



Division of Purchasing
Request for Proposal No. 1767
For

CROSS BAND INTEROPERABILITY REPEATERS INSTALLATION

PWP-WA-2009-217

Release Date: April 13, 2009

Deadline for Submission and Opening Date and Time:
May 14, 2009 @ 2:00PM

For additional information, please contact:
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This document must be submitted in the "State Documents" section/tab of vendors' technical proposal

See Page 19, for instructions on submitting proposals.

Contact Information

Company Name _____

Address _____ City _____ State _____ Zip _____

Telephone (____) _____ Fax (____) _____

E-Mail Address: _____

Prices contained in this proposal are subject to acceptance within _____ calendar days.

Contact Person _____

Print Name & Title _____

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A Request for Proposal process is different from an Invitation to Bid. The State expects vendors to propose creative, competitive solutions to the agency's stated problem or need, as specified below. Vendors may take exception to any section of the RFP. Exceptions should be clearly stated in Attachment B (Certification of Indemnification and Compliance with Terms and Conditions of RFP) and will be considered during the evaluation process. The State reserves the right to limit the Scope of Work prior to award, if deemed in the best interest of the State NRS §333.350(1).

1. OVERVIEW OF PROJECT

The State of Nevada, Purchasing Division on behalf of the Nevada Office of Homeland Security is currently seeking vendors to propose solutions for the installation of cross-band repeaters that will interconnect VHF narrowband with 800 MHz.

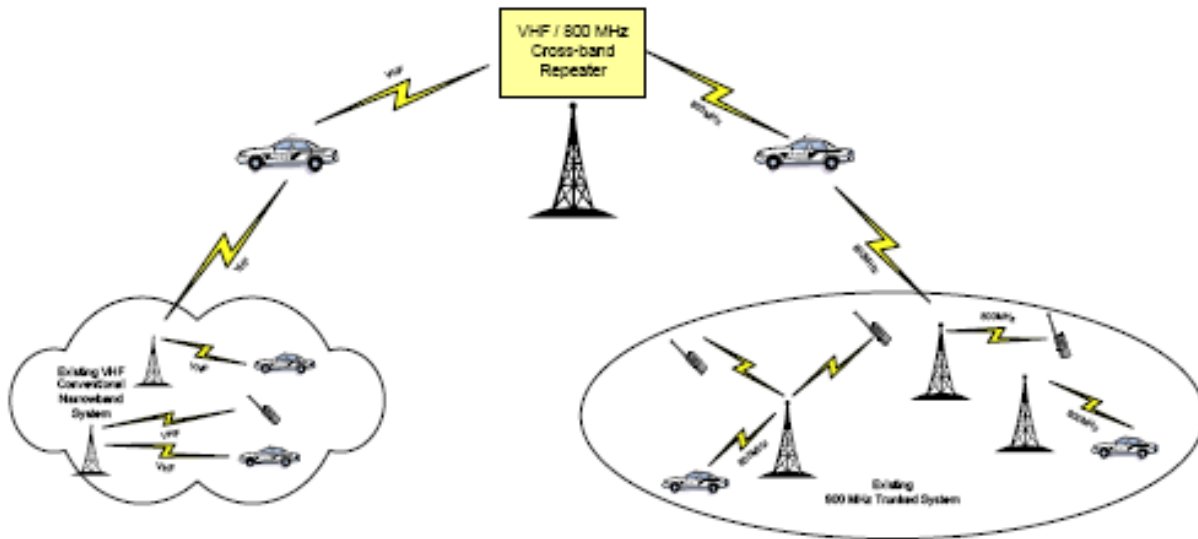
Today, limited communications interconnectivity exists across the State of Nevada due to disparate core system designs and the lack of system linkages allowing 800 MHz and VHF users to communicate. The solution must effectively and practically enable VHF radio users voice communications with the 800 MHz users via VHF narrowband FM subscriber equipment.

In addition, 800 MHz users must be able to communicate with VHF radio users via 800 MHz FM subscriber equipment. FIGURE 1-1 (below) illustrates how the cross-band repeater will function. The cross-band repeater solution that consists of eighteen (18) and up to thirty-eight (38) cross-band repeater sites in accordance with the requirements of the Nevada Communications Interoperability Engineering Project and as defined in the Nevada Statewide Communications Interoperability Plan (SCIP). Each site will have three (3) cross band repeaters as described in Section 3 (scope of work).

- 1.1 This solicitation may be awarded to more than one vendor. It is anticipated that this contract shall be for one year or until completion of the project.
- 1.2 This is a prevailing wage project. Public Works Project No. PWP-WA-2009-217.
- 1.3 A performance bond in the amount of the value of the contract will be required. (See Attachment C).

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Figure 1-1 Cross-Band Repeater Diagram



2. ACRONYMS/DEFINITIONS

For the purposes of this RFP, the following acronyms/definitions will be used:

<i>Awarded Vendor(s)</i>	The organization/individual(s) that is awarded and has an approved contract with the State of Nevada for the services identified in this RFP.
<i>Confidential Information</i>	Any information relating to the amount or source of any income, profits, losses or expenditures of a person, including data relating to cost or price submitted in support of a bid or proposal. The term does not include the amount of a bid or proposal. See NRS §333.020(5) (b).
<i>Division</i>	Department of Public Safety, Office of Homeland Security
<i>Evaluation Committee</i>	An independent committee comprised of a majority of State officers or employees established to evaluate and score proposals submitted in response to the RFP pursuant to NRS §333.335.
<i>LOI</i>	Letter of Intent - notification of the State's intent to award a contract to a vendor, pending successful negotiations; all information remains confidential until the issuance of the formal notice of award.
<i>May</i>	Indicates something that is not mandatory but permissible.
<i>NAC</i>	Nevada Administrative Code
<i>NRS</i>	Nevada Revised Statutes
<i>NOA</i>	Notice of Award- formal notification of the State's decision to award a contract, pending Board of Examiners' approval of said contract, any non-confidential information becomes available upon written request.

<i>Proprietary Information</i>	Any trade secret or confidential business information that is contained in a bid or proposal submitted on a particular contract.
<i>Public Record</i>	All books and public records of a governmental entity, the contents of which are not otherwise declared by law to be confidential (see NRS §333.333 and NRS §600A.030 (5)) must be open to inspection by any person and may be fully copied or an abstract or memorandum may be prepared from those public books and public records.
<i>RFP</i>	Request for Proposal - a written statement which sets forth the requirements and specifications of a contract to be awarded by competitive selection NRS §333.020(7).
<i>Shall/Must/Will</i>	Indicates a mandatory requirement. Failure to meet a mandatory requirement may result in the rejection of a proposal as non-responsive.
<i>Should</i>	Indicates something that is recommended but not mandatory. If the vendor fails to provide recommended information, the State may, at its sole option, ask the vendor to provide the information or evaluate the proposal without the information.
<i>State</i>	The State of Nevada and any agency identified herein.
<i>Subcontractor</i>	Third party, not directly employed by the vendor, who will provide services identified in this RFP. This does not include third parties who provide support or incidental services to the vendor.
<i>Trade Secret</i>	Means information, including, without limitation, a formula, pattern, compilation, program, device, method, technique, product, system, process, design, prototype, procedure, computer programming instruction or code that: derives independent economic value, actual or potential, from not being generally known to, and not being readily ascertainable by proper means by the public or any other person who can obtain commercial or economic value from its disclosure or use; and is the subject of efforts that are reasonable under the circumstances to maintain its secrecy.
<i>Vendor</i>	Organization/individual submitting a proposal in response to this RFP.

3. SCOPE OF WORK

3.1 Equipment

Repeater Equipment will be provided by the State and will conform to standard communications industry interfaces and protocols, allowing easy and cost-effective backbone and interoperability expansion. Vendors may be required to supply auxiliary equipment as may be needed to install the repeater equipment. Auxiliary equipment shall be the most advanced available to support the selected architecture.

3.1.1 Equipment Mounting

Equipment may be mounted in standard 19-in steel racks. For rack-mounted equipment, all open rack spaces shall be covered with a blank panel. For cabinet-mounted equipment, cabinets shall be suitable for indoor installation, with doors or panels capable of being locked.

3.1.1.1 All equipment shall be securely mounted in a neat and workmanlike manner and in such a way as to provide ready access to electronic controls and metering points and installed to meet seismic zone 4 requirements.

3.1.1.2 All equipment shall be properly cooled under normal operating conditions.

3.1.1.3 All equipment designs shall be completely solid state.

3.1.1.4 All interconnects, cabling and equipment shall be clearly labeled.

3.1.1.5 Vendors shall make all coaxial cables in the field between radios and combiners/multicouplers. Vendors shall allow additional time to make and install the cables.

3.1.2 Repeater Station Functional Tests

The following minimum equipment tests shall be performed in the field and documented on the repeater:

- A. Able to power up and transmit into a “dummy load.”
- B. Able to receive an existing or planned NCRS or rural 150MHz Frequency
- C. Where frequency licenses exist, testing will include a demonstration of cross-band repeating using 150 and 800MHz radios within the tactical area covered by the site.

The awarded vendor(s) shall perform on-site measurements of the above equipment tests. The purpose of the equipment tests is to ensure that the equipment has been properly installed and meets the Repeater Functionality described in Section 3.2.2. **The vendor(s) will include a separate cost item and description of the testing they will perform in order to validate proper equipment installation and function.**

3.2 Radio System Installation

3.2.1 Antenna System Installation

Good engineering and installation practices shall be adhered to in the assembly and installation of all antenna system equipment. The following paragraphs describe situations where particular care shall be taken.

- 3.2.1.1 All RF connectors shall be installed in accordance with their manufacturer installation requirements.
- 3.2.1.2 All connectors shall be torqued to the manufacturer's specifications using a torque wrench; hand tightening is not acceptable.
- 3.2.1.3 Manufacturer approved wrapping and sealer shall be utilized on all outdoor transmission line in-line and grounding connections to prevent water intrusion.
- 3.2.1.4 Outdoor installations shall include the proper minimum diameter drip loops in all cabling.
- 3.2.1.5 Transmission lines shall be securely fastened to a cable tray or ladder attached to the tower using manufacturer approved devices and methods.
- 3.2.1.6 A hoisting grip shall be used at the top and at manufacturer recommended intervals to provide strain relief.
- 3.2.1.7 Refer to section 3.4.5 for Grounding Requirements

3.2.2 Repeater Functionality

Each repeater shall receive the audio signal on the incoming frequency band, receive frequency and retransmit the signal on the transmit frequency of the other frequency band as well as providing in cabinet repeat to the transmit frequency of the incoming frequency band.

3.2.3 Repeater Interconnect

The vendor(s) shall provide appropriate cross-connection via a VF cross connection panel which will facilitate future interoperability requirements and growth.

3.2.4 Modulation

VHF: 12.5 kHz FM: 11K3F3E
800 MHZ: 20 kHz FM: 20K0F3E

3.2.5 Radio Sites

3.2.5.1 A list of thirty-eight (38) required radio sites is provided in the following list. This list of sites is based on the interoperable frequency plan developed in support of the Nevada Communications Interoperability Engineering Project and has been approved by the Nevada Communications Steering Committee (NCSC).

The vendor(s) selected for this procurement will partake in the effort to install the repeaters at the (18) I-80, US-95, and US-50 locations, and potentially the remaining sites. All sites other than required sites shall be recommended by the vendor (s) and approved by the State based on the following equally important criteria:

- Radio coverage

- Connectivity network availability
- Facility availability
- Cost
- Schedule

3.2.5.2 Each site will consist of three cross-band repeaters. One repeater for the ICall frequency pair and two for the ITac frequency pair listed.

Installation Sites included in this RFP:

I-80 Sites (7)

Peavy Hill, Elko Mountain, Mary's Mountain, Winnemucca Mountain, Touton Peak, Peavine Ridge and Eagle Ridge.

US-95 Sites (6)

Sober Peak, Mt. Brock, Pilot Peak, TV Hill, Bald Mountain (Schurz) and Pine Nut Mountain

US-50 (5)

Cave Mountain, Squaw, Prospect Peak, Austin Mountain and Fairview

Potential Additional Installation Sites:

Nye County (2)

Warm Springs and Fitzpatrick

Lincoln County (1)

Highland Peak

Other Sites in Specs (17)

Ellen Dee Mountain, Mesquite, Opal, Overton, Penn Hill, Pine Grove Mountain, South Tahoe, Spruce Mountain, Trident Peak, Poitou Valley, Slick Mountain, Snowflake Lodge, Angel's Peak, Christmas Tree Pass, NLV Dispatch, Potsi Mountain and Sunrise Mountain.

3.2.6 Frequencies

The State is applying for five (5) frequency pairs for VHF and five (5) for 800 MHz for use under specific conditions. Where directed by the customer, the vendor, must use these frequencies as the outlined in the interoperable frequency plan to meet the requirements of this specification.

Table 3-1 lists the frequencies that will be programmed at each of the thirty-eight cross-band repeater sites.

