PAG) Regional Transportation Plan, known as the RTP, is a long-range vision of regional transportation solutions in response to the challenges created by current needs and continuing growth. It is a planning document for the future - it is not a financial commitment to providing funding to specific projects. The RTP identifies a balanced set of potential multi-modal projects, policies and strategies to help move people and goods efficiently from one place to another and to promote consistency of action among federal, state, regional and local agencies.

The RTP assesses the overall anticipated costs of operating and maintaining the existing transportation system as well as the costs of building, operating and maintaining new capital investments. It compares those costs to anticipated revenues to ensure that the vision for the RTP is a realistic one and to determine the extent to which new transportation revenues may be needed. The RTP is updated every three to four years to reflect new development, emerging technologies, trends and extending the planning horizon further into the future. The RTP differs from other regional planning activities like the Regional Transportation Authority (RTA) and Transportation Improvement Program (TIP) that do provide funding commitments for specific projects.

The 2030 Regional Transportation Plan (2030 RTP) was adopted by the Pima Association of Governments’ Regional Council on June 29, 2005, and amended on June 29, 2006. The 2030 RTP planning process was guided by an oversight committee, known as the 2030 RTP Task Force. The 2030 RTP Task Force had broad and diverse community representation and met frequently to discuss, review, revise and provide recommendations on 2030 RTP activities. The 2030 RTP includes regional transportation studies, programs, construction projects and other activities such as transit operations.

Both technical analysis and public input were key components of the planning process. The public was engaged in a region-wide community dialogue about transportation and quality of life issues resulting in the creation of a Vision and set of 10 Goals to guide regional long-range transportation planning efforts. These were adopted by Regional Council in March 2003. A series of educational forums and workshops were held resulting in the creation of over 800 project ideas that responded to solutions suggested by the 2030 RTP Vision and Goals. A preliminary project list was developed. After a series of meetings with PAG member jurisdictions, interested agencies and 2030 RTP Task Force members, the plan was finalized with updated project descriptions.
the CO NAAQS anywhere within the maintenance area during the period covered by the plan. Air Quality Modeling results for the 2030 network estimates Carbon Monoxide Emissions to be 291.3 tons per day.

Providing a transportation system that is fully accessible, and one that helps to maintain safe mobility options in the future, will require investments from both the public and private sectors. Total system needs through 2030 are estimated at $14.5 billion. The estimated cost of operation and maintenance of the existing system is $3.9 billion.

The 2030 RTP financial plan includes anticipated revenue from federal, state and local sources as well as private dollars dedicated to specific transportation projects. Existing revenues, including the implementation of the RTA half-cent excise tax approved by voters in May 2006, are estimated to be $11.75 billion. Projects to meet identified needs total $14.5 billion; however, those projects without available funding are placed in a “reserve” project list and are not included in the plan. Revenue estimates have been adjusted to reflect mid-decade figures, new revenue sources and revised financial projections.

Long-range transportation plans are updated or amended frequently to reflect changes in regional demographics, land use and future transportation needs. The next update to the region’s long-range transportation plan is expected to be completed by the year 2009.

The adopted 2030 RTP, as amended, is available on PAG’s Web site at: www.pagnet.org
Pima Association of Governments (PAG), designated in 1973 as the region’s Metropolitan Planning Organization, is charged with developing a long-range plan for a balanced, multi-modal, sustainable transportation system for the PAG region. This regional plan addresses transportation facilities and services in eastern Pima County, which includes unincorporated Pima County, the City of Tucson, the City of South Tucson, the Town of Marana, the Town of Oro Valley, the Town of Sahuarita, the Pascua Yaqui Tribe and the San Xavier District of the Tohono O’odham Nation. Key areas outside of Pima County are considered for planning purposes to help the region determine direct outside impacts. The PAG urbanized planning area is illustrated below.
The Regional Transportation Plan, known as the RTP, is a long-range vision of regional transportation solutions in response to the challenges created by current needs and continuing growth. It is a planning document for the future – it is not a financial commitment to provide funding to specific projects. The RTP identifies a balanced set of potential multi-modal projects, policies and strategies to help move people and goods efficiently from one place to another and to promote consistency of action among federal, state, regional and local agencies.

The RTP assesses the overall anticipated costs of operating and maintaining the existing transportation system as well as the costs of building, operating and maintaining new capital investments. It compares those costs to anticipated revenues to ensure that the vision for the RTP is a realistic one and to determine the extent to which new transportation revenues may be needed. The RTP is updated every three or four years to reflect new development, emerging technologies and trends and to extend the planning horizon further into the future. The RTP differs from other regional planning activities like the Regional Transportation Authority (RTA) and Transportation Improvement Program (TIP) that do provide funding commitments for specific projects.

PAG first completed a Regional Transportation Plan (RTP) in 1981 and have developed regular updates since that time. Regular updates incorporate new demographic data, reflect changes in the region, extend the horizon year and update projects to meet identified future transportation needs. Specific federal guidance calls for “…the development and operation of transportation systems and facilities (including pedestrian walkways and bicycle transportation activities) that will function as an intermodal transportation system for the State and the United States” 23 U.S.C.134 Section 3303 (a)(2). Federal requirements also mandate that these plans consider specific planning factors, provide for multi-modal transportation solutions, maintain a 20-year horizon, be fiscally constrained and provide meaningful public participation in the process. The adopted regional long-range plan enables local governments to expend federal transportation funds within the region.

**FEDERALLY REQUIRED PLANNING FACTORS:**

Support the economic vitality of the area in the global market.
Increase safety of the transportation systems.
Increase accessibility and mobility options for people and freight.
Enhance integration and connectivity of transportation systems.
Promote efficient system management and operation.
Emphasize the preservation of existing intermodal transportation systems.
Increase the security of the transportation system for motorized and non-motorized users.
Protect and enhance the environment, promote energy conservation, and improve quality of life, and promote consistency between transportation improvements and state and local planned growth and economic developments patterns.
An oversight committee, known as the 2030 RTP Task Force, was established in April 2001 to guide the 2030 long-range transportation planning process. New demographic data released after Census 2000 was analyzed, as were the results of major planning efforts by member jurisdictions. Early in the 2030 RTP planning process the public was engaged in a region-wide community dialogue about transportation and quality of life issues. The 2030 RTP Task Force, relying on this public feedback, developed a regional vision and set of 10 goals adopted by the PAG Regional Council in March 2003.

The Vision and Goals statement reflects the underlying principles of federally mandated planning factors. Economic vitality, safety, increased accessibility and mobility options, environmental preservation, connectivity of the transportation system, effective leadership and preservation of existing transportation systems are key components in both guiding documents. Examples of regional studies and programs that provide the support and details needed to carry out these goals include the Clean Cities program promoting alternative energy sources, the Intermodal System Plan promoting improved freight movement and the Safe Routes to Schools programs promoting alternative ways for schoolchildren to walk or bicycle safely to neighborhood schools.

The 2030 RTP planning process included numerous workshops and forums to identify transportation issues and provide detailed information to the public and key stakeholders about aspects of the regional long-range plan. Project development and detailed financial information was compiled and then consolidated into a set of potential transportation projects that reflected the 2030 RTP goals and met projected future transportation needs.

PAG’s Regional Council adopted the 2030 Regional Transportation Plan, known as the 2030 RTP, on June 29, 2005. In February 2006, PAG was advised that the Town of Marana was considering a previously unanticipated development east of Interstate 10 that would necessitate a new interchange. Revised roadway improvements also were requested by the Town of Sahuarita and in May 2006 the RTA plan and funding source were endorsed by the public. An amendment to the 2030 RTP was completed to incorporate these revisions to the region’s long-range plan. PAG’s Regional Council adopted the 2030 RTP Amendment on June 29, 2006.

THE 2030 REGIONAL TRANSPORTATION PLAN PROJECTS, AS AMENDED, ARE DESCRIBED IN SECTION II OF THIS LONG-RANGE PLAN.
Our region is growing: both in urban development area and in population. By the year 2030, there will be approximately 1.5 million people in eastern Pima County and many areas outside the current urban core will have large suburban residential communities. These projected high-growth areas are illustrated on the proceeding page. About 45 percent of the population will be employed, contributing to the peak hour commute travel patterns. Over 330,000 students will travel to classes each school day and, of those, 100,000 will travel to college campuses including the centrally located University of Arizona. With world-class destinations like the Arizona-Sonora Desert Museum, San Xavier Mission and the future Rio Nuevo attractions, tourism also will continue to play an important role both in our economy and in our future travel demands.

**Pima County**

Pima County is located in southern Arizona and covers an area of approximately 9,200 square miles. The April 1, 2000, Census population count for Pima County was 843,746 of which 305,059 were within the unincorporated areas of the county. Notable growth has occurred since that time. The July 1, 2005, population estimate for Pima County is 957,635 of which 342,120 live within the unincorporated areas. Most of the population resides in the eastern portion of Pima County which includes all five incorporated jurisdictions.

Approximately 70 percent of Pima County consists of Federal, State and Native American owned lands, including Organ Pipe National Monument, Saguaro National Park, Coronado National Forest, Santa Rita Wildlife Area, the Pascua Yaqui Indian and the Tohono O’odham Reservations.

**City of Tucson**

Tucson, the county seat, is the second largest city in Arizona, and the 30th largest city in the nation. The April 1, 2000, Census population count for Tucson was 486,699 people. Incorporated in 1877, the City of Tucson began as a two-square-mile village located in what is now Tucson’s central downtown. It has now grown to approximately 226 square miles and lies within a greater metropolitan region of approximately 412 square miles. Between 1990 and 2000, Tucson had a growth rate of 20.06 percent. The July 1, 2005, population estimate is 529,770. By the year 2030, the City of Tucson is projected to have about 912,000 residents.

**Town of Oro Valley**

Oro Valley has the second largest population in Pima County and has a Census 2000 population count of 29,700 people. It is located about six miles to the north of Tucson and serves as a gateway to State Highway 77 and Catalina State Park. Incorporated in 1974, it has grown from 2.6 square miles to approximately 32.9 square miles. Oro Valley experienced a 345.28 percent increase in population between 1990 and 2000. The July 1, 2005, population estimate is 39,400. By the year 2030, the Town of Oro Valley is projected to have about 69,700 residents.
Town of Marana
Marana is located to the northwest of Tucson along the I-10 corridor and has a Census 2000 population count of 13,556. The town incorporated in 1977 with 10 square miles and has grown to approximately 124 square miles. The community has historically been a center for farming and ranching and still has a large agricultural component in its economy. In the last decade, Marana increased its population by about 519.84 percent. The July 1, 2005, population estimate is 26,725. By the year 2030, the Town of Marana is projected to have about 96,200 residents.

Town of Sahuarita
Sahuarita is the newest jurisdiction in Pima County, incorporating in September 1994, and had a Census 2000 population count of 3,242. It is located 20 miles south of Tucson and alongside of I-19 in the Santa Cruz Valley and is now about 29 square miles in area. Dramatic growth is anticipated in Sahuarita resulting from development of a 2,810-acre master planned residential community. Sahuarita’s growth rate was 99.02 percent between 1990 and 2000. The July 1, 2005, population estimate is 13,990 residents. By the year 2030, the Town of Sahuarita is projected to have about 56,600 residents.

City of South Tucson
The City of South Tucson is one square mile in area and is surrounded on all sides by the City of Tucson. It is centered at about 29th Street and 6th Avenue. Population once reached about 7,000 but has declined since 1960 to the current Census 2000 population count of 5,490. A small pueblo within a city, this community incorporated in 1938 and has remained the same size. The City of South Tucson had a growth rate of about 6.17 percent during the last decade. The July 1, 2005, population estimate is 5,630. By the year 2030, the City of South Tucson is projected to have about 6,200 residents.

Pascua Yaqui Tribe
The Pascua Yaqui Tribe was federally recognized in September 1978. The Pascua Yaqui Indian Reservation is located in southwestern Arizona, approximately 15 miles southwest of downtown Tucson on 1.87 square miles/1,152 acres of trust land. The current estimated population on the Reservation is 3,696 compared to the 2000 census recording only 3,315. The Pascua Yaqui members also are located in several satellite communities throughout the region: Barrio Libre located in South Tucson (220 population), Yoem Peublo in Marana (41 population), Old Pascua in the City of Tucson (440 population). Total 2005 enrolled tribal membership for the Pascua Yaqui Tribe is 14,567 with 7,317 members residing in Pima County.

Tohono O’odham Nation
The Tohono O’odham Nation has a total land mass of 4,453 square miles and covers much of the western portion of Pima County with a portion of the Nation’s border shared with Mexico. The Census 2000 count for the Tohono O’odham Nation was 10,787. The tribal administrative offices are located in Sells, which had a Census 2000 population of 2,799. Total Tohono O’odham Nation 2005 tribal enrollment is estimated to be 23,890.
Population Growth Patterns

In the 1900 decennial census, 14,689 residents were recorded in Pima County. As new residents migrated to the Tucson region, they first settled along the north and south corridors along State Highway 89/90 and then later arrivals began to move eastward. By 1970, development was being constrained by federally owned lands in the east and development trends began to reverse and flow in a northwest direction. The center of population in 1970 was located at Broadway and Alvernon, moved northward by 1980 to 6th Street and Tucson Boulevard and by 1990 was located near the Sam Hughes Elementary school at 3rd Street and Norton Avenue. This northwestern trend continued through the decade and by the year 2000 the center of the urbanized population was on the University of Arizona campus at about 1st Street and Cherry Avenue. The earlier north-south pattern of growth appears to be growing stronger and development is expected in the north/south corridors along I-10 and I-19.

