EXECUTIVE SUMMARY

There are five main elements in the *Transportation Master Plan*: Policy; Streets; Transit; Bicycle; and Pedestrian. In addition, three specific area circulation studies were completed in the *Transportation Master Plan*: North; Airpark; and Central/Downtown. Many of the area plan policy statements and objectives are included in the elements of the *Transportation Master Plan*; however, the complete area circulation studies are included in the body of the *Master Plan* document for easy reference.

1.0 CITYWIDE POLICY

The Policy Element addresses general citywide policies that are not specific to a particular transportation mode, or a specific area within the City. Based on the voter-approved *General Plan*, the focus is on providing choices in transportation modes, increasing efficiencies of our transportation system, as well as improving and maintaining safety.

A formal "Complete Streets" policy and implementation of that policy. The City's guidelines and design practices already promote the idea of streets that can be used comfortably by all users. However, a "Complete Streets" policy reinforces this concept to ensure that the entire right-of-way is designed for safe and comfortable access for all users (vehicles, bicycles, pedestrians, transit users, and equestrians) and relates to local context within the different areas of the City. Provision of facilities for users including lighting and safety improvements, travel lane restriping for bicycle lanes, and ensuring that complete streets are incorporated in all new roadway construction and reconstruction projects will be part of the implementation of this policy.

Mode split and vehicle miles traveled (VMT) targets for 2030. Numerical goals, in the form of target percentages for increasing mode split (improvement of the share of non-auto trips) and reducing the per capita amount of vehicle miles traveled, are included in the Policy Element.

- The policy sets a goal of mode split targets of 25 percent by non-single occupant vehicle modes within the City's activity centers (e.g., Downtown) by 2030. [Current citywide mode split during peak hours is approximately 20 percent, including carpools.]
- Vehicle miles traveled per capita has been fairly flat since about 2000. The policy sets a goal of 10 percent reduction in vehicle miles traveled per capita by 2015, and 20 percent by 2030.

Recognize different transportation solutions for different areas of the community. Context-sensitive design is defined as an approach to developing and redesigning transportation facilities that fit into the local environment (natural and man-made) while preserving aesthetic, historic, community, and natural environmental values. Policies regarding context-sensitive design respect the City's area circulation plans as well as relevant parts of adopted Character/Community Area plans for transportation standards and design.

Dedicate a higher percentage of available capital funding for transit, bicycle, trail, and pedestrian system enhancements. Currently, approximately 26 percent of the City's transportation capital funding is used for transit, bicycle, trail, and pedestrian system enhancements. The Policy Element increases this percentage to 33 percent of available transportation capital funding.

Promote the efficiency of the transportation system through a variety of existing and new policies.

- Develop a measure of person-capacity in the transportation system, versus the traditional tool of vehicular capacity, through the City's new travel demand model.
- Maintain vehicular level of service (LOS) D or better at most signalized intersections, except in designated activity cores or urban roadway corridors where walkability, transit access, and aesthetic or right-of-way considerations are overriding.
- Monitor average roadway travel times and develop mitigation strategies when a trip takes 25 percent longer in peak travel times than during non-peak times.
- Continue to use access management to maximize roadway capacity, and streamline access management administration to allow requests for exceptions to be reviewed by the Transportation General Manager, with appeals to the Transportation Commission.
- Enhance Intelligent Transportation System (ITS) usage and application to other transportation modes such as *Regional Transportation Plan* bus rapid transit corridors, and applications that show real-time traffic conditions on the Internet or real-time transit vehicle speed and estimated trip timing through vehicle sensors.
- Continue to enhance the City's rights-of-way management program through ordinance revisions and other methods, providing a central point of coordination and management for competing activities in the public right-of-way to minimize impacts and avoid parallel lane closures and restrictions.

Roadway modification guidelines (using 2030 forecasted average daily volumes).

- There should be no widening beyond six through travel lanes.
- Traffic volumes on two-lane collectors should be <8,000 vehicles per lane per day
- Traffic volumes on four-lane collectors should be <9,000 vehicles per lane per day
- Traffic volumes on four-lane arterials should be <10,000 vehicles per lane per day
- Use character type considerations when roadways should be widened:
  - Rural – when forecasted volumes reach 90 percent of target traffic volume threshold (listed above)
  - Suburban – when forecasted volumes reach 100 percent of target threshold
  - Urban – when forecasted volumes reach 120 percent of target threshold
- Widening to add through travel lanes is limited to minimum 1-mile segments (typically)
- Four-lane roadways could be considered for lane reductions when forecasted volumes are <12,000 vehicles per day total (fewer than 3,000 vehicles per lane per day).
- Consider the least impactful solutions for corridor capacity first. For example, assess and implement signing, striping, intersection control, and sight distance improvements before considering adding pavement to enhance capacity.