The State will prepare license applications and modifications necessary to accommodate the system design, including the following:

- Frequency coordination forms
- FCC forms
- FAA forms
- Waiver requests
- Extended implementation schedules
- 800 MHz regional planning committee application packages

Table 3-1
(see below)

Interoperability Repeater Frequency Assignments

Location	Latitude	Longitude	ICall Repeater Pairs		ITac Repeater Pairs #1		ITac Repeater Pairs #2	
			800 MHz	VHF	800 MHz	VHF	800 MHz	VHF
Austin Mountain	N 39-27-13	W 117-03-13	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Bald, Schurz	N 38-47-3.5	W 118-50-4.1	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Cave Mountain	N 39-09-49	W 114-36-51	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Eagle Ridge	N 39-33-26	W 119-21-46	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Elko Mountain	N 40-53-40	W 115-37-45	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Ellen Dee Mountain	N 41-47-07	W 114-50-22	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Fairview	N 39-13-29	W 118-09-05	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Fitzpatrick	N 38-27-32.9	W 117-09-49.6	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Highland Peak	N 37-53-38	W 114-34-40	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Mary's Mountain	N 40-43-07	W 116-16-06	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Mesquite	N 36-48-44	W 114-04-21	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Mt Brock	N 38-03-06	W 117-13-30	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Opal	N 35-42-03	W 114-53-27	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Overton	N 36-41-08	W 114-31-08	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Peavy Hill	N 41-11-49.8	W 114-56-36.3	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Penn Hill	N 41-44-07	W 116-03-45	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Pilot Peak	N 38-20-33	W 117-58-26	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Pine Grove Mountain	N 38-41-02	W 119-11-07	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Pine Nut Mountain	N 39-11-49	W 119-29-23	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Prospect Peak	N 39-26-59	W 115-59-04	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Sober Peak	N 37-00-34	W 116-47-29	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
South Tahoe	N 38-54-56	W 120-00-13	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Spruce Mountain	N 40-33-10.8	W 114-49-17.9	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Squaw	N 39-15-58	W 114-53-34	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Toulon Peak	N 40-06-25	W 118-44-31	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Trident Peak	N 41-54-07	W 118-25-00	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
TV Hill	N 38-27-38	W 118-45-47	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Warm Springs	N 38-11-31	W 116-25-03	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Winnemucca Mountain	N 41-00-30	W 117-46-09	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Peavine Ridge	N 39-35-22.7	W 119-55-45.7	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Poito Valley	N 40-25-33.7	W 119-21-6.7	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Slide Mountain	N 39-18-51.7	W 119-53-5.7	8CALL90	VCALL00	8TAC93	VTAC17	8TAC94	VTAC19
Snowflake Lodge	N 39-14-50.7	W 119-55-24.7	8CALL90	VCALL00	8TAC91	VTAC00	8TAC92	VTAC18
Angels Peak	N 36-19-06	W 115-34-29	8CALL90	VCALL00	8TAC92	VTAC18	8TAC94	VTAC19
Christmas Tree Pass	N 35-15-00	W 114-45-36.9	8CALL90	VCALL00	8TAC91	VTAC00	8TAC94	VTAC19
NLVDP Dispatch	N 36-12-53.4	W 115-09-47.9	8CALL90	VCALL00	8TAC91	VTAC00	8TAC93	VTAC17
Potosi Mountain	N 35-53-38	W 115-29-45	8CALL90	VCALL00	8TAC92	VTAC18	8TAC93	VTAC17
Sunrise Mountain	N 36-10-47	W 114-59-53.9	8CALL90	VCALL00	8TAC91	VTAC00	8TAC94	VTAC19

	8CALL90	8TAC91	8TAC92	8TAC93	8TAC94
Base Transmit (MHz)	851.0125	851.5125	852.0125	852.5125	853.0125
Mobile Transmit (MHz)	806.0125	806.5125	807.0125	807.5125	808.0125

	VCALL00	VTAC00	VTAC18	VTAC17	VTAC19
Base Transmit (MHz)	159.4725	158.7375	161.8250	161.8500	161.8750
Mobile Transmit (MHz)	155.7525	154.4525	157.2250	157.2500	157.2750

3.3 Code Requirements

The vendor(s) shall follow applicable Federal, State, and Local codes for installing and operating the cross-band repeater systems.

3.4 Facility Requirements

3.4.1 Secure Enclosure

Cross-band repeaters that are not installed in secure equipment rooms shall be secured in locked, tamper-proof enclosures.

3.4.2 Power

The vendor(s) shall survey each facility to determine if the power is sufficient for the proposed equipment. If the facility does not have the proper power for the proposed equipment components, the vendor(s) shall propose measures that would provide the adequate power and provide pricing in their PROPOSAL (as an option).

3.4.3 Backup Power

3.4.3.1 The vendor(s) shall coordinate with the building owner to determine if there is adequate UPS/generator backup power.

3.4.3.2 The vendor(s) shall propose 12-hour battery backup based on a 20% duty cycle for the in-building repeater

3.4.4 HVAC

The vendor(s) shall survey each facility to determine if the HVAC is sufficient for the proposed equipment. If the facility does not have the proper HVAC for the proposed equipment components, the vendor(s) shall propose measures that would provide the adequate HVAC and provide pricing in their proposal (as an option).

3.4.5 Grounding

3.4.5.1 The vendor(s) must ascertain and insure that the recommended grounding requirements for the components of the cross-band repeater systems are met. If a vendor(s) determines that a facility does not have the proper grounding system for the proposed equipment components, the vendor shall propose measures that would provide adequate grounding and provide pricing in their proposal (as an option). For reference purposes only, a general description of typical grounding requirements adhered to by the State of Nevada is included in Attachment G.

3.4.5.2 The vendor(s) shall survey each facility to determine if the grounding system is sufficient for the proposed equipment. In cases where the grounding system is insufficient, the vendor(s) shall report any deficiencies and propose remedies. The vendor(s) is not authorized to complete any additional grounding work unless specifically authorized by the State of Nevada.

3.4.5.3 The internal grounding system shall employ current and proven single point grounding methodology.

3.4.5.4 The design of communications shelters should facilitate all external entry points in close proximity on one wall or adjacent corners. This includes transmission lines, commercial power entry, AC surge suppressors, and Telco lines. The center of these entry points should be the internal perimeter ring master ground bus bar that is located directly under the transmission line.

3.5 Coverage Requirements

Coverage prediction diagrams have been generated using Longley-Rice prediction models, which predict long-term median transmission loss over irregular terrain relative to free-space transmission loss. FIGURE 3-1 provides the VHF coverage map and FIGURE 3-2 provides the 800 MHz coverage map. Actual coverage should be verified by independent testing to validate the coverage of each cross-band repeater site.

3.5.1 Service Area and Coverage Test Sectors

The Service Area for the repeater radio system consists of all the area contained within the green portion of the VHF and 800 MHz coverage prediction maps, FIGURE 3-1 and FIGURE 3-2.

3.5.1.1 Coverage Test Sectors will be identified by the vendor, in his/her proposal.

3.5.1.2 Each Coverage Test Sector will be tested separately to ensure that coverage is evenly distributed throughout the Service Area.

3.5.2 Radio Coverage Requirements

3.5.2.1 Vendors proposals shall determine delivered audio quality for each of its proposed repeater installations. As part of this target, the vendor will need to calculate coverage of their installed cross-band equipment.

3.5.2.2 The cross band repeaters shall be designed to provide the designated talk-out and talk-back signals at the receiver antenna terminals under the conditions stated below. Talk-out and Talk-back shall be based on vehicle mounted mobile radio with unity gain antenna.

3.5.2.3 The radio repeater shall provide a minimum 0.7 microvolt median signal strength to the receiver antenna terminals in both the talk-out (base station to portable or mobile radio unit) and talk-in (portable or mobile radio unit to base station) directions for 800 MHz, and 2.0 micro volts for VHF Suburban, and 5.0 micro volts for VHF Urban.

3.5.2.4 The radio repeater is intended to provide analog coverage level to the receiver in the tactical communications area under the specified conditions to the required availability of 95%.

3.5.3 Coverage Charts and Analysis

The vendor shall provide coverage charts in their proposal as supporting documentation.

- 3.5.3.1 Each chart shall be composed of a single composite area delineating the coverage requirements specified in the Coverage Requirements section above for each Coverage Test Sector.
- 3.5.3.2 The composite contour shall be overlaid on a map with the specified Coverage Test Sector clearly defined.
- 3.5.3.3 The coverage chart shall identify all areas within the Coverage Test Sector that do not meet the specified requirement. Identified coverage deficiency areas in the Coverage Test Sector shall be taken into account when constructing the composite 95% boundary.
- 3.5.3.4 All areas within the defined Coverage Test Sector, including areas that do not meet the coverage requirements, shall be considered equal when selecting random coverage test locations.
- 3.5.3.5 The coverage chart will be used as supporting documentation only and shall not be considered a part of confirming or guaranteeing that the system will meet the coverage specifications. The vendor shall also include, in their proposal, a detailed description of the propagation models used and the assumptions made in preparation of the charts.

3.5.4 Coverage Problem Areas

Coverage Test Sectors that are found to have coverage levels significantly different from other radio system repeaters operating from a site agreed upon in the Contract shall be addressed and corrected by the vendor at the vendors' expense up to and including all costs associated with corrective measures. Corrective action shall be completed within six months of when the problem area is identified and communicated to the vendor.

3.5.5 Coverage Guarantees

For the purpose of this guarantee, "randomly selected" is defined as evenly spaced across the Coverage Test Sectors. This guarantee defines an area availability of signal. There is no time availability aspect to this specification. This guarantee is independent of the vendor's choice of propagation model, terrain database, statistical prediction method, or coverage charts. The Coverage Guarantee relies exclusively on measured values of signal level after the system has been installed.

At acceptance test time, these availability numbers will be compared directly with measured values to establish compliance. The guarantees provided in this form will constitute the sole criteria for evaluating proposed coverage.

- 3.5.5.1 Subjective tests of Delivered Audio Quality (DAQ) shall not be substituted under any condition for any test location, either passed or failed.

- 3.5.5.2 In the event there is a demonstrated failure of either the test equipment or the tested system during a particular test run, the entire Coverage Test Sector must be retested after the failure is repaired.
- 3.5.5.3 In addition, should the failed portion (or major contributing radio site) affect other Coverage Test Sectors, the State may, at their option; require that those sectors be retested as well.

3.6 Maintenance

Vendors may include in their pricing applicable maintenance costs (including facility usage) for repeater installations at the (18) sites identified in section 3.2.5 for a period of two (2) years. This cost shall be included in the pricing section (Attachment F) of this RFP only and must not be included in the technical response.

3.6.1 Procurement Submittal Items

- A. Respondents shall list the location of their maintenance shops in the Proposal. If the proposer plans to use subcontractors for maintaining any or all of the associated equipment, the subcontractor information in section four (4) of this RFP must be thoroughly completed.
- B. Respondents shall list in the Section four (4) of this RFP, the name, address, key contact personnel, and capabilities of the service center(s) providing warranty service.
- C. The respondent shall describe in full, escalation procedures to be used in the event State does not feel problems are being resolved in adequate time.
- D. The respondent shall state the method for handling and the turn-around time for the repair of the interoperability equipment during the warranty and maintenance periods as proposed in this RFP. Respondents must provide their standard and emergency response times for regular working hours, weekend, night and holiday hours. The vendor's response time matrix/chart shall cover in total 24/7 hours 365 day.
- E. The respondent shall state in their RFP response, the locations and level of parts availability for all permanent parts depots serving the State of Nevada.
- F. The respondent shall thoroughly describe their approach to providing State Support, which shall include a proposed schedule of approach for installation within a 4 to 6 month period.

3.6.2 Maintainability & Accountability

The following shall apply for maintainability of the entire system:

- A. All equipment shall be installed in a manner that makes it maintainable to the extent practicable by commonly available test equipment. Specialized test equipment shall be identified, as required, and quoted in the respondents pricing submittal.
- B. All warranty and annual maintenance on the installation of fixed equipment shall be provided on a seven days a week, 24 hours a day basis, including weekends and holidays.
- C. The successful respondent shall utilize project management methodology to plan, baseline, execute, and report this scope of work. The successful respondent may be required to report progress on a weekly basis and shall submit a Monthly Summary Report that includes schedule updates, variance analysis, and percent complete.

