

**AGR 17-16b
Santa Fe Engineering Consultants
Vendor Number: 27998
On-Call Engineering Services**

Task Order No.: Two (2)

Project Title: Los Alamos Canyon Road Rehabilitation Project

Job Cost # or Work Order #:

Project Manager Assigned: James Alarid, Deputy Utility Manager - Engineering Division

Phone: 505- 663-3420

Contract Administrator: James Alarid

Department: Los Alamos County Department of Utilities

Vendor Contact: Michael Gomez, P.E. Santa Fe Engineering Consultants, LLC

Location of Work: Los Alamos Canyon Road

Scope of Work including Estimated Quantities: Per Letter of Transmittal Dated July 26, 2017 along with Exhibit A (Pages 1 – 6) Engineer will provide:

1. (Supplemental) Biological Pre-field Research, Field Survey, and Report
2. Cultural Resource Survey and Report
3. Drainage Analysis
4. Environmental Documentation
5. Design Development Phase and Data Acquisition (60% Design Submittal)
6. Construction Document Phase (100% Plan Submittal)
7. Coordination with stakeholders listed on Exhibit A
8. The Project does not include subsurface utility investigations (potholing)

Start Work Date: August 17, 2017

Completion of Work Date: December 1, 2017

Attachments: Letter of Transmittal from Santa Fe Engineering Consultants, LLC to James Alarid, P.E. Los Alamos County Deputy Utility Manager along with Exhibit A pages 1 – 6.

**Estimated Total Cost: (not to exceed amount): per page six of six of Exhibit A,
Total cost: \$61,300.00
Plus NMGR at 8.3125% (Santa Fe City Rate) \$ 5,095.56**

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Total Estimated Cost: \$66,395.56

Final payment shall be based on actual field measured quantities.

SIGNATURE PAGE

Original Task Order Seven (7)

| NAME | Date |
|-----------------------------------|-------------|
| Timothy Glasco, Utilities Manager | |

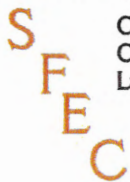
| NAME | Date |
|---|-------------|
| Michael Gomez, P.E. Santa Fe Engineering Consultants, LLC | |

Task Order Revision (as applicable)

| NAME | Date |
|-----------------|-------------|
| Project Manager | |

| NAME | Date |
|----------------------|-------------|
| Santa Fe Engineering | |

Santa Fe Engineering Consultants, LLC



Civil and Traffic Engineering
Construction Management
Land Development

1599 St Francis Drive, Suite B
Santa Fe, N. M. 87505
(505) 982-2845 Fax (505) 982-2641

LETTER OF TRANSMITTAL

To: Mr. James Alarid, P.E., Los Alamos County Public Works Department, Deputy Utility Manager

From: Michael Gomez, P.E., Santa Fe Engineering Consultants, LLC.

Date: July 26, 2017

RE: **REVISED PROPOSAL FOR ENGINEERING SERVICES FOR THE LOS ALAMOS CANYON ROAD REHABILITATION PROJECT IN LOS ALAMOS COUNTY, NEW MEXICO**
AGR 17-16B

Santa Fe Engineering Consultants, (SFEC) would like to thank you for the opportunity to submit a revised fee proposal for on-call engineering services for a hydrology, road and drainage improvements, and environmental compliance services for the Los Alamos Canyon Road Rehabilitation Project. Attached for your review is an engineering proposal and contract for engineering services for the above referenced project.

If you have any questions or wish to discuss the proposal, please do not hesitate to contact me.

Enclosures

**ENGINEERING SERVICES FOR
THE LOS ALAMOS CANYON ROAD
REHABILITATION PROJECT IN
LOS ALAMOS COUNTY, NEW MEXICO**

**SCOPE OF
WORK:**

This proposal is for professional services to perform hydrology, road and drainage improvements, hydrology, and environmental compliance services for the Los Alamos Canyon Road Rehabilitation Project. Our understanding is that involvement and funding by the Federal Emergency Management Agency (FEMA) will require preparation of an environmental assessment (EA) that follows FEMA's National Environmental Policy Act (NEPA) Guidelines. Other necessary environmental-related regulations will also be followed, such as those required under the Endangered Species Act and National Historic Preservation Act. In accordance with FEMA guidance, Ecosphere will conduct biological and cultural resource investigations and prepare separate reports. We understand that the road stabilization work is approximately 1.4 miles in length, and traverses the bottom of Los Alamos Canyon, which contains perennial surface water, riparian vegetation, and potential habitat for sensitive species such as the Jemez Mountains salamander.

Boundary surveys, certified topographic mapping, plats are to be provided by Los Alamos County. This proposal does not include subsurface utility investigations (potholing). The scope of work shall consist of the following:

1. (Supplemental) Biological Pre-field Research, Field Survey, and Report

This task would include pre-field research and preparation of an updated species list; coordination with review agencies; a 100-percent pedestrian examination of the un-surveyed project area and a report that includes an inventory of flora and fauna observed; a survey for threatened, endangered, and sensitive species; identification of habitat for these species; and surveys for noxious weeds, wetlands, migratory birds, and other sensitive natural resources. A formal wetland delineation and report is not included as part of this proposal.