Embrace sustainability in the transportation system. The City of Scottsdale is dedicated to the goals of sustainability as evidenced through its McDowell Sonoran Preserve and Green Buildings program focus. The Policy Element encourages using environmentally sensitive materials and technologies in transportation projects and improvements, encourages greater transit use and recognizes walking and biking as serious modes of transportation to potentially decrease the number of vehicles on the road, and uses innovative traffic engineering solutions such as ITS and roundabouts to reduce roadway lifecycle costs, fuel consumption, and vehicle emissions associated with travel delay.

Embrace the concept of universal design by providing facility designs that accommodate the widest range of potential users, including people with disabilities and other special needs. This will be accomplished through education programs; by assessing a percentage of all shared-use paths each year for accessibility, maintenance, and inventory; by increasing the number of shaded/lighted bus stops, including shelters and passenger information; and providing multi-modal access guides for the public, with maps and other information on access by people with disabilities to particular destinations.

Formalize existing City safety policies and focus on education, enforcement, and engineering solutions to transportation safety issues.

- Improve coordination between roadway design speeds/speed limits and the character and function of the roadway corridor.
- Continue to reduce annual collision rates through engineering solutions such as lagging left-turn arrows, roundabouts (installation prioritized at high accident and/or congested locations or where geometry or cost-effectiveness favors), and ITS solutions.
- Develop a safety education program for all users (drivers, cyclists, pedestrians, transit users).
- Establish an ongoing Safe Routes to School program.

Truck route policy/guidelines. The previous City truck routes are displayed on a map last updated in 1996 which did not show any freight or truck routes north of Indian Bend Road. The Policy Element indicates that all major roadways are considered truck routes with time of day limitations considered, based on criteria that include: connection to a regional freeway; reasonable alternative routes for truck traffic; historical usage by truck traffic; adjacent land uses; and noise mitigation measures. Neighborhood and local system roadways will NOT be considered for truck route designations.

Adopt a modified version of the Arizona Department of Transportation (ADOT) noise mitigation policies for use in City roadway projects. The City currently uses the ADOT noise mitigation policies as a guide when building or rebuilding roadways. The Policy Element recommends a policy similar to ADOT's, without a formal cost limitation for noise mitigation. The policy applies to new corridors or projects that add travel lanes and uses a 64 decibel threshold (modeled with rubberized asphalt). Part of the Scottsdale policy is to prioritize noise mitigation alternatives to sound walls, such as earthen berms or vegetation; use rubberized asphalt and other methods to minimize roadway noise; and avoid use of sound walls where scenic corridor setbacks exist.

Implement roadway construction management programs that consider access, through travel, cost and time of construction projects. Schedule arterial roadway construction so that parallel arterials will not be under construction at the same time. On major roadways, work to avoid through travel limitations during construction.

Work with neighbors in unsubdivided and/or non-master planned areas to provide infrastructure to these areas. The purpose of the local infrastructure plans is to guide local decisions for infrastructure improvement (streets, water, trails, etc.) and related development, and to help coordinate the efforts of various City departments in providing these necessary services.

Implement parking policies which can contribute to sustainable transportation practices as well as land use efficiencies, and can make modal choice more convenient. Recommendations include: working with school districts to assist with parking; pick-up and drop-off issues; using ITS and other technologies to provide customer information regarding parking availability; working to develop

thresholds for the inclusion of parking structures versus parking lots; reinforcing walkable, "park once" districts in Downtown and other urban character and activity centers within the City; and recognizing City funding for construction of public parking garages as a business support function and not a transportation enhancement.

Incorporate public art elements in transportation projects, coordinated through the Scottsdale Public Arts program. The Policy Element directs that up to two percent of the total eligible costs of all transportation improvement projects be dedicated for the selection, acquisition, fabrication, installation, and maintenance of public art (not required by current ordinance).

Continue street and alley maintenance and other transportation infrastructure life cycle planning and identify funding sources to continue high quality infrastructure maintenance. The Municipal Services Department handles street resurfacing, alley maintenance (including construction debris disposal, and brush and large object pick up schedules), streetlight and traffic signal maintenance. To maintain the health, safety, and appearance of alleys, the City seeks resident cooperation to keep the alleys in the best condition possible. Maintenance and operations of existing facilities should continue to be the first priority for the use of Highway User Revenue Fund (HURF) revenue, and new or expanded funding sources should be identified as the City's infrastructure moves from a new construction to a maintenance mode.

