

CITY OF SPARKS

STATEMENT OF QUALIFICATIONS TO PROVIDE MATERIALS TESTING & INSPECTION SERVICES

BLACK EAGLE CONSULTING, INC.

COMPANY OVERVIEW

Geographic Location: 1345 Capital Boulevard, Suite A; Reno, Nevada 89502
Contacts: Patrick Pilling, Ph.D., P.E. - President - (775) 359-6600
Dal Hunter, Ph.D., P.E. - Vice President - (775) 359-6600
Larry Johnson - Senior Consultant - (775) 359-6600

Black Eagle Consulting, Inc. (BEC) provides materials testing, construction inspection geotechnical/geological, environmental, pavement analysis, construction inspection, and material testing services. Our key personnel have worked together as a team for many years. Our staff presently includes 42 personnel, including civil and geological engineers, geologists, construction engineers, certified environmental managers, inspectors, and material technicians. We are well-versed in all materials and geotechnical aspects of street and highway design, pavement management, construction inspection, and materials testing for street rehabilitation and infrastructure projects. Our personnel were heavily involved in formulations of standards now encompassed in the *Standard Specifications for Public Works Construction*, 1972, 1992, 1996, 2002, and 2004 editions. We have also introduced innovative rehabilitation techniques (i.e. pulverization, lime and cement subgrade stabilization, Type 7 stress relief courses, and slurry seals) to the area that are now the accepted standards. Our strong construction background assures our designs and construction services are practical, constructible, and cost effective, while assuring quality and performance.

While Black Eagle is big enough to handle multiple large projects, we have not abandoned the personal attention that has gotten us where we are today. Projects are managed by a corporate principle or senior consultant who will personally commit to your deadlines, answer your phone calls, attend meetings and make immediate site visits to resolve construction problems. The following is a brief description of our firm's capabilities:

Materials Engineering and Testing

Our staff maintains personnel with vast experience in materials engineering and testing. All of our laboratory materials technicians maintain Nevada Alliance for Quality Transportation Construction (NAQTC) certification. Black Eagle Consulting, Inc. has a complete soils, concrete, and asphalt concrete testing laboratory in Reno, Nevada, and can also equip mobile laboratories for remote sites. Our testing laboratory maintains state-of-the-art testing equipment, including asphalt ignition furnaces and a kneading compactor, and is certified through AASHTO. A copy of our AASHTO certification has been attached to this SOQ. Our laboratory and field technicians possess a thorough understanding of ASTM, AASHTO, and NDOT testing policies and procedures. Our laboratory capabilities include:

Soils Testing:

- Moisture Content (ASTM D 2216)
- Moisture Content and Dry Density (ASTM D 2937)
- Atterberg Limit (ASTM D 4318)
- Minus 200 Wash (ASTM D 1140)
- Particle Size Analysis of Soils (ASTM D 422)
- Soil Specific Gravity (ASTM D 854)
- R-Value, Untreated Field Sample (ASTM D 2844)
- Consolidation, 4 points & 1 Rebound Point (ASTM D 2435)
- Direct Shear, UU, CU, CD (ASTM D 3080)
- Unconfined Compression (ASTM D 2166)
- Permeability (4-inch Rigid Wall Mold, Falling Head or Constant Volume, Remolded Sample) (ASTM 2434 & D 5084)
- California Bearing Ratio (ASTM D 1883)
- Resistivity (Miller Soil Box) (AASHTO T 288)
- Standard Proctor Compaction (ASTM D 698)
 - a.) Method A or B (4-inch mold)
 - b.) Method C (6-inch mold)
- Modified Proctor Compaction (ASTM D 1557)
 - a.) Method A or B (4-inch mold)
 - b.) Method C (6-inch mold)
- Compaction Check Point (4-inch or 6-inch mold)
- Rock Correction (ASTM D 4718)
- Harvard Miniature (Nev T-101)

Aggregate Testing:

