

**REQUEST FOR PROPOSALS**  
**MARICOPA ASSOCIATION OF GOVERNMENTS (MAG)**  
**FY 2016 SYSTEMS MANAGEMENT AND OPERATIONS PLAN**



**March 11, 2016**

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**PUBLIC NOTICE**

**REQUEST FOR PROPOSALS**

**FY 2016 SYSTEMS MANAGEMENT AND OPERATIONS PLAN**

The Maricopa Association of Governments (MAG) is requesting proposals from qualified consultants for a project that would develop a Systems Management and Operations Plan for the MAG planning area. The project will perform a comprehensive study, generate recommendations, consult with all affected agencies and produce a plan that would provide guidance for making future investments and improving the safety, efficiency and reliability of the region's transportation system. The project will be completed in a maximum of 16 months from the date of the notice to proceed at a cost not to exceed \$300,000.

Detailed proposal requirements may be obtained by contacting the MAG Office at the address indicated below or may be downloaded from <http://www.azmag.gov>, then "RFPs and RFQs. For further information, please submit all questions in writing via [email to Sarath Joshua at this link](#) not later than 5 PM, Monday, March 28, 2016. Any addenda responding to questions will be posted on MAG's website at <http://www.azmag.gov> under "RFPs and RFQs" not later than six (6) working days prior to the closing date of April 8th, 2016.

Proposals will be accepted until 12:00 Noon MST (Mountain Standard Time) on April 8<sup>th</sup>, 2016, at MAG, 302 North First Avenue, Suite 200, Phoenix, AZ 85003.

## **SCOPE OF SERVICES**

### **Introduction**

The purpose of this Request for Proposals (RFP) is to solicit proposals from qualified consultants for performing a comprehensive study leading to the development of a Systems Management and Operations (SM&O) Plan for the MAG planning area. This Plan would provide guidance to MAG for making the necessary investments related to SM&O, leading to improved safety, efficiency and reliability of the transportation system.

### **Background**

A Systems Management and Operations (SM&O) Plan, in the context of the Regional Transportation Plan, is a regionally integrated and sustainable planning approach that would help the region continuously strive to optimize the performance of the transportation system. For all purposes this would be accomplished through multi-modal, cross-jurisdictional systems and services, that are regionally planned, designed, built and operated in a seamless manner to achieve high levels of efficiency, safety and reliability across the transportation system. The focus area of this study, Systems Management and Operations (SM&O), is also referred to as Transportation Systems Management and Operations or TSM&O. This study will refer to SM&O to remain consistent with Chapter 17 of the MAG Regional Transportation Plan (RTP).

Many states and urban regions are moving towards strategies for improving how their transportation systems are managed and operated to address increasing demand. The Federal Highway Administration is also promoting initiatives for reducing traffic congestion and improving system reliability through better management and operation of the road network. As improved operations become an essential transportation planning goal and strategy, it will require rethinking how mobility related services can be better delivered to customers who rely on the transportation system. The Federal Highway Administration has stated that, "Effectively addressing the congestion problem will hinge on the ability to reshape traditional transportation organizations into 21<sup>st</sup> century operations agencies using 21<sup>st</sup> century technologies."

The full spectrum of transportation technology infrastructure known as Intelligent Transportation Systems (ITS), operated by skilled agency staff, serves as the foundation of SM&O programs in the region. For all purposes SM&O infrastructure and ITS infrastructure are considered identical. All federal requirements applicable to ITS infrastructure, such as the maintenance of a Regional ITS Architecture, will continue to be addressed. Substantial investments have been made in this new layer of technology infrastructure through the RTP. In addition to regional funds for freeway, highway and arterial ITS infrastructure, the Arizona DOT and MAG member agencies continue to make significant investments in both infrastructure and in the day-to-day operation of freeways and arterials. This study was recommended by the MAG ITS Committee, to generate guidance for the region in addressing future SM&O needs for the next phase of building and more importantly, operating the ITS infrastructure. It is anticipated that recommendations from this would provide input to our future RTP updates.

## **Shift to a Focus on Systems Management and Operations**

Over the last 15 years, the MAG region has made significant investments in building ITS infrastructure required for improving SM&O. As a result, the region has built some of the best urban ITS infrastructure in the nation. However, it is generally recognized that more needs to be done in how the overall system is actively managed and operated, particularly during major traffic incidents that result in large parts of the system being heavily congested. The coordination of traffic operations in an urban region with the institutional make-up of the MAG region can be a complex task. At the national level, the conversation among transportation agencies has shifted from a focus on building more capacity to a focus on management and operations. The Arizona DOT, among many other DOTs, has followed this trend by reorganizing and creating a new Transportation Systems Management & Operations (TSMO) division, to provide more focus and resources for SM&O.

The study will reflect a similar shift in emphasis at MAG in the regional planning arena, by assuming that in addition to funding essential infrastructure would include, and is not limited to, new corridors and potential capacity enhancements (current practice). MAG would also need to provide financial support and invest in operations (a new practice) such as agency staff resources and possibly new tools that are critical for achieving higher levels of system performance. This would be a major departure from current MPO practices of only providing funds for building transportation infrastructure capital, and may require improvements to current MAG policies regarding transportation funding.

Due to the emergence of better solutions through technological advances, and the prospect of limited public funds in the future, a new approach is needed to guide future regional investments in SM&O that would be: (1) performance based and (2) linked to regional priorities. The study scope addresses this need, to define the long-term vision for SM&O and develop a planning document with recommendations that would help guide the region in reaching that vision.

A key study recommendation will be the prioritization scheme/a tiered hierarchy/classification of the freeway and arterial road network to serve as the basis for future regional investments in SM&O.

### **Goal**

The goal of this study is to produce an SM&O Plan, utilizing knowledge gained from current best practices, to help guide the MAG region in making strategic investments needed to expand and support : (1) essential technology infrastructure components, and (2) resources essential for the efficient operation and management of critical components of the regional transportation system.

### **Objectives**

A key element of this Plan is to develop a methodology to prioritize transportation facilities or components of the regional transportation system, based on their role and contribution to the regional economy, and the likely return on investments in SM&O on those facilities. Such a prioritization, or a facility hierarchy, would be an effective way to systematically target SM&O needs, based on established regional priorities, across the entire road network in the region. This would also enable the region to gradually incorporate comprehensive SM&O strategies in regional plans.

The institutional structure in the MAG region, and also in many other similar urban regions, with split ownership (the freeways managed by the state DOT and adjacent arterials managed by local agencies) makes coordinated traffic management a challenging task. However, in many other fields, effective technology solutions have been instrumental in forging innovative coordination mechanisms to overcome similar barriers. This study will explore such solutions and also investigate the feasibility of establishing alternate institutional arrangements and the corresponding business models, based on current best practices, for the efficient delivery of services related to SM&O.

The study will also develop the desired Regional Concept of SM&O for the year 2030, taking into account, as feasible, on-going research and development efforts such as the Connected and Autonomous Vehicle Technology, information and communication technology trends, and emerging practices in advanced traffic management and operations. The horizon year, 2030, has been selected based on a ten-year SM&O implementation plan that would begin with the programming of new TIP projects in FY 2021, and anticipated to be published in August 2017. The Plan will be limited to a ten-year look ahead due to the difficulties associated with making any long-range forecasts of technology evolution.

## STUDY TASKS

The Proposer is encouraged to be creative in developing a sound analytical approach which achieves the goals of this study. The Proposer is urged to be as specific as possible when describing the activities that will be performed to support each task. The Proposer is also urged to make use of matrices, tables and drawings to ensure conciseness and clarity and to minimize the amount of text required. It is recommended that the Proposer adhere to the proposed tasks specified below. Any additional tasks included should not impact the proposed 16-month schedule.

MAG intends to utilize the winning proposal as the Work Plan with as few changes as possible. Therefore, the proposal must demonstrate a deep understanding of the subject matter and describe in detail the recommended study approach for executing tasks. The study approach should not depend on guidance and feedback from MAG during study execution, except on tasks where it is obviously warranted.

### **Task 0: Project Management & Technical Oversight Process**

#### **Project Management**

The management of all study activities will be closely coordinated with the MAG Project Manager.

#### **Working Group for Technical Oversight**

Establish a process for technical oversight to be provided by a Working Group (WG). The WG will be established by MAG and will consist of members the ITS Committee, some members of the Transportation Review Committee and staff members from ADOT, FHWA and MAG. Progress review meetings will be held, as needed, in coordination with ITS Committee meetings. The WG may be retained or re-established beyond the study to provide periodic reviews (quarterly) of progress during implementation.

