

KADRMAS, LEE & JACKSON, INC.
AMENDMENT NO. ELEVEN (11) TO WORK ORDER #04-12,
ALKALI CREEK ROAD MAINTENANCE AND SLOPE RECONSTRUCTION

SCOPE OF WORK

September 2011

I. PROJECT DESCRIPTION

This is an amendment to the existing Alkali Creek Road Reconstruction Contract, hereinafter referred to as “Project.” Phase 3 of the Project begins near Black Pine Street and extends easterly along Alkali Creek Road approximately 1,800 feet to its east terminus. The purpose of Amendment No. 11 is to complete Additional Services of Engineer for project management, engineering and environmental documentation. To distinguish Amendment No. 11 services the task number first two digits correspond to the amendment number (i.e. 11xxx).

II. SERVICES TO BE PERFORMED

11100 PROJECT MANAGEMENT

The general project management tasks defined in previous amendments also apply to this amendment.

11101 Coordination

Coordinate with the City, contractors, permit agencies, subconsultants, utility owners, the public and other interested parties when requested by the City.

11102 Schedule and Budget Control

Manage the timeline and budget, and prepare invoices according to City requirements. Provide a weekly report of hours to-date to assist with the City’s project tracking.

11103 Unscheduled Meetings and/or Field Reviews

Attend unscheduled meetings and field reviews with the City or other stakeholders. Three (3) unscheduled meetings and/or field reviews are anticipated.

11200 PUBLIC INVOLVEMENT

Public involvement services are not included in this scope of work. If required, these services would be considered extra work and would be negotiated at a later date.

11300 FEMA MAP REVISIONS

1301 Additional Information Requests by DHS/FEMA

Respond to DHS/FEMA request for additional information to supplement previously completed work for Letter of Map Revision (LOMR) approval.

11400 ENVIRONMENTAL SERVICES

This section addresses services required to complete the City's commitments as outlined in the Section 404 Permit issued by the United States Army Corps of Engineers (USACE). Activities included in this scope of work include those needed over a period not exceeding five (5) years to meet monitoring requirements of the 404 Permit.

11401 Noxious Weed Monitoring

Note the presence of noxious weeds in areas of project disturbance concurrent to upland vegetation monitoring. If noxious weeds are observed, the perimeter of the infestation will be recorded using GPS data collection. The location of any observed infestation will be submitted to the City of Billings to be controlled in accordance with Montana State Law. Implementing noxious weeds control measures is not included in this scope of work and is the City's responsibility.

11402 Wetland Mitigation Monitoring Plan

Prepare and submit to the USACE a Wetland Mitigation and Monitoring Plan for the 0.65 acres of unavoidable wetland impacts associated with the channel re-alignment of Alkali Creek. The Wetland Mitigation and Monitoring Plan will describe the following: proposed project; mitigation efforts; monitoring methods; reporting factors; vegetation, soil, and hydrology characteristics; and success criteria for the mitigation site.

11403 Upland and Wetland Mitigation Monitoring Reports

KL&J will prepare and submit to the USACE annual monitoring reports on the status of the mitigation site for a period not exceeding five (5) years following the base line report. In accordance with the permit conditions, upland vegetation will only be monitored for two (2) growing seasons following completion of construction. A baseline report outlining conditions at the mitigation site will be prepared and submitted to the USACE immediately following construction. For this project, KL&J anticipates that the first report will be submitted by November 1, 2011. Subsequent reports will be submitted to the USACE on or before November 1st for a period of five (5) years, or less if the USACE determines the mitigation site has met the success criteria outlined in the Wetland Mitigation Monitoring Plan.

Each Mitigation Monitoring Report will include the following:

- All upland and wetland plant species observed, along with their estimated relative frequency and percent cover. As part of this task, KL&J will conduct a wetland delineation of the mitigation site according to the US Army Corps of Engineers (USACE) 1987 Delineation Manual and Great Plains Regional Supplement;
- Any fauna noted as utilizing the mitigation site;

- Photographs showing representative areas of the mitigation site taken at least once each year during the growing season. KL&J will establish photo reference points to be used each year of monitoring. By establishing reference points to be used yearly, direct comparisons on the mitigation site between years can be made; and
- A scale drawing or map that shows the limits and areas of the existing wetland and the limits of all newly-established wetland area.