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FIGURE 3-1: State of Nevada 800 VHF Mobile Coverage

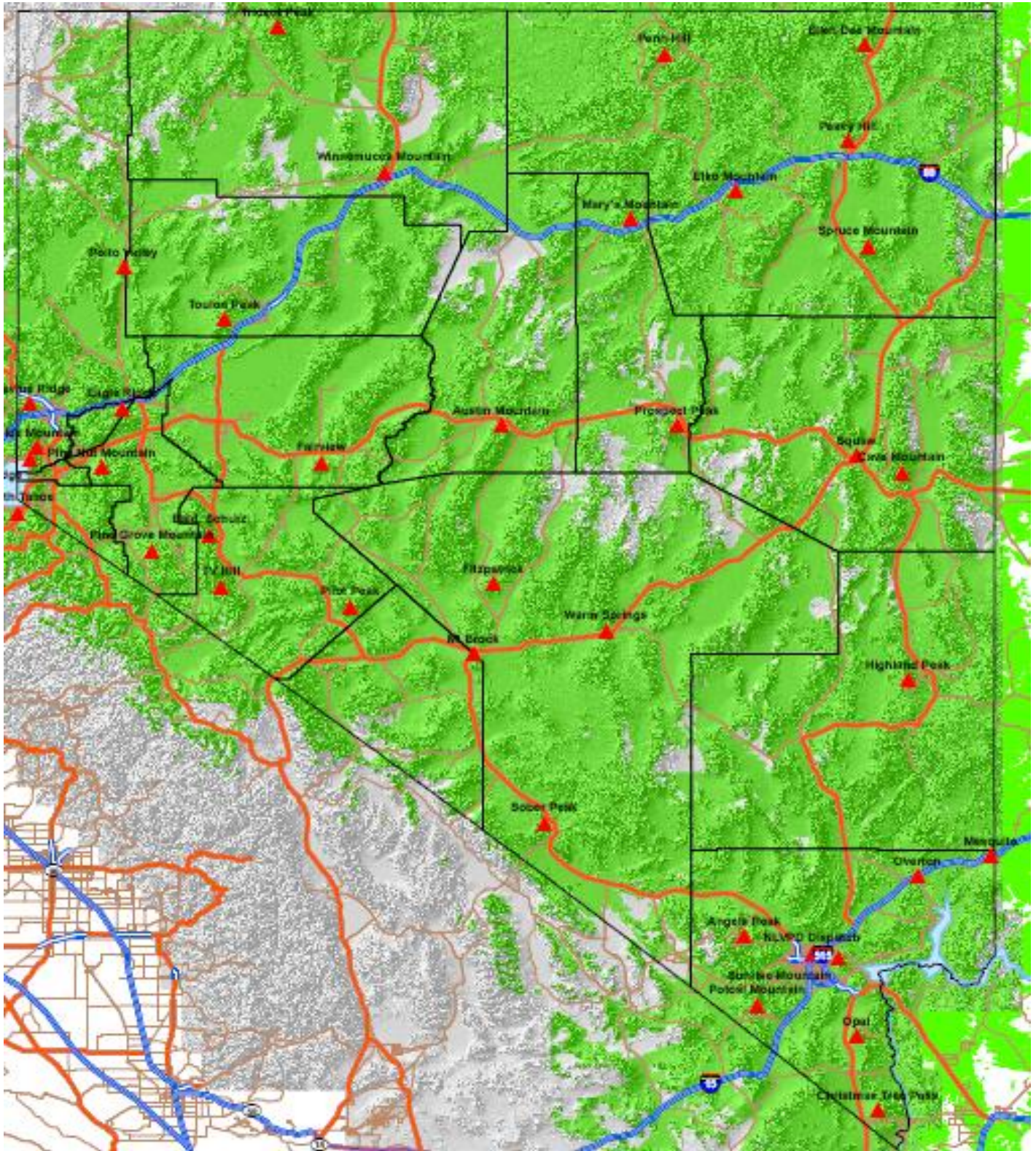
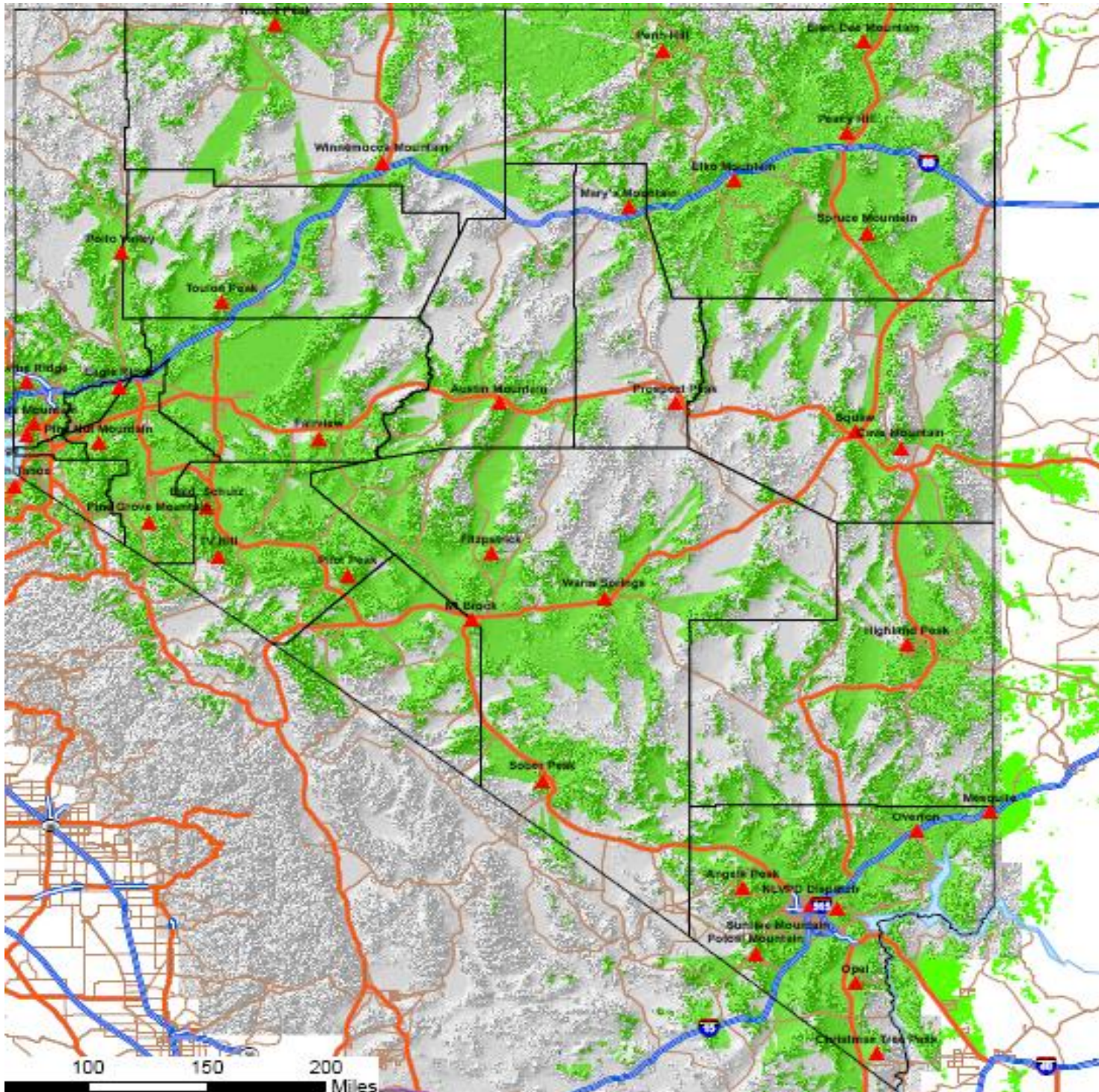


FIGURE 3-2 State of Nevada 800Mhz Mobile Coverage



4. COMPANY BACKGROUND AND REFERENCES

4.1 PRIMARY VENDOR INFORMATION

Vendors must provide a company profile. Information provided shall include:

- 4.1.1 Company ownership (sole proprietor, partnership, etc).
 - 4.1.1.1 Incorporated companies must identify the state in which the company is incorporated and the date of incorporation. **Please be advised**, pursuant to NRS §80.010, incorporated companies must register with the State of Nevada, Secretary of State's Office as a foreign corporation before a contract can be executed between the State of Nevada and the awarded vendor, unless specifically exempted by NRS §80.015.
 - 4.1.1.2 The selected vendor(s), prior to doing business in the State of Nevada, must be appropriately licensed by the Department of Taxation, in accordance with NRS §360.780.
- 4.1.2 Disclosure of any alleged significant prior or ongoing contract failures, contract breaches, any civil or criminal litigation or investigation pending which involves the vendor or in which the vendor has been judged guilty or liable with the State of Nevada.
- 4.1.3 Location(s) of the company offices and location of the office that will provide the services described in this RFP.
- 4.1.4 Is your firm a resident of Nevada or a resident of another state? If so, please list the state of residence. Does your resident state apply a preference, which is not afforded to bidders or vendors who are residents in the state of Nevada? This information may be utilized in determining whether an inverse preference applies pursuant to NRS §333.336.
- 4.1.5 Number of employees both locally and nationally.
- 4.1.6 Location(s) from which employees will be assigned.
- 4.1.7 Name, address and telephone number of the vendor's point of contact for a contract resulting from this RFP.
- 4.1.8 Company background/history and why vendor is qualified to provide the services described in this RFP.
- 4.1.9 Length of time vendor has been providing services described in this RFP to the **public and/or private sector**. Please provide a brief description.
- 4.1.10 Has the vendor ever been engaged under contract by any State of Nevada agency?
[] Yes [] No If "Yes," specify when, for what duties, and for which agency.
- 4.1.11 Is the vendor or any of the vendor's employees employed by the State of Nevada, any of its political subdivisions or by any other government?
[] Yes [] No If "Yes," is that employee planning to render services while on annual leave, compensatory time, sick leave, or on his own time?
- 4.1.12 Resumes for key staff to be responsible for performance of any contract resulting from this RFP.
- 4.1.13 **Financial information and documentation to be included in Part III of your response in accordance with the Submittal Instructions.**
 - 4.1.13.1 Dun and Bradstreet number
 - 4.1.13.2 Federal Tax Identification Number

- 4.1.13.3 The last two - (2) years and current year interim:
Profit and Loss Statement
Balance Statement

4.2 REFERENCES

Vendors should provide a minimum of three (3) references from similar projects performed for private, state and/or large local government clients within the last three years. **Vendors are required to submit Attachment D, Reference Form to the business references they list. The business references must submit the Reference Form directly to the Purchasing Division.** It is the vendor's responsibility to ensure that completed forms are received by the Purchasing Division on or before the proposal submission deadline for inclusion in the evaluation process. Business References not received, or not complete, may adversely affect the vendor's score in the evaluation process. The Purchasing Division may contact any or all business references for validation of information submitted.

- 4.2.1 Client name;
- 4.2.2 Project description;
- 4.2.3 Project dates (starting and ending);
- 4.2.4 Staff assigned to reference engagement that will be designated for work per this RFP;
- 4.2.5 Client project manager name, telephone number, fax number and e-mail address.

4.3 SUBCONTRACTOR INFORMATION

- 4.3.1 Does this proposal include the use of subcontractors?

Yes _____ No _____ Unknown _____

If "Yes", vendor must:

- 4.3.1.1 Identify specific subcontractors and the specific requirements of this RFP for which each proposed subcontractor will perform services.
- 4.3.1.2 Provide the same information for any proposed subcontractors as requested in the Primary Vendor Information section.
- 4.3.1.3 References as specified above must be provided for any proposed subcontractors.
- 4.3.1.4 The State may require that the awarded vendor provide proof of payment to any subcontractors used for this project. Proposals should include a plan by which, at the State's request, the State will be notified of such payments.
- 4.3.1.5 Primary vendor shall not allow any subcontractor to commence work until all insurance required of the subcontractor is provided to the using agency.

4.3.1.6 Primary vendor must notify the using agency of the intended use of any subcontractors not identified within their response and receive agency approval prior to subcontractor commencing work.

5. **COST**

Note: All Cost Proposals shall be submitted to the State as a separate, sealed package and clearly marked: “Cost Proposal in Response to RFP No. 1767”, please refer to the Submittal Instructions for further instruction.

- 5.1 Vendors must provide detailed fixed prices for all costs associated with the responsibilities and related services. Clearly specify the nature of all expenses anticipated; and
- 5.2 Vendors must submit a number of hours of service to be provided for each year of the contract, an hourly cost for services and a total fixed-price for the project budget. (See Attachment F for pricing sheets)

6. **PAYMENT**

- 6.1 Payment for the contracted service will be within 30-45 days upon receipt of invoice and the using agency's approval.

Invoices are to be submitted upon completion of contract milestones (if known, list); using agency approval will be upon satisfactory completion as determined by the agency's contract monitor.

Vendors may propose an alternative payment option; alternative payment options must be listed on Attachment B of the RFP. Alternative payment options will be considered if deemed in the best interest of the State, project or service solicited herein. The State does not issue payment prior to receipt of goods or services.

7. **SUBMITTAL INSTRUCTIONS**

- 7.1 In lieu of a pre-proposal conference, the Purchasing Division will accept questions and/or comments in writing, received by e-mail regarding this RFP as follows:

Questions must reference the identifying RFP number and be addressed to the State of Nevada, Purchasing Division, Attn: Gail Burchett, Purchasing Officer, e-mailed to srvpurch@purchasing.state.nv.us The deadline for submitting questions is April 24, 2009 at 5:00 p.m., Pacific Time. All questions and/or comments will be addressed in writing and responses e-mailed or faxed to prospective vendors on or about April 27, 2009. Please provide company name, address, phone number, e-mail address, fax number, and contact person when submitting questions.

- 7.2 RFP Timeline

<i>TASK</i>	<i>DATE/TIME</i>
Deadline for submitting questions	April 24, 2009
Answers to all questions submitted available on or about	April 27, 2009
Deadline for submittal of Reference Questionnaires	May 13, 2009
<u>Deadline for submission and opening of proposals</u>	<u>May 14, 2009@ 2:00PM</u>
Evaluation period	May 18-31 2009
Selection of vendor(s)	June 4, 2009

NOTE: These dates represent a tentative schedule of events. The State reserves the right to modify these dates at any time, with appropriate notice to prospective vendors.