Ethnicity & Race

According to the 2000 Census, Hispanics constituted 29.3 percent of the County's total population compared to 25.3 percent for the State and 12.5 percent for the nation. Native Americans accounted for 3.2 percent of the County's population, African Americans for 3.0 percent, Asian/Pacific Islanders for 2.0 percent and Native Hawaiian/Pacific Islander for 0.10 percent. Multi-racial, that is persons indicating two or more races, were indicated by 3.2 percent of the population.

Age & Sex

Our destination as a retirement community brings with it the challenge of an aging baby boomer population. The median age of Pima County's 2000 population was 35.7 years – very near the national median of 35.3. Our region attracts both university students and retirees, contributing to a unique profile with population peaks for those in their early 20s and those over 65. The 2000 population in Pima County was 51.1 percent female and 48.9 percent male. There are slightly more males than females aged 20 and below; however, by age 65 females constitute 64.8 percent of the population.

Migration

Our region is influenced by people who move here (in-migration) and people who move out (out-migration). Net migration in the year 2001 was 16,200, with a long term in-to-out migration ratio's from 4:3 to 3:2. Twenty-three percent of newcomers arrived here to accept a new job and most of the new arrivals are moving here from other areas of Arizona or from California, New Mexico, Illinois, Texas, Nevada or Washington. Half of our newcomers arrive during the summer months. The average Tucsonan moves every 3.5 years and at the time of Census 2000, over a quarter of Tucson area households had been in their present home from 15 months to 5 years. Over
80 percent of renters have been in their present units less than 18 months.

**Persons per Household**

The number of persons per household is one measure of population that is recorded by the Census. In the Tucson metropolitan area, population has been increasing but household size has been declining. In 1960 the average household size was 3.3 persons per household but by 2000 the region averaged 2.47 persons per household. This is slightly lower than the national household size which averaged 2.59 persons per household.

**Economic Profile**

As of January 2006, the civilian labor force in Pima County totaled approximately 416,500 people—about 43 percent of the population. Our average unemployment rate in the early part of 2006 was at 4.9 percent, slightly above the State at 4.8 percent and the Nation at 4.7 percent. Job growth is estimated to be between 1 percent and 2 percent in the next few years. The influence of tourism, education and retirement is reflected in a much higher percentage of jobs in services, retail trade and government and a much lower percentage employed in manufacturing, wholesale trade and finance/insurance/real estate. In 2005, Raytheon Missile Systems was the largest employer in the region with the University of Arizona following closely behind. Median household income reported by the Census for April 2000 was $36,758.

Tourism accounts for one of every 10 jobs and adds over $1.8 billion per year to the local economy. It is also a significant contributor to travel demand along transportation corridors to favorite regional attractions. The region’s unique Sonoran Desert ecosystem and the mystique of the rugged Southwest draws visitors from around the world. Saguaro National Park is by far the largest traffic generator with an estimated 3,400,000 visitors per year. Arizona-Sonora Desert Museum has about 520,000 visitors each year followed by the Reid Park Zoo with over 436,000 visitors. Pima County Fairgrounds and Old Tucson Studio’s typically have over 320,000 annual visitors each. Providing adequate roadway capacity to serve these attractions, while still maintaining the natural peace and beauty that has made the region desirable as a premier tourist site, is one of many regional challenges.

**Title VI, Environmental Justice & Americans with Disabilities Act**

Demographic and socio-economic data help regional and jurisdiction planners identify areas with population groups protected under Title VI, Environmental Justice and Americans with Disabilities Act regulations. The PAG region provides oversight to several programs that provide direct assistance to minority, low income, and elderly and/or disabled population groups. These include regional human services activities such as the 5310 program which provides an 80 percent match to non-profit agencies for the purchase of handicapped accessible vans. All projects are expected to have appropriate public involvement and mitigation techniques applied during their design development process. Jurisdictions are responsible for contacting concerned and impacted groups for input and making adjustments as appropriate for each project.
Since the adoption of the previous 2025 long-range plan in January 2004, and the 2030 RTP in June 2005, progress has been made toward implementing the region’s long-range plan projects. The types of projects reported include regional roadway improvements, transit and other alternative mode improvements. Completed projects include:

- Interstate Widening, Reconstruction, Frontage Roads or Related Projects.
- Completed construction on the I-10/I-19 interchange, known as “The Crossing.”
- I-10 from Cortaro to Tangerine widening mainline and structures to six lanes.

### Arterial and Collector Roadway Capacity Improvements

- Arterial and collector roadway and intersection safety improvements.
- Arterial and collector roadway resurfacing, restoration and maintenance projects.
- Ajo Way from County Club to Alvernon Way widened from four lanes to six lanes along a total of 1.0 mile.
- Calle Concordia from Calle Loma Linda to Oracle widened to three lanes and sidewalks added along a total of 1.2 miles.
- Camino de Oeste Gateway improvement from Los Reales to Calle Tetakusim.
- Cienega Road from Houghton to Cienega High School construction of new two-lane roadway with bike lanes for a total of 3.42 miles.
- First Avenue from Oracle to Tangerine widened from two to four lanes including bridge, drainage and signals along a total of 1.8 miles.
- Highland from 6th Street to Arroyo Chico enhanced for alternate mode use along a total of 1.0 mile.
- La Canada Drive widening and extension from Lambert to Calle Concordia and Tangerine to Moore to four lanes along a total of 2.0 miles.
- La Cholla from Magee to River widening from four to six lanes along a total of 3 miles.
- Mt. Lemmon Highway improvements from milepost 11.2 to 15.9 for a total of 4.7 miles.
- Nogales Highway from Abrego to Calle Valle Verde widened from 2 to 4 lanes along a total of 0.6 miles.
- Oracle from Pusch View to La Reserve widened from four lanes to six lanes for a total of 1.5 miles.
- Oracle from River to Ina adding bike shoulders and culvert extensions for a total of 2.8 miles.
- Paving, grading and drainage improvements on Pascua Yaqui roadways.
- Realignment of intersection at La Cholla and Tangerine.
- Saguaro National Monument Cactus Forest Drive milled and overlaid with new surface for a total of 8.45 miles.
- Skyline Drive from Chula Vista to Campbell Avenue reconstruction along a total of 1.2 miles.
- Tangerine Road from Breakers to Thornydale resurfaced with drainage, bike lanes and intersection improvements for a total of 5 miles.
- Veterans Memorial Overpass reconstructed from Alvernon Way to Broadmont Drive for a total of .76 miles including alternative mode accommodations and connection of shared-use path.
- Wetmore/Ruthrauff Road from Fariview to La Cholla Boulevard widened to five lanes for a total of 2.3 miles.

**Transit Improvements**

- Constructed Udall Transit Center (east side of Sabino Canyon Road).
- Modifications and pedestrian amenities to Ronstadt Center.
- Old Pueblo Trolley Streetcar Rehabilitation.
- Trolley track improvements at 4\textsuperscript{th} Avenue and 8\textsuperscript{th} Street.

**Bicycle and Pedestrian Improvements**

Most new or reconstructed roadway improvement projects in the region include provisions for bicycle and pedestrian infrastructure. Since June 2005, over 80 additional bikeway miles have been completed, bringing the total number of bikeway miles to an estimated 637 miles. More than 55 miles of shared-use paths and an additional 7.5 miles of bus-bike lanes were also built during this timeframe. Other completed bicycle or pedestrian projects include:

- 12\textsuperscript{th} Avenue from 38\textsuperscript{th} Street to 44\textsuperscript{th} Street bicycle lanes along 1.0 mile.
- Alvernon/3\textsuperscript{rd} Street Bike Crossing Signals.
- Bicycle lanes constructed along portions of State Route 86/Ajo Way.
- Broadway bicycle lanes from the Diamondback Bridge to Old Spanish Trail.
- Broadway Boulevard from Park Avenue to Campbell Avenue bicycle lanes along 1.5 miles.
- Cattle guard crossing safety repairs and maintenance or, in some cases, removal.
- CDO Wash shared-use path from La Canada to First Avenue along 2.7 miles.
- Constructed Pedestrian Bridge on State Route 86: Sells Wash.
- Constructed sidewalks on State Route 85 (Ajo Way).
- Downtown Pedestrian Plan implementation of Scott Avenue pedestrian improvements, including signage, lightening and streetscape.
- First Avenue from River Road to Prince Road bicycle lanes along 3.0 miles.
- Houghton Road from Escalante to Pantano Wash repaved and striped for bike lanes.
- Kino Parkway bicycle lanes for a length of 2.0 miles.
- Santa Cruz River shared-use path constructed from Cortaro to Coachline Boulevard.
- St. Marys from Santa Cruz River to Grande bicycle lanes along 0.50 miles.
- Stone Avenue from Fort Lowell to Roger bicycle lanes along 2.0 mile.
- Tucson Boulevard from Irvington Road to Valencia Road bicycle lanes along 4.0 miles.
- Valencia Road at I-10 completion of bicycle lanes through the underpass.

HAWK/PELICAN pedestrian activated signals also were installed at the following locations:

- Grant/Treat
- Campbell/Blacklidge
- Campbell/Copper
- Flowing Wells/Pastime
- Campbell/Seneca
- 1st Avenue/Graybill Drive
- Fort Lowell/Park
- Speedway/Rook Avenue
- Palo Verde/Grant
- Broadway/Cherry
- Alvernon/3rd Street
- Alvernon/Hayne
- Oracle/Kelso
- 6th Street/Fremont Avenue
- Broadway/Norris

**Intelligent Transportation System Program Highlights**

PAG’s Intelligent Transportation System (ITS) program calls for the integration of ITS components into the roadway and transit systems. Some of the recent highlights of ITS implementation have included:

- Communications System Improvements.
- Freeway Management System 911 connection from Ina Road to Jct. 1-19 installed.
- Traffic Signal & Control Equipment Upgrades.
Aviation System Improvements

The Regional Aviation System Plan (RASP) guides aviation improvements and was adopted on June 26, 2002. Aviation related activities and projects that have been completed include:

- Building demolition at Ryan Airfield.
- Extended Airfield Drive at Ryan Airfield.
- Installed fire suppression utilities at Ajo Airport.
- Purchased Disaster Vehicle for Tucson International Airport (TIA).
- TIA Terminal addition completed.
- Enhanced services at Benson Airport.
- Ryan Airfield Master Plan Update
- Pavement Preservation at Ryan Airfield
- Taxiway G Phase I at TIA
- Runway reconstruction at TIA

**REGIONAL TRANSPORTATION NEEDS**

The PAG region street network currently consists of over 4,160 miles of major roads and 954 bridges. The existing transportation infrastructure requires significant investment to keep it maintained for safe and efficient use. However, simply maintaining the system will not be enough to meet the region’s future transportation needs. By 2030 vehicle trips are expected to increase by over 58 percent. Although the types of transportation options are projected to remain the same by the year 2030, there will simply be a lot more people traveling in different ways around the region: walking, bicycling, using the streetcar or bus system, driving alone or in carpools as well as trucks delivering goods to households or businesses.

According to Census 2000 data 73.8 percent of those traveling to work drove alone. This represented about a two percent increase from 1990. The average daily commute time was 23.9 minutes, an increase of almost three minutes from 1990.
The planning process uses projected data to assess the impact of future population, employment, major destinations and other traffic congestion data on the PAG street network. The process also looks at the impacts of growth in the areas if no new transportation improvements were made – this is called the “No-Build” analysis.

This modeling technique takes the existing transportation system network and then asks the question “What will happen to our transportation system in the future if we do not build any more capacity projects?”

As might be expected, Vehicle Hours Traveled (VHT) and Vehicle Miles Traveled (VMT) both go up dramatically, with the number of hours spent traveling in the region doubling and the number of miles traveled in the region increasing significantly. The table below illustrates the expected change between the year 2000 and the year 2030 for the number of vehicle hours and vehicle miles traveled on an average weekday if no new capacity roadway projects were built.

<table>
<thead>
<tr>
<th></th>
<th>YEAR 2005</th>
<th>YEAR 2030 NO BUILD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Vehicle Hours Traveled (VHT)</td>
<td>579,000 Hours</td>
<td>1,710,000 Hours</td>
</tr>
<tr>
<td>Weekday Vehicle Miles Traveled (VMT)</td>
<td>22,234,000 Miles</td>
<td>42,354,000 Miles</td>
</tr>
<tr>
<td>Vehicle Hours (in Minutes) Traveled per Person</td>
<td>36.1 Minutes Daily</td>
<td>62.0 Minutes Daily</td>
</tr>
<tr>
<td>Vehicle Miles Traveled per Person</td>
<td>22.6 Miles Daily</td>
<td>25.3 Miles Daily</td>
</tr>
</tbody>
</table>

Vehicle Hours & Vehicle Miles Traveled: No-Build Analysis
Typical Weekday VHT and VMT (excludes travel on local streets)
Source: Pima Association of Governments Regional Transportation Model, June 2006

**No-Build – Modeling Analysis**

Computer modeling is one tool used to help assess the impact of future growth on the existing transportation system. The map on the following page shows what vehicle congestion levels would look like on the existing street network in the year 2030 if no other capacity transportation projects were built.

Capacity transportation projects typically refer to any project that increases the number of lanes available for vehicles, trucks and buses to use. Without new lanes, but with large increases in the number of people using the transportation system, congestion on the roadway network is expected to increase.

Roadways shown in red are projected to approach full capacity and thus experience the highest levels of congestion and delay. No-Build modeling results indicate that an estimated 73 percent of the regional transportation network would be experiencing severe or heavy congestion by the year 2030 unless the region responds to these future projected needs.