**Deliverable:** Project management plan, and schedule for facilitation of Working Group meetings.

### **Task 1: Identify Best Practices in Urban Transportation Systems Management & Operations**

Establish a panel of experts made up of at least, but not limited to, one expert for each category listed below. The proposal must identify members of this panel. This panel will serve as advisors for this study task. Conduct a brief opinion survey of this panel of national and international experts, identify 10 urban areas with exemplary SM&O practices, include at least 5 sites in the US. Review SM&O practices at each location and summarize findings under the following categories:

1. Transportation System Description: Describe the transportation system and its characteristics as it pertains to SM&O. Highlight key similarities or differences in comparison to the MAG region. For example, the presence of an arterial grid network similar to the MAG region.
2. Institutional Framework: Identify the supporting institutional framework for best SM&O practices. This shall include information from published studies together with relevant information from the Arizona DOT's TSM&O Plan and in answering the question of how are the reviewed major urban regions organized to coordinate across facilities and

modes such as freeway operations with adjacent arterial facilities owned by local agencies?

3. Alternate Business Models: Identifying alternate business models being used to support SM&O practices, including public-private partnerships. How the other major urban regions organized, both institutionally and financially, to manage and operate their urban transportation system. This review should include at least 3 urban regions comparable to the MAG region in distributed road ownership and size. Describe how the transportation SM&O functions are staffed and funded at the regional and local levels. Identify the staffing qualifications, training and certification requirements, position descriptions and salary ranges.
4. SM&O Tools: Identify tools that are being used to support SM&O practices such as how much of SM&O functions are automated and how are such systems supported and, what decision support and analytical tools are being used to help refine traffic operations.
5. Performance Measurement and Data: Identify how system performance is addressed. What metrics are used; describe the mechanism for establishing and reporting on performance targets; describe how independent or transparent the process is; determine if periodic or ongoing web-based performance reports are provided; determine how data is shared with the MPOs for performance measurement and what the process is for quality control of data?
6. Technology Investment Decisions: At minimum, describe the results for the following questions: What are the oversight practices for key technology investment decisions? Are there established technical oversight processes and do they involve panels of experts? What is the current strategy/decision process for the adoption of appropriate new technologies to replace old technologies? Are there specific considerations of equipment life-cycle, annual maintenance cost, system reliability degradation?

**Deliverable: Task 1 Report - Best Practices in Urban Transportation SM&O**

### **Task 2: Review Current and Near-Term ITS Infrastructure and SM&O Practices**

This task will review the state of current and near-term ITS infrastructure and management and operations practices in the MAG region and compare them with best practices, including:

1. Review current freeway ITS and arterial ITS infrastructure (major-grid).
2. Review current SM&O functions, define the prevailing Concept of Operations and identify key enablers such as better institutional support, resources, business processes.
3. Evaluate the life-cycle of current ITS technology infrastructure.
4. Identify lessons learned.

Near-term is defined as what is anticipated to be in place in five years.

The following subtasks will address these objectives.

#### **Task 2.1 Review ITS Infrastructure**

This task will perform a review of existing ITS infrastructure on freeways and arterials. The execution of this task should answer the following questions and summarize the information using appropriate charts and graphics.

##### Freeways:

- *What is the current FMS coverage in miles, and what additional coverage is planned, and when is the targeted date for additional coverage?*

- *What are the basic infrastructure features and operations elements? Fiber-optic backbone, CCTV, ramp meters, DMS, Alert, FSP, Centralized ATMS for ramp meters and interchange traffic signals.*
- *What ITS infrastructure will be active when the South Mountain Freeway opens?*
- *How are costs associated with FMS infrastructure and operations currently funded? FMS infrastructure funded by the MAG RTP; FMS operations (Phoenix component) funded by ADOT & MAG?*

Arterials:

- *What is the current coverage of arterial traffic signal systems? Expressed in miles of arterials and the total number of traffic signals?*
- *How are the costs associated with arterial ITS infrastructure and operations currently funded?*
- *What are the basic Arterial ITS infrastructure features and operations elements? TMC, Fiber-optic communications backbone, CCTV, DMS and Centralized ATMS?*
- *What signal controller technology is in use across the region?*
- *What infrastructure is available for data collection for system performance monitoring?*

**Task 2.2 Review of Current SM&O Functions and Concept of Operations**

This task will identify all freeway and arterial SM&O functions that are currently being performed across the region. For freeway functions, identify currently established practices in Integrated Corridor Management, Traffic Incident Management, ramp metering and the posting of travel times. Identify which functions are reactive and which are proactive. A similar summary of functions will be produced for arterials as part of this task.

Develop a high level Concept of Operations that would describe all current aspects of the functions and operations of freeways and arterials. This will be limited to currently established functions and will not include any new functions that are being studied and yet to be established in connection with the planned I-17 Active Traffic Management (ATM) Project.

Freeways:

- *Describe the range of traffic management functions currently performed at the ADOT TOC.*
- *Identify key areas and functions that need to be improved. Identify key enablers such as better institutional support, resources and business process improvements.*
- *Describe the business case for supporting the current FMS operation. What are the likely benefits accrued and the estimated annual Return on Investment (ROI).*

Arterials:

- *Describe the range of traffic management functions currently performed by City TMC staff.*
- *Identify any key areas and functions that need to be improved.*
- *Identify key enablers such as institutional support resources and business process improvements.*
- *Describe the business case for supporting the current TMC operations and expanded hours of operations.*
- *Describe the likely benefits accrued and the estimated annual Return on Investment (ROI).*
- *Describe any signal controller technology deficiencies.*

**Task 2.3 Review Technology Utilization**

Perform a review of the life-cycle of key ITS technology elements currently being utilized on freeways and arterials. Identify the key technologies that have proven to be cost-effective so far and assess how much longer each particular technology is viable. Investigate the functions supported by a specific technology and determine if these are addressed by another more efficient technology or an established service provider with an efficient and more economical solution. Identify the ITS technology that may need to be replaced or upgraded. Draw upon findings from Task 1 on the state of the practice review, and produce a comparison of key functions.

Identify how current ITS technology infrastructure is being utilized to make decisions related to operations.

#### **Task 2.4 Identify Lessons Learned**

Identify lessons learned from the implementation of ITS infrastructure on freeways and arterials in the region over the last 20 years. These may include, but are not just limited to, recommendations for potential institutional changes to better facilitate the shift to a focus on SM&O. These changes should highlight staffing and training needs to better address SM&O.

**Deliverable: Task 2 Report** – Review of Infrastructure, Functions, ConOps, ITS Technology Utilization and Lessons Learned

#### **Task 3: Develop the Long Term Vision and Concept of Systems Management and Operations**

This task will result in the establishment of the long term vision (2030) and concept of SM&O for the MAG region, based on: (1) Infrastructure improvements identified in current MAG plans for this period; (2) Sound assumptions on likely future scenarios and the influence of emerging technological advances in areas related to mobility; (3) Other likely trends in travel behavior and travel patterns. Considering the rapid pace at which SM&O related technologies are evolving, the long term vision will be based on the horizon year 2030.

In addition to the essential coordination between freeways and arterials, the Concept of Operations (ConOps) should incorporate improvements and changes that are likely to emerge by 2030 with varying degrees of certainty such as:

- Implementation of Active Traffic Management (ATM) at appropriate locations in several phases. This will draw upon the current experience of ATM implementation in the US and network screening guidelines to identify the best potential ATM sites.
- Migration to new traffic data sources including detection technology, probe vehicles and private sector data sources.
- Refinements to Freeway-Arterial Operations for Integrated Corridor Management.
- Desired freeway safety features such as a system to reduce wrong-way entry at ramps.
- Relevant applications based on Vehicle-to-Vehicle (V2V) communications - ref. AASHTO CAV roadmap.
- USDOT plans including Crash Avoidance Metric Partnership (CAMP) V2I Applications Program.
- Entry of autonomous vehicles into the fleet.
- Implementation of new light rail corridors.
- Effect of any regional projects that might change the footprint such as lane additions, South Mountain Freeway, Tempe Streetcar, projects funded with Prop 404 in City of Phoenix and road diets.

The long term vision should not necessarily be constrained by the existing institutional structure of ownership and facility management. This task would also identify: (a) key challenges (from today's perspective) to achieving the 2030 vision; and (b) possible solutions for such challenges, including a more effective regional institutional framework to support traffic operations and management. This task will also describe the process how the region should move between now to the 2030 vision.

