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## **200 LOCAL GOVERNMENT PROJECT DEVELOPMENT PROCESS**

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This guide has been developed by the Arizona Department of Transportation (ADOT) to assist Metropolitan Planning Organizations (MPO), Councils of Government (COG), and sponsoring local agencies with developing, designing, funding, and administering local government projects that include Federal funds. Projects are processed and administered in accordance with established Federal Highway Administration (FHWA) and ADOT guidelines and requirements.

### **210 DESIGN CONSULTANT**

If Federal funds are used for design costs and a design consultant is contracted, the local agency must have their consultant procurement process approved prior to negotiating a contract. Additionally, no work can be performed by the consultant until Federal funds for design have been authorized. The time required to obtain Federal obligation for design is dependent on the procurement process of the Local Agency.

Upon receipt of a request from a local agency to use Federal-aid money for design and approval to procure a design consultant, the Local Government Section will verify the project qualifies for design reimbursement. The project must be listed in the MPO/COG Transportation Improvement Program (TIP) and the State Transportation Improvement Program (STIP). The TIP should have a line item identifying funding for design or construction and design.

The ADOT Engineering Consultants Section (ECS) reviews and approves local agency design consultant procurement processes prior to the local agency advertising for a consultant. Typical procurement processes evaluated include:

- Pre-qualification – establish a mailing list of firms pre-qualified to perform professional engineering services required by the local agency.
- Approval to Advertise – obtain authorization to advertise from ADOT.
- Advertise – adhering to a process which provides for maximum free and open competition, two notices requesting submittal of proposal packets are published in a single newspaper or multiple newspapers of general circulation within the state and an accumulated general circulation of not less than 50,000 subscribers. The official notices are normally placed in the Legal Advertising section, not less than six nor more than ten calendar days apart.
- Request for Proposal (RFP) – Preparation of an RFP which includes the intent of advertisement, such as, request for preliminary engineering services, scope of work, statement of qualification (SOQ) due date, and number of copies required. If SOQ addendums are necessary, information must be provided to all firms that obtain a copy of the SOQ package. Acknowledgement of receipt must be included in proposal package. Evaluation criteria and weighting factors identified. Qualifications based



selection process does not allow costs as a factor. Oral interviews identified if applicable.

- Evaluation of Proposals – Prior to accepting a firm for consideration, the firm must comply with SOQ requirements. Proposals are to be evaluated by a panel of qualified members who are familiar with the project and intent of the contract. Evaluation should be based on proposal evaluation factors identified in the SOQ. Panel scores are compiled to arrive at average scores for each proposer. The highest ranked firm will be considered the most qualified. To be considered for selection, a firm must receive an overall ranking of 70% or above. Approval is obtained to begin negotiations with the most qualified firm. Verify that prime and sub-consultants are not currently debarred and/or suspended and excluded from participation in Federal programs. A reference website is [www.epls.gov](http://www.epls.gov). If satisfactory contract negotiations are not reached, the agency may go to the next ranked firm.

Additional information may be obtained by contacting ECS at 602-712-7532

Following ADOT approval of the procurement process, a local agency advertises, selects a consultant, and negotiates fee. A copy of the executed contract with the design consultant should be submitted to the ADOT project manager. ADOT will then initiate an Intergovernmental Agreement (IGA) with the local agency for the reimbursement of Federal funds.

Once the Federal funds are authorized and the IGA executed, ADOT transmits a Notice to Proceed to the local agency. Federal funds can not be used for any work occurring prior to authorization to proceed.

## **220 LOCAL GOVERNMENT PROJECT MODEL (STP, CMAQ, BR, HES)**

Local agencies are required to follow the ADOT project development process in the development and design of local government projects. The typical project will take 18 to 24 months to proceed through the process from the submittal of a design concept report to bid advertisement. The environmental determination can greatly impact the project schedule. Typical environmental determinations take 10 to 12 months from initial submittal to environmental clearance. Contact the Local Government Section for information regarding the project model and the scheduling process for various types of construction projects.

Requests for bridge funding should be prepared in accordance with section 400 of this manual. Bridge projects require the submittal of a Structure Selection Report, after the Design Concept Report has been approved.

Safety project requests for Hazard Elimination (HES) funds should be prepared in accordance with section 300 of this manual. Project requests will be reviewed and a determination made regarding HES funding eligibility prior to the submittal of a Design



Concept Report. HES projects must be shown as an approved project in the MPO/COG Transportation Improvement Program (TIP) and the Arizona Statewide Transportation Improvement Program (STIP).