- Standard Sieve Analysis (ASTM C 136)
- Material Finer Than No. 200 (ASTM C 117)
- Atterberg Limit (ASTM D 4318)
- Moisture Content (ASTM D 2216)
- Fine Aggregate with Absorption (ASTM C 128)
- Coarse Aggregate with Absorption (ASTM C 127)

Clay Lumps and Friable Particles (ASTM C 142)
Flat and Elongated Particles (CRD 119, 120)
Fractured Faces (Nev T-230)
Sand Equivalent (ASTM D 2419)
Organic Impurities (ASTM C 40)
Dry Unit Weight of Aggregate (ASTM C 29)
Sodium Soundness of Aggregate (ASTM C 88)
Los Angeles Rattler, 1.5 inch minus aggregate size (ASTM C 131)
Los Angeles Rattler, greater than 1.5 inch aggregate size (ASTM C 535)

Portland Cement Concrete Testing:

Compression of Concrete Cylinder (ASTM C 39)
Compression of Grout Cylinder (UBC 24-28)
Compression of Mortar Cylinder (UBC 24-22)
Hold Cylinder (cured but not tested)
Compression of Cored Concrete (ASTM C 42)
Compression of Shotcrete
Flexural Strength of Concrete Beams (ASTM C 78, C 293)
Splitting Tensile Strength of Concrete Cylinder (ASTM C 496)

Structural Masonry Testing:

Compression of Masonry Unit (ASTM C 140)
Compression of Masonry Prism (ASTM C 1314)

Asphalt Concrete Testing:

Bitumen Content by Ignition (ASTM D 6307)
Asphalt Gradation (ASTM D 5444)
Marshall Stability and Flow, Compaction and Unit Weight (ASTM D 1559)
Maximum Theoretical Specific Gravity (ASTM D 2041)
Unit Weight of Asphalt Cores (ASTM D 2726)
Hveem Compaction and Stability (ASTM D 1561 & D 1560)
Hot Mix Asphalt Mix Design (SSPWC 2004 & MS 2 Manual)

Black Eagle Consulting, Inc. prides itself on being able to provide accurate test results within 24 to 48 hours, as appropriate to allow construction to proceed uninterrupted. During paving operations, we are able to provide test results overnight. Our testing equipment and personnel are typically available within 4 to 24 hours notice, depending on the size of the project and the time requirements on site.

Construction Inspection and Testing

With respect to our field inspection capabilities, BEC personnel are well versed in all facets of construction, from reviewing material mix designs to developing punch-list items near completion of construction. In particular, our field capabilities include:

- Inspection, testing, and sampling of construction materials, including in-place density of native sub-grade, embankment, aggregate base, pipe bedding, structural backfill, asphalt concrete, and other construction materials by NAQTC-certified testers/inspectors.
- Field inspection and sampling of Portland cement concrete, including slump, air content, mix and ambient temperatures, unit weight, yield, and the casting of concrete cylinders for compressive strength testing.
- Field sampling and observation of asphalt paving operations including verification of lay down temperatures and mat thickness, nuclear density testing to establish rolling patterns, sampling of hot mix for laboratory testing, and coring to check in place thickness, compaction, and voids.
- Inspection, testing, and sampling of construction materials from source plants and plant calibration.
- Special inspection with by International Codes Council (ICC)-certified inspectors with capabilities of inspecting reinforced concrete, post-tensioned concrete, reinforced masonry, structural steel and welding (including ultra sonic testing), high-strength bolting, roofing, nailing, and general building construction.
- Black Eagle Consulting, Inc. personnel are familiar with local contractors, various materials plants and supplied materials. They also possess vast knowledge of general construction methods practiced in the Reno/Sparks area and construction specifications outlined in the *Standard Specifications for Public Works Construction*, the *City of Reno Public Works Design Manual*, Exhibit E of the RTC Specifications and Provisions, and Nevada Department of Transportation.