7.3 Proposal submission requirements:

7.3.1 Vendors shall submit their response in three (3) parts as designated below:

Part I: Technical Proposal

One (1) original marked "MASTER"

Eight (8) identical copies

One (1) identical copy on CD (**Note:** CD must be labeled accordingly and in a case.)

THE TECHNICAL PROPOSAL MUST INCLUDE A SEPARATE TAB/SECTION LABELED "**STATE DOCUMENTS**" WHICH SHALL INCLUDE:

- Page 1 of RFP
- All Amendments to the RFP
- All Attachments requiring signature
- Certificate of Insurance

Technical Proposal must not include cost or confidential information.

Technical Proposal shall be submitted to the State in a sealed package and be clearly marked:

"Technical Proposal in Response to RFP No. 1767"

Part II: Cost Proposal:

One (1) original marked "MASTER"

Eight (8) identical copies

One (1) identical copy on CD (**Note:** CD must be labeled accordingly and in a case.)

Cost Proposal shall be submitted to the State in a sealed package and be clearly marked:

“Cost Proposal in Response to RFP No. 1767”

Part III: Confidential Information:

- One (1) original marked “MASTER”
- One (1) identical copy

Confidential Information shall be submitted to the State in a sealed package and be clearly marked:

“Confidential Information in Response to RFP No. 1767”

If the separately sealed proposal, marked as required above, are enclosed in another container for mailing purposes, the outermost container must fully describe the contents of the package and be clearly marked:

REQUEST FOR PROPOSAL NO.: 1767

PROPOSAL OPENING DATE: May 14, 2009@ 2:00 PM

FOR: Interoperability Radio Communications

- 7.3.2 **Proposal must be received at the address referenced below no later than 2:00 pm Pacific Time, May 14, 2009.** Proposals that do not arrive by proposal opening time and date WILL NOT BE ACCEPTED. Vendors may submit their proposal any time prior to the above stated deadline.

- 7.3.3 **Proposal shall be submitted to:**

State of Nevada, Purchasing Division
Attn: Gail Burchett
515 E. Musser Street, Suite 300
Carson City, NV 89701

- 7.4 The State will not be held responsible for proposal envelopes mishandled as a result of the envelope not being properly prepared. Facsimile, e-mail or telephone proposals will **NOT** be considered; however, at the State’s discretion, the proposal may be submitted all or in part on electronic media, as requested within the RFP document. Proposal may be modified by facsimile, e-mail or written notice provided such notice is received prior to the opening of the proposals.
- 7.5 Although it is a public opening, only the names of the vendors submitting proposals will be announced NRS §333.335(6). Technical and cost details about proposals submitted will not be disclosed. Assistance for handicapped, blind or hearing-impaired persons who wish to attend the RFP opening is available. If special arrangements are necessary, please notify the Purchasing Division designee as soon as possible and at least two days in advance of the opening.
- 7.6 If discrepancies are found between two or more copies of the proposal, the master copy will provide the basis for resolving such discrepancies. If one copy of the proposal is not

clearly marked “MASTER,” the State may reject the proposal. However, the State may at its sole option, select one copy to be used as the master.

- 7.7 For ease of evaluation, the proposal should be presented in a format that corresponds to and references sections outlined within this RFP and should be presented in the same order. Responses to each section and subsection should be labeled so as to indicate which item is being addressed. Exceptions to this will be considered during the evaluation process.
- 7.8 If complete responses cannot be provided without referencing confidential information, such confidential information must be provided in accordance with submittal instructions and specific references made to the tab, page, section and/or paragraph where the confidential information can be located.
- 7.9 Proposals are to be prepared in such a way as to provide a straightforward, concise delineation of capabilities to satisfy the requirements of this RFP. Expensive bindings, colored displays, promotional materials, etc., are not necessary or desired. Emphasis should be concentrated on conformance to the RFP instructions, responsiveness to the RFP requirements, and on completeness and clarity of content.
- 7.10 Descriptions on how any and all equipment and/or services will be used to meet the requirements of this RFP shall be given, in detail, along with any additional information documents that are appropriately marked.
- 7.11 The proposal must be signed by the individual(s) legally authorized to bind the vendor, see NRS §333.337.
- 7.12 For ease of responding to the RFP, vendors are encouraged, but not required, to request an electronic copy of the RFP. Electronic copies are available in the following formats: Word 2003 via e-mail, diskette, or on the State Purchasing Division's website in PDF or Word format at <http://purchasing.state.nv.us>. When requesting an RFP via e-mail or diskette, vendors should contact the Purchasing Division for assistance. In the event vendors choose to receive the RFP on CD, the vendor will be responsible for providing a blank CD; unless vendors provide a Federal Express, DHL, etc. account number and appropriate return materials, the CD will be returned by first class U.S. mail.
- 7.13 Vendors utilizing an electronic copy of the RFP in order to prepare their proposal should place their written response in ***an easily distinguishable font*** immediately following the applicable question.
- 7.14 ***For purposes of addressing questions concerning this RFP, the sole contact will be the Purchasing Division. Upon issuance of this RFP, other employees and representatives of the agencies identified in the RFP will not answer questions or otherwise discuss the contents of this RFP with any prospective vendors or their representatives. Failure to observe this restriction may result in disqualification of any subsequent proposal NAC §333.155(3).*** This restriction does not preclude discussions between affected parties for the purpose of conducting business unrelated to this procurement.

- 7.15 Vendor who believes proposal requirements or specifications are unnecessarily restrictive or limit competition may submit a request for administrative review, in writing, to the Purchasing Division. To be considered, a request for review must be **received** no later than the deadline for submission of questions.

The Purchasing Division shall promptly respond in writing to each written review request, and where appropriate, issue all revisions, substitutions or clarifications through a written amendment to the RFP.

Administrative review of technical or contractual requirements shall include the reason for the request, supported by factual information, and any proposed changes to the requirements.

- 7.16 If a vendor changes any material RFP language, vendor's response may be deemed non-responsive. NRS §333.311.
- 7.17 Vendors are cautioned that some services may contain licensing requirement(s). Vendors shall be proactive in verification of these requirements prior to proposal submittal. Proposals, which do not contain the requisite licensure, may be deemed non-responsive. However, this does not negate any applicable Nevada Revised Statute (NRS) requirements.

8. PROPOSAL EVALUATION AND AWARD PROCESS

- 8.1 Proposals shall be consistently evaluated and scored in accordance with NRS §333.335(3) based upon the following criteria:

- Demonstrated competence – Technical approach
- Experience in performance of comparable engagements – past performance
- Conformance with the terms of this RFP
- Expertise and availability of key personnel for maintenance
- Reasonableness of cost
- Reasonableness of Schedule

Note: Financial stability will be scored on a pass/fail basis

Proposals shall be kept confidential until a contract is awarded.

- 8.2 The evaluation committee may also contact the references provided in response to the Section identified as Company Background and References; contact any vendor to clarify any response; contact any current users of a vendor's services; solicit information from any available source concerning any aspect of a proposal; and seek and review any other information deemed pertinent to the evaluation process. The evaluation committee shall not be obligated to accept the lowest priced proposal, but shall make an award in the best interests of the State of Nevada NRS § 333.335(5)
- 8.3 Each vendor must include in its proposal a complete disclosure of any alleged significant prior or ongoing contract failures, contract breaches, any civil or criminal litigation or

investigations pending which involves the vendor or in which the vendor has been judged guilty or liable. Failure to comply with the terms of this provision may disqualify any proposal. The State reserves the right to reject any proposal based upon the vendor's prior history with the State or with any other party, which documents, without limitation, unsatisfactory performance, adversarial or contentious demeanor, significant failure(s) to meet contract milestones or other contractual failures. See generally, NRS §333.335.

- 8.4 Clarification discussions may, at the State's sole option, be conducted with vendors who submit proposals determined to be acceptable and competitive NAC §333.165. Vendors shall be accorded fair and equal treatment with respect to any opportunity for discussion and/or written revisions of proposals. Such revisions may be permitted after submissions and prior to award for the purpose of obtaining best and final offers. In conducting discussions, there shall be no disclosure of any information derived from proposals submitted by competing vendors.
- 8.5 A Notification of Intent to Award shall be issued in accordance with NAC §333.170. Any award(s) is contingent upon the successful negotiation of final contract terms and upon approval of the Board of Examiners, when required. Negotiations shall be confidential and not subject to disclosure to competing vendors unless and until an agreement is reached. If contract negotiations cannot be concluded successfully, the State upon written notice to all vendors may negotiate a contract with the next highest scoring vendor or withdraw the RFP.
- 8.6 Any contract resulting from this RFP shall not be effective unless and until approved by the Nevada State Board of Examiners (NRS 284.173).

9. TERMS, CONDITIONS AND EXCEPTIONS

- 9.1 Performance of vendors will be rated semi-annually following contract award and then annually for the term of the contract by the using State agency in six categories: customer service; timeliness; quality; technology; flexibility; and pricing. Vendors will be notified in writing of their rating.
- 9.2 In accordance with Nevada Revised Statute 333.336, if a vendor submitting a proposal in response to this solicitation is a resident of another state, and with respect to contracts awarded by that state, applies to vendors who are residents of that state a preference, which is not afforded to vendors or contractors who are residents of the State of Nevada, the State of Nevada, Purchasing Division shall, insofar as is practicable, increase the out of state vendor's proposal by an amount that is substantially equivalent to the preference that the other state of which the vendor is a resident denies to vendors or contractors who are residents of the State of Nevada.
- 9.3 This procurement is being conducted in accordance with NRS chapter 333 and NAC chapter 333.
- 9.4 The State reserves the right to alter, amend, or modify any provisions of this RFP, or to withdraw this RFP, at any time prior to the award of a contract pursuant hereto, if it is in the best interest of the State to do so.

- 9.5 The State reserves the right to waive informalities and minor irregularities in proposals received.
- 9.6 The State reserves the right to reject any or all proposals received prior to contract award (NRS §333.350).
- 9.7 The State shall not be obligated to accept the lowest priced proposal, but will make an award in the best interests of the State of Nevada after all factors have been evaluated (NRS §333.335).
- 9.8 Any irregularities or lack of clarity in the RFP should be brought to the Purchasing Division designee's attention as soon as possible so that corrective addenda may be furnished to prospective vendors.
- 9.9 Proposals must include any and all proposed terms and conditions, including, without limitation, written warranties, maintenance/service agreements, license agreements, lease purchase agreements and the vendor's standard contract language. The omission of these documents renders a proposal non-responsive.
- 9.10 Alterations, modifications or variations to a proposal may not be considered unless authorized by the RFP or by addendum or amendment.
- 9.11 Proposals which appear unrealistic in the terms of technical commitments, lack of technical competence, or are indicative of failure to comprehend the complexity and risk of this contract, may be rejected.
- 9.12 Proposals from employees of the State of Nevada will be considered in as much as they do not conflict with the State Administrative Manual, NRS Chapter §281 and NRS Chapter §284.
- 9.13 Proposals may be withdrawn by written or facsimile notice received prior to the proposal opening time. Withdrawals received after the proposal opening time will not be considered except as authorized by NRS §333.350(3).
- 9.14 The price and amount of this proposal must have been arrived at independently and without consultation, communication, agreement or disclosure with or to any other contractor, vendor or prospective vendor. Collaboration among competing vendors about potential proposals submitted pursuant to this RFP is prohibited and may disqualify the vendor.
- 9.15 No attempt may be made at any time to induce any firm or person to refrain from submitting a proposal or to submit any intentionally high or noncompetitive proposal. All proposals must be made in good faith and without collusion.
- 9.16 Prices offered by vendors in their proposals are an irrevocable offer for the term of the contract and any contract extensions. The awarded vendor agrees to provide the purchased services at the costs, rates and fees as set forth in their proposal in response to

this RFP. No other costs, rates or fees shall be payable to the awarded vendor for implementation of their proposal.

- 9.17 The State is not liable for any costs incurred by vendors prior to entering into a formal contract. Costs of developing the proposal or any other such expenses incurred by the vendor in responding to the RFP, are entirely the responsibility of the vendor, and shall not be reimbursed in any manner by the State.
- 9.18 All proposals submitted become the property of the State, selection or rejection does not affect this right; proposals will be returned only at the State's option and at the vendor's request and expense. The master technical proposal, the master cost proposal and Confidential Information of each response shall be retained for official files. Only the master technical and master cost will become public record after the award of a contract. The failure to separately package and clearly mark Part III – which contains Confidential Information, Trade Secrets and/or Proprietary Information, shall constitute a complete waiver of any and all claims for damages caused by release of the information by the State.
- 9.19 A proposal submitted in response to this RFP must identify any subcontractors, and outline the contractual relationship between the awarded vendor(s) and each subcontractor. An official of each proposed subcontractor must sign, and include as part of the proposal submitted in response to this RFP, a statement to the effect that the subcontractor has read and will agree to abide by the awarded vendor(s)'s obligations.
- 9.20 The awarded vendor(s) will be the sole point of contract responsibility. The State will look solely to the awarded vendor(s) for the performance of all contractual obligations which may result from an award based on this RFP, and the awarded vendor shall not be relieved for the non-performance of any or all subcontractors.
- 9.21 The awarded vendor(s) must maintain, for the duration of its contract, insurance coverages as set forth in the Insurance Schedule of the contract form appended to this RFP. Work on the contract shall not begin until after the awarded vendor has submitted acceptable evidence of the required insurance coverages. Failure to maintain any required insurance coverage or acceptable alternative method of insurance will be deemed a breach of contract.