Coordinate a traffic incident management strategy. The Policy Element recommends that City departments work together to promote, develop, and sustain effective Traffic Incident Management programs. The Transportation Department will coordinate with Police, Fire, Municipal Services, and Communications and Public Affairs to develop a mechanism for achieving the following goals:

- Improved responder safety;
- Safe, quick clearance; and
- Prompt, reliable, interoperable communications.

2.0 STREETS ELEMENT

The Streets Element aim is to design, operate, and maintain Scottsdale's streets to provide safe and convenient access and mobility for all users: pedestrians, bicyclists, transit users, and equestrians, as well as vehicles.

- All minor collectors, major collectors, minor arterials, and major arterials are designated as either rural, suburban, or urban based on surrounding land use character. All roadways north of Pinnacle Peak Road and including Pinnacle Peak Road are designated as rural character; most roadways south of Pinnacle Peak Road are designated as suburban character. Urban character areas are current or future activity centers where greater numbers of pedestrians can be expected, such as Downtown or the One Scottsdale area. Table EX-1 shows the recommended change in classification for streets, from what is shown in the City's 2003 *Streets Master Plan*.

TABLE EX-1: Street Classification Revisions From the 2003 *Streets Master Plan*	
Street Segment	**Change**
90th St between Shea Blvd and Desert Cove	from minor collector to local street
91st St between Bahia Dr and Bell Rd	from minor collector to major collector
92nd St between Raintree Dr and Frank Lloyd Wright Blvd	from major collector to minor collector
94th St between Bahia Dr and Bell Rd	from major collector to minor collector
100th St loop north of Frank Lloyd Wright Blvd connecting back to Frank Lloyd Wright Blvd	from major collector to minor collector
104th St between Mountain View Rd and Via Linda	from minor arterial to minor collector
118th St	from major collector to minor collector
128th St between Via Linda and Cactus Rd	from minor collector to local street
132nd St between Via Linda and Paradise Ln	from minor collector to local street
Cave Creek Rd east of Lone Mountain Pkwy	from major collector to minor collector
Chaparral Rd between Miller Rd and 78th St	from major collector to minor collector
Dynamite Blvd	from major arterial to minor arterial
Happy Valley Rd between Scottsdale and Pima roads	from minor arterial to major collector
Hayden-Miller between Pinnacle Peak Rd and Dynamite Blvd	from major collector to minor collector
Hayden Rd between Redfield Rd and Raintree Dr	from minor arterial to major arterial
Hayden Rd between Pinnacle Peak and Happy Valley roads	from minor collector to local street
Jomax Rd between Alma School Rd and 118th St	from major collector to minor collector
Lone Mountain Pkwy between Stagecoach Pass and Cave Creek Rd	from major collector to minor collector
Lone Mountain Rd	from minor arterial to minor collector
Miller Rd between Osborn Rd and 2nd St	from minor collector to major collector
Mountain View Rd between Scottsdale Rd and 90th St	from major collector to minor arterial
Paradise Ln between 98th St and Thompson Peak Pkwy	from minor collector to local street
Pima Rd north of Happy Valley Rd	from major arterial to minor arterial
Raintree Dr between Hayden Rd and the Loop 101	from minor arterial to major arterial
Scottsdale Rd north of Happy Valley Rd	from major arterial to minor arterial
Stagecoach Pass between 84th St and Lone Mountain Pkwy	from major collector to minor collector
Sweetwater Ave between 90th and 96th streets	from major collector to minor collector
Thompson Peak Pkwy between 100th St and Bell Rd	from major arterial to minor arterial
Union Hills Dr between Hayden Rd and Perimeter Dr	from minor arterial to major collector
Via Linda between 132nd and 136th streets	from major collector to minor collector
Westland Dr between Hayden and Pima roads	from minor arterial to minor collector
Williams Dr between Hayden-Miller and Pinnacle Peak	major collector to minor collector
South freeway frontage between Hayden and Pima roads	remove from regional and local plans
Airport Tunnel	remove from regional and local plans
Downtown Couplet (Goldwater and Drinkwater boulevards)	reduce to four through travel lanes to provide additional bicycle and pedestrian access to and through Downtown

- The Street Element is closely linked to the Policy Element of the *Transportation Master Plan*. The Street Element also contains summary policies concerning establishing a "complete streets" policy, that is policies for freight mobility/truck routes, Intelligent Transportation Systems, speed limits, and access management; roadway modification guidelines; targets for minimizing peak period travel time delay; and roadway noise mitigation, roadway construction impact management, traffic signal timing, and local area infrastructure plans. The Neighborhood Traffic Management Program is included by reference.

3.0 TRANSIT ELEMENT

The Transit Element focuses on enhancing the existing transit network including bus service and neighborhood connector service. Also included in the Transit Element is a discussion of High Capacity Transit (HCT), which examines different modes such as bus rapid transit, light rail, and modern streetcar.

