

North Havasu Area *Transportation Study*

Project Work Plan

Overview of Work Plan

Tasks 1 - 4

Lima & Associates will prepare a transportation plan with short-, mid-and long-range elements as well as a Transportation Improvement Program (TIP) to guide Lake Havasu City in implementing improvements to ensure a safe and efficient transportation system within the study area. We will work closely with the Technical Advisory Committee (TAC), other stakeholders, and the public to develop a transportation plan that meets transportation needs within the community vision. Once a refined work plan is developed in consultation with the TAC, a working paper will be prepared. The working paper will document the current socioeconomic, land use, roadway, and multimodal transportation conditions as well as a summary of previous and ongoing studies to establish the current status of planning for the North Havasu Area. The future conditions will be identified and documented in the second working paper, by using trends to project the status of current characteristics. The future conditions paper will also indicate deficiencies that would be present in the North Havasu transportation system if no additional network connections were built, beyond those to which the City and State are already committed. Lima & Associates will develop a sketch planning model using the TransCAD software to determine the functional classification and size of facilities for the North Havasu Area. The model structure and input data will be developed in consultation with the TAC.

Outreach

We will coordinate with the public involvement firm assigned by the ADOT Communication and Community Partnerships Division (CCP) in public involvement activities. Potential public involvement activities could include individual stakeholder meetings, stakeholder workshops and public open houses. Lima & Associates will also meet one-on-one with individual stakeholders to obtain data, and to discuss issues and potential solutions. Individual responsibilities for the consultant, ADOT, Lake Havasu City, and public involvement firm are listed later in this proposal.

Task 5

Based on the future conditions, draft five-, ten-, and twenty-year transportation plans including both roadway and non-motorized elements will be developed in consultation with the TAC and evaluated against an agreed upon set of performance and feasibility measures. Coordination with ongoing local and regional transit planning will occur, as appropriate. The draft plans will be documented in a third working paper. A five-year study area TIP will be prepared identifying recommended projects, project priorities, responsibilities, schedule, costs, and funding sources. In addition, we will prepare an implementation plan outlining actions to implement non-motorized projects, transportation system management strategies, access management strategies, and travel demand management strategies.

Tasks 6 - 7

A draft final report will be prepared, reviewed by the TAC, and revised where necessary. A final report will then be prepared and submitted to ADOT and Lake Havasu City.

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Work Plan Tasks

Task 1. Project Management/Coordination with Technical Advisory Committee

Assigned Staff

P. Lima, PhD, PE, Project Manager
S. Weir, AICP, Deputy Project Manager

Products

Fourteen (14) Meetings with Co-Project Managers
Four (4) Technical Committee Meetings

Task Milestones

- Establish monthly coordination protocol with ADOT and City Project Managers
- Establish TAC and meeting milestones, goals, and vision
- Implement Internal Quality Control Procedures at Lima

Subtask 1.1. Coordinate with ADOT Project Manager. The study will be conducted in close coordination with the ADOT Project Manager, the Lead Local Contact, and the TAC. The consultant will confer by telephone or e-mail, or meet with the ADOT Project Manager and the City Interim Public Works Director on a monthly basis to review study progress, present working papers and study findings, and solicit direction.

Subtask 1.2. Conduct Technical Advisory Committee Meetings. We will work closely with the TAC to ensure the successful implementation of the plan. Communication and input with the TAC members will begin as the study begins and will be maintained throughout the study process as the plan is developed. The TAC will act as the "sounding board" for the Consultant and provide input and feedback throughout the process. The following agencies are expected to be represented on the TAC at this time:

- ◆ City of Lake Havasu City - Public Works
- ◆ City of Lake Havasu City - Development Services Department (Planning and Zoning)
- ◆ City of Lake Havasu City - Airport Operations
- ◆ Mohave County
- ◆ Western Arizona Association of Governments
- ◆ Arizona Department of Transportation - Multimodal Planning Division
- ◆ Arizona Department of Transportation - Communication and Community Partnerships

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- ◆ Arizona Department of Transportation - Kingman District Engineer
- ◆ State Land Department
- ◆ Others to be determined (perhaps Havasu Area Transit, BLM, or a representative of the Tri-City Council)

Up to four scheduled meetings with the TAC will allow the consultant to build and maintain the close working relationship essential for the project's success. TAC meetings will be scheduled so that the following products are key topics of discussion:

- TAC Meeting 1: Work Plan
- TAC Meeting 2: Draft Current Conditions Working Paper
- TAC Meeting 3: Draft Future Conditions Working Paper
- TAC Meeting 4: Draft Transportation Plan Working Paper

Working papers developed during the study will circulate to the TAC for review and comment. Relevant comments and requested information will be incorporated into all final documents.