Notwithstanding any other requirement of this section, the State reserves the right to consider reasonable alternative methods of insuring the contract in lieu of the insurance policies required by the below-stated Insurance Schedule. It will be the awarded vendor(s)'s responsibility to recommend to the State alternative methods of insuring the contract. Any alternatives proposed by a vendor should be accompanied by a detailed explanation regarding the vendor's inability to obtain insurance coverage as described below. The State shall be the sole and final judge as to the adequacy of any substitute form of insurance coverage.

- 9.22 Each vendor must disclose any existing or potential conflict of interest relative to the performance of the contractual services resulting from this RFP. Any such relationship that might be perceived or represented as a conflict should be disclosed. By submitting a proposal in response to this RFP, vendors affirm that they have not given, nor intend to

- give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to a public servant or any employee or representative of same, in connection with this procurement. Any attempt to intentionally or unintentionally conceal or obfuscate a conflict of interest will automatically result in the disqualification of a vendor's proposal. An award will not be made where a conflict of interest exists. The State will determine whether a conflict of interest exists and whether it may reflect negatively on the State's selection of a vendor. The State reserves the right to disqualify any vendor on the grounds of actual or apparent conflict of interest.
- 9.23 The State will not be liable for Federal, State, or Local excise taxes NRS §372.325.
- 9.24 Attachment B of this RFP shall constitute an agreement to all terms and conditions specified in the RFP, including, without limitation, the Attachment C contract form and all terms and conditions therein, except such terms and conditions that the vendor expressly excludes. Exceptions will be taken into consideration as part of the evaluation process.
- 9.25 The State reserves the right to negotiate final contract terms with any vendor selected NAC §333.170. The contract between the parties will consist of the RFP together with any modifications thereto, and the awarded vendor(s)'s proposal, together with any modifications and clarifications thereto that are submitted at the request of the State during the evaluation and negotiation process. In the event of any conflict or contradiction between or among these documents, the documents shall control in the following order of precedence: the final executed contract, the RFP, any modifications and clarifications to the awarded vendor(s)'s proposal, and the awarded vendor(s)'s proposal. Specific exceptions to this general rule may be noted in the final executed contract.
- 9.26 Vendor understands and acknowledges that the representations above are material and important, and will be relied on by the State in evaluation of the proposal. Any vendor misrepresentation shall be treated as fraudulent concealment from the State of the true facts relating to the proposal.
- 9.27 No announcement concerning the award of a contract as a result of this RFP can be made without the prior written approval of the State.
- 9.28 The Nevada Attorney General will not render any type of legal opinion regarding this transaction.
- 9.29 Any unsuccessful vendor may file an appeal in strict compliance with NRS 333.370 and chapter 333 of the Nevada Administrative Code.
- 9.30 Local governments (as defined in NRS §332.015) are intended third party beneficiaries of any contract resulting from this RFP and any local government may join or use any contract resulting from this RFP subject to all terms and conditions thereof pursuant to NRS §332.195. The State is not liable for the obligations of any local government which joins or uses any contract resulting from this RFP.

- 9.31 Any person who requests or receives a Federal contract, grant, loan or cooperative agreement shall file with the using agency a certification that the person making the declaration has not made, and will not make, any payment prohibited by subsection (a) of 31 U.S.C. §1352.

10. **SUBMISSION CHECKLIST**

This checklist is provided for vendor's convenience only and identifies documents that must be submitted with each package in order to be considered responsive. Any proposals received without these requisite documents may be deemed non-responsive and not considered for contract award.

Part I:

Completed

1. Required number of Technical proposals (per Submittal Instructions) _____

2. **Required Forms to be submitted with technical proposal under section/tab labeled "State Documents";** _____

a. Page 1 of the RFP completed _____

b. All Amendments completed and signed _____

c. Primary Vendor Attachments A & B signed _____

d. Subcontractor Attachment A & B signed (if applicable) _____

e. Primary Vendor Information provided _____

f. Subcontractor Information provided (if applicable) _____

g. Certificate of Insurance _____

h. (other) _____

Part II:

1. Required number of Cost proposals (per Submittal Instructions) _____

2. (other) _____

Part III:

1. Required number of Confidential Information (per Submittal Instructions and defined in Acronyms/Definitions) _____

2. Financial Information _____

REMINDERS:

1. Send out Reference forms for Primary Vendor (with Part A completed) _____

2. Send out Reference forms for Subcontractors (with Part A completed) (if applicable) _____

Attachment A
CONFIDENTIALITY OF PROPOSALS AND
CERTIFICATION OF INDEMNIFICATION
PRIMARY VENDOR

Submitted proposals, which are marked “confidential” in their entirety, or those in which a significant portion of the submitted proposal is marked “confidential” **will not** be accepted by the State of Nevada. Pursuant to NRS §333.333, only specific parts of the proposal may be labeled a “trade secret” as defined in NRS §600A.030(5). All proposals are confidential until the contract is awarded; at which time, both successful and unsuccessful vendors’ technical and cost proposals become public information. In accordance with the Submittal Instructions of this document, vendors are requested to submit confidential information in a separate envelope or binder marked “**confidential**.”

The State will not be responsible for any information contained within the proposal should vendors not comply with the labeling and packing requirements, proposals will be released as submitted. In the event a governing board acts as the final authority, there may be public discussion regarding the submitted proposals that will be in an open meeting format, the proposals will remain confidential.

By signing below, I understand it is my responsibility as the vendor to act in protection of the labeled information and agree to defend and indemnify the State of Nevada for honoring such designation. I duly realize failure to so act will constitute a complete waiver and all submitted information will become public information; additionally, failure to label any information that is released by the State shall constitute a complete waiver of any and all claims for damages caused by the release of the information.

This proposal contains either Confidential Information, Trade Secrets and/or Proprietary information as defined in Section 2 “ACRONYMS/DEFINITIONS.”

YES _____

NO _____

SIGNATURE _____
Primary Vendor

Date

PRINT NAME _____
Primary Vendor

This document must be submitted in the “State Documents” section/tab of vendors’ technical proposal

Attachment A
CONFIDENTIALITY OF PROPOSALS AND
CERTIFICATION OF INDEMNIFICATION
SUBCONTRACTOR

Submitted proposals, which are marked “confidential” in their entirety, or those in which a significant portion of the submitted proposal is marked “confidential” **will not** be accepted by the State of Nevada. Pursuant to NRS §333.333, only specific parts of the proposal may be labeled a “trade secret” as defined in NRS §600A.030(5). All proposals are confidential until the contract is awarded; at which time, both successful and unsuccessful vendors’ technical and cost proposals become public information. In accordance with the Submittal Instructions of this document, vendors are requested to submit confidential information in a separate envelope or binder marked “**confidential**.”

The State will not be responsible for any information contained within the proposal should vendors not comply with the labeling and packaging submission requirements, proposal will be released as submitted. In the event a governing board acts as the final authority, there may be public discussion regarding the submitted proposal that will be in an open meeting format, the proposals will remain confidential.

By signing below, I understand it is my responsibility as the vendor to act in protection of the labeled information and agree to defend and indemnify the State of Nevada for honoring such designation. I duly realize failure to so act will constitute a complete waiver and all submitted information will become public information; additionally, failure to label any information that is released by the State shall constitute a complete waiver of any and all claims for damages caused by the release of the information.

This proposal contains either Confidential Information, Trade Secrets and/or Proprietary information as defined in Section 2 “ACRONYMS/DEFINITIONS.”

YES_____

NO_____

SIGNATURE _____
Subcontractor

Date

PRINT NAME _____
Subcontractor

This document must be submitted in the “State Documents” section/tab of vendors’ technical proposal

Attachment B

CERTIFICATION OF COMPLIANCE WITH TERMS AND CONDITIONS OF RFP PRIMARY VENDOR

I have read, understand and agree to comply with the terms and conditions specified in this Request for Proposal.

Checking “YES” indicates acceptance of all terms and conditions, while checking “NO” denotes non-acceptance and vendor’s exceptions should be detailed below. In order for any exceptions to be considered they **MUST** be documented.

YES _____ I agree. NO _____ Exceptions below:

SIGNATURE _____
Primary Vendor

Date

PRINT NAME _____
Primary Vendor

EXCEPTION SUMMARY FORM

RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (PROVIDE A DETAILED EXPLANATION)

Attach additional sheets if necessary. Please use this format.

This document must be submitted in the “State Documents” section/tab of vendors’ technical proposal

Attachment B
CERTIFICATION OF COMPLIANCE WITH
TERMS AND CONDITIONS OF RFP
SUBCONTRACTOR

I have read, understand and agree to comply with the terms and conditions specified in this Request for Proposal.

Checking “YES” indicates acceptance of all terms and conditions, while checking “NO” denotes non-acceptance and vendor’s exceptions should be detailed below. In order for any exceptions to be considered they **MUST** be documented.

YES _____ I agree. NO _____ Exceptions below:

SIGNATURE _____
Subcontractor

Date

PRINT NAME _____
Subcontractor

EXCEPTION SUMMARY FORM

RFP SECTION NUMBER	RFP PAGE NUMBER	EXCEPTION (PROVIDE A DETAILED EXPLANATION)

Attach additional sheets if necessary. Please use this format.

This document must be submitted in the “State
Documents” section/tab of vendors’ technical proposal

Attachment C

CONTRACT FORM

The following State Contract Form is provided as a courtesy to vendors interested in responding to this RFP. Please review the terms and conditions in this form, as this is the standard contract used by the State for all services of independent contractors. It is not necessary for vendors to complete the Contract Form with their proposal responses.

All vendors are required to submit a Certificate of Insurance in the “State Documents tab/section of their technical proposal identifying the coverages and minimum limits currently in effect.

Please pay particular attention to the insurance requirements, as specified in paragraph 16 and Attachment BB of the attached contract.

As with all other requirements of this RFP, vendors may take exception to any of the terms in the Contract Form, including the required insurance limits. Exceptions will be considered during the evaluation process.

Unless specified as above, the insurance minimum limits will be negotiated at the time the State issues a Letter of Intent to Award.

CONTRACT FOR SERVICES OF INDEPENDENT CONTRACTORA Contract Between the State of Nevada
Acting By and Through Its

(NAME, ADDRESS, PHONE AND FACSIMILE NUMBER OF CONTRACTING AGENCY)

and

(NAME, CONTACT PERSON, ADDRESS, PHONE, FACSIMILE NUMBER OF INDEPENDENT CONTRACTOR)

WHEREAS, NRS 284.173 authorizes elective officers, heads of departments, boards, commissions or institutions to engage, subject to the approval of the Board of Examiners, services of persons as independent contractors; and

WHEREAS, it is deemed that the service of Contractor is both necessary and in the best interests of the State of Nevada;

NOW, THEREFORE, in consideration of the aforesaid premises, the parties mutually agree as follows:

1. **REQUIRED APPROVAL.** This Contract shall not become effective until and unless approved by the Nevada State Board of Examiners.

2. **DEFINITIONS.** "State" means the State of Nevada and any state agency identified herein, its officers, employees and immune contractors as defined in NRS 41.0307. "Independent Contractor" means a person or entity that performs services and/or provides goods for the State under the terms and conditions set forth in this Contract. "Fiscal Year" is defined as the period beginning July 1 and ending June 30 of the following year.

3. **CONTRACT TERM.** This Contract shall be effective from _____ subject to Board of Examiners' approval (anticipated to be _____) to _____, unless sooner terminated by either party as specified in paragraph ten (10).

4. **NOTICE.** Unless otherwise specified, termination shall not be effective until ____ calendar days after a party has served written notice of default, or without cause upon the other party. All notices or other communications required or permitted to be given under this Contract shall be in writing and shall be deemed to have been duly given if delivered personally in hand, by telephonic facsimile with simultaneous regular mail, or mailed certified mail, return receipt requested, postage prepaid on the date posted, and addressed to the other party at the address specified above.

5. **INCORPORATED DOCUMENTS.** The parties agree that the scope of work shall be specifically described. This Contract incorporates the following attachments in descending order of constructive precedence:

ATTACHMENT AA: STATE SOLICITATION OR RFP # _____ and AMENDMENT(S) # _____;

ATTACHMENT BB: INSURANCE SCHEDULE; AND

ATTACHMENT CC: CONTRACTOR'S RESPONSE

A Contractor's Attachment shall not contradict or supersede any State specifications, terms or conditions without written evidence of mutual assent to such change appearing in this Contract:

6. **CONSIDERATION.** The parties agree that Contractor will provide the services specified in paragraph five (5) at a cost of \$ _____ per _____ (state the exact cost or hourly, daily, or weekly rate exclusive of travel or per diem expenses) with the total Contract or installments payable: _____, not to exceed \$ _____. The State does not agree to reimburse Contractor for expenses unless otherwise specified in the incorporated attachments. Any intervening end to a biennial appropriation period shall be deemed an automatic renewal (not changing the overall Contract term) or a termination as the results of legislative appropriation may require.