### **230 PROJECT DEVELOPMENT MILESTONES**

Each Metropolitan Planning Organization (MPO) and Council of Governments (COG) submits their Local Government Federal-aid Multi-Year Highway Construction Program to ADOT's Transportation Planning Division for inclusion in the Statewide Transportation Improvement Program (STIP). The goal of the STIP is for projects to be planned, programmed, and developed in accordance with federal-aid procedures and ADOT's Project Management and Scheduling process; federal-aid obligated; the project advertised for bid; and construction started in the fiscal year that the project is programmed. In order to accomplish this, the following tasks must be completed by the project sponsor.

#### **231 Project Assessment**

Projects are typically programmed in the fifth year of the Local Government Program. A project assessment including a detailed cost estimate and project schedule based on the Local Government Section model is to be prepared and submitted to the MPO or COG for prioritizing and programming. This activity is required to ensure that sufficient pre-engineering of the project is conducted to determine a reliable cost estimate for the project and a schedule is prepared that outlines project development in order to meet the local jurisdiction's desired construction start date.

#### **232 Design Concept Report and Project Schedule**

Prior to the preparation of a Design Concept Report, project sponsors should contact the ADOT Local Government Section and schedule a pre-design conference for a project. A project manager will be assigned to meet with the local agency and their design consultant to review the project scope, the schedule for the development of the project, the project budget and cost, and the design concept report guidelines for report format. All design concept reports must include a completed project schedule and detailed cost estimate based on the format provided at the pre-design conference.

ADOT uses the critical path method of scheduling for all highway construction projects. The Local Government project model was designed using a typical eighteen to twenty-four month project development duration. The total duration can be modified to meet the sponsor's needs for the type of project being developed.

As an example, projects that are predominately Intelligent Transportation System (ITS) improvements can be shortened with respect to the number of stage submittals if the project team concurs. However, all projects are required to follow the ADOT clearance process including environmental, utilities, and right-of-way processing requirements. As such, the project development will be a minimum 10 to 12 months, or as long as it takes to receive an environmental clearance.

When using the project model in determining a scheduled bid advertisement date for a project, it is advised to start with the construction start date that is anticipated and work backwards through the model to determine when project development should start to achieve a realistic project development schedule. The expected construction start date is approximately two and one half months after the bid advertisement date.

### **233 Project Design Review Costs**

Local governments should execute an intergovernmental agreement with ADOT that outlines procedures for ADOT to recover the design review and bid package preparation costs incurred by ADOT to administer the development and advertisement for bid of local highway construction projects. ADOT has no financial involvement in any local government project and must recover its cost to administer local projects in accordance with federal requirements.

Local Government Section will request from Administrative Services Division, a federal-aid and TRACS project number after a pre-design conference has been held. A determination will be made by Local Government Section of the estimated design review and bid preparation costs for the project based on the detailed cost estimate provided in the design concept report. The project sponsor will receive a letter from Accounts Receivable Section of Administrative Services Division requesting that the sponsor send to ADOT the amount requested within 30 days. Based on review of historical costs to administer local government projects, a minimum of \$10,000.00 will be required for all projects. The estimated cost for any project will be determined using a design review cost estimate graph established from historical project data and may vary from what is shown on the graph based on the type and complexity of the proposed improvements for the project, right-of-way acquisition, utility relocation, environmental analysis requirements, and local agency and consultant experience with federal-aid procedures. Should project design review costs exceed the deposit during development of a project, Accounts Receivable Section will invoice the local agency for the estimated costs determined by Local Government Section to complete development of the project. At the conclusion of the preliminary engineering phase of the project, a final accounting of design review project costs will be made. The local agency will be informed by letter from Accounts Receivable Section of the final design review costs for the project. If any additional funds are required, a request for those funds will be included in the letter. Failure to provide ADOT with funds for technical review within 30 days, may jeopardize the continued development of a project.