Transportation modelers have very specific definitions for determining what
Estimated 2030 Congestion without Plan Improvements
(Average Daily Travel)

Source: PAG Regional Transportation Model, June 2005
congestion is on the roadway network. Levels of congestion are illustrated by the accompanying diagram. Travel under severe congestion represents roadway conditions that are moving into “forced or breakdown flow” and travel conditions are at, or nearing, a standstill.

Frequently roadways may operate well during most of the day but have heavy or severe congestions levels during specific times of the day. Every mode of travel has limitations on how many people can use the existing system before the effectiveness or attractiveness of using any given sidewalk, bikeway, transit route or roadway is gone.

Understanding when the transportation system is about to break down is a significant part of determining when new improvements are needed.

The transportation needs of the elderly/disabled are anticipated to increase by 76 percent. The baby boom generation will reach retirement age between 2011 and 2029 and many will find that they cannot, or should not, drive anymore. Increasing age frequently results in higher levels of varied disabilities. Lifespan increases of the current working population are expected to reach 95 by the year 2025 and the transportation system will be impacted by a large set of non-driving elderly population. Elderly accident rates mirror that of the teenage drivers with recent studies indicating that the 18 to 19 year old accident rate is the same as that for 85 plus cohort. Providing a transportation system that is fully accessible and maintains safe mobility options in the future will require investments from both the public and private sectors.

Improving the safety of the traveling public is also a significant concern. In Pima County, an average of 59 vehicle crashes occurs each day resulting in 147 deaths and 11,801 injuries in 2004. Motor vehicle crashes had an estimated economic impact in Pima County of $491,549,600 in 2004 including lost wages and productivity, medical expenses, property damage and employer costs. Delay resulting from the aftermath of motor vehicle crashes is a significant factor in traffic congestion.

Over 29 percent of these crashes can be attributed to two driver errors: speeding too fast for the conditions and failing to yield. Driver inattention, unsafe lane changes, disregarding signals, following too closely and improper turns collectively account for another 14 percent of motor vehicle crashes. Aggressive drivers or drivers in a hurry are not issues that can be solved by infrastructure improvements although
engineering improvements have, along with vehicle safety devices like air-bags, lessened the potential harm caused by driver error.

Other regional needs include public health issues such as reducing the negative impacts of pollutants on air and water quality, creating safe spaces for people to walk and interact with each other, developing built environments that support healthy communities and improving connections between people and the places they need and want to go. Considering how to address these future transportation needs within the constraints of available funding was one of the primary goals of the 2030 RTP Task Force.

### 2030 RTP Planning Process

PAG convened a multi-disciplinary Task Force to guide the 2030 RTP process on April 2, 2001. The 2030 RTP Task Force met frequently to discuss, review, revise and provide recommendations on 2030 RTP activities. The Task Force also held sub-groups, working meetings, workshops, and forums to become more informed on regional transportation issues and to work intensively on specific aspects of the planning process. Many of the 2030 RTP Task Force members also served as peer facilitators for the early stages of public outreach.

The 2030 RTP Task Force’s primary role was to provide guidance for the development of the 2030 regional long-range transportation plan. The Task Force was not a decision-making body but made recommendations to the PAG Transportation Planning Committee, which in turn forwarded items to the PAG Management Committee and PAG Regional Council for action.

To assure a shared understanding of transportation problems and issues, the 2030 RTP Task Force participated in a series of educational meetings held between July 2001 and January 2002 on the following topics: Transit (Sun Tran, Pima County Rural, Light Rail, Heavy Rail and Bus Rapid Transit); Travel Reduction Programs; Funding & Finance; Public Visioning & Outreach; Overview of local jurisdictional planning efforts; Air Quality; City of Tucson’s survey results for Let’s Go Tucson (the City of Tucson’s sales tax initiative effort). Presentations were made on each modal system and other critical elements of the transportation system including safety, freight movement, intelligent transportation systems and environmental considerations.

Public involvement was a key component of the planning process. Dialogue with the regional community was initiated with a simple guiding question in mind: How can the region preserve and improve the transportation network in ways that respect the community’s values? To help answer this question, a unique collaborative process was undertaken that relied heavily on the insights and participation of the 2030 RTP Task Force.
The first component of an ongoing dialogue with the public about transportation issues concluded in November of 2002. This effort reached a diverse cross-section of nearly 1,700 residents and business owners region-wide. Different methods, shown below, were used to reach a wide range of interests and to compare, contrast and cross check the data for discrepancies.

<table>
<thead>
<tr>
<th>DATA SOURCE</th>
<th>TYPE OF DATA AND USE</th>
<th>LEVEL OF COMPLETION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regional Survey</td>
<td>Quantitative – statistically valid snapshot of regional attitudes</td>
<td>605 male and female household heads surveyed via phone and in-person contact.</td>
</tr>
<tr>
<td>Questionnaires (Speakers Bureau, online and by mail)</td>
<td>Quantitative – not a statistically valid sampling of the region overall, but a way to probe specific populations or interest groups for greater understanding.</td>
<td>271 questionnaires analyzed as part of this analysis.</td>
</tr>
<tr>
<td>Community Roundtables</td>
<td>Qualitative – Free-form input, using a standardized series of exercises, designed to uncover values and linkages to transportation, planning and quality-of-life issues.</td>
<td>87 roundtables were conducted throughout the region; 42 professionally facilitated sessions and 45 peer-facilitated sessions.</td>
</tr>
</tbody>
</table>

*Data Types and Sources*
*Source: PAG Phase I Public Involvement Summary*

Highlights of this public outreach were the community Roundtables and the peer facilitation program. The composition of each Roundtable varied, but participants in any given group were linked by common knowledge, geographic location or other affinities. To provide consistency in the data gathering process, the roundtables were conducted in a highly structured manner. Training was provided to peer facilitators, many of whom were Task Force members or community leaders, who could conduct sessions where there might be cultural, trust or other barriers that would prevent professional facilitation, or where a group (such as a neighborhood association or advocacy organization) expressed a desire to have direct input into the RTP process.

**Early Public Involvement Findings:**

The public involvement data from this initial effort revealed a strong awareness of shared community needs and broad agreement about what a better quality of life might include. Among the many areas of common ground identified across all segments of the population were:

- Because our mobility needs vary widely today and can expect to change in the future, we need a comprehensive transportation system that includes a mix of modes, interconnections and options.
- Participants saw the need for approaches that embrace a regional perspective to solving major issues and
rejected much of the parochialism of the past. There was also broad agreement that planning processes need to be citizen-driven and modeled on the successes of other communities.

- Our long-term transportation future requires a clear vision for the infrastructure and development issues that we face as a region. Large-scale transportation challenges begin with regional and local choices about land use and our built environment. Issues as varied as regional prosperity, jobs/housing balance and protecting our natural resources all meet at the nexus of creating efficient, integrated-use communities.

- Although cross-town mobility may mean many things, the recurring theme is “you can’t get there from here.” Moving people and goods from one edge of the region to another – be it north/south or east/west – is a primary concern that must be addressed.

- Transit enjoys broad support and was repeatedly mentioned as a hallmark of great cities elsewhere, as well as an efficient, effective strategy for Pima County. The regional transit system today serves a largely transit-dependent community of riders, but the challenge of regional public transit in the years to come will be to attract increasing numbers of non-transit-dependent riders onto the system. To do this, it was recommended that the system grow in capacity and service and consider different types of transit such as Bus Rapid Transit or light rail.

- Planning for a regional future in which we balance mobility with quality of life means wisely using that most basic of resources: the space around us. Integration of transportation and land use, as well as controlling growth areas, is a part of the community vision for better decision making.

- Bicycle transportation was seen as a form of mobility that is both environmentally friendly and personally rewarding. Bike travel takes motor vehicles off the streets, reduces air pollution and, for many, can be a part of a personal health regimen. Enhancing bicycle facilities for commuters, recreational users, youth and competitive racers were mentioned as part of a desired transportation system for our region’s future.

- The need for environmental stewardship ranked high with residents. Mobility impacts our environment at every level, from the land required to build transportation facilities to the pollution generated by internal-combustion engines.

- By consciously planning to encourage technology as part of our long-range mobility goals, we can create a transportation system that uses state of the art technological tools and position the region to take advantage of even greater efficiencies tomorrow. One possible application of technology is in the area of alternative fuels.

- Most transportation mobility solutions require an ongoing and increasing capital commitment. Transportation funding means more than merely gas taxes, sales taxes and other ways to pay for new facilities. Incentives and penalties can be part of the financial picture and potentially part of the solution by
reducing congestion and increasing the use of mobility-friendly modes.

• Safety was the leading quality-of-life indicator because more vehicles, more pedestrians and more bicyclists will create greater safety challenges. The planning process must develop solutions that are not only efficient, but also help protect the most important resource of all: individual lives.

• Planning for ongoing maintenance of facilities that must last 20, 30 or even 50 years is an important part of the overall transportation picture. Whether it is resurfacing a road, repairing a sidewalk or keeping a fleet of buses in good running order, one of the highest-return investments citizens can make in infrastructure is to keep the existing system functioning at peak performance.

• A consistent theme was the issue of leadership, particularly at the regional level. Although plans for regional mobility do exist – as required by the federal government – related issues of land use and zoning are governed by local decision-making, and this can sometimes cause delays, confusion or even conflict when developing mobility solutions that cross city and county boundaries. Enhanced cooperation, as well as a formal process that encourages regional problem solving and shared solutions, is needed.

People of different ages, different areas of the region, different economic circumstances have – and express – different transportation needs for consideration. But even the differences shared common ground. For example, in the elderly and disabled roundtable discussions, people urged “decreased use of personal vehicles.” Youth groups wanted more multi-modal transportation, including bus and monorail. Low income/minority group participants cited “affordable multi-modal transportation.” Transportation advocacy groups promote increased public transit, especially light rail. Neighborhood groups repeatedly brought up bike and pedestrian needs, while government and planning participants described an important goal as “more transit options for all.” In each of these groups, people described needs in terms immediate to their circumstances and interests, but all of them were speaking to a common desire: to have transportation alternatives to the current overwhelming dominance of automobiles in the region.

The 2030 RTP Vision and Goals statement was created from this public input and was formally adopted by Regional Council on March 26, 2003.

THE VISION OF THE 2030 REGIONAL TRANSPORTATION PLAN IS AN INCLUSIVE, PEOPLE-FOCUSED PLAN TO CREATE AN EFFICIENTLY LINKED VARIETY OF TRANSPORTATION CHOICES IN A REGIONAL SYSTEM THAT SERVES ALL PEOPLE.
2030 REGIONAL TRANSPORTATION PLAN

Vision

The vision of the 2030 Regional Transportation Plan is that of an inclusive, people-focused plan to create an efficiently linked variety of transportation choices in a regional system that serves all people. This Plan offers solutions that:

- Address safety
- Coordinate transportation and land use
- Support a healthy economic environment
- Maintain the integrity of neighborhoods and build a healthy community
- Recognize and enhance cultural diversity and heritage
- Are environmentally sensitive
- Are sustainably funded

Goals

Multi-Modal Choices
Develop a comprehensive transportation system that supports a balanced mix of travel choices, including alternatives to driving alone, throughout the region.

Efficiency, Mobility and Accessibility
Promote an efficient, linked system of rail lines, interstate freeways, major streets, public transit, bikeways, and pedestrian paths that enhance accessibility and the movement of people and goods and maximizes use of technological innovations.

Land Use and Transportation
Coordinate future land use patterns and transportation systems to foster economic prosperity, environmental protection and mitigation, trip reduction and the creation of efficient, integrated mixed-use communities.

Transit
Increase the availability of affordable, effective public transit.

Cross Town Mobility
Improve cross-town mobility and reduce congestion-related delay.

Safety
Enhance safety for bicyclists, pedestrians, transit riders, wheelchair users, children and the driving public.

Funding
Identify and allocate funding and resources for building, operating and maintaining the existing and future regional transportation system.

Economic and Community Compatibility
Recognize and respond to disparities in economic circumstances, accessibility and mobility among the region’s diverse population and communities.

Environment
Enhance environmental stewardship through protection of natural and human resources and creation or preservation of aesthetic amenities and the unique identities of the region’s varied communities.

Accountability
Provide early and ongoing opportunities for public participation and education and foster improved intergovernmental coordination, responsiveness to community interests and effective leadership.

Vision & goals adopted by
PAG Regional Council
March 26, 2003
GOAL-BASED PLANNING

Each 2030 RTP goal was evaluated individually by the Task Force in order to develop project ideas that would address that goal. Specific projects suggested by the public were used to seed the discussion. Ideas that were not addressed directly in a regional transportation plan remained in the master database for future consideration. The Master Project List ultimately included more than 1,000 project ideas coded as to the goal or goals that each project idea best reflected.

Establishing a Foundation and Defining Focused Project Groups

The 2030 RTP Task Force first established criteria for a base set of projects that would be implemented in any potential future plan. These criteria were:

- Legally required projects and programs,
- Currently committed Transportation Improvement Program (TIP) Projects,
- Aviation projects funded with federal or state aviation revenues, and a
- 15 percent increase in maintenance dollars.

Using this foundation, the 2030 RTP Task Force then defined different types of project groupings that could be analyzed for performance and used as a tool for future plan development. The 2030 RTP Task Force considered development of a project grouping that included those projects identified as meeting the highest number of RTP goals. After additional discussions with the Task Force it was determined that every project meets, in some small measure, most of the 2030 goals. Safety was a desired component of every project group rather than a specific transportation solution type that could be easily characterized by a single project group and it was agreed to include safety features in all of the preliminary project groupings.