Key Objectives

- Provide a mix of transit and paratransit options.
- Develop service standards that meet or exceed regional service standards.
- Meet standards on existing routes before extending coverage to other areas of the community.
- Develop safe, comfortable, and convenient transit facilities, such as transit centers and park-and-ride lots that are served by local and regional transit services, and use technology to improve passenger convenience, system efficiency and effectiveness.
- Encourage partnerships between residents, businesses, system users, the Regional Public Transportation Authority (RPTA), and the City to develop, promote, and implement services.
- Demand high standards (e.g., passenger comfort, service reliability) from transit service providers.
- Actively market transit services and educate consumers to increase ridership and fare revenues concurrently with service enhancements.
- Consider measures which facilitate service quality such as transit signal priority and queue jumps.
- Apply operating savings from Proposition 400 or other new transit funding sources to new transit improvements.

Service Standards

- Minimum 15-minute peak, 30-minute off-peak frequency and 19 hours of service for regional routes (5 a.m. – midnight)
- Minimum 30-minute frequency and 16 hours of service for local routes
- Minimum 20-minute frequency for circulator service
- Minimum 10-minute peak, 20-minute off-peak frequency and 20 hours of service for high capacity transit (5 a.m. – 1 a.m.)

Transit Improvements

Transit improvements in Scottsdale must include a range of transit technologies, from local, regional, and express bus service to neighborhood circulators, as well as enhanced transit service

and quality. Capital investments directly affect passengers' experience of transit, and as such, should be implemented with the highest quality of experience in mind.

- Near-term (5 years) transit improvements focus on improving the level of bus service in Scottsdale to match that of its neighboring jurisdictions. Some of the fixed route bus service in Scottsdale operates with less frequency and a shorter service span when compared to Phoenix and Tempe.
  - Improve service frequencies on east-west route segments west of Scottsdale Road, working with the city of Phoenix to facilitate service connecting to Scottsdale Road. This includes Route 17 (McDowell Road), Green line (Thomas Road), Route 50 (Camelback Road), Route 154 (Greenway Road), and Route 106 (Shea Boulevard).
  - Improve service frequencies on Scottsdale Road and extend service to Thompson Peak Parkway.
  - Add trips to existing and planned express bus routes.
  - Extend the Neighborhood Connector to serve the Skysong transit center.
  - Begin transition to low-floor vehicles for circulator service.
  - Complete transit facilities.
- Mid-term (10 years) transit improvements continue to focus on improving the overall level of fixed route bus service, and introducing new express bus service.
  - Extend Route 41 (Indian School Road) to Scottsdale Community College and Route 170 (Bell Road/Frank Lloyd Wright Boulevard) to Shea Boulevard.
  - Improve service frequencies on local routes, such as Route 66 (68th Street) and Route 76 (Miller).
  - Implement new Airpark/Downtown Phoenix express route.
  - Implement expanded BRT on Scottsdale Road to the Loop 101 (Proposition 400) with limited stops and 10-minute peak hour frequency.
  - Expand circulator service to additional neighborhoods.
  - Build freeway HOV ramp connections to park-and-ride areas.
  - Expand Dial-a-Ride services commensurate with the expansion of fixed route bus service.
- Long-term (20 years) transit improvements continue to focus on improving the overall level of transit service, especially fixed route bus service.
  - Improve frequencies on all routes and consider 10-minute frequencies on some routes.
  - Implement new two-way all-day express bus between Skysong and downtown Phoenix.
  - Implement additional Airpark services including: circulator, rerouting or limited stop service on Hayden Road to serve Airpark from the south; extending Thunderbird Road fixed route from Phoenix to Airpark; and development of a new transit center to serve as a new hub for transit services in the northern portion of the City and more convenient transfers between routes.
- The City will work to standardize bus stop spacing at 1/4-mile intervals for fixed bus routes where possible, with shorter spacing for neighborhood circulators and longer spacing for limited stop/express bus routes. Exceptions to this spacing would be in areas of greater demand and/or roadway corridors designated as urban on the Street Element Functional Classification map and/or areas predominantly used by seniors and persons with disabilities. Shade and passenger comfort is an important consideration for all bus stops.