7. **ASSENT.** The parties agree that the terms and conditions listed on incorporated attachments of this Contract are also specifically a part of this Contract and are limited only by their respective order of precedence and any limitations specified.

8. **TIMELINESS OF BILLING SUBMISSION.** The parties agree that timeliness of billing is of the essence to the contract and recognize that the State is on a fiscal year. All billings for dates of service prior to July 1 must be submitted to the State no later

than the first Friday in August of the same year. A billing submitted after the first Friday in August, which forces the State to process the billing as a stale claim pursuant to NRS 353.097, will subject the Contractor to an administrative fee not to exceed one hundred dollars (\$100.00). The parties hereby agree this is a reasonable estimate of the additional costs to the State of processing the billing as a stale claim and that this amount will be deducted from the stale claim payment due to the Contractor.

9. INSPECTION & AUDIT.

- a. Books and Records. Contractor agrees to keep and maintain under generally accepted accounting principles (GAAP) full, true and complete records, contracts, books, and documents as are necessary to fully disclose to the State or United States Government, or their authorized representatives, upon audits or reviews, sufficient information to determine compliance with all state and federal regulations and statutes.
- b. Inspection & Audit. Contractor agrees that the relevant books, records (written, electronic, computer related or otherwise), including, without limitation, relevant accounting procedures and practices of Contractor or its subcontractors, financial statements and supporting documentation, and documentation related to the work product shall be subject, at any reasonable time, to inspection, examination, review, audit, and copying at any office or location of Contractor where such records may be found, with or without notice by the State Auditor, the relevant state agency or its contracted examiners, the Department of Administration, Budget Division, the Nevada State Attorney General's Office or its Fraud Control Units, the State Legislative Auditor, and with regard to any federal funding, the relevant federal agency, the Comptroller General, the General Accounting Office, the Office of the Inspector General, or any of their authorized representatives. All subcontracts shall reflect requirements of this paragraph.
- c. Period of Retention. All books, records, reports, and statements relevant to this Contract must be retained a minimum three (3) years, and for five (5) years if any federal funds are used pursuant to the Contract. The retention period runs from the date of payment for the relevant goods or services by the State, or from the date of termination of the Contract, whichever is later. Retention time shall be extended when an audit is scheduled or in progress for a period reasonably necessary to complete an audit and/or to complete any administrative and judicial litigation which may ensue.

10. CONTRACT TERMINATION.

- a. Termination Without Cause. Any discretionary or vested right of renewal notwithstanding, this Contract may be terminated upon written notice by mutual consent of both parties, or unilaterally by either party without cause.
- b. State Termination for Non-appropriation. The continuation of this Contract beyond the current biennium is subject to and contingent upon sufficient funds being appropriated, budgeted, and otherwise made available by the State Legislature and/or federal sources. The State may terminate this Contract, and Contractor waives any and all claim(s) for damages, effective immediately upon receipt of written notice (or any date specified therein) if for any reason the Contracting Agency's funding from State and/or federal sources is not appropriated or is withdrawn, limited, or impaired.
- c. Cause Termination for Default or Breach. A default or breach may be declared with or without termination. This Contract may be terminated by either party upon written notice of default or breach to the other party as follows:
 - i. If Contractor fails to provide or satisfactorily perform any of the conditions, work, deliverables, goods, or services called for by this Contract within the time requirements specified in this Contract or within any granted extension of those time requirements; or
 - ii. If any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract is for any reason denied, revoked, debarred, excluded, terminated, suspended, lapsed, or not renewed; or
 - iii. If Contractor becomes insolvent, subject to receivership, or becomes voluntarily or involuntarily subject to the jurisdiction of the bankruptcy court; or
 - iv. If the State materially breaches any material duty under this Contract and any such breach impairs Contractor's ability to perform; or
 - v. If it is found by the State that any quid pro quo or gratuities in the form of money, services, entertainment, gifts, or otherwise were offered or given by Contractor, or any agent or representative of Contractor, to any officer or employee of the State of Nevada with a view toward securing a contract or securing favorable treatment with respect to awarding, extending, amending, or making any determination with respect to the performing of such contract; or
 - vi. If it is found by the State that Contractor has failed to disclose any material conflict of interest relative to the performance of this Contract.
- d. Time to Correct. Termination upon a declared default or breach may be exercised only after service of formal written notice as specified in paragraph four (4), and the subsequent failure of the defaulting party within fifteen (15) calendar days of receipt of that notice to provide evidence, satisfactory to the aggrieved party, showing that the declared default or breach has been corrected.
- e. Winding Up Affairs Upon Termination. In the event of termination of this Contract for any reason, the parties agree that the provisions of this paragraph survive termination:
 - i. The parties shall account for and properly present to each other all claims for fees and expenses and pay those which are undisputed and otherwise not subject to set off under this Contract. Neither party may withhold performance of winding up provisions solely based on nonpayment of fees or expenses accrued up to the time of termination;

- ii. Contractor shall satisfactorily complete work in progress at the agreed rate (or a pro rata basis if necessary) if so requested by the Contracting Agency;
- iii. Contractor shall execute any documents and take any actions necessary to effectuate an assignment of this Contract if so requested by the Contracting Agency;
- iv. Contractor shall preserve, protect and promptly deliver into State possession all proprietary information in accordance with paragraph twenty-one (21).

11. **REMEDIES.** Except as otherwise provided for by law or this Contract, the rights and remedies of the parties shall not be exclusive and are in addition to any other rights and remedies provided by law or equity, including, without limitation, actual damages, and to a prevailing party reasonable attorneys' fees and costs. It is specifically agreed that reasonable attorneys' fees shall include without limitation one hundred and twenty-five dollars (\$125.00) per hour for State-employed attorneys. The State may set off consideration against any unpaid obligation of Contractor to any State agency in accordance with NRS 353C.190.

12. **LIMITED LIABILITY.** The State will not waive and intends to assert available NRS chapter 41 liability limitations in all cases. Contract liability of both parties shall not be subject to punitive damages. Liquidated damages shall not apply unless otherwise specified in the incorporated attachments. Damages for any State breach shall never exceed the amount of funds appropriated for payment under this Contract, but not yet paid to Contractor, for the fiscal year budget in existence at the time of the breach. Damages for any Contractor breach shall not exceed one hundred and fifty percent (150%) of the contract maximum "not to exceed" value. Contractor's tort liability shall not be limited.

13. **FORCE MAJEURE.** Neither party shall be deemed to be in violation of this Contract if it is prevented from performing any of its obligations hereunder due to strikes, failure of public transportation, civil or military authority, act of public enemy, accidents, fires, explosions, or acts of God, including without limitation, earthquakes, floods, winds, or storms. In such an event the intervening cause must not be through the fault of the party asserting such an excuse, and the excused party is obligated to promptly perform in accordance with the terms of the Contract after the intervening cause ceases.

14. **INDEMNIFICATION.** To the fullest extent permitted by law Contractor shall indemnify, hold harmless and defend, not excluding the State's right to participate, the State from and against all liability, claims, actions, damages, losses, and expenses, including, without limitation, reasonable attorneys' fees and costs, arising out of any alleged negligent or willful acts or omissions of Contractor, its officers, employees and agents.

15. **INDEPENDENT CONTRACTOR.** Contractor is associated with the State only for the purposes and to the extent specified in this Contract, and in respect to performance of the contracted services pursuant to this Contract, Contractor is and shall be an independent contractor and, subject only to the terms of this Contract, shall have the sole right to supervise, manage, operate, control, and direct performance of the details incident to its duties under this Contract. Nothing contained in this Contract shall be deemed or construed to create a partnership or joint venture, to create relationships of an employer-employee or principal-agent, or to otherwise create any liability for the State whatsoever with respect to the indebtedness, liabilities, and obligations of Contractor or any other party. Contractor shall be solely responsible for, and the State shall have no obligation with respect to: (1) withholding of income taxes, FICA or any other taxes or fees; (2) industrial insurance coverage; (3) participation in any group insurance plans available to employees of the State; (4) participation or contributions by either Contractor or the State to the Public Employees Retirement System; (5) accumulation of vacation leave or sick leave; or (6) unemployment compensation coverage provided by the State. Contractor shall indemnify and hold State harmless from, and defend State against, any and all losses, damages, claims, costs, penalties, liabilities, and expenses arising or incurred because of, incident to, or otherwise with respect to any such taxes or fees. Neither Contractor nor its employees, agents, nor representatives shall be considered employees, agents, or representatives of the State. The State and Contractor shall evaluate the nature of services and the term of the Contract negotiated in order to determine "independent contractor" status, and shall monitor the work relationship throughout the term of the Contract to ensure that the independent contractor relationship remains as such. To assist in determining the appropriate status (employee or independent contractor), Contractor represents as follows:

		<u>Contractor's Initials</u>	
		YES	NO
1.	Does the Contracting Agency have the right to require control of when, where and how the independent contractor is to work?	_____	_____
2.	Will the Contracting Agency be providing training to the independent contractor?	_____	_____
3.	Will the Contracting Agency be furnishing the independent contractor with worker's space, equipment, tools, supplies or travel expenses?	_____	_____

4. Are any of the workers who assist the independent contractor in performance of his/her duties employees of the State of Nevada? _____
5. Does the arrangement with the independent contractor contemplate continuing or recurring work (even if the services are seasonal, part-time, or of short duration)? _____
6. Will the State of Nevada incur an employment liability if the independent contractor is terminated for failure to perform? _____
7. Is the independent contractor restricted from offering his/her services to the general public while engaged in this work relationship with the State? _____

16. **INSURANCE SCHEDULE.** Unless expressly waived in writing by the State, Contractor, as an independent contractor and not an employee of the State, must carry policies of insurance and pay all taxes and fees incident hereunto. Policies shall meet the terms and conditions as specified within this Contract along with the additional limits and provisions as described in Attachment BB, incorporated hereto by attachment. The State shall have no liability except as specifically provided in the Contract.

The Contractor shall not commence work before:

- 1) Contractor has provided the required evidence of insurance to the Contracting Agency of the State, and
- 2) The State has approved the insurance policies provided by the Contractor.

Prior approval of the insurance policies by the State shall be a condition precedent to any payment of consideration under this Contract and the State's approval of any changes to insurance coverage during the course of performance shall constitute an ongoing condition subsequent this Contract. Any failure of the State to timely approve shall not constitute a waiver of the condition.

Insurance Coverage: The Contractor shall, at the Contractor's sole expense, procure, maintain and keep in force for the duration of the Contract insurance conforming to the minimum limits as specified in Attachment BB, incorporated hereto by attachment. Unless specifically stated herein or otherwise agreed to by the State, the required insurance shall be in effect prior to the commencement of work by the Contractor and shall continue in force as appropriate until:

1. Final acceptance by the State of the completion of this Contract; or
 2. Such time as the insurance is no longer required by the State under the terms of this Contract;
- Whichever occurs later.

Any insurance or self-insurance available to the State shall be in excess of, and non-contributing with, any insurance required from Contractor. Contractor's insurance policies shall apply on a primary basis. Until such time as the insurance is no longer required by the State, Contractor shall provide the State with renewal or replacement evidence of insurance no less than thirty (30) days before the expiration or replacement of the required insurance. If at any time during the period when insurance is required by the Contract, an insurer or surety shall fail to comply with the requirements of this Contract, as soon as Contractor has knowledge of any such failure, Contractor shall immediately notify the State and immediately replace such insurance or bond with an insurer meeting the requirements.

General Requirements:

- a. **Additional Insured:** By endorsement to the general liability insurance policy evidenced by Contractor, the State of Nevada, its officers, employees and immune contractors as defined in NRS 41.0307 shall be named as additional insureds for all liability arising from the Contract.
- b. **Waiver of Subrogation:** Each insurance policy shall provide for a waiver of subrogation against the State of Nevada, its officers, employees and immune contractors as defined in NRS 41.0307 for losses arising from work/materials/equipment performed or provided by or on behalf of the Contractor.
- c. **Cross-Liability:** All required liability policies shall provide cross-liability coverage as would be achieved under the standard ISO separation of insureds clause.
- d. **Deductibles and Self-Insured Retentions:** Insurance maintained by Contractor shall apply on a first dollar basis without application of a deductible or self-insured retention unless otherwise specifically agreed to by the State. Such approval shall not relieve Contractor from the obligation to pay any deductible or self-insured retention. Any deductible or self-insured retention shall not exceed fifty thousand dollars (\$50,000.00) per occurrence, unless otherwise approved by the Risk Management Division.
- e. **Policy Cancellation:** Except for ten (10) days notice for non-payment of premium, each insurance policy shall be endorsed to state that without thirty (30) days prior written notice to the State of Nevada, c/o Contracting Agency, the policy shall not be canceled, non-renewed or coverage and /or limits reduced or materially altered, and shall provide that notices required by this paragraph shall be sent by certified mailed to the address shown on page one (1) of this contract:
- f. **Approved Insurer:** Each insurance policy shall be:

- 1) Issued by insurance companies authorized to do business in the State of Nevada or eligible surplus lines insurers acceptable to the State and having agents in Nevada upon whom service of process may be made; and
- 2) Currently rated by A.M. Best as "A-VII" or better.