**Deliverable: Task 3 Report** – Long Term Vision and Future ConOps

#### **Task 4: Establish Regional Priorities for SM&O Investments**

The execution of this task will result in the recommendation, and possible adoption, of a prioritization scheme/a tiered hierarchy/classification of the freeway and arterial road network, that will serve as the basis for future regional investments in SM&O. The resulting classification of the road network will guide future decisions to allocate regional resources to either build or replace necessary ITS infrastructure, and to support staff resources necessary to operate the facilities at the desired level of SM&O identified in the Concept of Operations. It is assumed that facility operating costs that may need to be partially funded by the region will be clearly identified for each facility. This funding would also include the costs to implement and operate sub-regional TMCs that would be necessary to support traffic management operations beyond normal working hours. Review and incorporate relevant regional priorities recommended in the Central Phoenix Framework Study.

##### **Task 4.1: Develop Criteria for Tiered Hierarchy of Road Facilities**

The following tasks will be carried out:

- a. Review alternate approaches for screening road facilities to determine regional SM&O investment priorities.
- b. Develop draft criteria for defining a tiered hierarchy/classification of road facilities.
  - i. The criteria will address factors such as – high volume facilities such as freeways and major arterials on NHS, freight corridors, transit corridors, performance with respect to road safety, performance with respect to reliability.
  - ii. Take into consideration the impact of population and demographic trends.
- c. Recommend a process for review and updating of facility classification prior to each TIP programming cycle.
- d. Review of draft criteria by the Working Group & Transportation Review Committee (TRC) (formal presentation).

##### **Task 4.2: Identify Initial List of Prioritized Facilities for Regional SM&O Investments**

Apply the criteria and develop the initial tiered road hierarchy for the MAG region – producing a map that identifies SM&O investment priority (rank) for each defined road facility. Produce a list of prioritized facilities, with information on their current and planned ability to be actively managed by the relevant operating agencies.

This phase of the study will conclude with four formal presentations (in addition to the Working Group presentation) to MAG committees and obtaining MAG approval of the proposed tiered road hierarchy and next steps. The presentations will be made at the MAG Transportation Review Committee (TRC), Management Committee (MC), Transportation Policy Committee (TPC) and Regional Council (RC) meetings.

**Deliverable: Task 4 Report** – Regional Priorities for SM&O Investments and participation in five formal presentations.

### **Task 5: Develop Initial SM&O Implementation Plan**

This task will develop the Initial SM&O Implementation Plan that would include recommendations for SM&O improvements for the highest ranked facilities in a phased approach. These projects would also support the overall Concept of Operations, with each phase clearly showing SM&O roles and responsibilities. This would ensure that each phase of this Plan would systematically build upon the preceding phase over a 10 year period to reach the desired 2030 Concept of Operations. This task would also estimate the regional funds required for implementing each phase of this initial Plan and supporting annual operating costs. Projects recommended in this Plan would be funded, along with additional projects, through the TIP programming process. Refer to realistic technology evolution milestones established in Task 3 to develop this implementation plan.

Examples of this phased process include, but are not limited to:

**Phase 1 (2021 - 2024)** – Completion of the implementation of Prop 400 FMS coverage; Implement ICM on relevant corridors along I-10, US-60, Loop 202, Loop 101 and Loop 303 freeways. Establish virtual TMCs or sub-regional TMCs. Initial implementation of Active Traffic Management (ATM) with Variable Speed Limits in the I-17 corridor. Develop criteria to determine when to implement ATM on a freeway corridor. Test real-time predictive simulation modeling to support traffic management. Recommend arterial performance metrics. Develop a regional strategy for acquiring arterial performance data, possibly fusing probe data with traffic counts.

**Phase 2 (2025 - 2027)** – Implement fully integrated corridor traffic management between all urban freeways and adjacent arterials. Expand Active Traffic Management on freeway segments; develop and utilize qualifying criteria that includes but is not limited to, safety performance and congestion.

**Phase 3 (2028 - 2030)** – Full implementation of ATM on all qualifying freeways. Basic traffic information broadcasts to Connected Vehicles.

#### **Task 5.1: Estimate Implementation Costs**

This task will produce an Excel-based planning tool to generate budget estimates for SM&O, by performing analyses and a breakdown for how much it will cost to build-out, operate, and maintain the transportation operations vision developed in earlier tasks. This tool would utilize unit costs from existing and planned ITS infrastructure inventory, based on earlier tasks. This will address federal planning regulations that require MPOs to perform a financial analysis of their long range plan, to project funding needs and revenues. As the first comprehensive financial analysis of System Management and Operations needs, this effort will help frame the long-term financial commitment required to fund transportation operations.

Estimate the funding resources needed for each phase of the Implementation Plan, breaking the cost needs down by: (1) Infrastructure Costs - new, replacement, maintenance; and (2) Operational Costs - staffing, equipment, facilities, maintenance.

#### **Task 5.2: Develop the Programming Process for SM&O Projects**

The execution of this task will result in the development of a detailed process that would guide the MAG ITS Committee in recommending individual SM&O projects to be programmed in the MAG TIP. This task will involve consultation with the MAG ITS Committee and MAG staff.

An example for the end result of applying the process would be that, a certain percentage of TIP funds available to be programmed for SM&O projects, would be dedicated to high priority regional SM&O projects identified in the Implementation Plan, and the remainder of these funds programmed for other regionally prioritized SM&O projects. Project selection criteria and priorities would be reviewed and refined prior to each programming cycle by the MAG ITS Committee. Recommended projects could request regional funds for new infrastructure, upgrades, replacements as well as funding support (subject to certain limitations) for critical operations on facilities that are identified as regionally critical. While this approach would expand the availability of regional funds for both infrastructure and operations, it would also limit funds to be applied only for improving facilities that are identified as regional priorities.

**Deliverable: Task 5 Report:** Initial SM&O Implementation Plan

### **Task 6: Recommend Data Collection, Performance Measurement and Reporting Processes**

This task will recommend a process for data collection, independent performance measurement and the production of an annual performance report by MAG. It is anticipated that all future SM&O programs and projects would be evaluated by MAG using performance-based criteria, to be formally adopted by the region specifically for this purpose. Performance measures developed in earlier tasks will be utilized.

This task will also identify the coordination required between ADOT (for freeways) and local agencies (for arterials) and MAG for gathering the data required for performance measurement. System performance will be reported on the MAG Performance Measurement website. The system performance metrics to be used will be based on data elements used in MAG performance monitoring reports.

Other topics to be explored are:

- Developing an efficient regional data collection strategy built into SM&O infrastructure.
- Establishing a regional traffic data archive for performance evaluation.

**Deliverable: Task 6 Report:** Data Collection, Performance Measurement and Reporting

### **Task 7: Recommend the Framework for Annual SM&O Performance Review**

Recommend the framework including the format, key elements and a strawman version, of an annual SM&O performance report to be developed by MAG, based strictly on available data. This report will identify system performance with respect many measures including safety and efficiency, and will also identify both past and future programmed SM&O investments. This report will be incorporated into the MAG Performance Measurement website.

**Deliverable: Task 7 Report:** Framework for an Annual SM&O Performance Review

**Task 8: Produce the MAG SM&O Plan FY2021-FY2030 Final Report & Executive Summary**

Summarize the key findings in all Task Reports into one Final Report and an Executive Summary for adoption by MAG.

**Deliverable: Final Report & Executive Summary.** Final documents delivered and participate in four formal presentations at MAG on the SM&O Plan.

**Deliverable Products:**

Required products of this project are listed below. An administrative draft of each deliverable will be submitted in electronic form and, when requested, hard copy format, to the MAG project manager for review. Comments from the MAG project manager will be incorporated into the deliverable by the CONSULTANT before it is distributed for external review. Comments received during the external review process will be incorporated into the final drafts.

1. Task 0 - Project Management Plan and Schedule
2. Task 1 - Report on Best Practices in Urban Transportation SM&O
3. Task 2 - Report on Review of Infrastructure, Functions, Current Concept of Operations, ITS Technology Utilization and Lessons Learned
4. Task 3 - Report on Long Term SM&O Vision and Future Concept of Operations
5. Task 4 - Report on Regional Priorities for SM&O Investments and participation in five formal presentations
6. Task 5 - Report on Initial SM&O Implementation Plan
7. Task 6 - Report on Data Collection, Performance Measurement and Reporting
8. Task 7 - Report on Framework for an Annual SM&O Performance Review
9. Task 8 - Final Report & Executive Summary and participation in four formal presentations

## PROPOSAL REQUIREMENTS AND CONTENT

### Project Schedule and Cost

The estimated time frame for this project is 16 months from the date of the notice to proceed, with intermediate deliverables due in accordance with the schedule as agreed between MAG and the Proposer at a cost not to exceed \$300,000. The date of the notice to proceed is anticipated to be June 20, 2016.

