



CONTRACT STANDARDS

GENERAL “ON CALL” PROGRAM

To acquire information about “ON CALL” program placement, please contact the following persons:

For Current DBE Information:

Contact:

Roc A. Stacey
Contract Compliance
(775) 888-7497
rstacey@dot.state.nv.us

“On Call” Pre-qualifications:

Contact:

Dana A. Olivera
Administration
(775) 888-7070
dolivera@dot.state.nv.us

NDOT Location Division Consultant Coordinator

Contact:

David R. Hamlin, PLS
Chief Geodesist
(775) 888-7256
dhamlin@dot.state.nv.us

After pre-qualifications the following will occur:

Review of consultant qualifications
List developed
Ranking
Signing of “ON CALL” Agreement between consultant and NDOT
Issuing a task order

GENERAL “TASK ORDER” PROGRAM

The purpose of the “ON CALL” program is to use consultants when:

- A. There is inadequate manpower in-house.
- B. Inadequate expertise in-house in the given field of study.

The fourteen-step process shown below briefly describes the “task order” process. This by no means replaces the formal provisions of the current standard consultant selection process as defined by NDOT in the “**Consultant Agreement Procedures**” manual. Task orders will be released to those firms already selected as “ON CALL” consultants.

1. Assign project to “ON CALL”
2. Initial telephone contact with consultant
3. Letter detailing scope of work
4. Acquire in-house cost estimate
5. Receive cost estimate from consultant
6. Assign and develop task order
7. Documents signed, work begins
8. Submit initial work to appropriate section within Location Division for adherence to standards.
9. Submitted for payment
10. Audit review
11. Final billing when work is finished
12. Post audit and review for final payment
13. Consultant evaluation and response
14. Agreement closeout

VENDOR RESPONSIBILITIES

- A. It is the vendor's responsibility to be familiar with all specifications and guidelines provided by NDOT and to follow them in performing work for NDOT.
- B. It is the vendor's responsibility to consult with NDOT to resolve all discrepancies and ambiguities between these specifications and the task order **prior** to proceeding with work on the project.
- C. Where these specifications, task order, and the mapping limits diagram describe portions of work in general terms, but not in complete detail, it is to be understood that only the best professional practice is to prevail. Satisfactory materials and equipment are to be used as necessary to complete the work in accordance with accuracy and content requirements specified therein.
- D. It is the vendor's responsibility to use materials, software, and equipment and other incidentals necessary to perform the work that are of uniformly high quality and will be compatible with the quality and accuracy standards specified for the project.
- E. It is the vendor's responsibility to provide safe storage of any point marked diapositives and control photos provided by NDOT while they are in the vendor's possession and to ensure their safe return to NDOT at the completion of the project.
- F. At the completion of a mapping or GIS project, the vendor shall return to NDOT all materials including original negatives, diapositives, contact prints, and scanned digital image files on CD-ROM or DVD. In addition for GIS projects, source code, required documentation and data as appropriate will be provided to NDOT.
- G. A Nevada Professional Land Surveyor will be responsible for Mapping or Survey projects. A PLS stamped report will be required of the consultant to indicate that the minimum requirements of surveying and mapping have been met.
- H. Safety is a first priority at NDOT. Field personnel will at all times wear vests, and hats. They will also have proper signage set at the work site.

CONSULTANT PROPOSAL

Sept.1, 2002
REVISED

Mr. Ben Grissom
Nevada Department of Transportation
1263 S. Stewart Street
Carson City, Nevada 89712
FAX (775) 888-7203

SUBJECT: S.R. 28 - SPOONER JUNCTION TO TWO MILES NORTH OF SPOONER JUNCTION

Dear Ben,

Per your request, we have prepared this proposal to survey and map the right-of-way of a two-mile portion of S.R. 28 at Lake Tahoe. As discussed, this will be performed on the State Route beginning at Spooner Junction on the south and continue north approximately two miles to the northerly terminus of our mapping project, NDOT Agreement No. P000-00-000.

Proposed tasks for this project are:

RESEARCH: All record documents and right-of-way mapping information defining the existing right-of-way and adjacent property ownership lines will be obtained to aid in the recovery of boundary corners and the establishment of property lines.

RECONNAISSANCE: Recover and locate all existing NDOT construction control monuments, base control, right-of-way, and boundary corners necessary to control and define existing alignment and adjacent property ownership lines.