Evidence of Insurance:

Prior to the start of any Work, Contractor must provide the following documents to the contracting State agency:

- 1) Certificate of Insurance: The Acord 25 Certificate of Insurance form or a form substantially similar must be submitted to the State to evidence the insurance policies and coverages required of Contractor. The certificate must name the State of Nevada, its officers, employees and immune contractors as defined in NRS 41.0307 as the certificate holder. The certificate should be signed by a person authorized insurer to bind coverage on its behalf. The state project/contract number; description and contract effective dates shall be noted on the certificate, and upon renewal of the policies listed Contractor shall furnish the State with replacement certificates as described within Insurance Coverage, section noted above.

Mail all required insurance documents to the State Contracting Agency identified on page one of the contract.

- 2) Additional Insured Endorsement: An Additional Insured Endorsement (CG 20 10 11 85 or CG 20 26 11 85) , signed by an authorized insurance company representative, must be submitted to the State to evidence the endorsement of the State as an additional insured per General Requirements, subsection a above.
- 3) Schedule of Underlying Insurance Policies: If Umbrella or Excess policy is evidenced to comply with minimum limits, a copy of the Underlyer Schedule from the Umbrella or Excess insurance policy may be required.

Review and Approval: Documents specified above must be submitted for review and approval by the State prior to the commencement of work by Contractor. Neither approval by the State nor failure to disapprove the insurance furnished by Contractor shall relieve Contractor of Contractor's full responsibility to provide the insurance required by this Contract. Compliance with the insurance requirements of this Contract shall not limit the liability of Contractor or its sub-contractors, employees or agents to the State or others, and shall be in addition to and not in lieu of any other remedy available to the State under this Contract or otherwise. The State reserves the right to request and review a copy of any required insurance policy or endorsement to assure compliance with these requirements.

17. COMPLIANCE WITH LEGAL OBLIGATIONS. Contractor shall procure and maintain for the duration of this Contract any state, county, city or federal license, authorization, waiver, permit, qualification or certification required by statute, ordinance, law, or regulation to be held by Contractor to provide the goods or services required by this Contract. Contractor will be responsible to pay all taxes, assessments, fees, premiums, permits, and licenses required by law. Real property and personal property taxes are the responsibility of Contractor in accordance with NRS 361.157 and NRS 361.159. Contractor agrees to be responsible for payment of any such government obligations not paid by its subcontractors during performance of this Contract. The State may set-off against consideration due any delinquent government obligation in accordance with NRS 353C.190.

18. WAIVER OF BREACH. Failure to declare a breach or the actual waiver of any particular breach of the Contract or its material or nonmaterial terms by either party shall not operate as a waiver by such party of any of its rights or remedies as to any other breach.

19. SEVERABILITY. If any provision contained in this Contract is held to be unenforceable by a court of law or equity, this Contract shall be construed as if such provision did not exist and the non-enforceability of such provision shall not be held to render any other provision or provisions of this Contract unenforceable.

20. ASSIGNMENT/DELEGATION. To the extent that any assignment of any right under this Contract changes the duty of either party, increases the burden or risk involved, impairs the chances of obtaining the performance of this Contract, attempts to operate as a novation, or includes a waiver or abrogation of any defense to payment by State, such offending portion of the assignment shall be void, and shall be a breach of this Contract. Contractor shall neither assign, transfer nor delegate any rights, obligations nor duties under this Contract without the prior written consent of the State.

21. STATE OWNERSHIP OF PROPRIETARY INFORMATION. Any reports, histories, studies, tests, manuals, instructions, photographs, negatives, blue prints, plans, maps, data, system designs, computer code (which is intended to be consideration under the Contract), or any other documents or drawings, prepared or in the course of preparation by Contractor (or its subcontractors) in performance of its obligations under this Contract shall be the exclusive property of the State and all such materials shall be delivered into State possession by Contractor upon completion, termination, or cancellation of this Contract. Contractor shall not use, willingly allow, or cause to have such materials used for any purpose other than performance of Contractor's obligations under this Contract without the prior written consent of the State. Notwithstanding the foregoing, the

State shall have no proprietary interest in any materials licensed for use by the State that are subject to patent, trademark or copyright protection.

22. **PUBLIC RECORDS.** Pursuant to NRS 239.010, information or documents received from Contractor may be open to public inspection and copying. The State has a legal obligation to disclose such information unless a particular record is made confidential by law or a common law balancing of interests. Contractor may label specific parts of an individual document as a "trade secret" or "confidential" in accordance with NRS 333.333, provided that Contractor thereby agrees to indemnify and defend the State for honoring such a designation. The failure to so label any document that is released by the State shall constitute a complete waiver of any and all claims for damages caused by any release of the records.

23. **CONFIDENTIALITY.** Contractor shall keep confidential all information, in whatever form, produced, prepared, observed or received by Contractor to the extent that such information is confidential by law or otherwise required by this Contract.

24. **FEDERAL FUNDING.** In the event federal funds are used for payment of all or part of this Contract:

- a. Contractor certifies, by signing this Contract, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. This certification is made pursuant to the regulations implementing Executive Order 12549, Debarment and Suspension, 28 C.F.R. pt. 67, § 67.510, as published as pt. VII of the May 26, 1988, Federal Register (pp. 19160-19211), and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.
- b. Contractor and its subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.
- c. Contractor and its subcontractors shall comply with the requirements of the Civil Rights Act of 1964, as amended, the Rehabilitation Act of 1973, P.L. 93-112, as amended, and any relevant program-specific regulations, and shall not discriminate against any employee or offeror for employment because of race, national origin, creed, color, sex, religion, age, disability or handicap condition (including AIDS and AIDS-related conditions.)

25. **LOBBYING.** The parties agree, whether expressly prohibited by federal law, or otherwise, that no funding associated with this contract will be used for any purpose associated with or related to lobbying or influencing or attempting to lobby or influence for any purpose the following:

- a. Any federal, state, county or local agency, legislature, commission, counsel or board;
- b. Any federal, state, county or local legislator, commission member, council member, board member, or other elected official; or
- c. Any officer or employee of any federal, state, county or local agency; legislature, commission, counsel or board.

26. **WARRANTIES.**

- a. **General Warranty.** Contractor warrants that all services, deliverables, and/or work product under this Contract shall be completed in a workmanlike manner consistent with standards in the trade, profession, or industry; shall conform to or exceed the specifications set forth in the incorporated attachments; and shall be fit for ordinary use, of good quality, with no material defects.
- b. **System Compliance.** Contractor warrants that any information system application(s) shall not experience abnormally ending and/or invalid and/or incorrect results from the application(s) in the operating and testing of the business of the State. This warranty includes, without limitation, century recognition, calculations that accommodate same century and multi-century formulas and data values and date data interface values that reflect the century.

27. **PROPER AUTHORITY.** The parties hereto represent and warrant that the person executing this Contract on behalf of each party has full power and authority to enter into this Contract. Contractor acknowledges that as required by statute or regulation this Contract is effective only after approval by the State Board of Examiners and only for the period of time specified in the Contract. Any services performed by Contractor before this Contract is effective or after it ceases to be effective are performed at the sole risk of Contractor.

28. **GOVERNING LAW; JURISDICTION.** This Contract and the rights and obligations of the parties hereto shall be governed by, and construed according to, the laws of the State of Nevada, without giving effect to any principle of conflict-of-law that would require the application of the law of any other jurisdiction. The parties consent to the exclusive jurisdiction of the First Judicial District Court, Carson City, Nevada for enforcement of this Contract.

29. **ENTIRE CONTRACT AND MODIFICATION.** This Contract and its integrated attachment(s) constitute the entire agreement of the parties and as such are intended to be the complete and exclusive statement of the promises, representations, negotiations, discussions, and other agreements that may have been made in connection with the subject matter hereof. Unless

an integrated attachment to this Contract specifically displays a mutual intent to amend a particular part of this Contract, general conflicts in language between any such attachment and this Contract shall be construed consistent with the terms of this Contract. Unless otherwise expressly authorized by the terms of this Contract, no modification or amendment to this Contract shall be binding upon the parties unless the same is in writing and signed by the respective parties hereto and approved by the Office of the Attorney General and the State Board of Examiners.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby.

_____ Independent Contractor's Signature	_____ Date	_____ Independent's Contractor's Title
_____ Signature	_____ Date	_____ Title
_____ Signature	_____ Date	_____ Title
_____ Signature	_____ Date	_____ Title
_____ Signature - Board of Examiners		APPROVED BY BOARD OF EXAMINERS
Approved as to form by:		On _____ (Date)
_____ Deputy Attorney General for Attorney General		On _____ (Date)

Form Approved 05/08/02
Revised 11/07

ATTACHMENT BB INSURANCE SCHEDULE

INDEMNIFICATION CLAUSE:

Contractor shall indemnify, hold harmless and, not excluding the State's right to participate, defend the State, its officers, officials, agents, and employees (hereinafter referred to as "Indemnatee") from and against all liabilities, claims, actions, damages, losses, and expenses including without limitation reasonable attorneys' fees and costs, (hereinafter referred to collectively as "claims") for bodily injury or personal injury including death, or loss or damage to tangible or intangible property caused, or alleged to be caused, in whole or in part, by the negligent or willful acts or omissions of Contractor or any of its owners, officers, directors, agents, employees or subcontractors. This indemnity includes any claim or amount arising out of or recovered under the Workers' Compensation Law or arising out of the failure of such contractor to conform to any federal, state or local law, statute, ordinance, rule, regulation or court decree. It is the specific intention of the parties that the Indemnatee shall, in all instances, except for claims arising solely from the negligent or willful acts or omissions of the Indemnatee, be indemnified by Contractor from and against any and all claims. It is agreed that Contractor will be responsible for primary loss investigation, defense and judgment costs where this indemnification is applicable. In consideration of the award of this contract, the Contractor agrees to waive all rights of subrogation against the State, its officers, officials, agents and employees for losses arising from the work performed by the Contractor for the State.

INSURANCE REQUIREMENTS:

Contractor and subcontractors shall procure and maintain until all of their obligations have been discharged, including any warranty periods under this Contract are satisfied, insurance against claims for injury to persons or damage to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees or subcontractors.

The insurance requirements herein are minimum requirements for this Contract and in no way limit the indemnity covenants contained in this Contract. The State in no way warrants that the minimum limits contained herein are sufficient to protect the Contractor from liabilities that might arise out of the performance of the work under this contract by the Contractor, his agents, representatives, employees or subcontractors and Contractor is free to purchase additional insurance as may be determined necessary.

A. **MINIMUM SCOPE AND LIMITS OF INSURANCE:** Contractor shall provide coverage with limits of liability not less than those stated below. An excess liability policy or umbrella liability policy may be used to meet the minimum liability requirements provided that the coverage is written on a "following form" basis.

1. **Commercial General Liability – Occurrence Form**

Policy shall include bodily injury, property damage and broad form contractual liability coverage.

- | | |
|---|-------------|
| • General Aggregate | \$5,000,000 |
| • Products – Completed Operations Aggregate | \$2,000,000 |
| • Personal and Advertising Injury | \$2,000,000 |
| • Each Occurrence | \$2,000,000 |

- a. The policy shall be endorsed to include the following additional insured language: "The State of Nevada, shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor".

2. **Automobile Liability**

Bodily Injury and Property Damage for any owned, hired, and non-owned vehicles used in the performance of this Contract.

Combined Single Limit (CSL)	\$1,000,000
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- a. The policy shall be endorsed to include the following additional insured language: "The State of Nevada, shall be named as an additional insured with respect to liability arising out of the activities performed by, or on behalf of the Contractor, including automobiles owned, leased, hired or borrowed by the Contractor".

3. **Worker's Compensation and Employers' Liability**

Workers' Compensation	Statutory
Employers' Liability	
Each Accident	\$100,000
Disease – Each Employee	\$100,000

- a. Policy shall contain a waiver of subrogation against the State of Nevada.
- b. This requirement shall not apply when a contractor or subcontractor is exempt under N.R.S., **AND** when such contractor or subcontractor executes the appropriate sole proprietor waiver form.

4. Performance Security

Amount required: \$ **Performance Bond for the full value of the contract (see form below)**

- 1) Security may be in the form of surety bond, Certificate of Deposit or Treasury Note payable to the State of Nevada, only.
- 2) The security shall be deposited with the contracting State agency no later than ten (10) working days following award of the Contract to Contractor.
- 3) Upon successful Contract completion, the security and all interest earned, if any, shall be returned to the Contractor

B. **ADDITIONAL INSURANCE REQUIREMENTS:** The policies shall include, or be endorsed to include, the following provisions:

1. On insurance policies where the State of Nevada is named as an additional insured, the State of Nevada shall be an additional insured to the full limits of liability purchased by the Contractor even if those limits of liability are in excess of those required by this Contract.
2. The Contractor's insurance coverage shall be primary insurance and non-contributory with respect to all other available sources.