Subtask 1.3. Quality Control. The Project Principal, Peter Lima, Ph.D., P.E., will oversee quality assurance throughout the study to review all technical analyses and document preparation. This process is a formal procedure that Lima & Associates follows to check work in developing socioeconomic data, developing transportation models, preparing GIS and display maps, and preparing reports and public involvement material.

Subtask 1.4. Public Involvement Coordination. In addition to the tasks and deliverables, coordination efforts will be undertaken with the public involvement consortium. Lima will be responsible for:

- ◆ Participating as a member of the study team in developing all materials used in public involvement activities and providing the technical information needed to produce materials for all outreach activities.
- ◆ Participating and attending meetings with the TAC, stakeholders, public, and others as needed to perform the study tasks.
- ◆ Attending coordination meetings with consultants conducting other transportation studies, when requested by the ADOT project manager.

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Task 2. Work Plan

Assigned Staff

P. Lima, PhD, PE, Project Manager
S. Weir, AICP, Deputy Project Manager

Products

TAC Kick-off Meeting
Refined Work Plan

Task Milestones

- Coordination with ADOT and City Project Managers
- TAC Kick-off Meeting
- Refined Work Plan
- Public Involvement Outreach Plan (by consortium)

The first product of the study will be a refined Work Plan. The work plan presented here will be refined based on comments from the project manager and the TAC. The detailed work plan will include the following:

- ◆ Refinement and mapping of the study boundary
- ◆ Major streets and highways to be included in the study
- ◆ A detailed scope of work
- ◆ Project schedule - The schedule will include dates for the TAC meetings carried out at critical points in the study
- ◆ Staffing requirements
- ◆ A plan for outreach to stakeholders and the public and a timeline for the Public Involvement Report (Public Involvement Plan to be developed by a firm under contract with the ADOT Communication and Community Partnerships Division)

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Task 3. Define Current Conditions

Assigned Staff

S. Weir, AICP, Deputy Project Manager
J. Clancy, Senior Transportation Analyst
R. Bohannon, AICP Senior Transportation Planner

Products

TAC Meeting
Draft Working Paper 1: Current Conditions
Final Working Paper 1: Current Conditions

Task Milestones

- Coordination with ADOT and City Project Managers
- TAC Meeting
- TAZs developed to use in inventory and in Task 4
TransCAD Sketch Planning Model
- Inventory of Current Conditions
- Model Documentation
- Draft Working Paper 1: Current Conditions
- Final Working Paper 1: Current Conditions

Lima & Associates will describe existing transportation system conditions and related study area land use and demographics, including:

- ◆ Current socioeconomic data
- ◆ Inventory of current land use patterns and land ownership
- ◆ Characteristics of the physical, natural, and cultural environments
- ◆ Inventory and evaluation of travel data, functional classification of roads, access management, and road conditions
- ◆ Crash history, and current levels of service and safety
- ◆ A general inventory and evaluation of public transportation services
- ◆ Non-motorized transportation modes currently used

Subtask 3.1. Inventory Current Conditions. The purpose of this subtask is to gather and review available information on current conditions. At the outset of the project we will prepare a letter to be signed by the co-project managers requesting agencies to provide the needed data and information to the consultant by a specified time. The consultant will inventory and evaluate the current conditions, and GIS maps will be developed for displaying and analyzing conditions and deficiencies. The inventory of current conditions will include the following:

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- a. Previous Plans and Studies related to the study will be reviewed and summarized. Examples are the 2005 Lake Havasu City SATS Update, progress on the SR 95 Realignment Corridor Location Study, the City's Capital Improvement Program, and other local, regional, and state studies. In addition, we will coordinate with ongoing transportation studies in the study area including the Framework Study and State Access Management Study.
- b. Transportation Analysis Zones (TAZs). TAZs from the 2005 Lake Havasu SATS travel demand model will be reviewed, updated in the study area, and made more detailed as necessary to reflect the land ownership, topography, and potential arterial road network in the study area. The TAZ scheme will be used in the Task 3 inventory and the Task 4 TransCAD Sketch Planning Model.
- c. Socioeconomic Data will be compiled for the study area from census data, Department of Commerce estimates, materials prepared for the Lake Havasu City Partnership for Economic Development, and other data sources for dwelling units and employment. We will work closely with the TAC to estimate current socioeconomic data for TAZs. A possible approach for housing and population information is to redistribute the estimates in the 2005 Lake Havasu SATS to the adjusted TAZ structure and to update them based on the estimates prepared for the Lake Havasu City Partnership for Economic Development. We will cross-check with year 2000 census data, and building permit data, as appropriate. Population estimates will be checked against control totals for the City.

Current employment data will be estimated for tourism, retail, industry, office, and other categories. We may use an employee database such as the INFOUSA database to identify and locate existing businesses and estimated the number of employees.

- d. Land ownership and Land Use will be displayed on GIS maps for the entire study area, using Mohave County Assessor GIS data. We will cross-check with the Lake Havasu City Zoning Map, residential subdivision maps, and any available existing land use map. We will consider that the state land parcel on the southwest corner of the study area is currently available for sale, while thousands more acres of state land in the study area have not started through the State Land Department's process to ready lands for sale.

All of the above information will be reviewed by the TAC.

- e. Traffic and Safety Conditions will be inventoried for State Highways and arterials. Recent traffic counts and any traffic counts done for the study will be provided by Lake Havasu City.

Using existing traffic volumes, level of service (LOS) will be computed for roadways based on the Highway Capacity Manual planning level analysis.

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Crashes will be inventoried for street and highway segments and intersections for a five-year period using the ADOT ALISS database. The average number of crashes per year for segments and intersections will be formatted on GIS maps. In areas of high crashes, crash patterns will be reviewed to identify possible causes and potential crash countermeasures will be matched with crash patterns.

- f. [Multimodal Conditions](#) will be inventoried in the study area. We will confirm the current status of Havasu Area Transit and human services transportation operators in the area and document available information concerning governance, fleet status, ridership, and unmet needs identified by either the operators or the agencies. We will also inventory major current pedestrian facilities, trails, and bicycle facilities, comparing the current status with the 1998 Lake Havasu Pedestrian and Bike Path Study completed by Lima.

Data on intermodal considerations for the airport will be taken from the Lake Havasu City Municipal Airport Master Plan (in process) as available.

- g. [Environmental Data](#) readily available in GIS format will be displayed including hydrology, vegetation, wildlife habitats, landfills and hazardous sites.
- h. [Environmental Justice](#) GIS maps will be prepared using 2000 census data. GIS maps will illustrate Title VI population groups including ethnic groups, groups below the poverty level, elderly populations, and mobility-limited population. Updates to environmental justice data will be considered in consultation with city officials.
- i. [Other Data](#) including general levels of access management and existing intelligent transportation systems components will also be inventoried and mapped.

Subtask 3.2. Document Current Conditions. Current Conditions (Draft Working Paper 1) will be prepared documenting the current conditions and submitted to the TAC for review and comment. Working Paper 1 will be finalized by incorporating modifications as appropriate based on input from the TAC. Approved Working Paper 1 will be submitted for publication on the ADOT website.

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Task 4. Define Future Conditions

Assigned Staff

S. Weir, AICP, Deputy Project Manager
J. Clancy, Senior Transportation Analyst
R. Bohannon, AICP Senior Transportation Planner

Products

TAC Meeting
Draft Working Paper 2: Future Conditions
Final Working Paper 2: Future Conditions

Task Milestones

- Coordination with ADOT and City Project Managers
- TAC Meeting
- Develop Future Projections for Socioeconomic Data
- Develop a Base Long-Range Roadway Network
- Review Future Transit Demand Studies
- Review Existing Non-Motorized Alternatives
- Draft Working Paper 2: Future Conditions
- Final Working Paper 2: Future Conditions

This task will forecast future conditions and infrastructure deficiencies of **roadways** and **non-motorized modes** for 5-, 10-, and 20-years:

- ◆ Inventory and evaluation of future land use patterns, travel data, functional classification of roads, access management, and road and street conditions
- ◆ Projections of socioeconomic data
- ◆ Future traffic volumes and levels of service
- ◆ Anticipated use of non-motorized transportation modes
- ◆ Deficiencies within the study area based on future conditions

Subtask 4.1. Project Future Socioeconomic Data. Lima & Associates will develop future projections for socioeconomic data including dwelling units, population, and employees for the 5-, 10-, and 20-year periods (current year 2010, then 2015, 2020, and 2030). The projections will be developed based on Transportation Analysis Zones within the study area. We will review the City's General Plan Update Future Land Use Plan, September 2008, which includes a Future Land Use Plan map and calculations of designated acreages by land use. Other information consulted will include proposed residential and commercial developments and information from City stakeholders on planned growth. Control totals for socioeconomic information will come from the AZ Department of Commerce, WACOG, and/or the City.

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Subtask 4.2. Develop Future Base Roadway Network; Evaluate Future Traffic Volumes and Levels of Service. We will work with the TAC to define a base long-range future roadway network for the study area, including arterials, the proposed SR 95 Parkway/Bypass, and interchanges anticipated to be at Chenoweth Road and Bentley Boulevard. A TransCAD Sketch Planning Model will be developed to forecast future daily traffic volumes incorporating the socioeconomic data, road network, and model parameters. There will be no model calibration, as there is no existing development. We will adjust the average daily traffic volumes produced by the model to reflect seasonal traffic volume variation experienced in Lake Havasu.

- ◆ Model parameters will be developed including trip rates, trip distribution parameters, and trip assignment parameters.
- ◆ The model parameters will be applied to the future socioeconomic data by TAZ (subtask 4.1).
- ◆ Daily traffic volumes will be estimated for 5-, 10-, and 20-year socioeconomic conditions.
- ◆ Trips originating outside the study area will be estimated based on traffic forecasting results of the 2005 Lake Havasu City SATS Update.

Subtask 4.3. Coordinate with Transit Demand Information from Other Studies. We will evaluate any future transit demand studies by Havasu Area Transit and/or human services transportation operators in the area and we will incorporate the transit demand information into our working paper. In addition, we will gather any available information about the future need for regional commuter services to Bullhead City and Kingman and other regional public transportation needs.

We will confirm any future intermodal and land use compatibility considerations for the airport, from the Lake Havasu City Municipal Airport Master Plan (in process) as available.

Subtask 4.4. Evaluate Non-Motorized Alternatives. The consultant will review existing pedestrian and bicycle facilities in the context of the forecasted future conditions and growth patterns. We will also review programmed improvements impacting these modes and will identify potential future needs with regard to trails, sidewalks, and bike lanes.

Subtask 4.5 Prepare Working Paper 2: Future Conditions. A draft working paper will be prepared documenting the future conditions and submitted to the TAC for review and comment. Working Paper 2 will be finalized by incorporating modifications as appropriate based on input from the TAC. Approved Working Paper 2 will be submitted for publication on the ADOT website.

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Task 5. Develop Plan for Improvements

Assigned Staff

S. Weir, AICP, Deputy Project Manager
 J. Clancy, Senior Transportation Analyst
 R. Bohannon, AICP Senior Transportation Planner

Products

TAC Meeting
 Draft Working Paper 3: Transportation Plan
 Final Working Paper 3: Transportation Plan

Task Milestones

- Coordination With ADOT and City Project Managers
- TAC Meeting
- Identify a Set of Criteria for Evaluating Alternative Transportation Options
- Identify and Evaluate Street and Highway Alternatives
- Coordinate the local roadway network with the Potential SR 95 Parkway/Bypass
- Identify and Evaluate Alternatives for Non-Motorized Modes
- Prepare a North Havasu Area Transportation Plan for the Three Planning Periods
- Address Title VI Concerns Regarding Environmental Justice
- Draft Working Paper 3: Transportation Plan
- Final Working Paper 3: Transportation Plan
- Develop an Implementation Plan
- Present TDM and TSM Strategies

This work task will produce a draft North Havasu Area multimodal transportation plan describing a vision, goals and policies, strategies, and multimodal facilities to accommodate current and future travel demands. The plan will be comprised of roadway and non-motorized elements and transit and airport information will be incorporated as appropriate. The following topic areas will be addressed in the plan.

