

# DAVA

# & ASSOCIATES, INC.

PLANNING  
ENGINEERING  
SURVEYING

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January 29, 2014

374TNPAH/PRO

Ron Pine, P.E.  
Manager, Engineering Division  
Town of Prescott Valley  
7501 E. Civic Circle  
Prescott Valley, AZ 86314

Dear Mr. Pine:

RE: Proposal for Construction Period Engineering Services  
Tonopah Storm Water Management Project, CIP # E354

Dava & Associates, Inc. is pleased to provide this scope and proposed fees for professional engineering services for the construction of the Tonopah Storm Water Management Project. Our proposed Scope of Professional Services is enclosed with the following estimated maximum fees summarized below:

Dava & Associates Services	\$ 48,810.00
ETC Quality Acceptance Testing	\$ 5,720.00
Project Expenses	<u>\$ 500.00</u>
<b>TOTAL</b>	<b><u>\$55,030.00</u></b>

The above scope of services will be provided on a fixed fee basis in accordance with our Town Engineer contract and will not exceed the estimated fees and allowances. If this proposed scope of services meets with your approval, we are ready to proceed at your direction. Should you have any questions, please contact me.

Sincerely,

DAVA & ASSOCIATES, INC.



Gordon Bowers, P.E.  
Civil Engineer

Encl.

cc: Norm Davis, P.E. Public Works Director

**Tonopah Storm Water Management Project, CIP # E354**  
**SCOPE OF PROFESSIONAL SERVICES AND FEES**

**This project, in general, consists of construction period services as further described:**

The basic service tasks the CONSULTANT will accomplish for this project are listed herein.

**Task 1 – Construction Administration:..... Fixed Fee of \$1,920**

The CONSULTANT will continue to provide Construction Administration for the duration of the construction, as follows:

1. Pre-Construction Conference: Attend, conduct, and document the Pre-Construction Conference, including preparation of agenda, sign-in sheet, and minutes.
2. Key Personnel Contact List: Prepare, issue, and maintain a list of key personnel assigned to the project by the contractor, subcontractors, major suppliers of materials and equipment, consultant, Town, utility companies, other agencies, and other involved parties. Include names, addresses, phone numbers, affiliation, and responsibilities. Designate emergency 24-hr contacts on the list.
3. Construction Schedule: Review and critique the contractor’s preliminary schedule and all regular updates to the construction schedule. Monitor and report opinion of the status and progress of the construction work, as well as current conflicts, including work sequence, durations, interim milestones, etc. to the Town and to the Contractor.
4. Submittals: Prepare and maintain a matrix of required submittals. Review shop and erection drawings, material submittals, equipment O&Ms, and other data as required and submitted by the Contractor, for compliance with design concepts. Maintain a submittal log.
5. Test Results: Prepare and maintain a matrix of required Quality Control (QC) test results, and any Quality Assurance (QA) test results. Review all tests for compliance with the construction contract documents. Such test results will include, but not be limited to: densities, gradations, plasticity indexes, proctors, marshals, chlorination, residual chlorine, bacteriological, cylinder compression breaks, oil content, laboratory, shop, and mill test reports on materials and equipment, etc.
6. Utility Coordination: Coordinate utility relocation with utility companies as necessary to minimize conflicts with project.
7. Professional Design Support: During construction, provide professional services to facilitate and enable construction to be accomplished in conformance to the construction drawings, specifications, and other contract documents. Clarify and/or interpret construction contract documents, when requested by the contractor and/or the Town.
8. Represent the Owner: Issue instructions from the Town to the Contractor. Resolve issues in the best interests of the Town. Make recommendations to the Town on corrective actions or contractual measures that may be exercised by the Owner.
9. Changes: Consider, evaluate and notify the Town of changes and/or alterations believed to be in the Town’s best interest, due to actual field conditions encountered, etc. Provide supporting detail, including sketches, if needed, of the proposed change(s). Prepare an estimate of the cost and time impact of the change(s) and conduct negotiations with the Contractor. Prepare and process any change orders, and/or any field orders that may be required.
10. Contractor’s Progress Payments: Review progress payments, based on degree of completion of the work. Prepare cover letter for the Progress Payment, recommending issuance of such payment(s) by the Town. Copy the contractor on all pay recommendations letters.
11. Claims Support: Provide claims review, documentation, and correspondence.

**Task 2 – Construction Surveying: .....Fixed Fee of \$16,440**

The CONSULTANT will provide the following survey services, including construction stakes, lines and grades in conformance with the MAG Section 105.8 and the project specifications, as follows:

1. Locate, check and confirm control. Provide project monumentation.
2. Collect and calculate survey data, as needed.
3. Coordinate with the Contractor as to schedule for staking, acceptance of staking, preservation of stakes, and contractor’s responsibility for cost of re-staking, per MAG 105.8.
4. Provide removal limits.
5. Provide vertical and horizontal control for staking for outlet structure, storm drain pipe, junction and access location, and inlet structures.
6. Provide vertical and horizontal control for staking of rear and side lot channels.
7. Provide vertical control for staking of pavement replacement removal depth.
8. Provide vertical and horizontal control for staking of subgrade and ABC grade control.