Contractual Assistance

Black Eagle Consulting, Inc. would also be able to assist the City of Sparks on any contractual matters during construction. Patrick Pilling, Ph.D., P.E., President of BEC, has over 20 years of construction and contractual experience. In addition, Dr. Pilling previously worked for a general engineering contractor in the San Francisco Bay Area and handled exclusively contract and extra work negotiations during his last two years of service at this company. A significant amount of the contract and claims negotiations performed by Dr. Pilling was performed with the California Department of Transportation (CalTrans), a large public agency and one well versed in contracts and claims negotiations. With such experience in contracts and claims negotiations, the personnel at BEC would provide a valuable asset to the City of Sparks should such contractual matters develop during a project.

Geotechnical and Geological Engineering Support

Black Eagle Consulting, Inc. also maintains a staff of licensed engineers with a substantial amount of experience in geotechnical engineering, geologic hazards delineation and mitigation, and materials engineering. In particular, Dr. Pilling has over 20 years of geotechnical and construction engineering experience and is considered an expert on shallow and deep foundations. His doctoral dissertation, which included a computer program to analyze laterally loaded pile foundation groups, was used by CalTrans in its preliminary evaluation of the San Francisco Bay Bridge retrofit. Dal Hunter, Ph.D., P.E., has over 25 years of local geotechnical and geological engineering experience and is considered an expert in the field of soil geochemistry. With his background, Dr. Hunter is able to recognize all aspects of geologic hazards, including expansive soils and faults, and provide mitigation measures for such features on sites. Mr. Larry Johnson, a senior consultant with BEC, maintains over 35 years of local construction and materials experience, is intimately familiar with all local aggregate operations, and is considered the area's leading asphalt concrete expert. With three such highly respected experts on our staff, BEC is able to provide valuable geotechnical geological engineering support, should such support be necessary. All three of the individuals listed above would be available for City of Sparks projects.

COMPANY EXPERIENCE

Sparks Boulevard and Pyramid Highway (SR 445) Widening (Geotechnical Engineering, Materials Testing, and Inspection) - The Sparks Boulevard project involved the widening of existing Sparks Boulevard from 2 to 4 lanes from just south of the Sun Valley storm channel to 1,800 feet south of the proposed Kiley Ranch Boulevard. The Pyramid Highway widening constructed an additional lane from Kiley Ranch Boulevard to Sparks Boulevard.

Black Eagle Consulting, Inc. was contracted by Kiley Ranch Communities to provide the following:

- A geotechnical investigation of the site that included advancing 53 borings to evaluate subsurface materials.
- Laboratory testing of samples obtained during exploration. Testing included index tests and R-value testing.
- Geotechnical engineering analyses to develop design and construction recommendations for the project, including pavement design.
- Issuing a final geotechnical report summarizing the above items and that provided recommendations for design and construction.
- Materials testing and inspection during construction of this project that included concrete and asphalt batch plant inspection, sampling and testing of Portland cement concrete during placement on site, sampling and testing of hot mix asphalt concrete, concrete and asphalt aggregate sampling and testing, sampling and testing of fill materials, and density testing (both sand cone and nuclear density gauge methods) of fill materials. All testing was performed by NAQTC-certified personnel in accordance with NDOT, RTC, AASHTO, and NAQTC requirements.

Original Budget: \$125,000.00

City of Sparks
RFQ No. 03/04-050
April 15, 2008
Page 6

Actual Costs: \$123,940.00

Original and Actual Completion Dates: The geotechnical report was issued in November 2006 and construction was completed on schedule in September 2007.

Contacts: Mr. Ron Applegate, Kiley Ranch Communities, (775) 323-8844
Mr. Doug Malloy, P.E., RTC, (775) 348-0171

Los Altos Parkway Intersection Improvements at Sparks Boulevard and Vista Boulevard (Geotechnical Investigation and Pavement Analysis) - This project involves widening, overlay, and associated improvements at and near the intersection of Los Altos Parkway at Sparks Boulevard and Vista Boulevard. At the intersection of Los Altos Parkway and Sparks Boulevard, Los Altos Parkway is to be widened and/or overlaid with associated sidewalk, curb and gutter from approximately 500 feet west to approximately 500 feet east of intersection with Sparks Boulevard. Sparks Boulevard is to be widened and/or overlaid from approximately 600 feet south to approximately 1,400 feet north of intersection with Los Altos Parkway. At the Los Altos Parkway/ Vista Boulevard Intersection, Los Altos Parkway is to be widened by replacing and/or relocating the existing landscaped median from approximately 300 feet east to approximately 400 feet west of the intersection. Vista Boulevard is to be widened from approximately 700 feet to approximately 2,500 feet north of the intersection with Los Altos Parkway. Existing median in the Vista Boulevard is also to be paved and changed to median-island from the intersection to approximately 450 feet north of the intersection with Los Altos Parkway.