### Proposal Content

It is required that the proposal include the following items in the same order as they are listed below. Failure to provide the requested information may result in rejection of the proposal. Brief and concise submittals are encouraged. The total number of pages must not exceed 40 pages, excluding the resumes, the cover letter, tabs, appendices, and forms. The proposal must be printed with portrait orientation on letter size pages (8.5 x 11 inches). The type font used must be at least 11 font and line spacing at 1.15. No more than two (2) 11 x 17 pages may be used for charts. Blank pages are not included in the total page count. The outside packaging of the submittal must be clearly marked with the Project Title, the RFP Due Date, and the Proposer's name.

1. **Identification.** A cover letter or equivalent which includes:
  - a. The title of this solicitation.
  - b. Proposer's name and business address.
  - c. The name, title, mailing address, and telephone number and email address of the principal contact.
  - d. Signature from a representative or officer authorized to bind the CONSULTANT.
2. **Table of Contents.**
3. **Organization and Approach.** A brief statement describing the Proposer's organization and outlining its approach to completing the work required by this solicitation. This statement shall briefly illustrate the Proposer's overall understanding of the project.
4. **Work Plan.** A concise explanation of how the Proposer will carry out the objectives of the project. In the work plan, the Proposer shall describe each project task and proposed approach to the task as clearly and thoroughly as possible.
5. **Preliminary Schedule.** A project schedule in bar-chart format will indicate all work plan tasks and their durations. The schedule shall clearly identify project deliverable dates and tentative MAG meeting dates.
6. **Staffing Plan.** The plan shall include the following in table format:
  - a. A project organization chart, identifying the project manager.

- b. Names of key project team members and/or Subconsultants. Only those personnel who will be working directly on the project should be cited.
  - c. The role and responsibility of each team member.
  - d. Percent effort (time) of each team member for the contract period.
  - e. The role and level of MAG technical staff support, if any.
7. **Résumés.** Include résumés for major staff members assigned to the project. These résumés should focus on their experience in this type of project.
8. **Budget.** A completed labor cost allocation budget formatted as noted in Appendix A.
9. **Recent Examples.** Proposer's recent experience in performing work similar to that anticipated herein. This description shall include the following:
- a. Date of the project.
  - b. Name and address of client organization.
  - c. Name and telephone number of the individual in the client organization that had management responsibility for the project.
  - d. Brief description of the project
  - e. Proposer team members involved and their roles.
10. **Additional Information.** Any additional information that the Proposer believes would be useful to MAG in evaluating the proposal.

----- Forms and Appendices -----

11. **Rules of Professional Conduct Certification Statement.** A signed statement, located on the last page of Appendix B, certifying that CONSULTANT will comply with, in all respects, the rules of professional conduct set forth in A.A.C. R4-30-301 (Appendix B), which is the official compilation of Administrative Rules and Regulations for the State of Arizona.
12. **Information Form.** A completed Proposer's Information Form (Appendix C). If applicable, completed Proposer's Information Form for each Subconsultant proposed for this project.

By signature on the Proposers Information Form, the consultant certifies that:

- a. The submission of the offer did not involve collusion or other anti-competitive practices.

- b. The Proposer will not discriminate against any employee or applicant for employment in violation of Federal Executive Order 11246.
  - c. The Proposer has not given or offered to give and does not intend to give at any time hereafter any economic opportunity, future employment, gift, loan, gratuity, special discount, trip favor, or service to a public servant in connection with the submitted offer.
  - d. Failure to sign the offer, or the falsity of a statement in a signed offer, shall void the submitted offer or any resulting contracts, and the Proposer may be debarred.
13. **Debarment and Suspension Certification.** As required by 49 CFR 29 (Debarment and Suspension), certification of Consultant's eligibility to receive Federal funds and a copy of such certification for which may be furnished to ADOT or other government entities. A certification to this effect is included in this RFP as Appendix D and must be submitted by Proposer in order for Proposer to be considered responsible and their proposal to be considered responsive.
14. **Conflict of Interests.** Each Proposer shall document within its proposal any potential conflicts of interests. A conflict of interest shall be cause for disqualifying a Proposer from consideration. A potential conflict of interest includes, but is not limited to:
- a. Accepting an assignment where duty to the client would conflict with the Proposer's personal interest, or interest of another client.
  - b. Performing work for a client or having an interest which conflicts with this contract.
  - c. Employing personnel who worked for MAG or one of its member agencies within the past three years.
  - d. All relationships with MAG and/or any employees of MAG.

MAG shall be the final determining body as to whether a conflict of interest exists.

15. **Confidential Portions Identification.** In accordance with Arizona Administrative Code R2-7-103, CONSULTANT may designate as confidential portions of a Proposal. A summary index of any such designation must be included in the Table of Contents or cover letter in the Proposal documents. If MAG determines to disclose the information provided, MAG shall inform the CONSULTANT in writing of such determination.
16. **Anti-Lobbying:** MAG complies with the provisions of Section 1352 of Title 31, U.S. Code (Public law 101.121) as codified in Title 48, Federal Acquisition Regulations Subpart 3.8 and Subpart 52.203-11 and 23 CFR 630.112(c)(5). That legislation prohibits Federal funds from being expended by a recipient or any lower tier sub-recipients of a Federal contract, grant, loan, or cooperative agreement to pay any person for influencing or attempting to influence a Federal agency or Congress in connection with the award of any Federal contract, the making of any Federal grant or loan, or entering into any cooperative agreement, including the extension, continuation, renewal, amendments or modification of any Federal contract, grant, loan or cooperative agreement.

**17. DBE Requirements.**

This contract has been assessed as race neutral. The Arizona Department of Transportation (ADOT) has not established a DBE participation goal on this contract. Consultants are still encouraged to employ reasonable means to obtain DBE participation. The Proposer is notified that record keeping is required by the ADOT so it can track DBE participation where only race neutral efforts are employed. DBE Participation Affidavit forms are NOT required for race neutral projects.

All proposers must submit a Proposers (Bidders) List with its proposal. The SOQ Proposer's Solicitation List may be found at: <http://www.azdot.gov/docs/default-source/beco-library/3202ps-proposers-list.pdf?sfvrsn=2>

## PROPOSER'S CHECKLIST

Before submitting a proposal, please make sure all required information as specified in "Proposal Requirement" have been included.

1. Ten (10) copies of the proposal with a maximum of 40 pages.
2. Cover letter signed by a party authorized to bind the entity submitting the proposal.
3. Description of Proposer's organization and approach to work required by the solicitation.
4. Work plan including preliminary schedule, staffing plan, résumés, and similar experience.
5. Labor cost allocation budget.
6. Signed certification of Proposer's compliance with the rules of professional conduct set forth in A.A.C. R4-30-301.
7. Signed Proposer's Information Form for Prime consultant and for any proposed Subconsultants. Must be signed by a party authorized to bind the entity submitting the proposal.
8. Documentation of any potential conflicts of interest.
9. Debarment and Suspension Certification form.
10. Proposal submitted not later than Noon on April 8, 2016.
11. All proposers must submit a Proposers (Bidders) List with its proposal. The SOQ Proposer's Solicitation List may be found at: <http://www.azdot.gov/docs/default-source/beco-library/3202ps-proposers-list.pdf?sfvrsn=2>

## PROPOSAL DELIVERY AND OPENING

1. Ten (10) copies of the proposal must be submitted by Noon Mountain Standard Time (MST), April 8, 2016, to the following address:

Maricopa Association of Governments  
Attention: Sarath Joshua  
302 North First Avenue, Suite 200  
Phoenix, AZ 85003

Timely receipt of proposals shall be determined by the date and time the proposal is received at the above address. No late submissions, facsimile, or electronic submissions shall be accepted after the time indicated. Hand delivery is therefore encouraged to assure timely receipt. Proposals received after the deadline shall be stamped for time and date and returned unopened to the Proposer.