FIELDWORK: Tie existing property corners, section corners, and highway monuments from the existing control monuments set by NDOT.

CENTERLINE ALIGNMENT CALCULATIONS: Calculate best-fit centerline using record maps and found prima facie evidence.

GEODESY ALIGNMENT DRAFTING: Draft calculated alignment and submit individual sheets on disk along with all required deliverables per the "Consultant Handbook."

MEETINGS: Three meetings are anticipated with NDOT personnel.

The cost estimate has been itemized on the attached spreadsheet and amounts to a total of \$14,273.25 for this service contract.

If you should have any questions or require further information regarding our scope of services or this proposal, please contact

Respectfully submitted,
SodHouse Surveying, LTD.

James Merritt, President

Sept. 1, 2002
S.R. 28
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EXAMPLE

TYPICAL “ON CALL” TASK ORDER

The consultant shall provide for the survey and mapping as follows:

I Overview

- A. The required scope of work is to supply photogrammetric mapping covering a width of (*****) meters along route (*****) as shown on the attached sketch map.
- B. Accuracy and scale requirements necessary to assure digital photogrammetric mapping for this project as defined by NDOT’s “Special Instructions for Survey and Mapping Consultants” manual, will be met. The quality of compiled maps will be periodically verified by NDOT with methods described in the FHA “Survey and Mapping Manual.”
- C. Included in this scope is the necessary survey work consisting of aerial control, construction control, and cadastral surveying. The accuracy requirements for these surveys have been delivered to you in the “Special Instructions for Survey and Mapping Consultants” manual or will be delivered to you upon request.

II Reconnaissance

- A. Your firm will be expected to perform an initial reconnaissance that will reveal approximately where:
 1. All existing highway reference or right-of-way monuments are located.
 2. Any existing state plane coordinate data may be extended from.
 3. The location of photo control panels will be set.
 4. Construction control monuments will be set.
 5. Locate PLSS monuments found in oil.

III Horizontal and Vertical Control

- A. The basic control survey shall provide for all other project surveys and consist of a traverse or a series of connected traverses. These points shall be monumented, stamped, have a witness post set 1m south of the monument wherever feasible, and have a written description sufficient for monument retrieval. GPS points are acceptable if they meet specifications and are visible with other GPS points.
- B. The Construction Control Survey shall provide monumented and stamped control approximately every 450m and at offsets from each PC and PT along the project limits.
- C. The Aerial Control Survey shall provide monumented and stamped control as needed for the placement of aerial panels.

- D. The Cadastral Survey shall provide geodetic positions on all found highway reference monuments and R/W posts. In addition, section corners and property corners as identified and requested by the R/W division of NDOT shall be tied.
- E. All Surveys shall occur under the direct supervision of a Nevada Professional Land Surveyor.

IV Computations

- A. The coordinates of each point shall be reported in the geodetic coordinate system authorized for the project by the Geodesy Section of NDOT and will reflect the mean ground to grid factor.
- B. A best-fit alignment retracement shall be generated showing the centerline of the right-of-way and equations showing the newly generated alignment and the existing alignment documented and correlated to show the relationships between the two alignments.
- C. All computation work shall occur under the direct supervision of a Nevada Professional Land Surveyor.

V Mapping

- A. Your firm shall provide mapping that will be used in both the preliminary and design phases of engineering projects and as such you will compile both topographic and planimetric data. The generated MTCs may be used to calculate engineering volumes and all data must meet NDOT minimum standard specifications.
- B. Mapping shall be completed using authorized NDOT cell libraries and will observe NDOT color/layer/line type conventions.

VI Deliverables

- A. Deliverables shall include the following:
 - 1. Survey:
 - a. Reconnaissance report
 - b. Traverse and survey closures with network diagram
 - c. ASCII final coordinate listing
 - d. ASCII coordinate/alignment offset report
 - e. ASCII descriptions for all monuments
 - 2. Mapping:
 - a. Aerotriangulation results
 - b. MicroStation 3D planimetric files
 - c. MicroStation 3D topographic files
 - d. InRoads DTM file

3. Imagery:
 - a. One set of contact prints of the project
 - b. Digital images of the project
 - e. All negatives related to the project

VII Special Concerns

- A.** Points set in the field must be uniquely name stamped.
- B.** All applicable required permits shall be acquired before fieldwork begins, i.e. (Right of Entry).
- C.** All proper safety procedures concerning visibility and signs will be observed in surveying and mapping data collection.
- D.** If a specific duty has not been identified within the task order, but is required for the project, the consultant is expected to complete them in their normal course of work.