Following the direction of the 2030 RTP Task Force, PAG staff, in consultation with the PAG member jurisdictions, assigned the projects from the master project lists into one or more project groups. Some projects were not assigned to these groups, as they were believed to fall outside the horizon year of the plan, required substantive funding not projected to be available, or physically conflicted with a similar project idea. Over a series of meetings, the 2030 RTP Task Force further refined the assignment of goals to individual projects and the assignment of projects to specific project groupings.

The result was a set of five project groups that focused on various types of transportation solutions, and was targeted to specific 2030 RTP goals, as identified by the Task Force. None of the project groups was a complete plan nor were any of them fully fundable with current resources. The final project
groupings reflected elements of all of the goals of the 2030 RTP:

- The CrossTown project group focused on projects designed to move people and goods more quickly from one end of the region to another via increased high capacity, high-speed routes while creating alternative mode opportunities on adjacent roadways.
- The Regional Corridors project group focused on projects designed to improve travel on the most heavily used routes in the region and the continued development of a high capacity loop system around the urban core.
- The General Corridors project group focused on projects that would improve neighborhood and inner-city circulation, new connections between the existing roadway system, traffic calming devices and enhancing pedestrian scaled environments.
- The Transit project group focused on projects that increase the availability and efficiency of public transit services, improve bicycle and pedestrian connections to transit, increase Park and Ride lots throughout the region and expands the streetcar/trolley system as a starter light rail line.
- The Maintenance Focus project group focused on projects that re-build and repair the condition of the roadway, bikeway, transit and pedestrian facilities, make use of new technologies to improve the effectiveness of the existing transportation system and increase general maintenance funding by 25 percent.

The steps used to develop 2030 RTP project groups included:

- Summarizing relevant public input for each project group/type;
- Developing a working definition for each group;
- Reviewing the master list for unassigned projects and placing them in a project group unless it was determined that the project was outside the time period of the 2030 plan and/or was far outside anticipated revenue sources;
- Reviewing each project group for assigned costs estimates and temporarily assigning funding sources that could legally be used to fund the project within the draft 2030 financial projections;
- Mapping each project group.

By early 2004, the 2030 RTP Task Force turned its attention to refining the financial component of the plan and discussing additional public outreach activities. Two public Financial Forums with a panel discussion about regional transportation finance issues were held. These forums included information about average taxes and fees paid for individual transportation needs, estimated costs for transportation improvements, and expected funding sources available to the region.
The PAG region benefits from the work of the regional Financial Plan Advisory Subcommittee, which meets regularly to monitor changes in revenues available to the region, update costs for transportation infrastructure, operations and maintenance, and make recommendations to the region’s elected officials as to the best way to manage regional transportation finances. Using the 2025 RTP Amendment as a baseline, the Financial Plan Advisory Committee updated the assumptions and figures on anticipated revenues available for transportation and then re-estimated revenue forecasts through the year 2030.

Total system needs through the year 2030 for the amended plan were estimated to be $14.5 billion. Revenues from existing sources are expected to be $9.65 billion. The Financial Plan Advisory Committee also anticipated an additional $2.1 billion in revenue through the activities of the Regional Transportation Authority. Existing revenues, combined with the new RTA revenue, are estimated to be $11.75 billion and will fund 81 percent of the total needs identified for the region, leaving 19 percent (or $2.75 billion) of unfunded needs.

There are four major sources of transportation revenues: federal, state, regional and local. Federal funds are primarily derived from the gas tax, which is currently 18.4 cents per gallon. Federal formulas distribute these funds to the individual states and qualified local regions such as PAG. The State also receives revenues dedicated to transportation uses from fuel taxes, large truck taxes and vehicle licenses. Funds typically referred to as HURF (Highway User Revenue Fund) are included in the State source revenues. In Arizona, these funds are distributed to Arizona Department of Transportation (ADOT), the Arizona Department of Public Safety, the cities, the counties and regional transportation organizations such as PAG. Regional funds consist of the voter-approved RTA revenue source. Local sources of funds may include development impact fees, construction sales taxes or a general sales tax. Local jurisdictions also may dedicate general funds for transportation, and/or request exactions from developers to offset the cost of transportation improvements.

Of the $11.75 billion in revenues anticipated through 2030, an estimated $3.9 billion is needed to meet operation and maintenance needs of the existing transportation system. Pima County and the City of Tucson also have obligations for debt service payments. Debt service for the City of Tucson approximates about 1/3 of current HURF revenues. Future bonds and associated debt service are not included in this financial plan since they would have no net effect on plan resources.

Committed projects (projects currently in design, construction or legally required) are estimated to cost $5.5 billion, leaving about $6.08 billion available for additional projects. New capacity improvements include an additional $1 billion in costs to operate and maintain
these new improvements through the year 2030.

Virtually all revenue sources available for transportation to the region have restrictions on how the funds may be used. Federal and state laws limit the use of transportation funds for various transportation modes. State Highway User Revenue Fund (HURF) monies, under state statutes, may only be used for roadways. Most of the federal highway monies also must be used for roadways, although a portion may be transferred to transit projects (flexible usage). RTA funds are restricted to projects and programs included in the voter-approved RTA plan. There are some local revenues that are not restricted; however, local ordinances may specify or further restrict the use of these local revenues. Federal transit funds and state lottery distributions must be used on transit projects. Private contributions, such as developer impact fees, also have limitations on where and how those funds can be used.

The towns, cities and county in the PAG region are responsible for programming (selecting projects for funding) approximately $5.7 billion or 49 percent of the $11.5 billion. ADOT is responsible for about 13 percent or $1.5 billion. PAG is responsible for about 37 percent or $4.2 billion. Projects specifically selected by Congress represent about 1 percent or $0.1 billion. Once a decision is made to program funds, responsibility for project implementation typically remains with the sponsor jurisdiction where the project is located.

**Updated Revenue Estimates**

The differences between the previous plan forecast and the 2030 RTP forecast are the result of several factors. First, an effort was made to provide better accounting for several fund sources; among them general fund contributions and private fund contributions. Increases in these categories are the result of better identification and accounting of both of these fund sources. Second, Marana’s impact fee and construction sales tax returns were higher than had been previously anticipated and these increases are reflected in higher forecasts for these fund sources. Third, three of the region’s jurisdictions (the Towns of Marana, Oro Valley and Sahuarita) saw an increase in their share of State revenues based upon the Census 2000 population numbers. These increases were realized in 2002 distributions. Concurrently with these distributions, the Cities of Tucson and South Tucson saw a decline in their share of State revenues due to percentage losses in their share of the State’s population. Fourth, in 1998, a change was made in the distribution formula, which readjusted the amount of weight given to unincorporated
Based upon the Census 2000 counts, Pima County realized significant gains under this new formula having an estimated 30 percent of the unincorporated population in the State.

It should also be noted that some revenue sources, such as gas tax, are more stable than other sources of revenue, like construction sales tax or lottery revenues. The variability of some of the revenue sources, along with the unpredictability of long-term economic forecasts and population growth make long-term financial forecasts more difficult to prepare. However, these financial forecasts help to match revenues with transportation needs and potential projects in both the short and long term.

The 2030 RTP Revenue forecast includes the following assumptions:

- The assorted HURF fees are assumed to remain constant for the period of the forecast.
- ADOT’s HURF forecast through fiscal year 2012 is incorporated within the long-range forecast. An annual revenue increase of 4.8 percent is assumed in fiscal year 2013 and thereafter.
- A fuel factor for HURF distribution is assumed to be 14.50 in 2006 and decreasing annually .10 percent. By 2030, the fuel factor forecast is at the 11.80 level.
- Department of Public Service transfers are assumed to be at the $60 million level in FY 2006 and increase two percent per annum for the duration of the forecast.
- Revenues are deflated at a rate of 3 percent compounded annually with fiscal year 2006 as the base year.
- State Discretionary funds are assumed to be allocated to the PAG region at a rate of 13 percent of the net available for ADOT statewide and $10 million of these funds are assumed to be earmarked for maintenance.
- Future annexations will not change the percent of Pima County unincorporated population in relation to the State.
- The unincorporated county population factor is assumed to remain at 28.11 percent for the forecast period.

**Significant Revenue Variances from the Previous Plan:**

Regional Transportation Authority Funding: (Increase of $2.1 billion previously anticipated as a new $1.9 billion revenue source in the June 2005 plan) This new revenue source was endorsed by the public in the May 2006 election.

Private Funding (Increase of $240 million): New projects have been identified that will only be implemented if private funds are available. The corresponding projects provide for projects associated with new developments.

Sahuarita HURF and Construction Sales Tax (Increase 358 percent - $40 million and 34 percent - $18 million respectively): The completion of the town’s general plan and a sharp rise in future population increased the forecast.
It should be noted that HURF distribution is now based on the census and mid-decade estimates. The addition of the mid-decade population counts significantly increased the projected revenues in this rapidly growing town.

Pima County Development Impact Fees (Increase of 237 percent- $262 million): An increase in residential and the implementation of commercial development impact fees significantly impacted the forecast.

Oro Valley Local Municipal Tax: Newly imposed tax that adds $74 million for transportation projects in Oro Valley.

City of Tucson Development Impact Fees: Newly imposed impact fee that adds $195 million for transportation projects within City of Tucson impact fee zones.

REGIONAL TRANSPORTATION AUTHORITY (RTA)

On April 23, 2004, Governor Janet Napolitano signed legislation re-establishing PAG as a Regional Transportation Authority (RTA) with the ability to call for a half-cent sales tax election. This legislation became effective on Aug. 25, 2004.

The new Regional Transportation Authority Board held its first meeting and elected officers on Sept. 10, 2004. The new RTA developed a 20-year multi-modal transportation plan funded by an excise tax of half-cent, which was approved by voters on May 16, 2006.

The half-cent sales tax is projected to generate $2.1 billion over the 20-year period for transportation projects beginning with an estimated $65 million in the first year.

These new revenues provide a significant pool of money for providing match dollars for federal, state and private grants. The RTA plan requires an annual report, specific construction start dates, specific project cost estimates, as well as voter approval of major amendments. These RTA projects, with the accompanying funding source, are included in this amendment to the 2030 RTP.
Potential projects fall within three basic project types. Most typical is the construction project, including building new facilities and repairing, replacing or retrofitting existing infrastructure. Studies or planning efforts are intended to develop new programs, or provide further definition to future construction projects. Programs are generally continual or ongoing activities that provide services and information; collect critical planning data; or fund operational costs for transportation systems.

**Programs:** A number of ongoing programs provide for data collection, managed systems, operational costs, services and information. These activities may be required by legislation or intergovernmental agreements and are necessary for the safe and effective operation of the existing transportation infrastructure. Among these are the Travel Demand Management Programs, intended to help reduce traffic congestion through improved management of vehicle trip demand. These include: Travel Reduction Program, Rideshare Program, Sun Tran Transit Pass Program, Park-and-Ride lots, City of Tucson Alternative Modes Program, Pima County Clean Air Program, and the Tucson Regional Clean Cities Program.

**Major Studies:**
Regional long-range transportation plans often incorporate the results of other major studies that are separately conducted. Studies are an important part of the region’s long-range transportation planning process. They provide us with reports or plans that provide greater focus on issue areas or make detailed recommendations aimed to meet future needs. Studies are often needed to justify federal or state funding requests.

Other plans incorporated into the 2030 RTP effort include the Regional Plan for Bicycling and the Regional Pedestrian Plan, both adopted in 2000, and the Carbon Monoxide Limited Maintenance Plan for the Tucson Air Planning Area, effective July 10, 2000. Information on the following studies, plans and reports, several in early draft form, were presented to the 2030 RTP Task Force for consideration as members discussed and developed specific transportation project ideas.

**Job Access and Reverse Commute (JARC) Plan:** Adopted by Regional Council in April 2000, and amended in 2002, this plan identified policies and projects necessary for the region to apply successfully for JARC funding. Projects were identified and subsequently approved by the Federal Transit Administration for use of these funds.

**Regional Aviation System Plan (RASP):**
Adopted by Regional Council in June 2002, this plan reviewed airport, aviation and air transportation needs for the aviation facilities within the PAG region airspace to the year 2030. A performance-based approach was used to assess each airport in the region and document actual performance against desired performance in six categories: capacity, standards, economic support, compatibility, financial responsibility and accessibility.
Recommendations for actions and/or projects for each airport in the system to meet the future needs of the regional aviation system were prioritized and cost estimates developed. Intermodal and access recommendations also were made. Aviation projects identified in the RASP are eligible for Federal Aviation Administration grants.

**Transit Element of the 2030 Regional Transportation Plan:** Completed in October 2003, the transit element of the 2030 RTP includes an inventory and analysis of transit services and facilities, identifies future transit growth markets and recommends transit service and facility improvements to meet mobility needs of the region.

**I-19 Corridor Report and General Plan:** Completed October 2003, this study considered the transportation needs and deficiencies along approximately 33 miles of I-19 in Pima County from the I-19/I-10 interchange to the Pima/Santa Cruz County line. The I-19 corridor is a multi-modal transportation corridor serving international, interstate, regional and local traffic. Recommendations for future improvements criteria to meet the projected transportation needs to the year 2030 included: freeway widening, frontage road alignments, I-19/I-10 interchange, interchanges along the corridor segment, Intelligent Transportation System technologies, pavement surfaces, right-of-way acquisition, drainage improvements, environmental mitigation, alternate mode and intermodal projects. Implementation priorities were outlined and the final plan suggested future activities and costs that would be needed to move the corridor improvements from concept to completion.

**PAG Elderly Mobility Study:** This study was commissioned in late 2003 to better understand the current and future travel needs of those 65 years or older in the metropolitan Tucson area and to identify innovative and cost-effective options to meet these mobility needs. Specific solutions were recommended with the top three projects being: enhancing volunteer transportation programs; developing a voucher program with incorporating a number of providers and users, and instituting an aggressive sidewalk and transit access program.