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The proposed road rehabilitation project crosses U.S. Forest Service (USFS) and U.S. Department of Energy (DOE) land or easements between Los Alamos Reservoir and West Road. We understand that the road is approximately 1.4 miles in length, and traverses the bottom of Los Alamos Canyon, which contains perennial surface water, riparian vegetation, and potential habitat for sensitive species such as the Jemez Mountains salamander (*Plethodon neomexicanus*). Ecosphere will coordinate with the USFS, DOE, USFWS, representatives of the Endemic Salamander Team, and others as needed, but this task will not include any species-specific protocol surveys of the area.

2. Cultural Resource Survey and Report

We anticipate using Okun Consulting Solutions to provide cultural resource investigations. Initial records searches of the Archaeological Records Management Section of the New Mexico Historic Preservation Division indicate that the entire project area has been previously surveyed, but the surveys should be updated. Thus, this Task will include a survey of the project area for archaeological, historical, and other cultural resources; an update of archaeological site LA 90538, and discovery and documentation of a up to one new archaeological site; and completion of a positive finding cultural resources report and associated forms that comply with the New Mexico Historic Preservation Division's standards, and those of other state and federal agencies.

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3. Drainage Analysis

- Delineate Upstream Basins. SFEC will use Los Alamos topographic surveys provided by the County to delineate the drainage basins in the project vicinity. Basins will be analyzed for soil type, cover conditions, and land use. The County is to provide the Soil Survey Report and mapping of Los Alamos County.
- Perform Drainage Calculations. Flows will be calculated and routed to determine the flows for the 100-year, 24-hour storm events. Software used in this analysis may include WIN-TR55, HEC HMS, HEC RAS, Hydroflow Express, Hydrographs and Storm Sewer as appropriate.
- Design of Conceptual Storm Water Management Plan. Conceptual design for various drainage alternatives will be performed including cost estimates, easement requirements, and comparisons.
- Review Possible Off-Site Impacts. The upstream and downstream areas will be inspected and possible off-site solutions will be developed if necessary.
- Drainage Report and Recommendation to Los Alamos County. A detailed storm water management plan will be submitted to Los Alamos County and FEMA. This will include a detailed report of possible drainage improvements, alternatives, considerations, public input and recommended plan, including recommendations for drainage easements. This does not include any surveying or easement documentation.

**ENGINEERING SERVICES FOR
THE LOS ALAMOS CANYON ROAD
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4. Environmental Documentation

This task will involve preparing an EA consistent with FEMA guidelines. The EA will address the current design concepts, describe the affected environment, and summarize and analyze the cultural resource study, biological investigation, and any other relevant social, economic, or environmental issues. A draft report will be prepared for review and comments will be addressed as needed.

5. Design Development Phase and Data Acquisition (60% Design Submittal)

- SFEC will conduct field investigations and engineering data collection. Topographic mapping will be obtained from the County to guide the contractor. Utility locates will be surveyed by the County as well as all spotted underground utilities and visible utility features. Contour intervals will be at two feet. The mapping will be performed using State Plane Coordinates, Central Zone, NAVD88. This will allow easy conversion to GIS and FEMA data basins.
- Assessment and Field Inspection of the Existing Conditions. Conduct field investigations with the project team to identify issues. Meet with County staff and design team to discuss the various issues identified in the field and discuss solutions and alternatives to correct the problems identified.
- Layout proposed structures, gabions, check dams, and ponds.
- Perform drainage calculations and check hydraulics.
- Prepare preliminary plans (60% Plan Submittal).
- Meet with County Staff to review preliminary design.

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6. Construction Document Phase (100% Plan Submittal)
 - Address comments from County Staff review of the 60% design and incorporate into the Final Design.
 - Prepare Final 100% Design submittal. The final design plans will include the following:
 - Title Sheet
 - Vicinity Map
 - Project Layout Sheet
 - Index of Sheets
 - Summary of Quantities
 - General Notes and Incidental Items.
 - Typical Sections.
 - Miscellaneous Details.
 - Grading Plans.
 - Erosion and Sediment Control Plans
 - SFEC will document design review meetings and provide meeting minutes.
 - Prepare final technical specifications.
 - Prepare final cost estimate.
7. Coordination with – County of Los Alamos, Department Energy, Los Alamos National Laboratory, United States Forest Service, New Mexico Environment Department, US Fish and Wildlife Department, environmental consultants, and other agencies having jurisdiction, interest, or permit authority for obtaining approvals. Attend progress meetings as required.

ENGINEERING SERVICES FOR
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FEES: The fees for the above tasks, not including gross receipts taxes, is as follows:

| | |
|----|-------------------|
| 1. | \$7,300.00 |
| 2. | \$8,000.00 |
| 3. | \$8,800.00 |
| 4. | \$6,000.00 |
| 5. | \$16,000.00 |
| 6. | \$8,000.00 |
| 7. | <u>\$7,200.00</u> |
| | \$61,300.00 |