- Bus shelters are located based on bus frequency, ridership, bus operational requirements, pedestrian safety, passenger comfort, and right-of-way availability. Shelters will be prioritized for the highest ridership bus stop locations.
- Bus bays/bus pullouts are not recommended along roadway corridors designated as Urban on the Street Functional Classification Map. It is recommended that bus bays be constructed at bus stops in Scottsdale only under the following circumstances:
  - The bus stop is a time point where the bus may dwell longer than normal to maintain schedule;
  - The bus stop is a high transfer location, where the bus may dwell longer than normal to facilitate transfers between routes;
  - The bus stop is a layover location where the bus dwells at the beginning or end of a bus route;
  - Safety concerns related to the location of the bus stop prohibit the bus from safely dwelling in the travel lane; and
  - LOS in a suburban corridor of the bus route is below D.
- Bus bulbs will be included as a standard design element at the following locations:
  - Downtown and other urban activity cores where pedestrian concentrations are located.;
  - Roadways with on-street parking; and
  - Scottsdale Road in conjunction with enhanced bus service.
- Freeway high occupancy vehicle (HOV) ramps should be connected to park-and-ride facilities and partnerships should continue to be developed for shared parking agreements for park-and-ride facilities.
- Circulators will be expanded to include more neighborhoods in various parts of the City.

3.1 High Capacity Transit

Potential HCT alternatives were explored in the High Capacity Transit Feasibility Study and are included in the Transit Element. Regional transit system studies are currently underway that made it logical to suspend the Scottsdale study at the conceptual analysis level, called Tier 1, in the Federal evaluation process. It is important for the City to continue to be involved in the regional studies regarding high capacity transit currently underway or pending, recognizing that Scottsdale is part of a regional network of transit services. On December 11, 2007, the City Council opted to join Valley Metro Rail (METRO), to enable the City's participation in these studies.

- Primary study purpose of the HCT feasibility study was to examine a new mobility option that would provide frequent, all-day service to employment, residential, commercial, retail, entertainment, educational, civic, and cultural activities in the Scottsdale Road corridor.
- The transit system has an opportunity to capture more ridership through a solution that consolidates and improves transit in a priority corridor.
- Transportation demand continues to grow and travel patterns change along with population and employment growth in the Scottsdale Road corridor and study area.
- Proposed HCT investments support continued revitalization in the project corridor.
- Tier 1 conceptual analysis recommended that the following options move forward in a more detailed evaluation when appropriate:
  - Option A1 – Light Rail Transit (LRT) to McDowell Road (in median);
  - Modified Option A2 – Light Rail Transit to Highland Avenue/Chaparral Road via Drinkwater or Goldwater boulevards;

- Option B1 and B2 combined – Modern Streetcar to Chaparral Road (Left Lane/ Downtown analysis for curb lane through Downtown); and
  - Option C1 – Bus Rapid Transit (BRT) to Chaparral Road (Left Lane/Curb Lane in Downtown).
- Tier I Options Eliminated from Consideration:
  - Option A2 – Light Rail Transit to Chaparral Road via Scottsdale Road (Median); and
  - Option C2 – Bus Rapid Transit to Chaparral Road (Curb Lane).
- All options recommended for Tier 2 and Alternatives Analysis should be planned to connect to the regional HCT network.
- Additional regional considerations that have been raised by the community include:
  - Options for additional high frequency and amenity regional transit service on the Loop 101 corridor;
  - An interest in results from the region's first light rail corridor, the Central Phoenix/ East Valley line scheduled to open December 2008; and
  - Consideration of updates to the *Regional Transportation Plan* (RTP) to better integrate current and proposed HCT services (express, BRT, LRT, and commuter rail).
- Studies currently or soon to be underway that affect the outcome of any future Scottsdale Alternatives Analysis include: regional arterial BRT study (RPTA); regional freeway express/BRT study (RPTA); regional transit framework study (MAG); and Tempe south Alternatives Analysis (METRO).

4.0 BICYCLE ELEMENT

The Bicycle Element examines ways to advance the overall bike system to enhance this environmentally-friendly and healthy method of transportation. In particular, there is close focus on connectivity of bicycle routes for schools, parks, and within neighborhoods.

- In addition to the broad goals for the *Transportation Master Plan*, specific goals for the Bicycle Element include:
  - Provide a safe, connected and convenient on-road bicycle network throughout the City;
  - Expand the network of off-street shared-use paths and trails within the City;
  - Achieve a Bicycle Friendly Community rating of Gold from the League of American Bicyclists;
  - Incorporate the needs of human-powered transportation into the policy-making, planning, design, construction and maintenance phases of all existing and new City policies, plans, programs, projects, facilities, and operations;
  - Devise and adopt design guidelines and standards needed to implement a safe, functional, convenient, accessible, and pleasurable walking and cycling environment for recreation and transportation;
  - Develop and implement comprehensive and proactive safety, education, and enforcement programs for all bicyclists, pedestrians, and motorists; and
  - Employ comprehensive and proactive programs to promote cycling as a viable, economically desirable form of transportation and recreation for both residents and visitors.
- While Scottsdale's bicycle system is very good, it can continue to improve. Key bicycle system goals include increasing:

- Percentage of streets with speed limits greater than or equal to 30 mph that have on-street bike lanes:
  - 33 percent today
  - 50 percent by 2015
  - 75 percent by 2030
- Traffic signals with actuation for bicycles
  - 0 percent today
  - 50 percent by 2015
  - 100 percent by 2030
- Scottsdale addresses within 1/2 mile of a shared-use path
  - 60 percent today
  - 75 percent by 2015
  - 90 percent by 2030

- Specific recommendations for implementation of the Bicycle Element include:
  - Systematically implement bicycle facility on- and off-street projects per the recommendations and prioritization listed in the Bicycle Element;
  - Fund and implement a continuous north/south path from Salt River to Tonto Forest;
  - Fund and implement a continuous east/west path using the CAP Canal corridor;
  - Implement wayfinding, path naming, and signal actuation programs;
  - Systematic lane restriping for on-street facilities (bike lanes);
  - Enhance corridors for Roosevelt Street, Belleview Street, Oak Street, Osborn Road, Chaparral Road, and Jackrabbit Road;
  - Prioritize projects based on potential (latent) demand, existing conditions (level of service), and ability to connect. Implement as opportunities arise as well; and
  - Complete an inventory of trails and trail easements and integration of trails information into the shared-use path/trail system.

5.0 PEDESTRIAN ELEMENT

The Pedestrian Element of the plan assesses priorities in making Scottsdale more walkable. There is a need to provide safe, convenient pedestrian ways and facilities that make it easier for people to walk short distances. An emphasis on pedestrian safety and programs such as the Safe Routes to School program are included.

- In addition to the broad goals for the *Transportation Master Plan*, specific goals for the Pedestrian Element include:
  - Create a street environment that is safe and secure for pedestrians;
  - Create a street environment that allows pedestrians to directly access key destinations by walking;
  - Provide pedestrian amenities and promote land uses that enhance public spaces, neighborhoods, commercial, and employment areas – amenities that will entice more people to walk;
  - Educate citizens, community groups, businesses, and developers on safety, health, and civic aspects of walking; and
  - Incorporate pedestrian needs into the policy-making, planning, design, construction, and maintenance of existing and new policies, plans, programs, projects, facilities, and operations.

- All sidewalks and walkways must provide a minimum of 6 feet of travel space to accommodate pedestrians moving in both directions, including pedestrians using assistive devices.
- All sidewalks and walkways adjacent to arterials must provide a minimum travel space to accommodate pedestrians, providing sufficient walking areas, not including for example, landscaping or site furnishings. The following listing incorporates the character types of rural, suburban, and urban as well as the pedestrian route network identification:
  - Rural - minimum travel space of 6 feet for rural areas identified on the pedestrian route network maps as low and medium low. A trail could replace sidewalk/walkway in rural areas identified on the pedestrian route network maps as low; this requires an accessible surface (stable, firm, slip-resistant);
  - Suburban - minimum travel space of 8 feet for areas identified as medium or medium high; minimum of 10 feet for areas identified as high on the pedestrian route network maps; and
  - Urban - minimum travel space of 10 feet for all urban areas; minimum of 12 feet in areas identified as high on the pedestrian route network maps.
- Specific recommendations for implementation of the Pedestrian Element include:
  - Improve pedestrian safety, comfort, and amenities;
  - Improve pedestrian connections including neighborhood to neighborhood and neighborhood to commercial;
  - Allow greater priority for pedestrians than additional auto capacity in urban corridors and high activity areas like the Downtown and the Airpark;
  - Reduce walk speeds for pedestrian signals to 3.5 feet per second (to allow for more time to cross the street);
  - Establish enhanced corridors for Roosevelt Street, Belleview Street, Oak Road, Osborn Road, Chaparral Road, and Jackrabbit Road;
  - Use latent demand model to determine need and scale of pedestrian improvements;
  - Fill gaps in the pedestrian network and ensure universal design is used as a basis for improvements;
  - Implement a comprehensive Safe Routes to School Program;
  - Create a pedestrian safety action plan; and
  - Create and maintain a comprehensive pedestrian facilities inventory.

6.0 SPECIAL AREA CIRCULATION STUDIES

The *Transportation Master Plan* includes three special area circulation studies for different geographic areas of the City – North, Airpark, and Central/Downtown Scottsdale. Each of these studies examines issues that these unique areas face and recommends context sensitive transportation solutions. The main policies and street recommendations are incorporated in the broader elements of the *Transportation Master Plan,* but these sections are included in the body of the *Transportation Master Plan* as well.