**The Tucson Area ITS Strategic Deployment Plan – 21st Century:**
Adopted by Regional Council in July 2004, this study identified local Intelligent Transportation System (ITS) transportation options for communications infrastructure, transit operational improvements, ITS data and traveler information, costs and fiscal considerations, emergency and incident management, intermodal applications and freeway management.

ITS components included in this study were:
- Transit Management System (TMS)
- Arterial Traffic Management System (ATMS)
- Freeway Management System (FMS)
- Regional Traveler Information Center (RTIC)
- 511 Traveler Information Line

**Houghton Road Corridor Study:**
Completed in October 2004, this study focused on an area approximately 20 miles long and two miles wide, centered on Houghton Road from Tanque Verde Road to Sahuarita Road. It also considered portions of Alvernon Way/Golf Links Road terminating at Barraza-Aviation Parkway to the west and I-10 to the south. The purpose of the study was to identify the 2030 and build-out transportation needs resulting from growth in the southeast area of metropolitan Tucson. Recommendations were made for each study segment for roadway improvements, right-of-way needs and access control policies to accommodate the projected 2030 traffic demands as well as right-of-way needs to accommodate anticipated build-out demands.
**Intermodal Management System (IMS) Plan:** Completed in March 2005, this update to the September 1995 plan identified key linkages between one or more modes of transportation and recommended strategies to improve the effectiveness of those modal interactions. These strategies included specific recommendations for 2030 RTP projects that would enhance intermodal connections and freight movement in the PAG region. The emphasis of the Intermodal Plan is on goods movement in and through the PAG region.

**Regionally Significant Routes Study:** This study reviewed existing National and State Highways, State routes and regional corridors. Elements of a regional access management plan were proposed, as were preliminary criteria for identifying those routes with a high level of regional importance. This study included a demonstration exercise illustrating one potential method of quantifying regional routes as a starting point for future development of a regionally significant route system.

**Southeast Area Arterial Study:** This study was completed in 2006 and prepared a major streets and routes plan for an area of over 200 square miles, roughly bounded by 1-19, Valencia Road, 1-10, SR-83 and the Santa Rita Experimental Range/Coronado National Forest south of Sahuarita Road. Recommendations included 20 miles of fully access-controlled corridors; 48 miles limited access-controlled corridors and 122 miles of additional arterial corridors.

**Public Involvement Plan Update:** The update to the 1994 plan was completed in January 2006. The study effort included an evaluation of current public involvement efforts for all of the PAG program areas. Guidelines for all regional public involvement were developed and help to ensure compliance with Title VI and Environmental Justice regulations.

**Consolidated 2030 RTP Project Recommendations**

In August 2004, the 2030 RTP Task Force reviewed maps of all the project groups and different ways of displaying the project information. It became apparent from that session that the relatively large number of project groupings and number of maps needed to describe each group was unwieldy. The Task Force directed that the project ideas be consolidated and simplified for ease of future discussion.

A consolidated set of project ideas was then developed that illustrated the combined proposals from all of the project groupings. This consolidated group represented the initial set of projects recommended by the 2030 RTP Task Force for additional consideration.

A series of meetings were then held with both the full 2030 RTP Task Force and with a smaller working sub-group appointed by the Task Force to create a preliminary project list recommendation. The 2030 RTP Task Force also met with staff working with ADOT, Bicycle Advisory Committee, Safe Routes to School program, Pima County Parks and Recreation, as well as all of the PAG member jurisdictions in order to refine project descriptions, timing, costs and funding sources. Ultimately, a preliminary project list was finalized with updated project descriptions, project timing, costs and assigned funding sources.

The preliminary project list was submitted to various PAG committees, including the Transportation Planning Committee, in January 2005 with the
following recommendations:

1. That the recommended plan for the RTP and the RTA be a coordinated effort that reflected the adopted 2030 Vision and Goals;

2. That project ideas for the coordinated plans be presented to the public for review and comment prior to completing a recommended plan;

3. That the set of projects as developed by the 2030 RTP process form the initial pool of proposed projects for consideration for both the 2030 RTP and the RTA;

4. That new project ideas not be excluded from consideration, but should be added with caution, given the rigorous process already undertaken to fiscally constrain the 2030 RTP within the long-range transportation planning timeframe; and

5. That the identified Committed Projects form the foundation of the 2030 RTP.

The 2030 RTP Task Force also requested guidance on the time-line for completion of the 2030 RTP effort given the high potential for confusion with the emerging RTA activities. The 2030 RTP Vision and Goals was subsequently adopted by the RTA Board in March 2005 in order to maintain consistency between the two transportation planning processes.

In late April of 2005, the 2030 RTP Task Force was given direction to accelerate the schedule for adoption of the 2030 RTP using the most current financial figures and modeling the recommended plan for air quality conformity. The 2030 RTP was completed and adopted on June 29, 2005.

Public involvement activities previously planned as a Phase II and Phase III of the 2030 RTP were reconstructed as part of the RTA outreach effort, which occurred from July 2005 through November of 2005. The RTA election was held in May 2006, and the public endorsed both the RTA plan and the accompanying half-cent excise tax. Just prior to the RTA election, in February of 2006, the Town of Marana along with the Town of Sahuarita, requested that the adopted 2030 RTP be amended to include several new and revised projects. Accordingly, PAG followed up on the scope of these changes and prepared an Amendment to the 2030 RTP that included not only these new and revised projects but also a number of programs that were part of the voter-approved RTA plan. This Amendment was adopted by the PAG Regional Council on June 29, 2006.

**Beyond 2030**

Many excellent ideas were determined to be outside the 2030 timeframe of this planning effort. Others were determined to be beyond available or potential funding sources. This does not negate the value of those projects or preclude consideration of those projects for a future update of the regional long-range plan. The projects included in the 2030 RTP project list, as amended, were deemed to be appropriate within the timeframe of this planning effort, have the highest priority for the regional transportation system and have the possibility of available funding.
The 2030 RTP, as amended, anticipates adding 1,564 new roadway lane miles, 688 new bikeway miles, 867 miles of new sidewalks and 38 miles of new transit routes to supplement existing transit service levels and facilities. This increase in new roadway miles in the amended plan is largely the result of adding the completed southeast area arterial grid to the modeling network as well as adding the new projects to the system. The final 2030 RTP modal split is roughly 67 percent roadway, 23 percent transit and 10 percent bicycle, pedestrian, programs, studies and other miscellaneous projects (e.g. debt service payments, mapping). Projects deemed to be needed within the 2030 timeframe, but which have no identified funding source (RESERVE), were also identified.

Project details are included in Section II of the 2030 RTP.

The existing roadway system is made up of approximately 4,160 miles of freeways, parkways, major and minor arterials. The roadway network also includes 953 bridges, most of which are in satisfactory to good condition. Proposed roadway capacity improvements included in this horizon year update responded to changes in travel patterns, projections of high growth areas and public input indicating a desire for improved cross-town mobility. Proposed projects include improvements to major regional corridors; including, Valencia Road, Aviation-Barraza Parkway, Houghton Road, Tangerine Road, Oracle Road and Silverbell Road. Significant work also is anticipated on Interstates 10 and 19 including widening sections to eight lanes, re-building intersections, replacing bridges and creating new Interstate connections. The 2030 RTP planned roadway project map illustrates the proposed 2030 RTP roadway projects.

An area of significant concern for the efficient movement of freight, congestion relief and safety has been the large number of at-grade railroad crossings. The 2030 long-range plan has identified 16 railroad grade separations along with enhancements to the regional railroad crossing warning system. The region has been working with Union Pacific Railroad on future rail-line improvements and ways to decrease conflicts between rail and motor vehicle traffic. Several railroad and roadway intersections have reconstruction or existing bridge replacements planned and 12 new railroad bridges are planned to be constructed at the following railroad crossings:

- 22nd Street near Santa Rita Park
- 6th Street at the Union Pacific Railroad Main Line
- Ajo Way near Veteran’s Hospital
- Cortaro Farms Road
- Ina Road
Irvington Road
- Main Avenue
- Prince Road
- Ruthrauff Road
- Sahuarita Road east of Old Nogales Highway
- Tangerine Road
- Valencia Road near Nogales Highway.

Stormwater drainage and maintenance of bridges are important for keeping the regional transportation system connected. The Santa Cruz, Pantano, Tanque Verde, Rillito, and Canyon del Oro watercourses flow heavily during the annual monsoon season and bridges must be constructed to withstand significant flooding as well as periods of dry heat. Annual bridge inspections and an on-going program to repair and reconstruct bridges are part of the 2030 long-range plan. Six major bridge projects are planned for existing structures at the following locations:

- Replace Harrison Bridge over Panatano Wash
- Replace Ina Road Bridge over Santa Cruz
- Reconstruct Mescal Arroyo Bridge on Marsh Station Road
- Replace River Road Bridge at Ventena Wash east of River Hills Drive.
- Replace bridges on Silverbell at Brawley Wash and Blanco Wash
- Widen Tangerine Road Bridge between La Cholla and La Canada

In addition, four new bridges are planned to be built in the following locations:

- Calle Santa Cruz Bridge over Airport Wash replacing an existing culvert.
- Clark Street Bridge over the Santa Cruz River as part of Rio Nuevo development in the central city area.
- Drexel Road Bridge and roadway extension from Midvale Park to Calle Santa Cruz connecting Drexel Road from Mission Road to I-10 over the Santa Cruz River.
- Sunset Road Bridge between Silverbell and I-10 over the Santa Cruz River.

A number of other bridge connections have been discussed in the region including a new connection across the Santa Cruz River from Silverbell to or through I-10 at Prince or Ruthrauff, a new connection on Kolb Road across the Pantano Wash and the Synder Road Bridge on Snyder Road across Bear Creek. These projects are been identified as possible needs beyond the year 2030 and have significant costs and environmental concerns that will need to be addressed. Future development in the southeast area also will have issues related to smaller drainage systems and riparian habitat that could influence development patterns and infrastructure design.

The transportation system network, after 2030 RTP roadway capacity improvements are completed, are illustrated by the roadway transportation system network map on the following page. While there has been a consistent understanding that “we cannot build our way out of congestion,” there are still
There are several types of public transit systems operating in the region. The primary fixed route transit system is operated by Sun Tran, which offers bus service on 37 fixed routes covering 505 miles. Sun Tran provides extensive weekday, weekend, and evening service throughout the City of Tucson, the City of South Tucson and limited service into Pima County, the Town of Marana, and the Town of Oro Valley. Sun Tran provides an estimated 94.5 percent of all transit rides in the region.

The Sun Tran fleet size as of June 2006 was 155 active peak hour buses plus an additional 20 percent off-peak buses totaling 189 buses with most of the fleet operating either as dual fuel or with Compressed Natural Gas (CNG). Fleet size is consistent with Federal Transit Authority regulations. Sun Tran has voluntarily supported an internal policy to make all new bus fleet purchases compatible with CNG or other clean fuels.

All buses are equipped with wheelchair tie-downs and with front-mounted bicycle racks that carry two bikes.

In 2005, Sun Tran was honored as the Outstanding Public Transportation Systems Achievement Award by the American Public Transportation Association. Sun Tran also provides a critical service to youth at risk by partnering with Open Inn, a non-profit agency serving runaway and homeless youth, to be mobile Safe Places. Any child or young adult in personal crisis can request assistance simply by boarding a Sun Tran bus and asking the driver for help. Sun Tran buses began carrying the Safe Place logo in January 2005.

**Sun Tran Ridership**

Sun Tran is bucking national transit ridership trends for a fourth consecutive year. Over the past year, ridership has grown 8.4 percent with few increases in service. Weekly ridership averages over...
370,000 passengers. Last year’s total annual passenger miles were 17.1 million passengers per mile exceeding the SIP requirements to maintain at least 14.5 million passengers per mile.

Sun Tran conducted on-board surveys of Sun Tran, Cat Tran and TICET in October 2004. Survey results indicated that transit riders walked an average of 1.9 blocks to connect with one of the transit systems. Thirty-six percent of all riders planned to transfer to another Sun Tran bus as part of their trip. Most of the morning transit riders began their trip at home and were heading either to work (24 percent) or to school (10 percent). Express riders were almost all (90 percent) heading to work. Other transit trip purposes included medical, church/social/personal trips, or shopping. For all systems, 44 percent of weekday riders reported zero working vehicles in the household. Nearly a third more (31 percent) only had one working vehicle in the household. Sixty-five percent of Sun Tran riders reported annual household incomes below $30,000. Express bus riders had higher household incomes than riders on fixed route system with 42 percent of express riders reporting incomes over $50,000.

In April 2005 a phone survey of 299 current transit riders showed that three out of five riders were “highly satisfied” overall with Sun Tran, rating the service eight or higher on a ten point scale. The factor having the highest impact on overall satisfaction was “driver friendliness”, followed by “the bus goes where you need it to go”, “overall value”, “buses arrive and depart on time” and “bus shelter information”.

**Sun Tran Performance**

During FY 2005-2006, Sun Tran carried 17.1 million passengers. Passengers per Total Mile for the fiscal year reached 2.25 while Passenger per Hour reached 29.9 for the same time-period. Cost per passenger (excluding shuttles) was $2.23. Farebox revenues contributed 21 percent of the total cost of the system. Costs per passenger continue to rise faster than revenues per passenger and additional revenues dedicated to transit services will be necessary to maintain the existing transit system.