Proposals will be opened publicly and the name of each entity submitting a proposal will be read at 12:05 pm MST on April 8, 2016 at the MAG Offices, Cholla Room, 302 North First Avenue, Suite 200, Phoenix, AZ 85003.

All material submitted in response to this solicitation becomes the property of MAG and shall not be returned. After contract award, the proposals shall be open for public inspection except to the extent that the withholding of information is permitted or required by law. If the Proposer designates a portion of its proposal as confidential, it shall isolate and identify in writing the confidential portions in accordance with Arizona Administrative Code R2-7-103 and shall be included in the proposal. Upon receipt of written notification, MAG will review any portions of the proposal that the Proposer considers to be confidential and will then make a determination on what should be released. MAG will also notify the Proposer in writing of the determination and provide an opportunity for the Proposer to respond to the decision prior to releasing the proposal.

2. Any questions regarding this Request for Proposals should be submitted in writing via [email to Sarath Joshua, Senior Program Manager at this link](#) not later than 5 PM, Monday, March 28, 2016. Responses to questions submitted will be posted on the MAG Web site at <http://www.azmag.gov> under "RFPs and RFQs" no later than Noon on March 31, 2016. Additional information regarding MAG activities, including Committee meeting schedules, may be found on the MAG Web site <http://www.azmag.gov>.
3. A Proposer's conference for the project has been scheduled for 2pm MST on March 24, 2016, at the MAG Office, Ironwood Room, Suite 200, 302 North First Avenue, Phoenix, AZ.

Presentation from Proposer's conference, sign in sheet along with any Q & A will be posted on MAG's website at <http://www.azmag.gov> under "RFPs and RFQs" not later than six (6) working days prior to the closing date of April 8th, 2016.

## PROPOSAL EVALUATION AND SELECTION PROCESS

1. **Evaluation Criteria.** All proposals will be evaluated by a group consisting of MAG staff and staff at member agencies. Evaluation criteria include, but are not limited to, the following:
  - a. Demonstrated depth of understanding of: (1) the role of Systems Management and Operations in urban multi-modal transportation systems, and (2) the transportation planning process.
  - b. Clarity of proposal, realistic approach, technical soundness, relevance to the MAG region, and proposed enhancements to elements outlined in this RFP.
  - c. Education and relevant experience of key personnel. Only those personnel assigned to work directly on each area should be cited.
  - d. Proven track record in this area of study since 2010. Proposer should clearly identify the principal people who worked on related past studies, their roles and study recommendations that have been implemented.
  - e. Availability of key personnel throughout the project effort.
  - f. Price.
  - g. Ability and commitment to deliver required products and services, meet all deadlines for submitting associated work products, and ensure quality control.
  - h. Recognition of work priorities and flexibility to deal with change and contingencies.
2. **Interviews.** On the basis of the above evaluation criteria, selected firms submitting proposals may be interviewed prior to the selection of a consultant. In-person interviews may be scheduled for the week of May 2, 2016. It is anticipated that firms selected for interviews will be contacted approximately one (1) week prior to the in-person interview date. MAG strongly suggests that the project manager and no more than two key members of the consultant team be present at the in-person interview.
3. MAG may conduct discussions with Proposers who submit proposals determined likely to be selected for the award.
4. MAG reserves the right to:
  - a. Cancel this solicitation.
  - b. Reject any and all proposals and re-advertise.
  - c. Select the proposal(s) that will, in its judgment, best meet MAG's needs, despite any differences in estimated project costs between the proposer and all others.

- d. Negotiate a contract that covers selected parts of a proposal, or a contract that will be interrupted for a period, or canceled, for lack of funds.
  - e. Conform with the State of Arizona Public Records law(s).
5. Contact with MAG or MAG Member Agency Employees. All firms interested in this RFQ/RFP (including the firm's employees, representatives, agents, lobbyists, attorneys, and subconsultants) will refrain, under penalty of disqualification, from direct or indirect contact for the purpose of influencing the selection or creating bias in the selection process with any person who may play a part in the selection process. This policy is intended to create a level playing field for all potential firms, and to protect the integrity of the selection process. All questions on this selection process should be addressed to the authorized representative at MAG.
6. **MAG Approval.** A recommendation for approval of the consultant selection shall be made by the MAG Executive Director to the MAG Regional Council. The decision of the Regional Council is final.

## ADMINISTRATIVE REQUIREMENTS

1. This Request for Proposals is for a cost-reimbursement plus fixed fee contract.
2. During the course of the project, a monthly or bi-monthly paper invoice must be submitted within ten (10) working days after the end of each reporting period, along with a progress report for the same period. All invoices and progress reports must be prepared using an Excel template that will be provided by MAG. Each progress report shall include a comprehensive narrative of the activities performed during the reporting period, an estimated percent complete for each project task, monthly and cumulative costs by task, activities of any Subconsultants, payments to any Subconsultants, a discussion of any notable issues or problems being addressed, and a discussion of anticipated activities for the next month. (See Appendix E for sample format). For each paper invoice submitted, an Excel-based invoice must also be submitted to the MAG Project Manager.
3. MAG shall retain ten percent (10%) of the contract amount, withheld from each invoice, as final payment until completion of the project to the satisfaction and acceptance of the work. Final payment shall be made after acceptance of the final product and invoice.
4. An audit examination of the CONSULTANT's records may be required.
5. The firm selected will be required to comply with MAG insurance requirements, which may include: Workers' Compensation, Architects and Engineers Professional Liability insurance, Commercial General Liability insurance, Business Automobile Liability insurance, and Valuable Papers insurance.
6. The firm selected is required to document any potential conflicts of interest during the contract period. A conflict of interest shall be cause for terminating a contract. A potential conflict of interest includes, but is not limited to:
  - a. Accepting an assignment where duty to the client would conflict with the CONSULTANT's personal interest or the interest of another client.
  - b. Performing work for a client or having an interest which conflicts with this contract.
  - c. Employing personnel who worked for MAG or one of its member agencies within the past three (3) years.

MAG shall be the final determining body as to whether a conflict of interest exists.

7. Non-Discrimination
  - a. During the performance of this procurement, MAG, its Consultants, Subconsultants, assignees and successors shall:
    - i. Not discriminate on the basis of race, color, national origin, or sex and shall carry out applicable requirements of 49 CFR Part 26 in the performance of this Contract. Failure by the Consultant to carry out these requirements is a material breach of this Contract, which may result in the termination of this

Contract, disqualification from proposing on other Contracts or other remedy as the State deems appropriate.

- ii. Comply with Executive Order 2009-09, "Prohibition of Discrimination in Employment by Government Contractors and Subcontractors," which is hereby included in its entirety by reference and considered a part of this Contract.
- iii. Comply with the provisions of Executive Order 11246, entitled "Equal Employment Opportunity," as amended by Executive Order 11375, and as supplemented in Department of Labor Regulations (41 CFR Part 60). Said provisions are made applicable by reference and are hereinafter considered a part of this Contract.
- iv. Post in conspicuous places available to employees and applicants for employment, the following notice:

**“It is the policy of this company not to discriminate against any employee, or applicant for employment, because of race, color, religion, creed, national origin, sex, age, handicapped, or disabled veterans and Vietnam era veterans. Such actions shall include, but are not limited to: employment, upgrading, demotion, transfer, recruitment, or recruitment advertising; laying-off or termination; rates of pay or other compensation; and selection for training, and on-the-job training. Also, it is the policy to ensure and maintain a working environment free of harassment, intimidation and coercion.”**

- v. Comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the U.S. Department of Transportation (hereinafter USDOT), 49 CFR Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this Contract.
- vi. Not discriminate on the grounds of race, color, sex, or national origin in the selection and retention of Subconsultants, including procurement of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices.
- vii. In all solicitations either by competitive bidding or negotiations made by the Consultant for work to be performed under a subcontract, including procurement of materials or leases of equipment, notify each potential Subconsultant or supplier of the Consultant's obligations under this Contract and the Regulations relative to nondiscrimination on the ground of race, color, or national origin.
- viii. Provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the State to be pertinent to ascertain compliance with such Regulations,

orders and instructions. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish this information, the Consultant shall so certify to the State as appropriate, and shall set forth what efforts it has made to obtain the information.