Original Budget: \$181,000.00
Actual Costs: In progress

Original and Actual Completion Dates: Currently in design.

Contacts: Mr. Jon Erb, P.E., Parsons, (775) 885-2280
Mr. Doug Malloy, P.E., RTC, (775) 348-0171

Kietzke Lane/Del Monte Lane Roundabout (Geotechnical Engineering, Materials Testing and Inspection) - This RTC project involved the design and construction of a roundabout complex to manage the intersection of two arterial roadways with high traffic volume.

Black Eagle Consulting, Inc. was contracted by CFA to provide the following services:

- Research existing design documents pertinent to the area.
- Perform exploration of the site to determine general soil and ground water conditions pertaining to design and construction of the existing and proposed improvements.
- Perform geotechnical and geochemical laboratory testing on representative material samples obtained during exploration of the site to determine the physical and mechanical properties of the various on-site materials.
- Perform geotechnical analyses in support of the structural design of improvements on this project.
- Prepare a report summarizing the items above and also containing geotechnical design

recommendations for the project. Results of our field exploration and testing programs form the basis for all conclusions and recommendations.

- Provide materials testing and inspection during night construction.
- Perform field and laboratory testing of subgrade, base, concrete and asphalt per RTC specifications.

Original Budget: \$43,295.00

Actual Costs: \$41,125.00

Original and Actual Completion Dates: The geotechnical report was issued in November 2006 and construction was completed on schedule in September 2007.

Contacts: Mr. David Logan, P.E., RTC, (775) 332-9509
Mr. Tom Bos, P.E., CFA, Inc., (775) 856-1150

Steamboat Parkway/Rio Wrangler Parkway/Carat Avenue/Pipers Peak/Veterans Parkway Improvements (Geotechnical Engineering, Materials Testing, and Inspection) - Black Eagle Consulting, Inc. has been providing geotechnical engineering, materials testing, and inspection on this City of Reno-dedicated project for the last 9 years. Approximately 12 miles of four- to six-lane arterial with partial center median, curb, gutter, and sidewalk. Five (5) bridge structures over Steamboat Creek, as well as a soil cement/box culvert diversion structure at Steamboat Creek, have been or are in the process of being constructed as a part of this project.

Black Eagle Consulting, Inc. was contracted by the Nevada Tri Partners to provide the following services:

- Geotechnical investigation, including site and bridge investigations, laboratory testing and analyses including R-value tests, and design of paved structural section.
- Construction inspection and materials testing, including ICC special inspection as required.

Original Budget: \$1,800,000.00

Actual Costs: \$1,721,206.00

Original and Actual Completion Dates: This project was started in 1998 and is continuing.

Contacts: Brett Hammond, P.E., Odyssey Engineering, (775) 359-3303
Perry DiLoreto, Nevada Tri Partners, (775) 359-3000
Marchon Miller, RTC, (775) 348-0171

Clear Acre/U.S. 395 Interchange (Geotechnical Engineering and Materials Testing) - This RTC project includes two phases: Phase I which includes all infrastructure work associated with U.S. 395/Clear Acre Lane Improvements and Phase II, which includes all infrastructure work associated with future improvements to Sutro Street.