### **234 Environmental Determination**

All federal-aid projects require an environmental analysis and an Environmental Clearance certification. The project sponsor is responsible for obtaining all needed information and data, and preparing reports in accordance with ADOT format. The format and additional information is available on the ADOT website and in the appendix of this manual. The final Environmental Clearance will be issued by ADOT or FHWA. A letter identifying the type of environmental determination and information required for analysis will be sent by the Local Government Section NEPA Planner to the project sponsor. The analysis of information



provided by the project sponsor for projects that meet Categorical Exclusion requirements will be prepared by ADOT. All other environmental analysis work is the responsibility of the project sponsor. Preliminary engineering work can be completed through 30% project design, but Environmental Clearance must be obtained prior to final design work being started.

### **235 Reserved For Future Use**

### **236 Stage Submittals**

Requirements for the Stage II, III, IV, and PS&E project submittals are described in ADOT's Project Management Manual and are presented in the Appendix.

Include with the Stage II submittal, copies of letters sent to affected utility companies requesting the status of utility conflicts and a request for utility relocation schedule for ADOT review. If Right-of-Way acquisition is required, coordinate utility relocation work with the R/W process to ensure that the utility relocation work will not delay the project from advertising on schedule.

Submit the Right-of-Way Clearance request letter on the R/W Section form. R/W Clearance is required Whether or not right-of-way is being acquired. If federal funds are being used for design or right-of-way acquisition, right-of-way acquisition CANNOT be initiated until the Environmental Clearance has been obtained.

Project cost estimates are to be formatted using ADOT standard bid item numbers and quantities are to be listed according to the basis of payments criteria identified in the current ADOT Standard Specifications for Road and Bridge Construction. Should cost estimates exceed the budget for the project during project development, the local jurisdiction will be responsible for the additional cost. It is recommended that sponsors utilize ADOT construction standards and material specifications. These have been approved by FHWA for use on federal-aid projects. ADOT Standards can be used by reference in the project plans. Other construction standards can be used, but require ADOT review and approval and must have the details shown in the project plans. Materials specifications other than ADOT's must be modified from ADOT's Standard Specifications in the project Special Provisions. Format for reports, clearance letters, cost estimates, and Special Provisions can be obtained from Local Government Section. Construction plans shall be formatted in accordance with ADOT's drafting guidelines.

### **237 Final Plans Package**

Special Provisions shall be prepared in accordance with ADOT format and submitted on a floppy disk or CD. Typically, the ADOT Contracts & Specifications Section will need at least one month to prepare a PS&E bid package. R/W Clearance and Utility Clearance



letters should also be submitted as part of the final plans package to ensure that the approval process will not delay bid advertisement.

### **238 Intergovernmental Agreement (IGA)**

ADOT will prepare an Intergovernmental Agreement which outlines the financing for the project based on the cost estimate. The estimated project cost shown in the IGA includes a 15% estimate for the construction engineering cost and a 5% minimum contingency for change orders. ADOT will transmit the agreement to the project sponsor along with instructions for processing. The process requires City Council or Board of Supervisors action, agreement review and approval by sponsor's attorney, and the deposit of matching funds prior to the advertisement for bids. The execution of the intergovernmental agreement is a guarantee by the local government to provide local government matching funds for the project and to pay all project costs over the amount of federal-aid funds provided by the MPO or COG. The estimated project cost, federal-aid share, and local matching funds shown in the intergovernmental agreement are only estimates. The amount of federal-aid and local matching funds required to be provided for the financing of the project are listed on the project recapitulation sheet provided in the PS&E package plus a surcharge. The PS&E package will be sent by Contracts & Specification Section to the local jurisdiction for approval and authorization for ADOT to advertise the project for bid.

### **239 Plans, Specifications, & Estimate (PS&E) Package**

Following revisions to project plans as requested by ADOT Contract & Specifications Section, the project sponsor will be sent final plans, specifications, and estimate for approval. A written response from the local agency to Contracts & Specifications Section is required authorizing ADOT to advertise on the sponsor's behalf. Approval of PS&E package and authorization to advertise is an agreement to provide local matching funds shown in the project estimate recapitulation sheet. MPO/COG concurrence to provide federal-aid funds for construction and change order costs for the project will be required prior to the project being advertised for bid. Earthwork computations, mass curve, and plotted cross-sections are required, if applicable.

### **240 LOCAL AGENCY MATCHING FUNDS**

The matching funds required for a local government project will be the amount shown on the project estimate recapitulation sheet provided by Contracts & Specifications Section in the project PS&E bid package plus a surcharge amount.