6.1 North Area Circulation Study

The purpose of this area circulation study was to analyze potential transportation improvements to effectively manage traffic circulation and future demand in Scottsdale's predominantly rural, low density northern area. Careful attention was given to the environmental sensitivity as well

as aesthetic guidelines already in place for this area. The North area generally includes lands that are subject to the City's Environmentally Sensitive Lands Ordinance.

- One of the biggest transportation challenges in the northern area was to "right-size" the planned roadway network. Through analysis of the results of Scottsdale's travel demand model, it was determined that several roadways were planned for more capacity than necessary to meet the travel demand. Scottsdale Road, Pima Road, and Dynamite Boulevard are three of the major roadways where the classification was revised, in these cases from a six-lane major arterial to a four-lane minor arterial.
- While the 2030 projected traffic volumes indicate that these roadways will not require six travel lanes, the right-of-way will be retained to provide flexibility for drainage needs, additional travel lanes, and alternative transportation modes if needed.
- The City will complete an analysis regarding public restrooms for path/trail users in areas where commercial facilities are not available for use by business patrons. Items to examine will include construction and maintenance costs, security needs, as well as other available alternatives. Restroom facilities are currently provided at most City parks.
- To encourage a consistent low intensity, rural environment at roadway crossings, a North area arterial intersection cross section that provides key elements of universal access will be included in the Design Standards and Policies Manual (DS&PM).
- The texture and location of stabilized decomposed granite paths will be carefully considered for use in the North area.
- As an update to the *Trails Master Plan*, an inventory of existing trails facilities and easements will be conducted to coordinate with future updates of the *Transportation Master Plan* and trails policy for the City.

6.2 Airpark Circulation Study

The purpose of the Airpark area circulation study was to identify and analyze potential transportation solutions for through and destination traffic at the Scottsdale Airpark. Through the regional transportation plan (RTP) with Proposition 400 funding, a tunnel under the runway of the Scottsdale Airport was planned to connect the east and west sides of the Airport and provide an alternative east-west route. The Airpark area circulation study determined that the tunnel would not provide as much connectivity and relief from traffic as other roadway improvements in the area, summarized below.

- The construction of a "ring road" around the Airport and other intersection and roadway improvements would help to provide additional Airpark area circulation.
- To facilitate internal circulation over the long-term, the Airpark area circulation study includes an effective multi-component parking management strategy, implementation of a transportation demand management program, and the designation of certain streets internal to the Airpark that would facilitate travel of non-motorized modes.
- Bicycle improvements include: bicycle connections from Airpark to the CAP Canal corridor; bicycle roadway enhancements on Greenway-Hayden Loop, Redfield Road, 73rd Street, Hayden Road, Raintree Drive, and Northsight Boulevard; and potentially a grade-separated crossing where the CAP Canal path meets the Loop 101.
- An Airpark area circulator would enhance transit service in the Airpark.
- Citywide Transportation Demand Management (TDM) program per the Policy Element may help improve traffic in the area.

6.3 Central/Downtown Scottsdale Circulation Study

The purpose of this area circulation study was to examine Downtown area transportation issues such as Chaparral Road and how people were getting to and through the area; nighttime and daytime congestion; and ways to encourage non-automotive travel in this activity center of the City.

- The question of widening the segment of Chaparral Road between Miller Road and 78th Street was resolved with City Council direction to remove widening the roadway from further consideration.
- Move forward with the Indian School Road streetscape project to incorporate bike lanes, enhanced sidewalks, shade, landscaped medians where appropriate, and enhanced transit stops.
- Intersection improvements are incorporated into the project listing for the *Transportation Master Plan*.
- In the long term, convert the third travel lane on each leg of the Couplet to provide bicycle and pedestrian facilities.
- Pedestrian and bicycle facility improvements include: pedestrian signals at intersections in Downtown and pedestrian crossings where appropriate; bicycle parking throughout the Downtown districts as well as in and around Scottsdale Healthcare Osborn campus area; and improving connections and wayfinding to and throughout prominent recreation areas such as the Arizona Canal and the Indian Bend Wash. Specific roadways (Osborn Road, 70th Street, Civic Center Plaza, 68th Street, Miller Road) are designated as key pedestrian and bicycle links throughout this area.
- On minor streets in the study area, a minimum of 6-foot sidewalk/walkway travel space is required. Arterials in the study area should use the guidelines from the Pedestrian Element of the *Transportation Master Plan*.

7.0 IMPLEMENTATION

Implementation addresses key policies and strategies necessary to facilitate a transportation system than meets the goals of the *Transportation Master Plan*. The following points pertain to the implementation of the options recommended in all of the elements of the *Transportation Master Plan*. A prioritized project listing including estimated project costs and funding sources was approved by the Transportation Commission at their April 30, 2008 meeting, and will be updated annually with the Transportation capital improvements budget.