Black Eagle Consulting, Inc. was contracted by CH2M Hill to provide the following services:

- Research existing design documents pertinent to the area.
- Perform exploration of the site to determine general soil, bedrock, and ground water conditions pertaining to design and construction of the proposed improvements.
- Perform a pavement condition survey on Clear Acre Lane from the intersection with U.S. 395 south to McCarran Boulevard, and on McCarran Boulevard within the limits of the project.
- Perform geotechnical and geochemical laboratory testing on representative material samples obtained during exploration of the site to determine the physical and mechanical properties of the various on-site materials.
- Perform geotechnical analyses in support of the structural design of improvements on this project.
- Prepare a report summarizing Items 1 through 5 above and containing geotechnical design recommendations for the project. Results of our field exploration and testing programs form the basis for all conclusions and recommendations.
- Provide materials testing services during construction of Phase I improvements. All testing was performed by NAQTC-certified testers.

Original Budget: \$1,458,200.00

Actual Costs: \$1,120,100.00

Original and Actual Completion Dates: This project was started in 2000 and was completed in 2007.

Contacts: Ms. Brenda Lee, P.E., RTC, (775) 348-0171
Mr. Warren Call, RTC, (775) 348-0171
Ms. Cindy Potter, P.E., CH2M Hill, (775) 329-7238

Assignments with Local Governmental Agencies

City of Sparks PAL Status of I-80 Adjacent to Sparks Marina (2007-2008)

Geotechnical Engineering

Contract Amount: \$25,000.00

Contact: Mr. John Martini, City of Sparks, (775) 353-2289

Spanish Springs Interceptor (2006)

Geotechnical Engineering, Materials Testing, and Inspection

Contract Amount: \$11,000.00

Contact: Mr. Pete Etchart, City of Sparks, (775) 353-2341

Washoe County Overlay Program (2007)

Materials Testing

Contract Amount: \$32,112.00

Contact: Mr. Greg Belancio, Washoe County Public Works, (775) 328-2041

Kiley Ranch Parkway (2005-Current)

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$70,900.00

Contact: Mr. Paul Curtis, Kiley Ranch Communities, (775) 323-8844

Henry Orr Parkway (2005-Current)

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$19,200.00

Contact: Mr. Paul Curtis, Kiley Ranch Communities, (775) 323-8844

U.S. 395/Meadowood Mall Way Interchange (1998-Current)

Geotechnical Engineering

Contract Amount: \$93,000.00

Contact: Ms. Michelle Dennis, RTC, (775) 348-0171

Ms. Cindy Potter, CH2M Hill, (775) 329-7238

Interstate 580 Extension, Mount Rose to Bowers Mansion (1998-Current)

Geotechnical/Geological Engineering and Materials Testing

Contract Amount: \$1,800,000.00

Contact: Mr. Parviz Noori, NDOT, (775) 888-7786

ReTRAC Project (2003-current)

Materials Testing and Inspection

Contract Amount: \$300,000.00

Contact: Mr. Dick Howdle, Jacobs Civil, (775) 348-5182

Washoe County Sheriff's Office Detention Facility Expansion (2007)

Materials Testing and Inspection

Contract Amount: \$135,000.00

Contact: Mr. Dave Solaro, Washoe County Public Works, (775) 328-2040

Centennial Plaza Project (2006-current)

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$191,484.00

Contact: Mr. Bruce Rich, PB Americas, (916) 567-2500

RTC 4th Street Transit Center Project (2006-current)

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$26,677.00

Contact: Mr. Steve Hogan, PB Americas, (480) 966-8295

City of Sparks
RFQ No. 03/04-050
April 15, 2008
Page 10

**UNR North Campus Piping Extension Phase III (2007-2008)
Materials Testing and Inspection**

Contract Amount: \$60,100.00
Contact: Mr. Lyle Woodward, UNR, (775) 784-6514

**Glendale Treatment Plant Expansion (2007-Current)
Geotechnical Engineering, Materials Testing and Inspection**

Contract Amount: \$57,500.00
Contact: Mr. Tim Grover, TMWA, (775) 834-8049

**City of Reno North Virginia Phase II Sewer Rehabilitation (Current)
Geotechnical Engineering**

Contract Amount: \$22,000.00
Contact: Mr. Thayne Loendorf, Brown and Caldwell, (602) 567-3906