**Fixed Route Bus System Improvements**

Planned fixed route bus system improvements include fleet expansion and diversification, service expansion and approximately 38 new transit route miles. Consideration will be given to the purchase of smaller buses for circulator routes on local streets and with minimal ridership. Increased service hours and improved headways are planned throughout the metropolitan area for local and express routes. Increased hours of operation during the weekdays and new additional route service provided on weekends also are proposed. On local fixed routes, headways, or times between arriving buses, will be 10 to 15 minutes in the central city area and 15 to 30 minutes in the peripheral area.

New fixed transit routes are planned to serve Continental Ranch via River Road, Pima Community College East campus via Camino Seco and Harrison routes, and Midvale Park to Udall Park via Valencia/Kolb along with other existing service area extensions. Additional express bus routes providing between
two and six bus trips during peak travel periods are planned to serve Sells from the Laos Center, Green Valley/Sahuarita to Ronstadt Center, Cortaro Road Park and Ride to Ronstadt Center and Marana via I-10 to the Cortaro Park and Ride.

The Sun Tran bus storage and fleet maintenance facility is located at the Price Service Center at Ajo Way and Park Avenue. In 1997, the City of Tucson acquired a 40-acre site near Interstate 10 and Prince Road for the future construction of an additional transit maintenance station to serve Tucson’s northwest side. This new facility may be completed by late 2008.

In October 2003, a detailed transit study was completed and recommendations submitted to PAG’s Regional Council, the 2030 RTP Task Force and regional transit providers for consideration in part the region’s long-range planning efforts. The first phase, documented in the March 2003 Technical Memorandum 1, provided an inventory of existing transit services and facilities in the Tucson region. The second phase, documented in the June 2003 Technical Memorandum 2, assessed potential transit markets and studied major corridors that are expected to experience significant growth in the 2030 time-frame. The third phase identified major transit improvements – service, facilities and supporting actions – to meet future mobility needs of the region. Many of these recommendations were incorporated into the 2030 RTP.

**Pima County Rural Transit**

Pima County provides four rural bus routes for areas outside of the urbanized Tucson area linking rural areas with SunTran routes and transit centers. Pima Rural Transit served over 71,100 riders in FY 2005. The four areas serviced by these rural routes are the Tucson Estates Service Area, San Xavier Access Route, Marana Service Area, and the Ajo Service Area. The Ajo route services other points along Highway 86 such as Sells, Hickiwan Turnoff and Why. Maintaining these existing routes is provided in the 2030 RTP.

**Paratransit Service and Improvements**

The Americans with Disabilities Act (ADA) requires that “complementary and comparable” service to the fixed route local bus service be provided. In compliance with this requirement, the City of Tucson operates Van Tran, which provides paratransit service for people who are ADA eligible residing within ¾-mile radius of any fixed bus route operated by Sun Tran. In FY 2005, approximately 399,950 Van Tran rides were provided. Pima County operates Pima Transit Special Needs vans, which served 66,140 passengers in FY 2005. Coyote Run was established in October 1996 to provide paratransit service to elderly and disabled residents of the Town of Oro Valley and in FY 2005 provided 15,937 rides.

The 2030 RTP provides for continued Van Tran paratransit service along and near the expanded local bus route system, and will also offer the same time span of service that Sun Tran provides along these routes. Pima County Rural Transit is expected to maintain and strengthen current paratransit services, with expansion of service to the Green Valley/Sahuarita areas. The Town of Oro Valley plans to expand its Coyote Run
paratransit service as demand and population increases.

**Local Circulators**

Local circulators are intended to supplement the fixed-route Sun Tran and Pima County Rural Transit systems by offering more personalized service in smaller geographic areas. Several local circulators have been put into service within the past few years.

The Tucson Inner City Express Transit (TICET) continues to operate in the downtown area with 15 to 30-minute headways five days a week. In FY 2005, 131,735 passengers boarded TICET. The University of Arizona (U of A) also continues to operate a campus circulator shuttle known as Cat Tran. It is a fixed-route system consisting of seven routes and 17 shuttles operating on headways of 15 to 30 minutes. Over 501,430 rides were provided in FY 2005 and CatTran provides about 2.9 percent of all transit rides in the region. Cat Tran plans to expand services to surrounding neighborhoods, continue to improve connections with Sun Tran and TICET and extend routes to University housing clusters. Additional fixed-route community circulators are planned for the Green Valley and Sahuarita areas, Catalina Foothills and Bear Canyon area, Continental Ranch in Marana, north Foothills, Rita Ranch, and southwest Tucson areas. These provide critical local connections to express and fixed-route Sun Tran routes.

Old Pueblo Trolley operates on weekends between the main gate of the University of Arizona along University Boulevard and 4th Avenue to the 4th Avenue Business District. In FY 2005 over 25,700 passengers boarded the Trolley. Extension of the trolley tracks into Downtown through a new 4th Avenue underpass is currently under design. Based on the outcome of a federally sponsored study the trolley might be routed through Downtown to the Tucson Convention Center and have a future terminus in the Rio Nuevo Development Area, located west of Interstate 10 and Congress Street.

**High Capacity Transit**

Many different high capacity transit options were considered for the 2030 plan including light rail lines. Given funding constraints, along with current low-density development patterns and the lack of large employment clusters, led the 2030 RTP Task Force to consider other high capacity options along the most viable transit corridors. The City of Tucson is currently conducting a federally sponsored Alternatives Analysis evaluation to identify potential high capacity transit solutions such as modern streetcar, historic trolley or bus rapid transit for connecting major activity centers in the central core, including downtown Tucson, the Rio Nuevo Master Plan area, the 4th Avenue/University Boulevard retail corridors, the University of Arizona, and the Arizona Health Service Center (UMC/AHSC). The 2030 RTP prioritized express bus expansion combined with four starter Bus Rapid Transit lines serving the Tucson International Airport and connecting to downtown via 6th Avenue from Loas Center, Broadway from Houghton, Oracle from Tangerine. Funding was also designated for a starter high-capacity modern streetcar system, tentatively planned for implementation within the 2030 RTP time-period. The first phase
will be funded by a Federal New Start Program grant and RTA revenues and will connect, via a four mile streetcar corridor, Rio Neuvo, central downtown area, University of Arizona and UMC. These extensions are illustrated by the planned transit improvement map located on the previous page.

**Transit Centers and Transit Stations**

Currently, there are three regional transit centers serving as the major connection and transfer points for the local and express bus network. The three transit centers are Laos, Ronstadt and Tohono Tadai transit centers. In 1999, the City of Tucson and Sun Tran completed a needs assessment to determine the location and scale for additional transit facilities. Some of these improvements are under way including real-time bus arrival information. Sun Tran also worked with the U of A to complete the Cherry Avenue Transit Hub and Sixth Street Garage providing for a seamless transportation system for students and staff with the U of A’s Cat Tran service.

Park and Ride lots assist travelers in making connections to transit or carpools. The 2030 long-range plan includes the addition of seven new Park & Ride Lots at or near the following locations: Cortaro and I-10, 1st Street and Oracle, Green Valley, Rita Road and I-10, Houghton and Broadway, Pima Community College West Campus, and in the southwest area. Upgrades to existing Park and Ride lots and existing bus shelters also are planned. In January 2003, a ten-year effort to refurbish over 600 existing bus shelters and construct 650 new shelters began. The new shelter design includes trashcans, bike racks and solar security lighting. By June 2006 the transit system included 786 bus shelters and over 2,280 bus stops.

**Intercity Bus and Passenger Rail**

There are several private transit operators that provide daily intercity bus service from the Tucson metro area to cities throughout the southwest United States and Mexico. Greyhound Bus Lines provides daily service from Tucson to Phoenix and other Arizona cities in southeastern Arizona along Interstate 10. Over 50 buses route through the Greyhound Depot each day serving over 660,000 passengers in 2005. The sixth busiest terminal in the western United States, Greyhound also provides seamless ticketing and connection to Mexican bus carriers for longer trips into the interior of Mexico.

The Greyhound Depot has been moved to a temporary location south of west Congress at I-10 and a new terminal is in the process of being planned and built next to the completely renovated historic train depot. Amtrak picks up passengers approximately three times per week at the centrally located Train Depot.

Arizona Shuttle Service fills a smaller niche in the transit market by providing 18 non-stop daily service from Tucson to Sky Harbor Airport in Phoenix. Over 170,000 passengers annually are served on the Tucson-Phoenix route. Arizona Shuttle Service also provides package delivery and charter/tour services.
The provision of improvements for bicycle travel is considered an important quality of life measure that helps improve accessibility and transportation efficiency within the PAG region. Bicycle facilities and programs provide many public and private benefits that include helping our region achieve regional air quality goals, provide low-cost transportation alternatives, reduce congestion and reduce growth impacts on transportation infrastructure.

Since 1971, designated bicycle facilities have increased from eight miles to a network of approximately 567 miles. The Tucson-Pima County Bicycle Advisory Committee, established in 1987, has been instrumental in advocating and supporting the development of these bicycle facilities.

The PAG 2000 Regional Plan for Bicycling, the Tucson-Pima County Bicycle Advisory Committee's Bicycle Improvement Program, City of Tucson's Bikeway Improvement Plan and the Town of Oro Valley's Pedestrian and Bicycle Plan are the primary guiding documents for bicycle improvements within metropolitan Tucson. The 2000 Regional Plan for Bicycling, adopted by Regional Council in July 2000, identifies needs, goals and recommendations for enhancing the regional bikeway system. This plan is currently in the process of being updated and guides the region in the development of future bicycle facilities. The following goals are set forth in the 2000 Regional Plan for Bicycling:

- **Education**: Educate all road users, especially bicyclists, on legal, predictable and safe behavior.
- **Enforcement**: Enforce all traffic laws on bicyclist and motorists, especially those relating to bicyclist-motorist interactions.
- **Engineering**: Plan, design, construct and maintain bicycle facilities that meet or exceed standards and guidelines.
- **Encouragement**: Encourage the increased use of bicycles for transportation and recreation.

The current regional bikeway system includes four main types of facilities:

- **Bike Routes**: Designated bicycle routes on the street, with signing only (approximately 90 miles).
- **Bike Routes with Striped Shoulder**: Designated bike routes on the street with painted white lines and signs, or with signs only (approximately 425 miles).
- **Bike Lanes**: Designated for the exclusive use of bikes only (approximately 6 miles).
- **Bus Shared-Use Lanes**: Special lanes where bicycles share use with buses and right turn lanes (approximately 8 miles).

Improvements since June 2005 included the addition of more than 80 miles of bikeways, as well as an additional 10 miles of shared-use paths and an additional 7.5 miles of bus-bike lanes.
The region has committed to achieving the highest level of excellence for Bicycle Friendly Communities by proactively seeking to improve the region’s current Gold ranking to a Platinum ranking. The PAG region is the first in the nation to be awarded the “Gold” Bicycle Friendly Community designation from the League of American Bicyclists. This designation was presented to the PAG Regional Council Chairman and Mayor of Tucson Robert Walkup and Chairman of the RTA and Pima County Supervisor Ramon Valadez on June 2, 2006. These rankings are made by the League of American Bicyclists and at this time, no city in the United States has achieved the highest Platinum ranking. Regional Council endorsed the Platinum Initiative in January 2005.

Over 760 additional miles of bikeway facilities are planned with a goal of reaching more than 1,400 total miles of bicycle facilities within the region by 2030. A consistent two percent of person-trips for weekday travel to work are made by bicycle. Bicycling is a primary transportation source for many students, low income and new immigrant population groups. Bike lanes and paved shoulder provide numerous benefits including improved safety for pedestrian, bicyclists, motorists, and roadway workers, due to added space for all the activities they are involved in on a roadway. Emergency vehicle access is improved through congested areas, as motorists can pull into a bike lane or shoulders to allow emergency vehicles to pass. Space is provided to escape potential crashes and reduce their severity. Roadway capacity is improved for all and so are safety conditions.

In addition, the number and caliber of bicycle routes, combined with typically good weather, has made the region a premier site for professional and recreational bicycle training rides as well as professional rides and races, such as the El Tour de Tucson. These events bring in significant tourism dollars (estimated by the U of A to be more than $30 million annually) and enhance the region’s reputation as a quality place to live.

Funding for bicycle specific projects is approximately $102 million (excludes costs of concurrently developing bicycle lanes as part of roadway projects). These projects include:

- High priority bicycle corridors include Houghton, Tangerine, Silverbell, Valencia, Mission, Oracle, Sahuarita, La Cholla, East and West Speedway, Thornydale, and Golf Links.

- Major bicycle projects planned for the future include development of the Sahuarita Bike Lanes, La Canada Bike Lanes, Catalina Highway Bike Lanes, Harrison Bike Lanes, Irvington Bike Lanes and Kolb Bike Lanes.

- Efforts are under way to achieve a “Platinum” ranking for the PAG region. Key areas for the Platinum Challenge include adult & child education programs, law enforcement training and implementation, increased community awareness and involvement, and additional facilities, especially to close gaps and create greater system continuity.
Pedestrian facilities are critical elements of a safe and livable community and include sidewalks, crosswalks, pedestrian overpasses, pedestrian street lighting, design features to enhance the pedestrian environment (e.g. shade trees, benches) and median refuge areas. Pedestrian facilities provide important connections to other ways of traveling as well as access to people who cannot or do not wish to drive to places of employment, shopping and other destinations.

The region adopted a 2000 Regional Pedestrian Plan on July 26, 2000, with the express purpose of raising awareness of the benefits of walking, designing direct, safe, comfortable, aesthetically pleasing, and continuous pedestrian facilities, improving pedestrian visibility and safety, improving and maintaining the pedestrian system and securing funding for pedestrian programs and projects.