Environmental and Cultural Resources Overview	Multimodal Transportation
<ul style="list-style-type: none"> ● Preservation of Mountain Protection Areas and uses in special BLM areas ● Any wildlife corridor issues ● Floodplain issues 	<ul style="list-style-type: none"> ● Integration of roadways and major non-motorized facilities and paths ● Coordination with transit planning ● Coordination with airport planning

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Street and Highway System	Financial Incentives/Community Partnerships
<ul style="list-style-type: none"> ● Traffic impacts of new development ● Roadway Preplanning to aid future State Land Department conceptual planning ● Level of service of streets ● Congestion at intersections and interchanges ● Safety issues ● Continuity and connectivity of roadways ● Coordination with utilities ● Potential SR 95 Parkway/Bypass and parallel route for current SR 95 ● Truck routing 	<ul style="list-style-type: none"> ● Identification of federal, state, regional, local, and private funding sources ● Development of cooperative funding strategies

Subtask 5.1. **Identify Evaluation Measures.** We will work closely with the TAC to identify a comprehensive set of criteria for evaluating alternative transportation options. Potential measures are shown below and have been divided into performance and feasibility measures. The performance measures are those measures mandated in the State Statutes for performance based planning and programming and the other measures indicate the feasibility of implementing an improvement.

Performance Measures

- System Preservation
- Mobility/Congestion Relief (Travel Demand, Street level of service)
- Accessibility and Connectivity
- Integration and connectivity with other modes
- Safety (Reduction in Crashes)
- Economic Benefits

Feasibility Measures

- Engineering
- Socioeconomic, Land Use, State Land Ownership
- Environmental and Cultural Resources
- Multimodal Considerations
- Public Support
- Costs/Right-of-way/Funding

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Subtask 5.2. Identify and Evaluate Street and Highway Alternatives. Based on potential street improvements identified by the TAC, up to **two alternative future street networks will be defined.** The following evaluation process will be carried out:

Potential Street And Highway Projects

- SR 95 Limited Access Facility – Interchange Spacing, Cross Streets, Frontage roads
- Upgrade and Extension of Chenoweth Drive – Intersection/Interchange at SR Existing SR 95
- New Arterial Roadway Roughly Parallel to the Existing SR 95
- Other New Arterial Streets
- Non-Signalized Intersections (roundabouts)
- Street Connections to Existing Street System
- Interchanges/Intersections of arterial streets with SR 95 and SR 95 Parkway/Bypass
- Interchange of Existing SR 95 with the proposed SR 95 Parkway/Bypass
- Possible Revisions to Functional Classification and Access of Existing SR 95 Through Study Area Assuming Construction of the SR 95 Parkway/Bypass
- Access Management Measures
- Neighborhood Traffic Calming

1. Identify alternative street and highway improvements.
2. Identify the general magnitude of each performance based criteria for 5-, 10-, 20-year periods.
3. Estimate order of magnitude costs for each alternative network.
4. Prepare an evaluation matrix to compare the performance of the alternatives against the evaluation criteria.

Subtask 5.3. Identify and Evaluate Alternatives for Other Modes. The important issue of non-motorized travel in the study area will be examined, including commutes to school and work, as well as recreational pedestrian and bicycle travel. It is noted that the General Plan as amended through 2008 refers to an intention to implement the 1998 Lake Havasu Pedestrian and Bike Path Study. Therefore many of the same planning principles will be employed as additions are proposed to extend the system into the North Havasu Area. The role of area developers in the provision of these facilities will also be assessed. In addition, we will evaluate the facilities from a community connectivity perspective. Potential pedestrian and bicycle facilities will be evaluated against a set of evaluation criteria including need, continuity and connectivity, and order of magnitude costs.

Subtask 5.4. Prepare Draft Short-, Mid-, and Long-Range North Havasu Area Multimodal Transportation Plan. Based on the evaluation of the alternatives, a North Havasu Area multimodal transportation plan will be prepared for five-, ten-, and twenty-year periods. A functional classification system will be defined and proposed street and access improvements

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will be identified that address the transportation goals and objectives. General alignments and major access points for alternatives will be defined and order of magnitude improvement costs will be estimated. The implications and impacts of the proposed improvements will also be evaluated against the set of evaluation criteria and discussed. The plan will incorporate recommendations for pedestrian and bicycle connections and will coordinate with transit and airport plans.