### **241 Change Orders**

ADOT will continue to require that a contingency for additional construction funds be provided. The contingency will be based on a 5% minimum surcharge of the project estimate. The percentage used is based on the estimated total construction cost of the project and will be used to cover the estimated cost of change-orders or force account work that may be required during construction. The project sponsor will be required to



provide 100% of the estimated percentage of change order costs when a MPO or COG does not provide federal-aid funds for change orders. Matching funds must be submitted prior to the project being advertised for bid. It is recommended that the MPO's and COG's program a 5% change order percentage amount for all local government projects for federal-aid cash flow purposes.

## **242 Project Bid Advertisement and Award**

Projects will be advertised for bid when Environmental Clearance, R/W and Utility Clearance are approved, PS&E package is approved, the IGA has been executed and matching funds have been provided. Projects are advertised, bids opened, bids reviewed and certified, and awarded by the State Transportation Board. This process requires a minimum of 2 1/2 months.

If the low bid is at or below the ADOT estimate, a recommendation will be made to the Transportation Board for award. A written response from the local agency of concurrence is required.

Should the low bid be in excess of the ADOT estimate, ADOT will contact the project sponsor and the MPO/COG to inform both parties of the bid results and the difference in project cost between the low bid and the ADOT estimate. The local agency and MPO/COG must determine a source of additional funds prior to the project being recommended for award. Additional matching funds provided by the local government must be submitted to ADOT within 30 days. A written response by the local government for concurrence of award will be requested by Contracts and Specifications Section. Should additional federal funds and/or local agency matching funds not be provided, the project will be returned to the project sponsor to be revised in accordance with Federal-aid Program procedures and the MPO/COG approved federal-aid and local government funding limits, and a schedule for a new bid advertisement will be made by Contracts & Specifications Section. It is recommended that the MPO/COG program a bid overrun percentage amount (from 5% to 10%) for all local government projects for federal-aid cash flow purposes, to minimize any delay in the award of a local government project when bids exceed Contracts & Specifications Section's estimate.

## **243 Project Construction and Post Design Services**

The local agency/project sponsor is responsible for post-design work that may be required during the construction phase of the project. Should there be questions by the contractor or ADOT regarding design errors, omission of design information on the plans, or suggestions for design changes, the engineering designer (or consultant firm) must be available to respond to these inquiries. ADOT engineers do not affix their professional engineering seal to the plans or specifications for any local government project, and cannot make any design changes for the project. The engineering designer (or consultant firm) must answer all design inquiries and prepare any design changes to their engineering drawings and specifications. This information must be provided to the engineering designer (or consultant firm) when they are retained to start project development.

## **244 Final Project Cost Accounting**

At the conclusion of the construction phase of the project, a final accounting of project costs will be made. The project sponsor will be informed by letter from Accounts Receivable Section, of the final construction costs for the project. Should any additional funds be required, a request for those funds within 30 days will be included in the letter. All funds provided by the project sponsor in excess of the amount needed to reimburse ADOT for design review costs and to pay all construction costs will be returned within 30 days, or can be applied to another project, or held on account for a future project. Future construction projects will not be advertised for bid until reimbursement is made to ADOT for past project construction costs.

## **250 PROJECT DEVELOPMENT CHECKLIST**

The following steps summarize the procedure to be used for processing federally funded local government STP, CMAQ, BR, RR, and HES projects. ADOT's role is to assist the local agencies through the project development process and insure compliance with ADOT/FHWA policies, regulations, and guidelines. ADOT will also administer the construction phase of most local government projects. The typical project will take 18-24 months from inception to advertisement.

1. Project sponsor contacts their local Council of Government/Metropolitan Planning Organization (COG/MPO) to include the project in the appropriate five year transportation improvement program (TIP).
  - Project must be in the TIP/STIP to qualify for Federal funding and the local government process.
  - Federal-aid projects are to meet functional classifications.
2. Project sponsor submits a letter to the ADOT Local Government Engineer requesting project number and providing brief detail of project scope, location, cost, schedule, and COG/MPO TIP identification number.
3. If Safety or Bridge Rehabilitation/Replacement funded, appropriate project eligibility report must be prepared and submitted to ADOT for approval of funding.
4. A Local Government Section project manager is assigned the project, requests project and TRACS numbers from ADOT, and notifies local agency.
5. Local agency deposits ADOT review fee (typically \$10,000.00) to ADOT.
6. Local agency arranges a kick-off meeting with sponsor, design consultants, ADOT and COG/MPO.
7. If Federal funds are being used for design, follow ADOT/FHWA consultant procurement guidelines.