Five goals were developed as broad expressions of the major components of the 2000 Regional Pedestrian Plan. These are:

- Educate officials and the public to become aware of pedestrian issues, and encourage walking.
- Promote the development and design of pedestrian facilities that are direct, safe, comfortable, interesting, and provide continuity.
- Improve pedestrian visibility and safety.
- Promote the enhancement, improvement, and maintenance of the regional pedestrian system.
- Identify and secure funding sources to implement pedestrian programs and projects.

The regional pedestrian system is primarily focused on urban and suburban pedestrian elements: sidewalks and other suitable pedestrian facilities; paved and unpaved shared use paths for pedestrians, bicyclists, rollerbladers and others; and pedestrian crossings or roadways leading to activity centers. In many cases, sidewalk improvements are included in street improvement projects and as part of neighborhood improvement district projects. Trails are identified for recreational walkers and hikers in the 1988 Trail System Plan for Eastern Pima County and on the 1993 Trails of the Tucson Basin map developed by the Pima Trails Association. The Town of Oro Valley has a Master Trails Plan that supplements the Pima County trail system as well as a 1999 Pedestrian and Bicycle Plan.

In 2004, PAG completed an extensive two-year sidewalk inventory project in order to provide a “big picture” assessment of sidewalk connectivity and accessibility along the major roadway network throughout the region. The inventory identifies major sidewalk gaps and other deficiencies (e.g. wheelchair ramps), mainly in the core urban area where pedestrian travel is significant. A ranking system also was developed to prioritize each roadway segment with sidewalk needs based on a common set of criteria. The main intent of the ranking system was to create a rational process for local officials to plan and build sidewalks where they are needed the most along the major roadway network. This inventory and ranking system will serve as the basis for identifying and prioritizing sidewalk projects over the next several years. The 2030 RTP provides for the creation of a regional pedestrian and sidewalk office to coordinate pedestrian and sidewalk improvements.

An additional 867 miles of sidewalks are expected to be constructed by the year 2030. Sidewalk cost per mile (both sides of the street) is about $250,000. Approximately four percent of person-trips for weekday travel to work are made by foot. Funding for pedestrian specific projects is approximately $64.4 million dollars (excludes costs of concurrently developing pedestrian facilities as part of a roadway project) and represents about .5 percent of the regional transportation resources.

One new regional program supporting both bicycle and pedestrian use is the Safe Routes to School program. Currently operating as a pilot program at seven local elementary schools the region plans to expand the program region-wide and include both elementary and middle schools in the program. This program works closely with neighborhood communities and local school officials to improve student’s safety and access to their neighborhood school by developing route maps, bicycle and pedestrian safety projects, training programs for teachers, enhanced enforcement measures and safety, educational and promotional materials. Construction of projects near and adjacent to schools to improve access have been identified and
completed. Similar programs in other localities have seen dramatic increase in school trips by walking, biking and carpooling. These reduce the congestion conditions and deterioration of air quality around school areas as well as increases school aged children’s sense of responsibility, independence and general health.

**Urban Shared-Use Paths** have recently been classified as Pedestrian facilities, reflecting their primary use in the Tucson region. Bicyclists are allowed, but must adhere to strict rules of use when there are pedestrians present, or when pedestrians can reasonably be expected to be present. These are recreational trails/paths that are separated from the street, usually found in River Parks (approximately 55 miles). These paths are used by a wide variety of pedestrians, including skateboarders, in-line skaters, scooters and other similar uses.

Shared-use path corridors planned in the region include the completion of the Santa Cruz River path, Houghton Road path and the Julian Wash trail. These are illustrated in the planned shared-use path improvement map. One new rail to trail project in the region is the El Paso Southwestern Greenway - a planned shared-use path greenway for jogging, walking and bicycle use connecting unique and important neighborhoods and downtown activities along a 2.25-mile former rail corridor. It would run approximately from Euclid and 40th Street in South Tucson to Estevan Park in the Dunbar-Spring Neighborhood, north of downtown. A partnership with the U of A Drachman Institute, the El Paso Southwestern Greenway Coalition and the Rio Nuevo Multi-Purpose Facilities District developed this plan as one of the shared-use paths within the regional pedestrian system.

**Aviation, Rail and Other Transportation Systems, Studies and Programs**

Development of the nine airports included in the PAG regional aviation system is guided by the Regional Aviation System Plan (RASP) adopted in June 2002. The 2030 RTP includes runway extensions at both the Tucson International Airport and Ryan Airfield, terminal expansions and a gateway feature at Valencia and Tucson Boulevard.

The State Rail Plan, along with the regional IMS plan, documents existing rail facilities and conditions and identifies future rail system needs. The railroad system in the PAG region, running on Union Pacific Railroad lines, provides both passenger and freight service. Intermodal freight connections are made at the Port of Tucson located in the Foreign Trade Zone southeast of Tucson. The 2030 RTP, as amended, includes reconstruction and curb radii improvements at key freight intersections and high priority freight roadway projects such as widening on Contractor’s Way from Irvington to Ajo Way, Flowing Wells Road widening from Miracle Mile to Grant and railroad grade separations.

Major components of regional non-capacity improvements are the Intelligent Transportation System (ITS) projects. These improvements help to improve the performance and safety of the transportation system with the use of
advanced technologies and are guided by the Tucson Area ITS Strategic Deployment for the 21st Century plan.

The PAG region actively supports several travel demand programs intended to help reduce traffic congestion through improved management of vehicle travel demand. These include the Travel Reduction Program and the Rideshare Program. The region’s Travel Reduction Program and RideShare Programs serve over 114,000 employees in 288 major employer sites promoting carpooling, vanpooling, bus ridership, walking, bicycling to work or offering special programs, such as compressed work weeks, field work or telework options. Rideshare helps to facilitate connections to transit and carpools and coordinates a Parent Pool Program that helps parents form carpools for driving their kids to and from schools. Rideshare also oversees a new regional program that guarantees a ride home to carpoolers and transit riders using emergency taxi vouchers. Continuations of these programs are included in the 2030 RTP as are provisions for the Pima County Department of Environmental Quality “No Drive Days” program.

The Clean Cities program partners with the Department of Energy to increase the use of alternative fuels throughout the region. Three new Clean Natural Gas fueling stations have been identified in the 2030 plan and are tentatively sited at Main and 6th Street, near I-10 in the northwest and near Rita Ranch in the southeast areas.

**RTA Programs**

The 2030 RTP was amended to include a number of programs that were part of the voter approved RTA plan. Many of the RTA plan projects were included in the previous 2030 RTP as part of the region’s long-range vision for meeting regional transportation needs. The RTA Board, working closely with the RTA Citizen and Technical Committees, also developed a number of programs that integrate closely with the 2030 RTP’s vision, goals and projects. The voters approved the RTA plan and accompanying excise sales tax in May 2006. The RTA programs included in this 2030 RTP Amendment are:

**Intersection Safety and Capacity Improvements:** Intersection improvements for an estimated 40 intersections.

**Elderly and Pedestrian Safety Improvements:** Pedestrian, safety and ADA-access related improvements along major roadway corridors.

**Transit Corridor Bus Pullouts:** Construct up to 200 bus pullouts along major transit corridors.

**At-Grade Railroad Safety and Bridge Deficiencies:** Construct at-grade highway/rail intersection improvements for intersections.

**Signalization Technology:** Designs, builds, operates and monitors traffic signal technology in association with the region’s Intelligent Transportation System (ITS) program.

**Greenways, Pathways, Bikeways and Sidewalks:** Sidewalk and bikeway improvements along the regional roadway/riverpark system.

**Transportation-Related Critical Wildlife Linkages:** Construct wildlife crossing improvements within future planned roadways and highways.

**Small Business Assistance Program:** Minimize disruptions to small businesses adjacent to major roadway construction projects by providing support and assistance.
Estimated 2030 ADT Congestion with Plan Improvements

Source: PAG Regional Transportation Model, June 2005
PERFORMANCE ASSESSMENT OF THE RTP

From the year 2005 to 2030, vehicle-miles traveled are expected to increase by 90 percent, while vehicle-hours traveled are anticipated to increase by 99 percent. Total average daily travel, excluding local streets and collectors, for the year 2030 is estimated to be 37,760,913 miles. Travel under heavily congested roadway conditions is expected to increase from 23 percent in 2005 to 27 percent in 2030. Travel under severe congestion is expected to increase from about 6 percent in 2005 to 31 percent in 2030. The congestion level map illustrates what vehicle congestion would look like on the 2030 roadway network with the previous 2030 RTP plan improvements in place. Vehicle hours and vehicle miles traveled in the year 2030 with plan improvements, as amended, are described in the table below.

<table>
<thead>
<tr>
<th></th>
<th>YEAR 2030 NO BUILD</th>
<th>YEAR 2030 WITH PLAN PROJECTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weekday Vehicle Hours Traveled (VHT)</td>
<td>1,710,000 Hours</td>
<td>1,154,000 Hours</td>
</tr>
<tr>
<td>Weekday Vehicle Miles Traveled (VMT)</td>
<td>42,354,000 Miles</td>
<td>42,203,000 Miles</td>
</tr>
<tr>
<td>Vehicle Hours (in Minutes) Traveled per Person</td>
<td>62.0 Minutes Daily</td>
<td>41.7 Minutes Daily</td>
</tr>
<tr>
<td>Vehicle Miles Traveled per Person</td>
<td>25.3 Miles Daily</td>
<td>25.2 Miles Daily</td>
</tr>
</tbody>
</table>

These modeling statistics reflect average daily travel region-wide. As a result, congestion in urban activity areas is frequently under-estimated, especially during peak travel times. Peak hour travel reflects the majority of travel to and from work trips. Regional peak hour data indicates that a sharp morning peak occurs from 7:30 a.m. until 8:15 a.m. Vehicle traffic begins to increase mid-day at about 1:30 p.m. and continues to gradually rise through the evening peak period occurring from 4:30 p.m. until 5:45 p.m. The time-period with the highest average traffic volume is typically weekdays between 5:00 p.m. and 5:15 p.m. The five intersections with the highest level of delay during the evening peak period are Speedway/Kolb, Grant/Swan, Speedway/Campbell, Broadway/Swan and Broadway/Kolb.

The top 12 high volume intersections in 2006 are listed in the adjacent table.
<table>
<thead>
<tr>
<th>INTERSECTION</th>
<th>AVERAGE DAILY TRAVEL 2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oracle Rd./Ina Rd.</td>
<td>104,931</td>
</tr>
<tr>
<td>Oracle Rd./River Rd.</td>
<td>100,513 *</td>
</tr>
<tr>
<td>Broadway Blvd./Kolb Rd.</td>
<td>99,717</td>
</tr>
<tr>
<td>Speedway Blvd./Campbell Ave.</td>
<td>98,300</td>
</tr>
<tr>
<td>22nd St./Kolb Rd.</td>
<td>96,100</td>
</tr>
<tr>
<td>Grant/Kolb/Tanque Verde Rd.</td>
<td>95,932</td>
</tr>
<tr>
<td>Golf Links/Swan</td>
<td>94,186 *</td>
</tr>
<tr>
<td>Golf Links/Kolb Rd.</td>
<td>93,725</td>
</tr>
<tr>
<td>Broadway Blvd./Wilmot Rd.</td>
<td>91,808</td>
</tr>
<tr>
<td>Speedway Blvd./Kolb Rd.</td>
<td>91,352 *</td>
</tr>
<tr>
<td>Broadway Blvd./Craycroft Rd.</td>
<td>90,810</td>
</tr>
<tr>
<td>Speedway Blvd./Wilmot Rd</td>
<td>90,767</td>
</tr>
</tbody>
</table>

Top Twelve Urban Area High Volume Intersections
Source: PAG Analysis of Traffic Data Services Counts, July, 2006

* indicates 2004 traffic counts – intersections counts may be taken every one to three years at any given location

The region’s current size makes seasonal shifts marked by winter visitors arriving in the early winter and leaving in mid-March less noticeable except in smaller sub-areas like Green Valley. Holiday travel demand places a heavy demand on corridors serving regional malls and popular recreation and entertainment activities contribute to intermittent, but severe, congestion at times. Balancing average daily transportation needs with regional activities like the annual Gem and Mineral Show, U of A basketball games, Tour de Tucson or smaller events like high school graduations are a challenge for transportation planners and requires multi-disciplinary coordination with other state and local entities to maximize the efficiency of the transportation network.

**Air Quality Assessment**

The Clean Air Act Amendments of 1990 require that the RTP conform to the

“applicable air quality implementation plan’s” (SIP’s) purpose of eliminating or reducing the severity and number of violations of the National Ambient Air Quality Standards (NAAQS) and achieving expeditious attainment of such standards; and that RTP activities will not cause or contribute to any new violation of any standard in any area, increase the frequency or severity of any existing violation of any standard in any area, or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

Prior to 2000, the Tucson region was designated in nonattainment with the carbon monoxide (CO) health standard. As a nonattainment area, an emissions budget (i.e., maximum emissions limit) was required and, in the PAG region, this limit was set at 1990 emissions levels. This nonattainment status also required that federally supported transportation
plans, programs, and projects not adversely affect air quality. A conformity determination on the short and long-range plans included modeling results showing that future on-road mobile emissions from motor vehicles did not exceed those of the base year.

Approval of the Carbon Monoxide Limited Maintenance Plan (LMP) for the Tucson Air Planning Area in July 2000 removed the conformity determination requirement for an emissions cap. However, modeling of the regional CO emissions is used for comparative purposes and compliance is determined by monitoring of the existing system.