**Task 3 – Construction Observation & Coordination: .....Fixed Fee of \$18,380**

The CONSULTANT will provide a qualified construction observer and perform Construction Observation, as follows:

1. Coordination: Develop working relationships and act as the liaison for the Town with the Contractor. Keep the contractor aware of the inspection and testing requirements and the effect of these on the project schedule to help avoid delays and misunderstandings.
2. Observation: Conduct timely, on-site construction observation to monitor the progress and process of ongoing and completed construction work, on an as-needed basis, to determine and certify compliance in accordance with the construction contract documents. Notify the contractor and report to the Town, when construction work is unsatisfactory, faulty or defective, or does not conform to the construction contract documents, or does not meet the requirements of inspections, tests, or approvals required to be made, or has been damaged prior to final payment; and advise Town when it is believed that work should be corrected or rejected, or should be uncovered for observation, or requires special testing, inspection, or approval.
3. Observation Reports: Prepare daily observation journal reports, including, at a minimum, comments on schedule and construction work progress; photos; list of equipment and personnel on site; weather and site conditions (including temperatures & times); list of tests performed; decisions/instructions/information given/received; any developments critical to the schedule or quality of the project; and any deficiencies noted and issues that may result in claims or additional expense to the project. Distribute observation journal reports to the Town on a regular basis.
4. Maintain Project Records: Maintain job site orderly files for correspondence, meeting minutes, shop drawings and sample submissions, construction contract documents, including addenda, change orders, field orders, etc. Coordinate with the Town to ensure that the Town receives copies of all construction administration documentation.
5. Tests and System(s) Start-Ups: Verify that tests and systems start-ups and operating and maintenance instructions are conducted as required by the construction contract documents and in presence of the required personnel (such as the Town, and OMI), and that the Contractor maintains required records thereof. Observe, record, and report details relative to the test procedures and startups.
6. Quality Acceptance Testing (QA): Observe sample collection and testing provided by the Contractor’s testing sub-consultant. Collect and review test and re-test results from the Contractor. Provide on-call verification testing using our Sub-Consultant, Engineering Testing Consultants (ETC).
7. Public Safety and Convenience: Keep the Town informed of events and developments which could be critical to public safety and convenience.
8. Construction Progress Meetings: Conduct regularly scheduled construction progress meetings with interested parties to provide close coordination and to verify the

Contractor’s understanding of each aspect of the work, and to discuss project progress and issues. Prepare agenda, sign-in sheets, and minutes for each meeting and transmit promptly to all concerned parties.

**Task 4 – Project Close-Out; Record Documents: ..... Fixed Fee of \$8,870**

The CONSULTANT will provide Project Close-Out Services, as follows:

1. Punch List: Perform final observations with Town and Contractor personnel and develop the “punch list” of deficiencies and incomplete work that needs to be corrected and finished for final acceptance and release of retention.
2. Final Acceptance: Upon the contractor’s completion of all punch list items, the CONSULTANT will conduct a final inspection to ensure and verify all punch list items are complete and prepare a recommendation of final acceptance letter to the Town.
3. As-Built Survey: Field surveys to collect measurements of completed construction items.
4. Final Quantities: Determine final contract quantities.
5. Project Documentation and Records: Compile project records, including project reports, correspondence, and pertinent project information and submit them to the Town. Compile shop drawings, inspection reports, geotechnical reports, photographs, and Record Drawings in final format for Town records. Maintain copy of record documents and deliverables to respond to future questions.
6. Record Drawings: Prepare an “Engineer’s Certification” that all work has been completed in substantial conformance with the plans, specifications, and contract documents, including modifications to reflect shop drawing review, substitutions, clarifications, and change orders. Prepare and certify reproducible “Record Drawings” (one 36” x 24” Mylar set and one set of the scanned Mylar images in Town-approved digital formats) showing the “as-built” condition of the work for submission to the Town for their permanent records. Submit all planimetric and contour/dtm data used to develop the final project to the Town in DWG or DXF format.

**Task 5 – Record of Survey: ..... Fixed Fee of \$3,200**

The CONSULTANT will provide the following survey services for the preparation of a Record of Survey and record, as follows:

1. Locate and establish location of record monuments for roadway alignment at PC and PT’s. Locate by straddle the position of centerline monument for the intersection of Tonopah and Serpentine Right of ways installed by Contractor.
2. Preparation of a Record of Survey identifying horizontal location of alignment monuments.
3. Submit Record of Survey for review, adjust per Town direction, and record once approved.

**Task – Project Expenses ..... Allowance Not to Exceed \$5,650**

The CONSULTANT will have direct project expenses including, but not limited to: sub-consultant fees, printing, copying, submittal, review, shipping, permitting fees and other related expenses. These direct project expenses will be billed at actual cost with a 10% markup.

<b>TOTAL Tasks:</b> .....	<b>\$48,810</b>
<b>Total Sub-Consultant</b> .....	<b>\$ 5,720</b>
<b>Total Expenses</b> .....	<b>\$ 500</b>
<b>Total</b> .....	<b>\$55,030</b>

Services provided shall be in conformance with:

1. this agreement, and all amendments thereof,
2. Dava & Associates, Inc. Town Engineer Services Contract; and
3. Town Code, specifically, but not limited to, Chapter 16 Engineering (<http://www.pvaz.net/Index.aspx?page=274>); and
4. hence, the Maricopa Association of Governments (MAG) Uniform Standard Specifications and Details for Public Works Construction, latest edition, including latest revisions and supplements (<http://www.mag.maricopa.gov/publications.cms>); and
5. the Town of Prescott Valley, Public Works Department, Engineering Division Design and Construction Standards and Specifications (<http://www.pvaz.net/Index.aspx?page=261>); and
6. All applicable local, state, and federal laws and regulations.