**UNR Genomics Facility (2007-2008)
Geotechnical Engineering**

Contract Amount: \$35,000.00
Contact: Mr. Matt McKim, Dekker/Perich/Sabatini Design, (505) 761-9700

**Regional Animal Control Facility (2005-2006)
Materials Testing and Inspection**

Contract Amount: \$96,000.00
Contact: Mr. Dave Solaro, Washoe County Public Works, (775) 328-2040

**I-15/Martin Luther King Viaduct (2005-Current)
Geotechnical Engineering**

Contract Amount: \$430,000.00
Contact: Mr. Kim Nokes, Parsons, (702) 435-2116

**Truckee Meadows Waste Water Treatment Plant Expansion (2004-current)
Geotechnical Engineering and Materials Testing**

Contract Amount: \$100,000.00
Contact: Mr. Stan Shumaker, City of Reno Sanitary Engineering, (775) 334-3324

**Wilbur May Middle School (2006-Current)
Geotechnical Engineering, Materials Testing and Inspection**

Contract Amount: \$150,000.000
Contact: Mr. Joe Gabica, Washoe County School District, (775) 851-5672

Sepulveda Elementary School (2005-2007)

City of Sparks
RFQ No. 03/04-050
April 15, 2008
Page 11

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$97,500.00

Contact: Mr. Joe Gabica, Washoe County School District, (775) 851-5672

**Stead Airport, Taxiway B, Airport Authority of Washoe County (2005)
Materials Testing**

Contract Amount: \$91,500.00

Contact: Mr. Aaron Hites, Sierra Nevada Construction, (775) 355-0420

Churchill County Water and Wastewater System (2005)

Geotechnical Engineering

Contract Amount: \$98,150.00

Contact: Mr. Chuck Zimmerman, Brown and Caldwell, (775) 883-4118

Dayton Waste Water Treatment Facility Expansion (2005)

Geotechnical Engineering

Contract Amount: \$32,800.00

Contact: Mr. Rich Mattucci, Brown and Caldwell, (775) 883-4118

Spanish Springs Interceptor Phase 1A (2007)

Materials Testing

Contract Amount: \$15,900.00

Contact: Mr. Andy Hummell, City of Sparks, (775) 353-2455

U.S. 395 Overlay, NDOT Contract No. 3264 (2005)

Materials Testing

Contract Amount: \$70,600.00

Contact: Mr. Michael Glock, HDR, (775) 853-9548

City of Reno Sewer Rehabilitation, Phase V (2005)

Geotechnical Engineering

Contract Amount: \$21,900.00

Contact: Mr. Chuck Zimmerman, Brown and Caldwell, (775) 883-4118

City of Sparks Materials Testing and Inspection (2005)

Materials Testing and Inspection

Contract Amount: \$60,000.00

Contact: Mr. John Martini, City of Sparks, (775) 353-2289

City of Sparks
RFQ No. 03/04-050
April 15, 2008
Page 12

Nevada State Office Building (2003-2005)

Geotechnical Engineering, Materials Testing and Inspection

Contract Amount: \$189,000.00

Contact: Mr. Dan Daily, Nevada State Public Works Board, (775) 684-4141

Sparks Effluent Pipeline (2002 – 2005)

Geotechnical Engineering and Materials Testing

Contract Amount: \$140,000.00

Contact: Ms. Angela Hueftle, AMEC Infrastructure, (775) 786-5873

RTC Reno CitiCenter (2004)

Phase I and II Environmental Site Assessments

Contract Amount: \$10,000.00

Contact: Mr. Robert Troisi, Ninyo & Moore, (702) 433-0330

RTC Sparks CitiStation (2004)

Phase I and II Environmental Site Assessments

Contract Amount: \$10,000.00

Contact: Mr. Robert Troisi, Ninyo & Moore, (702) 433-0330

TYPICAL PROJECT APPROACH AND IN-HOUSE QUALITY CONTROL

Black Eagle Consulting, Inc. believes strongly that the best projects we are involved with are the projects in which a strong working relationship exists between the owner, contractor, and inspection firm. We make every effort to foster such a relationship through open communication with all parties. The majority of our staff have decades of work experience in Northern Nevada and are extremely familiar with most of the construction companies and personnel in the area. We find this to be invaluable in maintaining clear communications and in problem solving.