**Air Quality Conformity**

The Tucson area continues to be in attainment with the health standard for CO under the LMP. The region currently monitors levels that are less than a quarter of the standard. Improved emission standards and newer vehicle fleets have helped to significantly reduce the CO emissions in the region. These low readings serve to reinforce that CO is no longer considered a health issue in the Tucson metropolitan area.

The regional CO emissions impact from motor vehicles was analyzed for the 2030 RTP projects, as amended. Outputs from the transportation model, Cube/Voyager TP+ and the air quality model, MOBILE6.2, were utilized by PAG air quality planning staff to estimate the CO emissions from motor vehicles for the start year, as well as the 2030 scenario for the transportation network.

PAG air quality planning staff received the vehicle miles traveled (VMT) and speed data by facility type from PAG transportation modeling staff. The VMT and speeds for the six facility categories were consolidated into two categories, freeways and arterials, for air quality modeling of CO emissions. It was assumed that the local/off-system collectors carried 13 percent of the on-system VMT, at a speed of 12.9 miles per hour (the MOBILE6.2 average speed for local streets). Separate arterial and freeway model runs were done at the estimated average speed. High and low altitude scenarios were averaged to reflect the Tucson elevation. The model run inputs also included local vehicle registration and climate data, an oxyfuel level of 1.8 percent, with the enhanced Vehicle Emissions Inspection Program, and a Reid Vapor Pressure of 11.1 psi (actual winter 2004/05 average). The MOBILE6.2 model takes into account regulatory changes that affect the outputs, particularly the new Tier 2 and gasoline sulfur regulations. Tier 2 standards require stricter tailpipe emissions that are being phased in over the period 2004-2007 for new cars and 2006-2009 for new light duty trucks.

On the adjacent page is a summary table of the modeling results. The CO emissions benefit provided by the Tier 2 emissions standards with fleet turnover is evident from the regional CO emissions estimates. This benefit, together with changes in average travel speeds by roadway type and the corresponding emission factors, outweigh the significant increase in VMT from 2005 to 2030.
<table>
<thead>
<tr>
<th>Year</th>
<th>Total Vehicle Miles Traveled (mi/day)</th>
<th>Average Freeway Speed (mph)</th>
<th>Average Arterial Speed (mph)</th>
<th>Regional CO Emissions (tons/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>24,689,217</td>
<td>56.7</td>
<td>35.1</td>
<td>338.7</td>
</tr>
<tr>
<td>2030</td>
<td>47,689,799</td>
<td>41.8</td>
<td>33.5</td>
<td>291.3</td>
</tr>
</tbody>
</table>

**Summary Table of Regional CO Emissions Modeling Results**

Source: PAG Regional Air Quality Model, 2006

In order for PAG and the U.S. DOT to determine that the RTP is in conformity with the applicable air quality implementation plan (the Arizona State Implementation Plan or SIP), the RTP must meet the conformity requirement findings in Arizona Administrative Code R18-2-1401 et seq. Based on regional monitoring results and staff emissions estimates, the following three conformity findings are appropriate:

- This RTP, as amended, provides for, or does not impede, the implementation of transportation control measures in the applicable SIP on the schedule set forth in the SIP.
- CO emission levels, microscale and regional, resulting from implementation of this RTP, as amended, will not interfere with maintenance of the CO NAAQS throughout the maintenance area during the period covered by the plan.
- Implementation of this RTP program, as amended, will not cause or contribute to a violation of the CO NAAQS anywhere within the maintenance area during the period covered by the plan.

**Other Pollutants of Regional Concern**

In addition to monitoring CO levels, air quality levels for five other pollutants are also monitored on a regular basis by the Pima County Department of Environmental Quality (PDEQ) for adherence to the NAAQS. Those pollutants include the following:

**Ozone:** The Tucson region is in attainment with the health standard for ozone. However, in recent years, the ambient ozone concentration for the PAG region has consistently risen above 85 percent of the federal standard during the summer. Ozone is formed by a complex set of chemical reactions between two ozone precursors: volatile organic compounds, also known as hydrocarbons, and oxides or nitrogen in the presence of sunlight. New ozone standards implemented in April 2004 require that ozone concentrations must remain below 0.08 parts per million (ppm) based on the three-year average of the fourth highest daily maximum eight-hour average ozone concentration.

**Particulate Matter:** The Tucson region violated the 24-hour PM10 health standard after six exceedances were recorded in 1999. The exceedances were
found to be due to high wind natural events, along with an extended period of low rainfall. PDEQ developed a Natural Events Action Plan (NEAP) and submitted it to EPA on June 23, 2001. This plan was developed to protect public health and welfare from airborne fine dust particles during future high wind dust events. Since the submission of the NEAP, the PAG region has experienced three exceedances of the 24-hour PM10 standard. The region is currently engaging in outreach, education and increased enforcement activities to ensure compliance with the local regulations required under the NEAP. In December 2004, the Tucson region was designated in attainment with the new PM2.5 health standard.

**Other Air Pollutants:** The other common pollutants measured in Pima County are nitrogen dioxide and sulfur dioxide and both remain well below their respective health standards.

**In conclusion,** CO concentrations have consistently declined over the past 20 years. The EPA 2003 Trends Report states that between 1992 and 2001, ambient CO concentrations decreased 38 percent. This air quality improvement occurred despite an approximately 35 percent increase in vehicle miles traveled (VMT) in the United States during this 10-year period. Similar trends for CO have been seen in the PAG region; however, ozone concentrations are currently nearing 90 percent of the health standard, and PM10 is also of concern as the region violated the health standard in 1999. In order to ensure compliance with the federal health standards, continuing current programs to promote the use of alternate modes of transportation and clean fuels will be an important regional component for maintaining healthy air quality.

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**NEXT STEPS AND FUTURE TRENDS**

The 2030 Regional Transportation Plan is only one of many different regional and jurisdictional planning efforts that try to identify the challenges that the future will bring to the region. Long-range transportation plans are updated or amended periodically to reflect changes in regional demographics, land use and future transportation needs.

The next RTP Amendment or update is expected to address changes in revenues due to the mid-decade population adjustments, changes in federal allocations after the August 2005 passage of the federal reauthorization bill, known as SAFETEA-LU, and new jurisdiction revenues, including increases in development impact fees in Pima County and Marana. The next major update will move the horizon year out to the year 2035 or beyond. After completion of the 2035 long-range planning effort, regional attention will focus on the 2010 decennial census occurring in April 2010. Subsequent long-range plans would incorporate the updated 2010 demographic data, population projections and revenue forecasts.
The future holds both challenges and possibilities. Regional population will continue to grow and will change rapidly in both character and culture. Hispanics will become the new young majority with an aging white baby-boom population. The loss of the middle class and the effect of a cyclic economy, combined with the growing influence of the global market, will result in changes to regional transportation needs. Strategic replacement and retrofitting of aging suburban housing tracts to create places that are more walkable, that allow aging in place and increase choices for density and housing types to meet the needs of the 21st century households, also will change the patterns of the regional transportation system.

Part of the ongoing mandate of regional and local governments is to keep a finger on the pulse of the region and be innovative and flexible enough to meet changing needs. Every era in transportation has its own mix of problems and solutions. The PAG region has a good start on a transportation system that can be increasingly effective over the next 30 to 50 years - with good planning and implementation.

Innovations in transportation can make a community more livable, likeable, and economically vital. The best plans look far enough ahead not only to imagine the future, but to shape it.

The 2030 Regional Transportation Plan sets a course to follow that not only shapes our future but also accomplishes the community’s vision for a transportation network that allows people to connect to the places that matter most to them.

Make no small plans.
They have no magic in them to stir the blood.

Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will never die, but long after we are gone will be a living thing.

Remember that our children and grandchildren are going to do things that would amaze us. Let your watchword be order and your beacon beauty.

Think Big.

Attributed to Daniel Burham, Architect (1864-1912)
PIMA ASSOCIATION OF GOVERNMENTS

177 N. Church Avenue, Suite 405
Tucson, AZ  85701
PAG oversees regional planning efforts, such as the Regional Transportation Plan, and has information about regional plans, projects and demographics. PAG produces a traffic volume map every year that is available both on PAG’s Web site and at the PAG offices. PAG publications also include the Population Handbook with population estimates and 50-year projections for each jurisdiction and a Community Information Data Summary.
Phone:  (520) 792-1093
www.pagnet.org

ARIZONA DEPARTMENT OF TRANSPORTATION
Transportation Planning Division
206 S. 17th Ave. Mail Drop 310 B
Phoenix, AZ 85007
Statewide transportation plans, Interstate 10 & 19 plans and state highway information.
Phone: MVD: (520) 629-9808, Directors Office: (602) 712-7550 or District Office: (520) 620-5412
www.dot.state.az.us/

CITY OF TUCSON PLANNING LIBRARY
345 E. Toole Avenue, 2nd floor
Tucson, AZ  85701
Census data repository; customized census data printouts, demographic data, City of Tucson housing permit information.
Phone:  (520) 791-4505
www.cityoftucson.org/planning.html

CITY OF TUCSON URBAN PLANNING & DESIGN
The MacArthur Building, 345 E. Toole Avenue, 3rd floor, Tucson, AZ  85701
City of Tucson General Plan, sub-regional, area or neighborhood plans, land use maps and statistics for the City of Tucson.
Phone:  (520) 791-4505
www.ci.tucson.az.us
CITY OF TUCSON TRANSPORTATION PLANNING DIVISION
201 N. Stone Avenue, 6th floor
Tucson, AZ  85701
Transportation plans and ongoing transportation programming for the City of Tucson.
Phone: (520) 791-4372
www.ci.tucson.az.us/planning/

PIMA COUNTY PLANNING DIVISION
201 N. Stone Avenue, 2nd floor
Tucson, AZ  85701
Pima County Comprehensive Plan, Sonoran Desert Conservation Plan
Conceptual Land Use Element, land use maps and statistics for Pima County.
Phone:  (520) 740-6800
www.pimaexpress.com/planning

PIMA COUNTY DEPARTMENT OF TRANSPORTATION AND FLOOD CONTROL
201 N. Stone Ave. 3rd floor
Tucson, AZ 85701
Transportation planning and programming for Pima County, including rural transit services.
Phone: (520) 740-6410 (Community Relations Office) (520) 740-6403
(Pima Transit/PC Transpiration Systems)
www.dot.pima.gov

TOWN OF ORO VALLEY PLANNING & ZONING DIVISION
Town Hall Complex-Community Development Bldg.
11000 N. La Canada Drive
Oro Valley, AZ  85737
Population statistics, housing permit information, Bicycle, Pedestrian and Trails plans, General Plan for the Town of Oro Valley.
Phone:  (520) 229-4880 ( Town of Oro Valley)
(520) 229-4800 (OV Development Services Main Line)
www.townoforovalley.com/pz

TOWN OF MARANA PLANNING DEPARTMENT
Marana Development Services Center
11555 W. Civic Center Drive
Marana, AZ  85653
Population information, housing permit information, General and Transportation Plans for the Town of Marana.
Phone:  (520) 382-2600
www.marana.com/planning
TOWN OF SAHUARITA PLANNING DEPARTMENT
725 W. Via Rancho Sahuarita Bld., #1.
Mail to: P.O. Box 879
Sahuarita, AZ  85629
Population Statistics, housing permit information, General Plan for the Town of Sahuarita, specific plans, land use maps.
Phone: (520) 648-1972
www.ci.sahuarita.az.us

CITY OF SOUTH TUCSON
1601 South Sixth Avenue
South Tucson, AZ  85713
Mail to: P.O. Box 7307, South Tucson, AZ  85725
Housing permit information, General Plan for the City of South Tucson.
Phone:  (520) 792-2424
www.ci.tucson.az/sotucson.html

PASCUA YAQUI TRIBE
Pascua Yaqui Tribe - Land Use Department
7474 S. Camino de Oeste
Tucson, AZ   85746-90308
Land use, Transportation and Drainage Plans as well as Housing and Economic Development information.
Phone: (520) 879-6319
www.pascuayaquitribe.org

TOHONO O'ODHAM NATION
Executive Offices
P.O. Box 837   Sells, AZ   85634-0837
San Xavier District: 2018 W. San Xavier Rd., Tucson, AZ  85746
Executive and administrative offices, demographics, housing, transportation and economic development plans.
Phone: (520) 383-2028 (Nation) (520) 383-2221 ext 215 (Research & Planning Dept)
www.itcaonline.com/tribes_tohono.html

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Gu Vo District - (520) 362-2268
Hickiwan District - (520) 362-2363
Pisinemo District - (520) (520) 362-2442
San Lucy District - (928) 683-2913
San Xavier District - (520) 294-5727
Schuk Toak District - (520) 383-4660
Sells District – (520) 383-2281
Sif Oidak District – (520) 361-2360
SUN TRAN

4220 S. Park Ave.
P.O. Box 26765
Tucson, AZ 85726-6765
Transit route information, transportation and program information, first-time rider info, ride-guide and rider alerts.
Phone: (520) 792-9222
www.suntran.com

TUCSON AIRPORT AUTHORITY

7005 S. Plumer Ave.
Tucson, AZ 85706
Information about regional aviation activities at Tucson International Airport and Ryan Airfield (general aviation reliever airport).
Phone: (520) 573-8100
www.tucsonairport.com

U.S. CENSUS DATA:

Historical Census data and Census 2000 data. Data available includes population, housing units, ethnic and racial characteristics, household income and other demographic, social, economic and housing data at the National, State, County, Jurisdictional, Census Tract and block levels of geography.
Phone: (520) 791-4010
www.tppl.org
www.census.gov
ACKNOWLEDGEMENTS

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**Pima Council on the Aging:** George Miraben

**Primavera Foundation:** Don Chatfield

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