

August 30, 2010

Ray Smith, P.E., R.L.S.  
Engineering Division Manager  
Town of Prescott Valley Public Works  
7501 E. Civic Circle  
Prescott Valley, AZ 86314  
928-759-3035

**Subject: Bidding and Construction Phase Services Scope and Estimated Fees Western Boulevard Stormwater Management Improvements Project Phase 1, CIP#E328 – Town of Prescott Valley**

Dear Mr. Smith:

We are pleased to furnish this scope of services and fee estimate for the assistance during bidding, provision of construction administration services, and preparation of the final record drawings and close out of the project.

We propose to perform the following services associated with the project:

**Phase 1 – Bidding Services**

***Task 1: Pre-Bid Meeting***

This task includes three representatives from Lyon coordinating and conducting the pre-bidding meeting, preparation of the agenda, meeting minutes, preparation of an addendum to the bid documents if required and response to questions from the contractors.

***Task 2: Recommendation of Award***

After bids are received, Lyon Engineering will evaluate and tabulate the contractor's bids and prepare a recommendation for award. The recommendation of award will be based on a complete and correctly prepared bid.

**Phase 2 – Pre-Construction Activities**

***Task 1: Attend Pre-Construction Meeting***

Lyon Engineering will coordinate and conduct the pre-construction meeting, prepare meeting minutes, prepare an addendum to the bid documents if required and respond to questions from the contractor. The pre-construction meeting will include Town staff, all utility companies, the contractor, and all parties involved in construction related activities.

## **Phase 3 –Construction Phase Activities**

### ***Task 1: Construction Observation***

Provide periodic construction observation services for grading, paving, drainage, water, and sewer installation. Sufficient inspection regarding the water and sewer line installation will be provided to allow documentation for the ADEQ Approval of Construction.

Inspection will be photo documented by Lyon, and inspection reports will be furnished to the Town on a weekly basis.

Conduct and prepare meeting agenda and meeting minutes for the weekly construction meetings. These meetings will include coordination of the construction schedule, survey staking requests, conflict resolution, traffic control, SWPPP maintenance, and property owner notification.

Lyon Engineering will review Quality Control (QC) testing performed by the contractor. We will provide recommendations for the frequency and location of QC testing based on the project specifications.

### ***Task 2: Project Administration***

This task will include the following activities:

Provide responses to Request for Information on an as-needed basis.

Provide responses to Shop Drawing submittals from the contractor regarding whether or not materials are in conformance with the plans and specifications.

Review, field measure quantities and provide a recommendation for the contractor's monthly progress payment requests.

Review and provide a recommendation to the Town personnel regarding change order request or contractor allowance request for quantities and contract time modifications.

### ***Task 3: Project Surveying***

Provide project survey layout, office calculations, and digital file preparation for collection of surveyed observations (for quality assurance). Include survey data in final as-built plans and ADEQ/Town submittals.

The survey layout includes the location of the proposed storm drain pipe and inlets, and re-establishing the centerline for roadway paving.

#### **Task 4: Special Observations**

Provide special observations for ADEQ compliance (testing services) and structural components such as rebar and concrete pours for the drainage vault, and other necessary special inspections.

#### **Task 5: Quality Assurance**

This task will include quality assurance by an independent subcontractor to Lyon Engineering. Their scope will be to verify, sample, and test materials installed by the contractor to ensure compliance with the plans and specifications. The quality assurance firm will not be a sub-consultant for the contractor and not have a conflict of interest. The allowance for this work will be billed at cost plus fifteen percent.

### **Phase 4 –Post Construction Phase Activities**

#### **Task 1: Water Line Certification**

Provide water line certification based upon successful testing performed by the contractor and witnessed by Lyon. Prepare and submit the final document to ADEQ for the “Approval to Operate”.

#### **Task 2: Sewer Line Certification**

Provide sewer line certification based upon successful testing performed by the contractor and witnessed by Lyon. Prepare and submit the final document to ADEQ for the “Approval to Operate”.

#### **Task 3: Observe Water Testing**

Observe and record results of waterline pressure/leakage testing, microbiological samples, and chlorination testing by the contractor. Includes initial and residual observations of chlorination testing.

#### **Task 4: Observe Sewer Testing**

Observe mandrel testing and low pressure air testing of sewer lines and vacuum testing of manholes by the contractor.

#### **Task 5: Final Project Walk-Through**

Attend final walk-through with Town of Prescott Valley personnel, contractor, and others. Identify items to be included on final punch list.