8. Budget 15% construction engineering and 5% contingency funds if ADOT is performing construction administration of the project.
9. Local agency submits Initial Design Concept Report (DCR) to ADOT Local Government Section (LGS). The DCR should include a realistic scope, bid date, and cost estimate.
10. ADOT reviews DCR and sends comments to Sponsor.
11. Sponsor submits final DCR to ADOT Local Government Section.
12. Local Government Section approves DCR and notifies Sponsor.
13. Sponsor submits Initial Environmental Report to ADOT Local Government Section.
  - Pigmy owl situation clearance takes at least 12 to 18 months.
  - 404 and 401 permits from US Army Corps take at least 12 months. Have a definite window for construction activities.
14. ADOT Local Government Section Environmental Planner reviews environmental determination report and provides comments to Sponsor.
15. Local agency submits Final Environmental Determination Report to ADOT Local Government Section.
16. Environmental clearance is obtained from ADOT or FHWA through the Local Government Section Environmental Planner. NEPA and FHWA guidelines must be satisfied.
17. Sponsor submits Preliminary Plans (30% stage), preliminary cost estimate, and reports to ADOT Local Government Section. Required reports depend on the project type and may include drainage report, geotechnical report, pavement design summary, materials memo, structure selection report, etc. **Do not proceed beyond 30% design without an environmental clearance if Federal funds are used for design.**
18. ADOT 30% review comments are transmitted to the sponsor who should resolve at an early stage.
  - Any design exceptions? If so, get approval, but try to avoid design exceptions.
19. Sponsor submits 60% plans, specifications, and estimate to ADOT Local Government Section.
20. Sponsor submits initial/final materials memo, geotechnical report, pavement design summary, drainage report, and bridge selection report.



21. If necessary, arrange a field review meeting with ADOT district staff, local agency, and design team to resolve ADOT review comments.
22. Sponsor Initiates the Utility clearance letters.
23. Sponsor initiates the Right of Way clearance letters.
24. ADOT Local Government Section project manager initiates an IGA (Intergovernmental Agreement) between ADOT & local sponsor. Allow 6 months to obtain signatures from all parties and process the paperwork.
25. Sponsor submits 95% PS&E package to ADOT. ADOT conducts final review.
  - All ADOT review comments to be resolved before submitting 95% PS&E and all final reports to be approved by ADOT
  - Include in the PS&E package landscaping plans, seed specs, and NPDES requirements if necessary.
26. Sponsor submits Final Plans (100% complete), final cost estimate, and bidding schedule to ADOT.
27. Verify Earthwork calculations (quantity check) to avoid change orders in the field.
28. Need local funds from sponsor based on final cost estimate. Include 5% surcharge (contingency) if construction administered by ADOT for change orders.
29. If federal funds are not adequate to meet the final cost estimate based on project scope, revise the scope to fit the budget or sponsor to pay the balance to ADOT.
30. Final PS&E approval from sponsor.
31. ADOT obtains obligation authority of Federal funds from FHWA subsequent to final PS&E and clearances.
32. Allow ADOT Contracts & Specifications Section at least 2 months to advertise the project. DBE requirements, Davis Bacon wages, training, etc. must be satisfied.
33. Sponsor to submit all original drawings when requested from ADOT.
34. Bid Opening (allow 22 working days from the date job advertised).
35. ADOT Board to award a contract to low bidder(next available Board date after bid opening).
36. See prospective contractor within 2-4 weeks.
37. ADOT arranges a partnering workshop if ADOT is administering construction.

38. Construction begins.

#### **NOTES**

- A major task is the preparation of a realistic schedule and meeting allocated budget with a defined scope (DCR).
- Check quantities twice.
- Prepare plans, specifications and estimate with utmost care. Missing details and notes are potential change orders for the contractor.
- Prepare plans that are legible without too much information on a sheet.
- Prorate total project costs at appropriate FHWA and sponsor rates.
- Add 5% surcharge for change order possibility.
- Add 15% for ADOT CE costs (Construction Engineering).
- Any project cost in excess of amount allocated by the COG must be sponsor responsibility.
- Have all clearance and permits on hand during construction.
- Constant coordination and communication is the key to meeting deadlines.