- b. In the event of the Consultant's noncompliance with the NONDISCRIMINATION provision of this solicitation, the State shall impose such Contract sanctions as the State or FHWA may determine to be appropriate, including but not limited to:
  - i. Withholding of payments to the Consultant under the Contract until the Consultant complies, and/or;
  - ii. Cancellation, termination, or suspension of the Contract, in whole or in part.
- c. The Consultant shall include the provisions of paragraph a.i through a.viii in every subcontract with Subconsultants, DBEs and Non-DBEs, including procurement of materials and equipment leases, unless exempt by the Regulations or directives issued pursuant thereto.
- d. The Consultant shall take such action with respect to any Subconsultants or procurement as the State or the Federal Aviation Administration (FAA), FHWA and the Federal Transit Administration (FTA) may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, however, that in the event the Consultant becomes involved in or is threatened with litigation with a Subconsultant or supplier as a result of such direction, the Consultant may request the State to enter into such litigation to protect the interests of the State, and in addition, the Consultant may request the United States to enter into such litigation to protect the interests of the United States.

#### 8. Affirmative Action

The Consultant shall take the following affirmative action steps with respect to securing supplies, equipment or services under the terms of this Contract.

- a. Include qualified firms owned by socially and economically disadvantaged individuals on solicitation lists.
- b. Assure that firms owned by socially and economically disadvantaged individuals are solicited whenever they are potential sources.
- c. When economically feasible, dividing total requirements into smaller tasks or quantities so as to permit maximum participation by firms owned by socially and economically disadvantaged individuals.
- d. Where the requirement permits, establish delivery schedules which shall encourage participation by firms owned by socially and economically disadvantaged individuals.
- e. Use the services and assistance of ADOT DBE Supportive Services Program, the Small Business Administration, the Office of Minority Business Enterprise of the Department of Commerce and the Community Services Administration as needed.

9. Participation By Disadvantaged Business Enterprises – Commitment, Compliance And Reporting

- A. The Department (ADOT) has established a Disadvantaged Business Enterprise (DBE) program in accordance with the regulations of the U.S. Department of Transportation (USDOT), 49 CFR Part 26. ADOT has received federal financial assistance from the USDOT and as a condition of receiving this assistance, ADOT has signed an assurance that it shall comply with 49 CFR Part 26.

It is ADOT's policy to ensure that DBEs, as defined in 49 CFR Part 26, have an equal opportunity to receive and participate in federally-funded contracts. It is also ADOT's policy to:

1. Ensure nondiscrimination in the award and administration of federally funded contracts;
2. Create a level playing field on which DBEs can compete fairly for federally-funded contracts;
3. Ensure that the DBE program is narrowly tailored in accordance with applicable law;
4. Ensure that only firms that fully meet 49 CFR Part 26 eligibility requirements are counted as DBEs;
5. Help remove barriers to the participation of DBEs in federally-funded contracts;
6. Assist in the development of firms that can compete successfully in the marketplace; and
7. Facilitate and encourage participation by Small Business Concerns (SBCs) in ADOT contracts. ADOT encourages Consultants to take reasonable steps to eliminate obstacles to SBC's participation and to utilize SBCs in performing contracts.

The Federal regulations require a recipient of federal highway funding to implement an approved DBE Program that consists of establishing a statewide DBE utilization goal that uses race-neutral means to the maximum feasible extent to achieve the goal. Where race-neutral measures prove inadequate to achieve the goal, the State is required to use race-conscious measures, such as a DBE participation goal for individual contracts.

The Department has established an overall annual goal for DBE participation on Federal-aid contracts. The Department intends to meet the goal with a combination of race-conscious efforts and race-neutral efforts. Race-conscious participation occurs where the Consultant uses a percentage of DBEs to meet a contract specified goal. Race-neutral efforts are those that are, or can be, used to assist all small businesses or increase opportunities for all small businesses.

ADOT is required to collect data on all DBE participation and report to FHWA, whether or not there is a stated DBE goal on the contract. Prime Consultants should refer to the Participation by Disadvantaged Business Enterprises section of this RFP for information on DBE reporting requirements. Accurate reporting is needed to track DBE participation.

The Consultant is required to adhere to the commitment made to utilize certified Disadvantaged Business Enterprises (DBE) as indicated in the firm's proposal or subsequently agreed to by the State during negotiations. The State, at its discretion on a case-by-case basis, may waive the above limitations.

**B. DBE GOAL/COMMITMENT AND DOCUMENTATION**

No DBE goal has been set on this Contract. The Consultant IS ENCOURAGED to voluntarily obtain DBE participation on this Contract to help ADOT meet its overall DBE goal.

**C. COMPLIANCE**

This Contract is subject to DBE compliance tracking for the Consultant and its Subconsultants. Lower-tier Subconsultants and Vendors are required to provide any requested DBE Contract compliance-related data in hard copy or electronically as determined by the State, including written agreements between the Consultant and Subconsultant DBEs. The Consultant shall report the amount earned by and paid to each DBE and non-DBE Subconsultants working on the project for the preceding month on each monthly Progress Payment Report. The Consultant is responsible for ensuring that the Consultant and all its Subconsultants and lower-tier Subconsultants have completed all requested items and that their contact information is accurate and up-to-date.

**D. REPORTING AND SANCTIONS**

1. ADOT is required to collect DBE participation data on all Federal-aid projects, whether or not there is a stated DBE goal/commitment on this Contract. Therefore, the Consultant shall report the monthly payments made to all DBE, non-DBE Subconsultants and Direct Expense Vendors, including all lower-tier Subconsultants, for labor, equipment, and materials. If the Consultant and its Subconsultants do not provide all required DBE usage and payment information with the monthly Progress Payment Reports (PPRs) submittals for the preceding month, and complete its monthly audit and reporting of payments to DBEs and non-DBEs in the DBE System, the State shall deduct \$1,000 for each delinquent report, whether from the Consultant or any of its Subconsultants, from the progress payment for the current month, not as a penalty but as liquidated damages. If by the following month, the required DBE payment information for the previous month has still not been provided, the State shall deduct an additional \$1,000 for each delinquent report. Such deductions shall continue for each subsequent month that the Consultant or its Subconsultants fail to provide the required payment information.

2. The Consultant, Subconsultants, lower-tiered Subconsultants and Vendors shall confirm the payments received from ADOT and/or the Consultant through ADOT DBE Contract & Labor Compliance Management System (DBE System) found at the following link:

<https://adot.dbesystem.com>

3. After execution of this Contract and before the first Payment Report/Invoice is submitted to the Maricopa Association of Governments, the Consultant is required to log into the DBE System and enter the name, contact information, and subcontract amounts for all Subconsultants, lower-tier Subconsultants and Direct Expense vendors performing any work on the project to help ADOT track and monitor payments to DBE and non-DBE Subconsultants on the project and to confirm that the scope of services and commitments made via the DBE Intended Participation Affidavits are being met.
4. All DBE and non-DBE subcontracting activities and payments shall be reported by the Consultant. All DBE subcontracting activities will be counted toward DBE participation. This includes lower-tier subcontracting activities regardless of whether or not the DBE is under contract with another DBE.

#### E. COUNTING DBE PARTICIPATION

In counting the DBE participation, the Department shall apply the rules in 49 CFR §26.55. The firm shall count only the value of the work actually performed by the DBE toward DBE goals. No credit shall be allowed for shipping, manufacturing or supply.

1. Contracts created to artificially create DBE participation are not acceptable; the arrangement shall be within normal industry practices. The DBE shall perform a commercially useful function.
2. Count the entire amount of that portion of a Contract (or other Contract not covered by paragraph (2) of this section) that is performed by the DBE's own forces. Firms shall include the cost of supplies and materials obtained by the DBE for the work on the Contract, including supplies purchased or equipment leased by the DBE (except supplies and equipment the DBE Subconsultant purchases or leases from the Consultant or its affiliate).
3. Count the entire amount of fees or commissions charged by a DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services, or for providing bonds or insurance specially required for the performance of a DOT-assisted contract, toward DBE goals, provided the fee is determined to be reasonable and not excessive as compared with the fees customarily allowed for similar services.
4. When a DBE subcontracts part of the work of its contract to another firm, the value of the subcontracted work may be counted toward DBE goals only if the lower-tier Subconsultant is itself a DBE. Work that a DBE subcontracts to a non-DBE does not count toward DBE goals.

5. It is presumed that the DBE is not performing a commercially useful function if: (a) a DBE does not perform or exercise responsibility for at least 30 percent (30%) of the total cost of its Contract with its own work force; or (b) the DBE subcontracts a greater portion of the work of a Contract than would be expected on the basis of normal industry practice for the type of work involved.