11404 Channel Stability Monitoring

In order to monitor vertical and lateral stability along the newly created Alkali Creek channel, KL&J, in coordination with the USACE, will establish photo points at three locations on the new channel. At least two of the photo points will clearly show an outer bend of the channel. These photos shall be submitted with the annual Mitigation Monitoring Report.

Work Excluded from Environmental Services Scope of Work (Phase 9400 tasks)

The following items are excluded from the current scope of work:

1. Functional wetlands assessment
2. Permit applications
3. Botanical, biological, threatened and endangered species, archaeological, or other field investigations aside from those described
4. Biological monitoring
5. Noxious weed control
6. Mitigation site maintenance
7. NEPA documentation
8. Re-planting of sites that do not meet vegetation re-establishment criteria/timeframes
9. Channel stabilization plans or implementation
10. Establishment of legally binding restrictions on the mitigation site to protect its fish and wildlife values
11. Monitoring requirements extending beyond the timeframes identified
12. Responsibility for mitigation success

11500 ADDITIONAL SERVICES FOR FLOOD REPAIRS

The tasks associated with flood repairs have been requested by the City of Billings, to assist with repairing previously-completed construction work that was damaged by flood in May 2011.

11501 Permit Modifications

Coordinate with permitting agencies for modifications to existing permits necessary to complete repair work. This task includes one on-site meeting with officials, preparation of a revised permit application(s), and submitting the application on behalf of the City. Permit fees, if applicable, will be paid by the City. It is anticipated that three permits may be required for the repair work.

11502 Flood Damage Assessments, Field Reviews, Alternatives Screening

Conduct field reviews of the project site documenting areas requiring repairs. Perform periodic monitoring of damaged sites for potential safety hazards. Assess damaged areas for potential solutions in collaboration with City staff. KL&J anticipates that repairing damaged sites equal to the original design intent is not feasible due to post-construction conditions and site constraints; therefore, final design of repairs will involve an iterative process of alternatives screening with City staff and contractors. The alternative analysis will include design concept preparation, cost and constructability review with contractors, site visits, sub-consultant and supplier coordination, and permit agency coordination.

11503 Change Order Documentation

Upon selection of the repair alternative provide exhibits, specifications, quantities, and other documentation necessary for execution of a change order between the City and Contractor.

11504 Construction Administration

Provide office administration and part-time field personnel to verify that the Contractor's work is in general conformance with change order requirements. KL&J's construction administration tasks included are summarized below.

1. Attend a preconstruction meeting and two additional progress meetings.
2. Delineate repair work areas prior to commencement. This will be completed in one 8-hour day.
3. Review submittals.
4. Coordinate site visits with City personnel prior to mobilizing. Provide on-site construction observation limited to no more than 10 hours per week over the course of 4 weeks (40 hours total) and maintain documentation of observed construction activities, including photos and daily logs.
5. Since the change order will be authorized on a time and material basis, administering progress and cost will be an ongoing effort. KL&J will assist the City with tracking time and materials construction costs. City staff will document labor, equipment, and material quantities, verify them with the Contractor, and provide a weekly summary to KL&J for review and documentation. KL&J will use the information to track change order costs on a weekly basis and will prepare a final progress payment application.
6. Attend a walk-thru upon completion of the repair work.
7. Attend a one-year warranty walk-thru.
8. Provide record drawings limited to showing the location of stream bank repair areas. Record drawings will not include final location of trees and placement of fill required for flood damage repairs.

Work Excluded from Flood Repairs (Phase 11500 tasks)

1. Materials testing
2. Additional permit modifications, alternatives screening and design after execution of the anticipated change order
3. Geotechnical evaluations