

Parker Jordan Centennial Open Space &
Cherry Creek Low Water Crossing

Approved
8/17/11

Submitted to:
Parker Jordan Metropolitan District
July 21, 2011

J3 Engineering Consultants, Inc. proposes to perform the Scope of Services for the following work for the Parker Jordan Metropolitan District (Client). This Scope addresses assisting the construction manager by performing construction observation visits and other necessary tasks. The projects that will require construction administration services are the Parker Jordan Centennial Open Space and Cherry Creek Low Water Crossing. For the remainder of this Scope of Services the described locations will be collectively referred to as the Site.

Items delineated herein are on a time and materials basis will be invoiced on a time and materials basis with an estimated budget based on estimated field time. The project will be billed monthly with progress reports and percent billing analysis provided at the request of the Client. If changes to the Scope are needed or requested by the Client or should the outlined assumptions be incorrect, J3 will negotiate fees for altered or additional items with the abovementioned Client before work will commence. All fees are based on the assumption that invoices will be paid within 30 days of receipt of the invoice.

Project Due Diligence

The Scope of Services presented under this cover is based upon the research and project due diligence completed by J3 to determine the anticipated processes, requirements and challenges associated with the Site. It is our understanding that we will perform construction observation and administration for the PJMD during construction activities. The Construction Manager overseeing the implementation, construction, and coordination of the three projects is Dan Sheldon.

Project Challenges

Several project challenges were identified based upon information gathered during the project due diligence. Those challenges are listed below with J3's suggested course of action to mitigate potential impacts to the project schedule, goals and integrity.

- *Two projects combined under one construction contract. Suggested course of action ~ Two separate projects, namely Parker Jordan Centennial Open Space and Cherry Creek Low Water Crossing, were combined under one construction contract. Both projects were designed by J3 Engineering. The construction manager is Dan Sheldon who will oversee the construction of the projects. Our proactive approach to construction observation will be to stay involved and engaged throughout the project's construction, be available to provide construction input and answers, and to appropriately coordinate construction activities with the District's engineer.*

- *Number of Municipalities, Entities, and Stakeholders Involved.* Suggested course of action ~ Due to the location and importance of this channel corridor, several municipalities, entities and stakeholders have input on this project. The entities include, but are not limited to, the City of Centennial, Southeast Metro Stormwater Authority (SEMSWA), Urban Drainage and Flood Control District (UDFCD), the United States Army Corp of Engineers (USACE), State Engineer's Office, Cherry Creek Stewardship Partners, Arapahoe County Water and Wastewater Authority (ACWWA), and The Colorado Division of Wildlife. J3 has actively worked with all of these jurisdictions in the approvals of design documents and will continue to be proactive in communication and acquiring the necessary permitting to assist in the construction schedule and activities.

Project Scope

Based upon the information discussed during the course of the projects, the meeting with the City of Centennial, and conversations with representatives of the PJMD it is our understanding that the Scope of this project will require Construction Administration as the primary task.

Task 1– Construction Observation

J3 believes it is imperative that once construction begins, that the design team has a regular on-Site presence to answer construction related questions and respond to requests for information.

1.1 Pre-Construction Meeting

- Schedule and conduct a pre-construction meeting.
- Assist the Construction Manager in assembling the required documents for the contractor, which includes the GESC Plans and Reports, Construction Documents, Technical Specifications and Project Manual for the various projects.

1.2 Project Communication

- J3 Engineering will provide detailed Monthly Progress Reports to the District. The Monthly Progress Report will be delivered to the PJMD within seven (7) calendar days from the end of the reporting month (prior to each Board Meeting).
- Communication throughout the anticipated 180 day construction period is vital. The Project Engineer will communicate regularly with the construction manager to review the status of work and to discuss concerns. J3 Engineering will provide a detailed report delineating the work completed to date, anticipated challenges, items of note and a summary of the project's actual progress vs. the schedule. In addition, a roll-up look ahead will be provided.
- The owners, engineers, and construction administration staff at J3 Engineering prides ourselves on being excellent communicators. We believe every project is notably more successful with effective, responsive communication. Our goal is to communicate regularly with the PJMD staff to review work progress and communicate any upcoming challenges we see to the work, or the schedule. We can then work as a team with the contractor to minimize challenges and maintain the overall project schedule. This approach has been effective time and time again in completing projects on time and within budget. With multiple projects, communication will be even more important than usual.
- J3 Engineering will be responsible for ensuring coordination with various stakeholders.
- J3 Engineering will be responsible for coordinating with or monitoring coordination and compliance by the Contractor with all interested agencies including, but not limited to, the United States Army Corps of Engineers

(USACE), Colorado Department of Health and Environment (CDPHE), various departments of the City of Centennial, Southeast Metro Stormwater Authority (SEMSWA), Urban Drainage and Flood Control District (UDFCD), Arapahoe County Water and Wastewater Authority (ACWWA), and affected utilities (i.e., Electric Utility, Gas Utility, Telephone, Cable, etc).

1.3 Submittal Review

- J3 Engineering will review submittals from the contractor including schedule of values, shop drawings, and various test results.
- J3 Engineering will establish and maintain a system for documenting, tracking and distributing Contractor submittals, product data, schedules, manuals, requests for information, correspondence, and other documents. The items will be evaluated by our staff from an engineering and construction perspective to determine that proposed installations, materials, and equipment comply with the contract documents. Each Project will have its own manual for tracking the above mentioned items. These manuals will be available to the district at any time but will be officially presented at project closeout along Operations and maintenance manuals.