- The *Transportation Master Plan* project list includes projects not already in the City's 5-Year Capital Program.
- Proposed roadway capital improvement projects are based on forecasted 2030 travel demand.
- The Policy Element recommends that one-third of future transportation CIP be committed to transit/bicycle/pedestrian improvements.
- Transportation 0.2 percent privilege tax currently generates $21 million annually
  - Currently split 50/50 between transportation capital projects and transportation operations (primarily transit service)
- The countywide transportation sales tax (Proposition 400) provides approximately $589 million through 2025 for City roadway improvements and transit operations and capital.

- Federal grants currently provide approximately $2 million per year in funding for capital improvements; however, this is not a guaranteed funding source from year to year.
- Potential projects south of Indian Bend Road consist mainly of system enhancements and provision of multi-modal options; potential projects between Indian Bend Road and Union Hills Drive blend all project types depending on location; and potential projects north of Union Hills Drive primarily are roadway widening and new paths. The following are some (not all) of the capital projects identified for implementation in the *Transportation Master Plan*:
  - Roadway Corridor Capacity
    - In the Airpark area create a ring road around the Scottsdale Airport providing connections not using Frank Lloyd Wright Boulevard or Scottsdale Road. Use instead Raintree Drive (six lanes from Loop 101 to Hayden Road), Hayden Road (six lanes from Redfield Road to Raintree Drive), Northsight Boulevard (realign and connect), new frontage road (south of Frank Lloyd Wright Boulevard), Thunderbird/Raintree Loop (new roadway connecting from Thunderbird Road at Scottsdale Road to Hayden Road), and/or Redfield Road/Thunderbird Road.
    - Shea Boulevard Corridor – intersections/ITS
    - Miller Road (includes freeway underpass)
    - Frank Lloyd Wright Boulevard interchange improvements
    - Center Drive/Union Hills Drive (new road and extensions)
    - Scottsdale Road (six lanes to Happy Valley Road, four lanes to City limit)
    - Pima Road (six lanes to Happy Valley Road, four lanes to City limit)
    - Carefree Highway (four lanes)
    - Dynamite Boulevard (four lanes)
    - Happy Valley Road (four lanes)
    - Pinnacle Peak Road (four lanes west of Pima Road)
    - 56th Street (four lanes)
    - Hayden Road/Miller Road (two-lane collector)
    - 118th Street (two-lane collector)
    - Westland Drive (two-lane collector)
  - Accelerate Loop 101 general purpose lanes
  - Intersection Capacity
    - Hayden Road/Thomas Road, Hayden Road/McDowell Road, Hayden Road/Camelback Road, Hayden Road/Chaparral Road
    - Pima Road/McDowell Road, Pima Road/Thomas Road, Pima Road/Indian School Road, Pima Road/Chaparral Road, Pima Road/McDonald Drive, Pima Road/Indian Bend Road
    - Thomas Road/64th Street, Thomas Road/68th Street
    - Highland Avenue/Scottsdale Road, Highland Avenue/Goldwater Boulevard (in addition to Highland Avenue streetscape improvements)
    - Pima Road Corridor
    - HOV ramps at Northsight Boulevard and Hayden Road
    - Hayden Road/Frank Lloyd Wright Boulevard, Raintree Drive/Loop 101, Princess Drive/ Loop 101 Freeway ramps, 90th Street/Via Linda, Hayden Road/Mountain View Road, Union Hills Drive bridge
    - Thompson Peak Parkway bridge
    - Most intersections with roadway widening

- Streetscape Improvements
  - Roosevelt Street/Oak Street/Osborn Road/Chaparral Road/ Jackrabbit Road bike-pedestrian corridors
  - Thomas Road – 60th Street to Pima Road, broken into phases
  - Miller Road – McKellips Road to McDowell Road
  - 68th Street – Roosevelt Street to Osborn Road
  - Greenway-Hayden Loop and 73rd Street
  - Paradise Lane (consider roundabout instead of stop signs)
- Downtown Couplet
  - Lane reductions and Scottsdale Road transitions in the long term
- Transit service and facility improvements listed in the Transit Element summary
- Paths are listed in the Bicycle Element prioritization charts. The following are the primary projects:
  - CAP Canal corridor
  - Pima Road extension
  - New path on the south side of Scottsdale Ranch/Stonegate
  - Powerline corridor
  - Scottsdale Road
  - Pima Road
  - Reata Pass Wash corridor
- Right-sizing
  - 100th Street, 92nd Street, Sweetwater Avenue, Redfield Road east of Loop 101