Project Approach

Black Eagle Consulting, Inc. prides itself on project performance and project completion on schedule. If selected as the City of Sparks representative for materials testing and inspection, we will make available engineering field technicians who have been intimately involved with previous City of Sparks public works projects. With BEC's experience on past projects and our in-depth understanding of the Orange Book requirements and local construction materials, practices, and contractors, BEC will be able to provide an experienced, efficient, and cost-effective materials testing and inspection team that will work to provide the City of Sparks with projects that will perform as designed.

Upon receiving a project assignment, BEC will immediately evaluate the project in order to select our project team. We feel it is critical to match project requirements with the specific expertise and certifications

of our inspection and testing staff. In addition to any formal pre-construction meetings or briefings, an in-house pre-construction meeting will be held. At this meeting our project manager, construction services coordinator, project inspector, field tester, and laboratory staff will familiarize themselves with the project requirements. Plans and specifications will be thoroughly reviewed in order to identify any potential construction difficulties.

Once construction begins, our field personnel will be in constant contact with our construction services coordinator and will work closely with City of Sparks inspection staff. Our construction services coordinator will provide dispatch of inspection and testing personnel and will serve as the daily point-of-contact for City of Sparks.

Our inspectors have been trained to observe all aspects of project activity and, when possible, to bring to light any potential construction problems or job site safety issues. Our inspection staff will provide thorough daily documentation of construction activity. Such documentation will include the methods and limits of all activities observed, any pertinent discussions with project contractors, locations and results of any tests taken, necessary corrective actions, and commentary on site safety and traffic control. All of these daily field reports will be reviewed for content by our construction services coordinator. Field reports will be distributed on a weekly basis.

If necessary, our experienced staff will provide professional review and recommendations for asphalt concrete mix designs, concrete mix designs, concrete admixtures, soils and aggregates, and many other construction materials. We are experts in local materials and suppliers; and, we spare no expense in training our personnel. We have state-of-the-art knowledge of many construction materials and methods. We can readily advance creative solutions to most construction problems.

In addition to the above approach to project inspection, testing, and documentation, BEC has a unique approach to construction questions and problems which arise in the field. If such questions/problems arise and cannot be solved on-site by our field technicians with input from our office staff, a company principal will contact the appropriate City of Sparks representative and advise him/her of the situation. In addition, the company principal will go to the site to observe and resolve such issues as directed by the City of Sparks representative. As opposed to trying to resolve construction issues over the phone as is done by most, if not all, local materials testing and inspection firms, such a hands-on approach to construction inspection typically results in substantial cost savings during construction and has allowed BEC to become a highly respected materials testing and inspection firm in the Truckee Meadows within the construction industry due to our practical approach to problem solving.

Black Eagle Consulting, Inc. also recognizes the fact that the timely reporting of test results is vital to project performance. Testing from a previous paving day is often used to adjust mix properties for subsequent paving days. Timeliness of test results can help to ensure a superior finished product, while minimizing contractor remediation and penalty costs. We commonly run double shifts in our laboratory to ensure that laboratory testing and reporting deadlines are met. All testing for these projects will be performed and reported within 24 hours of receiving the sample. Much of the testing information will be available for verbal reporting within a few hours of sample receipt. In particular, asphalt hot-mix sample test results are made available early in the morning of the day following laydown. This commitment often requires extreme effort by our laboratory personnel; however it is this effort and commitment that distinguishes BEC as the best.

Black Eagle Consulting, Inc. further understands the demands of a rigorous construction schedule. Contractors often run multiple paving crews, and project schedules often overlap leading to an increased inspection and testing requirement on very short notice. Due to our significant company size and commitment, our scheduling process is extremely flexible and accommodating to varying project demands. In short, we will supply as many part- or full-time senior level inspectors and supporting sampling staff as required for these projects.