1.4 Construction Inspection

- J3 Engineering staff will perform construction inspection periodically to ensure construction compliance with contract documents.
- J3 Engineering will utilize two qualified individuals to perform the construction observation/administration duties. The primary construction observer will be on-site when needed. In the event the primary construction observer cannot attend a field meeting, the second observer will serve the PJMD. Both the primary and secondary observers have extensive knowledge of the project. This approach will allow J3 to have a staff member who is fully aware of the project status, challenges and goals, available to augment the project manager when needed or replace the primary construction observer for a period of time if necessary without causing any inconvenience to the construction schedule. With our staff's experience in planning, design and construction we will be able to effectively monitor construction activities, understand design intent, and communicate effectively on behalf of the district with the design engineer to find solutions to any challenge that might present itself.

1.5 Contractor Pay Application Review

- J3 Staff will review pay applications submitted by the contractor when requested by the construction manager.
- Our staff will review pay applications and cross reference those with construction plans, actual field measurements, and our experience to review payment applications for appropriateness. We will keep an open dialogue and record for discussion with the construction manager to determine payment amounts and timing.

1.6 Request for Information and Change Order Review

- J3 Staff will review and respond to RFI's and Change orders.
- J3 Engineering will review and record RFI's submitted by the contractor. All requests will be in writing. Our ability to understand those requests from the contractor's perspective coupled with our ability to communicate with and understand the information provided by the design team will facilitate conformance with the project schedule. We will be able to use our judgment as professional engineers and construction administrators to assist the district in determining acceptable modifications to the construction plans or the viability of alternative methods for achieving the goals set forth by the design team.

- If requested by the construction manager, we will provide valuable input regarding change order requests to the construction contract. Our experience in all aspects of development will allow us to evaluate viable cost changes and suggest courses of action which could save the District money.

1.7 Progress Meetings

- J3 Engineering will attend regular job site project progress meetings held to review project progress and status, address questions, and coordinate scheduled project activities.
- By communicating with the contractors periodically we can maximize our efforts on-site. Meetings will discuss completed items, and items to be constructed for the following period between meetings so the Construction Manager can be on site for project milestones. Our team will discuss any challenges overcome in previous work and how to address upcoming situations anticipated to be encountered. By effectively communicating and discussing each project periodically, pitfalls can be avoided which could otherwise affect schedules and budgets. We anticipate these meetings to be weekly or bi-weekly as project activity warrants.

1.8 Start-Up and Commissioning

- J3 Engineering will attend and participate in equipment start-up and commissioning activities to observe the work and address Contractor and District questions.

1.9 Substantial Completion Inspection

- J3 Engineering will conduct an inspection of the “substantially complete” work.
- We will inspect completed work and prepare detailed lists of incomplete work (punch lists) and issue such lists to the Contractor as appropriate. Punch lists will be entered into the project manuals and will be re-inspected once the contractor has addressed listed issues. We will recommend to the District the specific date for awarding the project “substantial completion” status once punch list items have been completed.

1.10 Final Inspection and Certification by Project Manager

- J3 Engineering will conduct a final inspection of the work to assure its satisfactory completion prior to recommending to the District that final completion status be granted and that final payment be made to the Contractor.
- J3 Engineering will provide written confirmation to the District certifying that the capital improvements are constructed with proper workmanship and conform to the District’s specifications. We would recommend a review of the warranty period policy and a re-inspection of the work prior to the end of the warranty period typically within a year or two of final construction, to determine if workmanship has held its integrity before issuing final acceptance.

1.11 Drawings of Record

- J3 Engineering will provide a written record of as-built conditions on a set of the approved construction plans. “Record Drawings” will be provided to the district denoting as-built conditions for improvements in the field. J3 Engineering will provide a written account of affects the modified items could have on the project as necessary.

1.12 Post Construction Services

- J3 Engineering will provide full services for all necessary post construction activities as required through the warranty period on a time and materials basis.

Budget Delineation

An estimated project budget for the Scope of Services \$41,184 and is based on a project engineer’s time for 16 hours per week for 180 calendar days. The delineation between Parker Jordan Centennial Open Space and Cherry Creek Low Water Crossing is \$33,462 and \$7,722 respectively. The estimated budget is provided for information only and does not limit the actual amount of work that may be required, not does it obligate the PJMD to this amount. All work and the associated cost will be based on time and materials and is subject to oversight from the construction manager, and it shall be the manager’s discretion to engage J3 in work. A summary of tasks and rates are provided below:

TASK 1.0 –Construction Administration

- 1.1 Pre-Construction Meeting
- 1.2 Project Communication
- 1.3 Submittal Review
- 1.4 Construction Inspection
- 1.5 Contractor Pay Application Review
- 1.6 Request for Information and Change Order Review
- 1.7 Progress Meetings
- 1.8 Start-Up and Commissioning
- 1.9 Substantial Completion Inspection
- 1.10 Final Inspection and Certification by Project Manager
- 1.11 Drawings of Record
- 1.12 Post Construction Services

TOTAL TASK I Time and Materials

2011 Rate Schedule

Principal	\$111
Project Manager	\$111
Project Engineer	\$99
Senior Civil Designer	\$90
Civil Designer	\$82
CAD Technician II	\$76
CAD Technician I	\$66

J3 Engineering Consultants, Inc. appreciates this opportunity to submit this Scope of Services and is dedicated to providing an outstanding level of service for the project.



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J3 Engineering Consultants, Inc. is requesting this Construction Administration Contract as necessary in order to address construction observation visits and other necessary tasks to assist the PJMD and its on-site construction manager/representative in construction activities.

This work authorization has been reviewed and accepted by:



By: *Ken S. Cecil*

Name: Ken S. Cecil

Date: July 21, 2011



By: *Bob Blodgett*

Name: Bob Blodgett, District Mgr

Date: 8-17-11



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