F. PARTICIPATION BY SMALL BUSINESS CONCERNS (SBCS)

It is ADOT's policy to facilitate and encourage participation by Small Business Concerns (SBCs) in ADOT contracts. ADOT encourages Consultants to take reasonable steps to eliminate obstacles to SBC's participation and to utilize SBCs in performing contracts.

Consultant shall take all reasonable steps to remove obstacles to SBC participation in the contract. ADOT encourages the Consultant to utilize SBCs. SBCs are registered in the Arizona Unified Transportation Registration and Certification System (AZ UTRACS), accessed through the following link:

<https://adot.dbesystem.com>

10. Certification of Payments to DBE Firms (if applicable): The CONSULTANT shall submit at the completion of the project the "Certification of Payments to DBE Firms" affidavit for each DBE firm working on the project (Certification of Final DBE Payments Form 3210PS). The form can be found at the following link:

<http://azdot.gov/docs/default-source/beco-library/3210ps-dbe-certification-of-final-payment-pd-lpa-fillable.pdf?sfvrsn=6>



**APPENDIX B – ARIZONA ADMINISTRATIVE CODE R4-30-301**

**CH. 30**

**BOARD OF TECHNICAL REGISTRATION**

**R4-30-301**

**ARTICLE 3. REGULATORY PROVISION  
R4-30-301. Rules of Professional Conduct**

All registrants shall comply with the following rules of professional conduct:

1. A registrant shall not submit any materially false statements or fail to disclose any material facts requested in connection with an application for registration or certification, or in response to a subpoena.
2. A registrant shall not engage in fraud, deceit, misrepresentation or concealment of material facts in advertising, soliciting, or providing professional services to members of the public.
3. A registrant shall not commit bribery of a public servant as proscribed in A.R.S. § 13-2602, commit commercial bribery as proscribed in A.R.S. § 13-2605, or violate any Federal statute concerning bribery.
4. A registrant shall comply with State, municipal, and county laws, codes, ordinances, and regulations pertaining to the registrant's area of practice.
5. A registrant shall not violate any State or Federal criminal statute involving dishonesty, fraud, misrepresentation, embezzlement, theft, forgery, perjury, bribery, or breach of fiduciary duty, if the violation is reasonably related to the registrant's area of practice.
6. A registrant shall apply the technical knowledge and skill that would be applied by other qualified registrants who practice the same profession in the same area and at the same time.
7. A registrant shall not accept an engagement if the duty to a client or the public would conflict with the registrant's personal interest or the interest of another client without making a full written disclosure of all material facts of the conflict to each person who might be related to or affected by the engagement.
8. A registrant shall not accept compensation for services related to the same engagement from more than one party without making a full written disclosure of all material facts to all parties and obtaining the express written consent of all parties involved.
9. A registrant shall make full disclosure to all parties concerning:
  - a. Any transaction involving payments to any person for the purpose of securing a contract, assignment, or engagement, except payments for actual and substantial technical assistance in preparing the proposal; or
  - b. Any monetary, financial, or beneficial interest the registrant holds in a contracting firm or other entity providing goods or services, other than the registrant's professional services, to a project or engagement.
10. A registrant shall not solicit, receive, or accept compensation from material, equipment, or other product or services suppliers for specifying or endorsing their products, goods or services to any client or other person without full written disclosure to all parties.
11. If a registrant's professional judgment is overruled or not adhered to under circumstances where a serious threat to the public health, safety, or welfare may result, the registrant shall immediately notify the responsible party, appropriate building official, or agency, and the Board of the specific nature of the public threat.
12. If called upon or employed as an arbitrator to interpret contracts, to judge contract performance, or to perform any other arbitration duties, the registrant shall render

- decisions impartially and without bias to any party.
13. To the extent applicable to the professional engagement, a registrant shall conduct a land survey engagement in accordance with the April 12, 2001 Arizona Professional Lands Surveyors Association (APLS) Arizona Boundary Survey Minimum Standards, as adopted by the Board on June 15, 2001, the provisions of which are incorporated in this subsection by reference and on file with the Office of the Secretary of State. This incorporation by reference does not include any later amendments or editions and is available at the Board's office and APLS at <http://www.aia.org>.
  14. A registrant shall comply with any subpoena issued by the Board or its designated administrative law judge.
  15. A registrant shall update the registrant's address and telephone number of record with the Board within 30 days of the date of any change.
  16. A registrant shall not sign, stamp, or seal any professional documents not prepared by the registrant or a bona fide employee of the registrant.
  17. Except as provided in subsections (18) and (19), a registrant shall not accept any professional engagement or assignment outside the registrant's professional registration category unless:
    - a. The registrant is qualified by education, technical knowledge, or experience to perform the work; and
    - b. The work is exempt under A.R.S. § 32-143.
  18. A registered professional engineer may accept professional engagements or assignments in branches of engineering other than that branch in which the registrant has demonstrated proficiency by registration but only if the registrant has the education, technical knowledge, or experience to perform such engagements or assignments.
  19. Except as otherwise provided by law, a registrant may act as the prime professional for a given project and select collaborating professionals; however, the registrant shall perform only those professional services for which the registrant is qualified by registration to perform and shall seal and sign only the work prepared by the registrant or by the registrant's bona fide employee.
  20. A registrant who is designated as a responsible registrant shall be responsible for the firm or corporation. The Board may impose disciplinary action on the responsible registrant for any violation of Board statutes or rules that is committed by a non-registrant employee, firm, or corporation.
  21. A registrant shall not enter into a contract for expert witness services on a contingency fee basis or any other arrangement in a disputed matter where the registrant's fee is directly related to the outcome of the dispute.

Amended by final rulemaking at 12 A.A.R. 1609, effective July 1, 2006 (Supp. 06-2).

**COMPLIANCE WITH RULES OF PROFESSIONAL CONDUCT CERTIFICATION**

I hereby certify to the best of my knowledge and belief that \_\_\_\_\_  
(Name of Consulting Firm)

and I \_\_\_\_\_ as the \_\_\_\_\_ shall comply with, in all  
(Name) (Title)  
respects, the rules of professional conduct sent forth in A.A.C. R4-30-301.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Print Name)

\_\_\_\_\_  
(Date)

**APPENDIX C – PROPOSER’S INFORMATION FORM**

Consultants proposing as prime Consultants or Subconsultants on Maricopa Association of Governments’ (MAG) projects are required to complete this form and return it with your proposal. If you have any questions about this information form, please call the MAG Fiscal Services Manager, (602) 254-6300.

**1. GENERAL INFORMATION:**

Name of Firm: \_\_\_\_\_

Street Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone Number: \_\_\_\_\_ Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Web address: \_\_\_\_\_ Year firm was established: \_\_\_\_\_

Is this firm a prime consultant? Yes \_\_\_\_\_ No \_\_\_\_\_

Is this firm a subconsultant? Yes \_\_\_\_\_ No \_\_\_\_\_

If so identify specialty: \_\_\_\_\_

Is this firm a certified DBE? Yes \_\_\_\_\_ No \_\_\_\_\_

If so, by whom? \_\_\_\_\_

Is this firm currently debarred? Yes \_\_\_\_\_ No \_\_\_\_\_

Is this firm currently the subject of debarment proceeding? Yes \_\_\_\_\_ No \_\_\_\_\_

**2. FINANCIAL INFORMATION**

Firm’s annual gross receipts (average of last three years)

\_\_\_\_\_ <\$300,000

\_\_\_\_\_ \$300,000 - \$599,999

\_\_\_\_\_ \$600,000 - \$999,999

\_\_\_\_\_ \$1,000,000 - \$4,999,999

\_\_\_\_\_ >\$5,000,000

Information will be maintained as confidential to the extent allowed by Federal and State law. The undersigned swears that the above information is correct. Any material misrepresentation may be grounds for terminating any contract which may be awarded and initiating action under Federal and State laws concerning false statements.