Subtask 5.5. Address Environmental Justice Concerns. The consultant will ensure that Title VI Concerns regarding Environmental Justice will be addressed throughout the study. GIS maps prepared in Task 3 will be used to analyze potential impacts on Title VI population groups including ethnic groups, groups below the poverty level, elderly population, and mobility-limited population. Particular emphasis in the analysis will be given to:

- ◆ How proposed transportation projects will affect elderly, minority, and low-income populations
- ◆ How the effects of transportation projects, both positive and negative, and their magnitude can be described and discussed
- ◆ Determine if the proposed projects place a disproportionate burden on elderly, minority, or low-income populations
- ◆ Recommend mitigation measures as well as measures to enhance transportation opportunities for these groups

Subtask 5.6. Prepare Working Paper 3: Draft Transportation Plan. A draft working paper will be prepared documenting the draft North Havasu Area multimodal transportation plan and will be reviewed by the TAC. Working Paper 3 will be finalized by incorporating modifications as appropriate based on input from the TAC, stakeholders, and the public. Approved Working Paper 3 will be submitted for publication on the ADOT website.

Subtask 5.7. Prepare Implementation Plan. This subtask will develop an implementation plan for the transportation plan.

- ◆ Prepare Functional Classification and Roadway Cross Sections. Working with the TAC, we will update the functional street classification system in the study area and update the cross-sections for each roadway classification, where necessary. We will make recommendations on preserving of right-of-way now to ensure that the system can be developed. We will also make recommendations for how to implement non-motorized modal facilities into the functional plan. As part of this subtask, we will develop policies and procedures that will require developers to accommodate and integrate the community circulation system into their plans.

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◆ Prepare Transportation Improvement Program. The consultant will work closely with the TAC to prepare a Five-Year Multimodal Transportation Improvement Program (TIP) for the City. Projects could include pre-design, design, right-of-way acquisition, construction, pavement preservation, and maintenance activities. Projects that may require broader participation by regional and state stakeholders will also be identified. Specific projects will be defined with project description, estimated costs, schedule, and project priorities. The TIP will include the following information: 1) project description and location, 2) estimated cost, and 3) potential funding sources. A set of criteria will be used to define project priorities.

Criteria for Project Priorities

- Safety Improvement
- Capacity needs
- Ability to close gaps in the roadway system
- Ability to expand the roadway system
- Cost

The improvement program will address costs, revenue forecasts, and benefits and financing of recommended transportation actions. **We will identify funding strategies, strategies to preserve right-of-way and potential partnerships between public agencies and the private sector to accomplish the TIP.**

◆ Develop Funding Matrix. Funding is the keystone of implementation and this subtask will analyze both current and potential revenue sources. Funding sources will include federal, state, regional, local, and private sources for all modes of transportation. Potential funding sources are listed below:

Federal Sources (SAFETEA-LU)	State Sources	Additional Transit Sources
<ul style="list-style-type: none"> ● National Highway System ● Transportation Enhancement ● Highway Bridge Replacement/Rehabilitation Program ● Transit Funds – Section 5310, 5311, & 5313 ● Interstate Maintenance ● Surface Transportation Program ● Highway Safety Improvement Program ● High Risk Rural Roads ● Flex, Urban, Small Urban, Rural, Safety Funds, Transit Funds 	<ul style="list-style-type: none"> ● Highway User Revenue Fund ● Vehicle License Tax ● Safety Enforcement and Transportation Infrastructure Fund ● Economic Strength Projects Fund ● State Aviation Fund ● Local Transportation Assistance Fund LTAF, LTAF II 	<ul style="list-style-type: none"> ● Older American Act Title III funds, DES ● Transportation funding through Medicaid ● Division of Developmental Disability Funds ● Head Start, Behavioral Health Funding ● Welfare to Work Act ● Transit Fares

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Pedestrian/Bicyclist Funding	Local and Private Sources	Other Sources
<ul style="list-style-type: none"> ● Federal Lands Highway Funds ● Federal Transit Funds ● Safe Routes to School Program ● National Recreational Trails Fund ● Arizona Heritage Fund ● Scenic Byways Program 	<ul style="list-style-type: none"> ● Impact Fees ● Developer Contributions ● Improvement Districts ● Local Government Transportation Program 	<ul style="list-style-type: none"> ● Community Development Block Grants

In addition, funding strategies necessary to implement the short-, mid-, and long-range plans will be identified. A comprehensive funding matrix will be prepared as a tool for the municipalities to obtain funds. The matrix will include the following: source of funds, description of source, use of funds, funds available, lead time to acquire funds, comments, and potential yield to the municipalities.