Black Eagle Consulting, Inc. has sufficient laboratory and field testing equipment to ensure that all project deadlines are met. All field personnel will be equipped with applicable sampling and testing equipment, as well as cellular telephones. We understand that we may need to service several projects simultaneously. We have a total of 22 Troxler nuclear density gauges, 3 of which are thin-layer asphalt density gauges. We have several complete sets of asphalt concrete coring gear which includes generators, core drills, and all coring tools. We will commit all necessary equipment to City of Sparks projects and will be available at a moment's notice.

In-House Quality Control

In order to perform as described above, BEC maintains a strict in-house quality control program with respect to materials testing and inspection. All laboratory testing is supervised by Mr. Gary Bomberger, E.I., who has detailed experience in all facets of laboratory materials testing. All calculations performed as a part of the materials testing are also reviewed by Mr. Bomberger. Once initially reviewed, all calculations are forwarded to the company President, a licensed engineer, for final review and certification. Although somewhat redundant, such a review process has been proven to minimize reporting errors which can lead to confusion and extra costs.

With respect to field testing and inspection, daily field reports and nuclear density test summary sheets are developed by the field technicians on a daily basis and submitted daily to weekly, depending on the size of the project, to the project manager for review and certification. The project manager reviews such reports for thoroughness and accuracy so that such reports can be used as documentation of construction activities. A copy of all laboratory test results, daily field reports, and nuclear density summary sheets are contained in a project file and issued to the responsible parties upon project completion. Copies of this project information can also be made available to the responsible parties on a daily or weekly basis, if necessary.

All materials sampling will be performed by NAQTC-certified staff members that are well versed in proper sampling techniques. All sampling will be done in strict accordance with applicable ASTM and *Orange Book* standards. All samples of hot-mix asphalt and aggregates will immediately be returned to our laboratory for testing. Qualified sampling personnel will be made available with as little as 1 hour's notice.

All laboratory testing will be performed in our AASHTO certified laboratory by NAQTC-certified materials technicians. Our project manager will be kept abreast of laboratory testing as it proceeds and will notify City of Sparks and the project contractor of test results as soon as they are available. Our laboratory manager and project manager will work closely with all parties to maintain the necessary process control. We feel that this level of commitment and communication is necessary for all types of projects but is most evident during asphalt concrete paving operations. During overlay and new paving operations we will devote all staff to perform laboratory testing in a timely manner, report laboratory test results, and communicate recommendations for mix and laydown adjustment to minimize potential pavement deficiency.

KEY PERSONNEL

The following is a list of our key personnel who will be involved with materials testing and inspection on City of Sparks public works projects.

Geotechnical

- Patrick Pilling, Ph.D., P.E. - President
- Dal Hunter, Ph.D., P.E. - Vice President
- Larry Johnson, Geologist - Senior Consultant

Construction Testing and Inspection

- Patrick Pilling, Ph.D., P.E. - President
- Larry Johnson - Senior Consultant
- Robb Owen, P.E. - Project Manager
- Mitch Fink, NAQTC - Project Manager
- David Russell, ICC - Project Manager
- Dan McEwing, NAQTC, ICC - Field Manager
- Bruce Smith, NAQTC - Senior Inspector
- Travis Ham, NAQTC - Inspector
- Mark Eizman, NAQTC - Inspector

Materials Testing

- Patrick Pilling, Ph.D., P.E. - President
- Gary Bomberger, E.I., NAQTC - Assistant Division Manager, Materials Testing

City of Sparks
RFQ No. 03/04-050
April 15, 2008
Page 16

Brief resumes for each of the individuals listed above have been attached to this SOQ. Since we are a relatively small company, the personnel listed above will be available on short notice to provide as much technical, field, and laboratory support as is deemed necessary by the City of Sparks.

CLOSING

We appreciate having the opportunity to submit this SOQ to the City of Sparks to provide materials testing and inspection on its public works projects through fiscal year 2010.

Sincerely,

Black Eagle Consulting, Inc.

Patrick A. Pilling, Ph.D., P.E.
President

encl: RFP No. 07/08-024
AASHTO Certification
Personnel Resumes

PAP:mrc