\_\_\_\_\_  
[NAME, TITLE]

\_\_\_\_\_  
Date

**APPENDIX D – DEBARMENT/SUSPENSION CERTIFICATION**

STATE OF )

SS. )

COUNTY OF )

I, \_\_\_\_\_ of the City of \_\_\_\_\_, in the County of \_\_\_\_\_

\_\_\_\_\_ and the State of \_\_\_\_\_, of full age, being duly sworn according to the law of my oath depose and say that:

In accordance with the terms of U.S. DOT regulations, “Nonprocurement Suspension and Debarment,” 2 CFR Part 1200, which adopts and supplements the provisions of U.S. Office of Management and Budget (U.S. OMB) “Guidelines to Agencies on Government-wide Debarment and Suspension (Nonprocurement),” 2 CFR Part 180:

1. Proposer certifies to the best of its knowledge and belief, that it and its principals, including its first tier Subconsultants: (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded or disqualified from covered transactions by any Federal department or agency; (b) Have not within a three-year period preceding its latest application or proposal been convicted of or had a civil judgment rendered against any of them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction, or contract under a public transaction; violation of any Federal or State antitrust statute; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making any false statement, or receiving stolen property; (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses listed in subparagraph (1)(b) of this certification; (d) Have not within a three-year period preceding this certification had one or more public transactions (Federal, State, or local) terminated for cause or default.
2. Proposer certifies that it and its principals, including its first tier Subconsultants will treat each lower tier contract or lower tier subcontract under the Project that (a) equals or exceeds \$25,000, (b) is for audit services, or (c) requires the consent of a Federal official, as a covered contract for purposes of 2 CFR Part 1200 and 2 CFR Part 180, and will otherwise comply with the Federal requirements of 2 CFR Part 1200 and 2 CFR Part 180, and will assure that each lower tier participant involved in the Project is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded or disqualified from participation in this transaction by any Federal department or agency;
3. Proposer certifies that if, later, it or its principals, including any of its first tier Subconsultants, become aware of any information contradicting the statements of subparagraphs (1)(a) through (d) above, it will promptly provide any necessary information to MAG;
4. If Proposer or any of its principals, including any of its first tier Subconsultants or lower tier participants, is unable to certify to the statements within paragraphs 1, 2, and 3 above, the

Proposer shall indicate so on its Signature Page.

5. The Proposer further certifies that their firm is not currently debarred, suspended, or proposed for debarment or suspension by the State of Arizona, or any subdivision thereof.
6. Proposer agrees to notify MAG of any change in the status or facts certified above, should one occur, until such time as the Contract is actually executed by MAG, and thereafter during performance of the Contract.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature of Proposer

\_\_\_\_\_  
Printed/Typed Name of Proposer

Corporate seal (if applicable)

Sworn to before me this \_\_\_ day of \_\_\_\_\_, 201\_\_, in the County of \_\_\_\_\_,

State of \_\_\_\_\_

\_\_\_\_\_  
Notary Public

## APPENDIX E – TITLE VI AGREEMENT/CONTRACT REQUIREMENTS

The Maricopa Association of Governments, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252.42 U.S.C. §§ 2000d-4) and the Regulations, hereby notifies all advertisement, disadvantaged business enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

The contractor shall comply with the following non-discrimination acts:

State Executive Order No. 99-4 Amending 75-5 which mandates that all persons, regardless of race, color, religion, sex, age, national origin or political affiliation, shall have equal access to employment opportunities.

Section 503 of the Rehabilitation Act of 1973, as amended, which prohibits discrimination in the employment or advancement in employment of qualified persons because of physical or mental handicap

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. **Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration or the Arizona Department of Transportation, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.
2. **Non-discrimination:** The contractor, with regard to the work performance by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.
3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and Regulations relative to Non-discrimination on the grounds of race, color, or national origin.
4. **Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient, the Federal Highway Administration or Arizona Department of Transportation to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient, the Federal Highway Administration, or Arizona Department of Transportation, as appropriate, and will set forth what efforts it has made to obtain the information.

5. **Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration or Arizona Department of Transportation, may determine to be appropriate, including, but not limited to:
- a.withholding payments to the contractor under the contract until the contractor complies; and/or
  - b.cancelling, terminating, or suspending a contract, in whole or in part.
6. **Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with request to any subcontract or procurement as the Recipient, the Federal Highway Administration, or Arizona Department of Transportation may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States. During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d *et seq.*, 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin): and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 *et seq.*), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 *et seq.*), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 *et seq.*), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);

- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1687 et seq).

**APPENDIX F – PROGRESS REPORT FORMAT SAMPLE**

[Consultant Letterhead]

[Date]

[MAG Project Manager]

Maricopa Association of Governments  
302 North First Avenue, Suite 200  
Phoenix, Arizona 85003

Re: Progress Report No. [#] and Invoice for the Period of [Month] 20[Year]

[For Each Task, the CONSULTANT is to provide the percent of work completed to date, a narrative describing the work accomplished, data obtained, problems encountered, meetings held and reports and/or data produced. It is the responsibility of the CONSULTANT to document that the work accomplished for each task during the reporting period is commensurate with the amount of money billed for the task in the invoice].

[The narrative describing the work accomplished should be of sufficient detail to enable the Project manager to clearly understand the progress on the task during the reporting period. Wherever possible, the CONSULTANT should submit along with the progress report appropriate documentation of work accomplished, such as partial or complete draft technical reports or working papers, etc].

**TASK 1 - DATA COLLECTION**

Percent of Work Completed: 100 percent.

Work Accomplished: A database in both hard copy and electronic format was developed and a methodology for keeping the database current was established.

Data Obtained: Information on the transportation facilities was secured for each of the facilities in the study area. The data included, but was not limited to: name, location, and current and historical traffic levels.

Meetings Held: The following meetings were held in connection with the data collection effort:

[Month, Day, Year], with the MAG project manager to review data collected for the facilities.

[Month, Day, Year], with the Advisory Committee to obtain input on the data collection process.

[Month, Day, Year], with MAG staff to review comments on preliminary database.

[Month, Day, Year], with the public and special interest groups to obtain input on the distribution of the database.

Reports or Data Produced: A database in electronic format was produced and provided to MAG staff on [Month, Day, Year].

## **TASK 2 - INVENTORY**

Percent of Work Completed: 100 percent.

Work Accomplished: A facilities inventory was completed, and the data obtained in Task 1 were compiled into a Draft Inventory Technical Report for distribution to the Advisory Committee.

Data Obtained: See Task 1.

Meetings Held: The following meetings were held:

[Month, Day, Year], met with MAG staff to finalize the outline for the Inventory Technical Report.

[Month, Day, Year], met with the MAG project manager to obtain suggestions on methods for comparing facility information.

Reports or Data Produced: A draft Inventory Technical Report was produced and distributed to members of the Advisory Committee for review and comment.

## **TASK 3 - FORECASTS**

Percent of Work Completed: 100 percent.

Work Accomplished: Forecasts of travel demand on inventoried facilities were prepared for 2000, 2010 and 2020. The forecasts were consistent with County control totals reviewed by the Advisory Committee last month. The forecasts included a breakdown by facility type.

Data Obtained: See Task 1.

Meetings Held: The following meetings were held:

[Month, Day, Year], met with MAG staff to discuss comments on preliminary forecast results.

Reports or Data Produced: A draft forecasts report was produced and distributed to members of the Advisory Committee for review and comment.

## **TASK 4 - DEMAND/CAPACITY ANALYSIS AND FACILITY REQUIREMENTS**

Percent of Work: Completed: 60 percent.

Work Accomplished: An hourly capacity was computed for each of the inventoried facilities using the federal guidance provided by MAG staff.

Data Obtained: See Task 1.

Meetings Held: The following meeting was held:

A meeting was held on [Month, Day, Year] to discuss the differences between the capacity calculations for this study versus previous studies.

Reports or Data Produced: None. However, a draft set of capacity estimates is enclosed documenting the assumptions and data input used to prepare the estimates.

### **TASK 5 - ALTERNATIVES**

Percent of Work Completed: 25 percent.

Work Accomplished: Other regional plans were examined to determine the type of alternatives that were used to meet future demand.

Data Obtained: Regional plans from San Diego, Los Angeles, Denver, Seattle Tucson and Chicago were collected.

Meetings Held: The following meeting was held:

A meeting was held on [Month, Day, Year] to discuss the differences between the capacity calculations for this study versus previous studies.

Reports or Data Produced: None.

### **TASK 6 - EVALUATION OF ALTERNATIVES**

Work on this task has not begun.

### **TASK 7 - RECOMMENDATIONS**

Work on this task has not begun.

### **TASK 8 - IMPLEMENTATION**

Work on this task has not begun.

#### Problems Encountered

Some of the capacity calculations prepared for the study were different from the capacity calculations used in previous studies. These differences were discussed and resolved at a meeting held with MAG staff on [Month, Day, Year].

#### Invoice:

The enclosed invoice is for the third progress payment of \$[Enter Dollar Amount]. The total amount billed to date is \$[Enter Dollar Amount].

Sincerely,

[Project Manager Name]  
[Project Manager Title]

Enclosure