Subtask 5.8. Prepare Travel Demand and System Management Strategies. Travel Demand Management (TDM) and Transportation System Management (TSM) Strategies will be prepared for the City to maintain transportation efficiency as the population grows. **Potential strategies will be identified from available sources, listed in tables, and briefly described.** Potential strategies are presented below:

- ◆ **Transportation Demand Management Strategies.** Carpooling, Vanpooling, Park-and-Ride lots, Alternative Work Hours, Telecommuting.
- ◆ **Transportation System Management & Intelligent Transportation System Strategies.** Traffic Signal Coordination, Reversible Lanes, Incident management Systems.
- ◆ **Access Management Strategies.** General Level of Access Control by Functional Classification Raised Medians, Frontage/Backage Roads, Right-in/Right-out Driveways, Minimum Driveway and Intersection Spacing.
- ◆ **Land Development Strategies.** Mixed-Use Development, Hierarchy of Internal Streets, Minimize Access Points.
- ◆ **Traffic Calming Strategies.** Strategies discussed in the 2007 Lake Havasu City Regional/Urban Assistance Team Report and in ongoing discussions, but adapted to the development density intended for the North Havasu Area. Examples are Medians, Street Narrowing, other Physical Devices, and Visual Devices.

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Task 6. Prepare Draft Final Report

Assigned Staff

P. Lima, PhD, PE, Project Manager
S. Weir, AICP, Deputy Project Manager

Products

TAC Meeting
Draft Final Report

Task Milestones

- Coordination With ADOT and City Project Managers
- Draft Final Report

The draft final report will be prepared including at a minimum the following, and will be distributed for review and comment:

- ◆ Compilation of Working Papers 1, 2, and 3
- ◆ Implementation Plan and Travel Demand and System Management Strategies
- ◆ Summary Reports that document the public involvement process
- ◆ Recommendations regarding future studies in the study area

The draft will be submitted for publication on the ADOT website, if requested by ADOT.

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Task 7. Final Report and Executive Summary

Assigned Staff

P. Lima, PhD, PE, Project Manager
S. Weir, AICP, Deputy Project Manager

Products

Final Report
Executive Summary

Task Milestones

- Coordination With ADOT and City Project Managers
- Final Report
- Executive Summary

A final report will be prepared as amended following review by the TAC and approval of Lake Havasu City and the Arizona Department of Transportation. The Executive Summary will be a brief stand-alone document that concisely documents the study process and recommendations.

Upon completion of the study, CD and hard copies of the final reports and executive summary will be distributed to the TAC, ADOT, and the Lake Havasu City as outlined in the milestone deliverable schedule.

The final report will be submitted for publication on the ADOT website.

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Cooperative Features

Lima & Associates will coordinate with the following team members to obtain the required information or action. The consortium will maintain the deadlines and review schedules as outlined by ADOT.

Public Involvement Consortium

- Participating as a member of the study team in developing all materials used in outreach activities for public meetings, forums, and stakeholder meetings; including placing newspaper ads, preparing handouts and display boards, and documenting the Public Involvement Summary Reports.
- Schedule and take minutes of public meetings.
- Contracting for meeting locations.
- Developing meeting notices.

ADOT Project Manager

- Participating and coordinating with the study team regarding all aspects of the outreach process: including public meetings, forums, and stakeholder meetings, and reviewing material.
- Overall management of the study
- Providing technical input and administrative guidance
- Communicating with the TAC

TAC Members

- Participating in developing all public involvement materials.
- Providing local guidance and oversight to the ADOT project manager.
- Providing technical input and administrative guidance.
- Arranging for TAC coordination and meeting rooms.
- Providing existing daily traffic counts; socioeconomic, land use, and street inventory data, and reports to the consultant.