#### **Task 6: Punch List**

Prepare a project punch list from observation and comments from the final walk through prior to the final project acceptance and certification.

**Task 7: Project Certification**

Provide project certification as it relates to engineering issues under our direction including ADEQ approvals of the construction. Utilize the field measured as-built quantities to approve final payment requests for close out and retention release.

**Task 8: As-Built Survey**

Provide a final survey of the completed project and incorporate changes from the original design into the final as-built project drawings. The record drawings will be based on the contractor's as-built information, our site observations and measurements during construction and the final survey. These field measurements will be used in Task 7 for the final payment request by the contractor.

Our estimated hours and the associated fees for the services identified above are shown on the attached spreadsheet. If other services are needed, above and beyond the scope of services outlined in this proposal, a contracted addendum will be issued defining the additional scope of services and fee. Our standard rate schedule is attached for your reference.

We appreciate the opportunity to provide construction period services for the Town of Prescott Valley on the project. Please call or email if you have any questions regarding the Tasks included in this proposal.

Regards,  
**Lyon Engineering**



Scott A. Lyon, P.E.  
Vice President

**Attachments:**

Lyon Scope and Fee Worksheet Dated August 30, 2010  
Lyon Standard Rate Schedule Effective January 1, 2010

TASK DESCRIPTION		LABOR CODE/STAFF HOURS							TOTALS	
Task No.	Task Description	GPS	STCH	SMGR	PRJENG	PRNENG	INSPEC	-	HOURS	FEE
<b>PHASE 1 Pre-Bidding Services</b>										
1	Coordinate and Conduct Pre-Bid Meeting				6	6	6		18	\$1,950
2	Recommendation of Award				6	2			8	\$940
	<b>Subtotal</b>								<b>26</b>	<b>\$2,890</b>
<b>PHASE 2 Pre-Construction Activities</b>										
1	Coordinate & Conduct Pre-Construction Meeting				6	6	3		15	\$1,725
	<b>Subtotal</b>								<b>15</b>	<b>\$1,725</b>
<b>PHASE 3 Construction Activities</b>										
1	Construction Observation & Weekly Meeting				30	6	334		370	\$29,190
2	Project Administration				30	9			39	\$4,560
3	Project Surveying	120		8					128	\$18,880
4	Special Observation				6	6			12	\$1,500
5	Quality Assurance (allowance, cost plus 15%)								0	\$3,000
	<b>Subtotal</b>								<b>549</b>	<b>\$57,130</b>
<b>PHASE 4 Post Construction Phase Activites</b>										
1	Water Line Certification				2	1			3	\$360
2	Sewer Line Certification				2	1			3	\$360
3	Observe Water Testing						12		12	\$900
4	Observe Sewer Testing						12		12	\$900
5	Final Project Walk-Through					4	4		8	\$860
6	Punch List					1	2		3	\$290
7	Project Certification					4	2		6	\$710
8	As-built Survey and Office Preparation	4	6	2	4	2	2		20	\$2,200
	<b>Subtotal</b>								<b>67</b>	<b>\$6,580</b>
		<b>GPS</b>	<b>STCH</b>	<b>SMGR</b>	<b>PRJENG</b>	<b>PRNENG</b>	<b>ADMIN</b>	<b>-</b>	<b>PAGE TOTALS</b>	
<b>TOTAL</b>		124	6	10	92	48	377	0	<b>657</b>	<b>\$68,325</b>
<b>Hourly Rates</b>		\$150	\$85	\$110	\$110	\$140	\$75			

GPS: Survey Crew  
STCH: Survey Technician  
SMGR: Survey Manager

PRJENG: Project Engineer  
PRNENG: Principle Engineer  
ADMIN: Administrative



**HOURLY RATES EFFECTIVE JANUARY 1, 2010**

- PRINCIPLE ENGINEER                      \$140/HOUR
- PROJECT ENGINEER                        \$110/HOUR
- PROJECT DESIGNER                        \$100/HOUR
- SURVEY MANAGER                          \$110/HOUR
- SURVEY TECHNICIAN                        \$85/HOUR
- GPS SURVEY CREW                         \$150/HOUR
- CONVENTIONAL SURVEY CREW             \$120/HOUR
- INSPECTOR                                  \$75/HOUR
- CLERICAL                                     \$50/HOUR
- DEPOSITION/TRIAL TESTIMONY          \$200/HOUR

Miscellaneous project related expenses including printing charges, municipal review fees, testing lab fees and shipping charges incurred by Lyon Engineering during the course of project design, survey, inspection, and expert witness preparation will be billed at cost plus 10 percent.