GIS OUTLINE FOR PROJECT PROPOSALS

Initial proposals should be submitted electronically in the current NDOT word processing software package to allow for commentary or editing. Final proposals should be submitted in PDF format. The suggested outline includes minimum information.

Purpose

Project purpose

Project Narrative

Description of problem and major issues to be resolved

Project Approach

Methodology for resolution of issues in narrative

Tasks and Deliverables

Project Initiation

Requirements and Design

Development and Testing

Delivery

Management Approach

Covers status reporting/communications

Forms

Work plans

Information requests

QA/QC

Deliverable Acceptance

Location of Work

Specific locations where work will be done and what phases will be performed at these locations.

Deliverables

A listing of all deliverables

Assumptions

Limiting factors and hardware, software issues

Resources (Staff)

Includes contact information and function

Project Schedule

Includes a graphic of staff assigned, title, and hours

Includes plan of actions and milestones.

Project Costs

Hourly rates

Cost per phase

Travel

Sub-contractor work subtotal (if applicable)

Cost total

Appendices

Timeline

Design or Functional Requirements documents

CONSULTANT TIME/COST EXAMPLE INVOICE

SR28 – FROM SPOONER JUNCTION NORTH 2 MILES

09/01/02
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DIRECT COST

VOID – SEE REVISED BELOW

Task 1: Research

Professional Land Surveyor	8 hr. @	\$28.61/hr.	\$228.88
Technician	16 hr. @	\$15.75/hr.	\$252.00

Task 2: Reconnaissance

Professional Land Surveyor	16 hr. @	\$25.50/hr.	\$408.00
Party Chief	24 hr. @	\$17.75/hr.	\$426.00
Instrument Man	24 hr. @	\$14.00/hr.	\$336.00
Clerical	4 hr. @	\$15.05/hr.	\$60.20

Task 3: Horizontal and Vertical Control

Professional Land Surveyor	16 hr. @	\$25.50/hr.	\$408.00
Party Chief	40 hr. @	\$17.75/hr.	\$710.00
Instrument Man	40 hr. @	\$14.00/hr.	\$560.00
Technician	8 hr. @	\$15.75/hr.	\$126.00
Clerical	10 hr. @	\$15.05/hr.	\$150.50

Task 4: Calculations and Right-Of-Way Resolution

Professional Land Surveyor	40 hr. @	\$28.61/hr.	\$1,144.40
Technician	40 hr. @	\$15.75/hr.	\$630.00
Party Chief	10 hr. @	\$17.75/hr.	\$177.00
Instrument Man	10 hr. @	\$14.00/hr.	\$140.00
Clerical	4 hr. @	\$15.05/hr.	\$60.20

Task 5: Right-Of-Way Mapping

Professional Land Surveyor	40 hr. @	\$23.56/hr.	\$942.40
Technician	60 hr. @	\$15.75/hr.	\$945.00

Task 6: Meetings

Principal Professional Land Surveyor	4 hr. @	\$51.92/hr.	\$207.68
Professional Land Surveyor	8 hr. @	\$28.61/hr.	\$228.88

Subtotal			8,141.64
Overhead		\$8,141.64 x 1.49	\$12,131.04
Subtotal			\$20,272.68
Fixed fee		9% (profit)	<u>\$1,824.54</u>
Subtotal			<u>\$22,097.23</u>

INDIRECT NON-SALARY COST

GPS Receivers	40 hr. @	\$25.00/receiver-hr.	\$1,000.00
Mileage	1660 mi @	\$0.45/mi	\$747.00
Total Station	32 hr. @	\$8.25/hr.	\$264.00
Material		\$450.00	<u>\$450.00</u>
Subtotal			<u>\$2,461.00</u>
Direct Labor, Overhead, and Fee			\$22,097.23
Indirect Costs			<u>\$2,461.00</u>

Total **\$24,558.23**

NOTES: Wages listed are averaged per category and are current through March 1998.

FLOWCHART OF CONSULTANT MAPPING