C. **NOTICE OF CANCELLATION:** Each insurance policy required by the insurance provisions of this Contract shall provide the required coverage and shall not be suspended, voided or canceled except after thirty (30) days prior written notice has been given to the State, except when cancellation is for non-payment of premium, then ten (10) days prior notice may be given. Such notice shall be sent directly to the State's designee listed on page one of this contract.

D. **ACCEPTABILITY OF INSURERS:** Insurance is to be placed with insurers duly licensed or authorized to do business in the state of Nevada and with an "A.M. Best" rating of not less than A- VII. The State in no way warrants that the above-required minimum insurer rating is sufficient to protect the Contractor from potential insurer insolvency.

E. **VERIFICATION OF COVERAGE:** Contractor shall furnish the State with certificates of insurance (ACORD form or equivalent approved by the State) as required by this Contract. The certificates for each insurance policy are to be signed by a person authorized by that insurer to bind coverage on its behalf.

All certificates and any required endorsements are to be received and approved by the State before work commences. Each insurance policy required by this Contract must be in effect at or prior to commencement of work under this Contract and remain in effect for the duration of the project. Failure to maintain the insurance policies as required by this Contract or to provide evidence of renewal is a material breach of contract.

All certificates required by this Contract shall be sent directly to the State's designee as listed on page one of this contract. The State project/contract number and project description shall be noted on the certificate of insurance. The State reserves the right to require complete, certified copies of all insurance policies required by this Contract at any time.

F. **SUBCONTRACTORS:** Contractors' certificate(s) shall include all subcontractors as additional insureds under its policies **or** Contractor shall furnish to the State separate certificates and endorsements for each subcontractor. All coverages for subcontractors shall be subject to the minimum requirements identified above.

G. **APPROVAL:** Any modification or variation from the insurance requirements in this Contract shall be made by the Attorney General's Office or the Risk Manager, whose decision shall be final. Such action will not require a formal Contract amendment, but may be made by administrative action.

IN WITNESS WHEREOF, the parties hereto have caused this Contract to be signed and intend to be legally bound thereby.

Independent Contractor's Signature	Date	Independent's Contractor's Title
Signature- State of Nevada	Date	Title

RMIns rev 03/08

State of Nevada
Department of Administration
PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS,

That we, _____, as Principal
and _____, a
corporation organized and existing under the laws of the State of _____, authorized to
transact Surety business in the State of _____ as Surety are held and firmly bound unto the
State of Nevada, as Obligee, in the sum of _____ DOLLARS
(\$_____) lawful money of the United States of America, to be paid to the State or its certain
attorney, its successors and assigns; for the payment whereof, well and truly to be made, we hereby bind
ourselves, our heirs, executors and administrators, successors or assigns, jointly and severally, firmly by these
presents.

WHEREAS, the above bounden Principal has been awarded and has entered into a contract dated
_____ with said Obligee to do and perform the following work, to wit:

Contract # _____

And will more fully appear in the contract, reference to which is hereby made.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, That, if the above bounden
Principal, his or its heirs, executors, administrators, successors and assigns, shall well and truly perform, or cause
to be performed, each and all of the requirements and obligations of said contract and any alteration thereof made,
and shall indemnify and save harmless the State of Nevada, its officers, employees, agents and immune
contractors, as therein stipulated, then this bond shall be null and void, otherwise it shall remain in full force and
effect.

SIGNED, SEALED, DATED: _____

(Name of Contractor)

(Name of Surety)

By _____

Attorney-in-Fact

Signature of Nevada Resident Agent

Attachment D

REFERENCE QUESTIONNAIRE

The State of Nevada, as a part of the RFP process, requires proposing vendors to submit business references as required within this document. The purpose of these references is to document the experience relevant to the scope of work and provide assistance in the evaluation process.

The proposing vendor or subcontractor is required to complete Part A and send the following reference form to each business reference listed for completion of Part B. The business reference, in turn, is requested to submit the Reference Form directly to the State of Nevada, Purchasing Division by the requested deadline for inclusion in the evaluation process. The business reference may be contacted for validation of the response.



RFP # 1767 REFERENCE QUESTIONNAIRE FOR:

Part A:

(Name of company requesting reference)

- ☐ As Primary Vendor
☐ As Subcontractor of _____
Name of Primary Vendor

Part B:

This form is being submitted to your company for completion as a business reference for the company listed above. This form is to be returned to the State of Nevada, Purchasing Division, via e-mail at rvpurch@purchasing.state.nv.us or facsimile at (775) 684-0188, no later than May 13, 2009, and **must not** be returned to the company requesting the reference.

For questions or concerns regarding this form, please contact the State of Nevada Purchasing Division, Services Procurement Section by telephone at (775) 684-0170 or by e-mail at rvpurch@purchasing.state.nv.us. When contacting us, please be sure to include the Request for Proposal number listed at the top of this page.

CONFIDENTIAL INFORMATION WHEN COMPLETED

Company providing reference:	
Contact name and title/position	
Contact telephone number	
Contact e-mail address	

QUESTIONS:

1. In what capacity have you worked with this vendor in the past?
COMMENTS:
2. How would you rate this firm's knowledge and expertise?
____ (3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
COMMENTS:
3. How would you rate the vendor's flexibility relative to changes in the project scope and timelines?
____ (3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
COMMENTS:

4. What is your level of satisfaction with hard-copy materials produced by the vendor?
_____ (3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
COMMENTS:

5. How would you rate the dynamics/interaction between the vendor and your staff?
_____ (3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
COMMENTS:

6. Who were the vendor's principal representatives involved in your project and how would you rate them individually? Would you comment on the skills, knowledge, behaviors or other factors on which you based the rating?
(3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
Name: _____ Rating: _____
Name: _____ Rating: _____
Name: _____ Rating: _____
Name: _____ Rating: _____
COMMENTS:

7. How satisfied are you with the products developed by the vendor?
_____ (3 = Excellent; 2 = Satisfactory; 1 = Unsatisfactory; 0 = Unacceptable)
COMMENTS:

8. With which aspect(s) of this vendor's services are you most satisfied?
COMMENTS:

9. With which aspect(s) of this vendor's services are you least satisfied?
COMMENTS:

10. Would you recommend this vendor's services to your organization again?
COMMENTS:

Attachment E

SAMPLE SCORE SHEET

STATE OF NEVADA, PURCHASING DIVISION
RFP 1767
Proposal Opening Date: May 14, 2009

VENDOR NAME:_____

Evaluator Initials:_____

Item	Evaluation Criteria	Weight	Score (1-10)	Revised Score (1-10)
1.	Demonstrated Competence			
2.	Experience in performance of comparable engagements			
3.	Conformance with the terms of this RFP			
4.	Expertise and availability of key personnel			
5.	Reasonableness of cost			
6.	Reasonableness of Schedule			
	Total			

After reading vendor proposals, assign a score for each criterion above between 1 and 10, with 1=Poor and 10=Excellent. The Revised Score column should be left blank until the scheduled evaluation meeting.

Below is a brief description of the issues related to each factor.

1. Demonstrated competence. Did the vendor provide sufficient data to convince you that it will do a good job for the State? Was the proof compelling? Are you confident that this vendor has the knowledge, skills and abilities to perform all its tasks well? Will the vendor's resources be adequate to serve the State's needs? Does the vendor suggest new ways to enhance performance? Does the vendor have the flexible capacity to handle all the needs of the State as they continue to change? Did the vendor present sufficient performance history to convince you of its ability? Has the vendor been in business long enough to provide good stability? Has the vendor experienced ownership changes that would impact its services? Has there been any censure or litigation history?

2. Experience in performance of comparable engagements. Does the vendor have prior experience that will ensure all the skills necessary to perform tasks well? Did the vendor have success in other work for a private or governmental entity? Does the vendor's previous work convince you of its

successful completion of these duties? Has the vendor provided adequate references? (During the evaluation meeting, State Purchasing shall provide reference responses to questionnaires.)

3. Conformance with the terms of this RFP. Did the vendor's proposal provide all the necessary information requested in the RFP in a professional manner? Did the proposal cause doubt regarding its ability to complete the necessary tasks? Was the proposal easy to understand and did it provide answers to questions, or create more questions?

4. Expertise and availability of key personnel. Is the staff that will be assigned to this project by the vendor the best qualified to complete the tasks? Will they be available to insure completion of the project? Will they be available for follow-up issues? Is sufficient staff assigned to handle these duties? Is there a Nevada office or contact person? Will assigned staff respond to issues within a reasonable amount of time?

5. Reasonableness of cost. Has the vendor established a cost that is reasonable for the project? Is the State of Nevada receiving good value for its dollars? Does the fee appear cost-effective? Are the costs reasonable compared to the competition? Will there be any additional costs or other ongoing expenses?

6. Reasonableness of schedule. Has the vendor established a schedule that is reasonable for the project? Is the State of Nevada receiving services within a timely manner?

Attachment F

PRICING SHEET

RFP 1767- I-80 Repeater Installation Cost Worksheet

Vendor Name: _____

Cost Worksheet Instructions

General:

Estimates should assume nominally* satisfactory facility conditions for (1) standard site installation. Costs shall be broken down into 3 categories:

1. Site Survey - initial site visit and assessment of existing facility infrastructure.
2. Site Installation - initial preparation/configuration of equipment; actual installation of equipment at site.
3. Maintenance - estimated maintenance costs (including facility usage cost) for a (2) year period.

Each category will be broken down by major cost element:

- A1. Direct Labor Hours
- A2. Direct Labor Dollars
- B. Material & Equipment
- C. Travel
- D. Other Direct Costs
- E. Indirect Costs (Overhead and General & Administrative Costs)

Note: Total Costs will be automatically calculated for (18) sites.

*Nominal Facility Conditions assumes that the site has adequate power, grounding, and existing infrastructure to complete the installation.

Handling of Non-Standard Site Installation

Non-optimal Sites that are later determined to be a non-standard installation will be considered on a case by case basis. The awarded vendor(s) will be allowed to justify an additional work scope for adequate installation for any given site up to 10% of the standard per site installation cost. Any requests in excess of 10% will be subject to the customer's formal change control process.

Vendor Name _____

Cost Worksheet for (1) Standard Installation

Category	Cost Element	Estimate
1. Site Survey		
A1.	Direct Labor Hours	_____
A2.	Direct Labor	_____
B.	Material & Equipment	_____
C.	Travel	_____
D.	Other Direct Costs	_____
E.	Indirect Costs	_____
Site Survey Sub-Total		\$0
2. Site Installation		
A1.	Direct Labor Hours	_____
A2.	Direct Labor	_____
B.	Material & Equipment	_____
C.	Travel	_____
D.	Other Direct Costs	_____
E.	Indirect Costs	_____
Site Installation Sub-Total		\$0
3. Maintenance		
A1.	Direct Labor Hours	_____
A2.	Direct Labor	_____
B.	Material & Equipment	_____
C.	Travel	_____
D.	Other Direct Costs	_____
E.	Indirect Costs	_____
Maintenance Sub-Total		\$0
Total Cost for a Standard Site Installation		\$0.00
GRAND TOTAL		\$0

Attachment G

GROUNDING SPECIFICATIONS

Grounding Specification

1. Description of Work

The awarded vendor(s) shall connect to existing complete grounding system for the antenna towers. The work shall include internal and external grounding systems for equipment in the communications buildings, grounding of the antenna towers and guys, and transmission line.

2. General

The purpose of this specification is to establish minimum requirements for a grounding system that shall provide a measure of personnel and equipment lightning protection. In the event that any item specified within this document conflicts with the current National Electrical Code or local building-grounding related codes, these aforementioned codes shall take precedence.

2.1 Protective measures to prevent equipment damage and personnel hazards against lightning shall incorporate system grounding and bonding using good RF practices for the conduction of steep wave front currents. While all conductors and connections have some associated resistance, the inductive reactance is normally much larger. All grounding and bonding conductors shall have low inductance interconnections to minimize the inductive voltage rise associated with the sharp wave front. All elements of the system and conducting elements in near proximity to the system shall be grounded and bonded together to enable all parts of the radio site to rise above earth equally.

3. Specifications

3.1 Shop Drawings and Catalog Data

Site-specific shop drawings (SD) and catalog data (CD) shall be submitted as applicable for the following items:

- Grounding and bonding plan (SD)
- Ground rods (CD)
- Surge suppression devices (CD)
- Bulkhead panel (CD)
- Coaxial cable grounding kit (CD)

4. Test Reports

4.1 Antenna Tower Grounding

4.1.1 Monopole masts (conductive material)

The monopole mast ground system shall consist of a minimum of four ground rods to form a tower ground ring which shall be installed a minimum of 2 feet from the foundation as shown in FIGURES 4-5 and 4-6.

The mast shall be connected to the grounding system with #2/0 AWG tinned, solid or stranded bare copper wire with connections to the mast made per the manufacturer's instructions, and shall be short and direct with no sharp bends.

4.1.2 Wooden Antenna Poles

The wooden antenna pole grounding system shall consist of a minimum of two ground rods connected together as shown in FIGURE 4-7. Atop the pole, ground connections to the antenna or antenna mast shall be made per manufacturer's recommendation. A #2/0 AWG tinned, solid or stranded bare copper ground wire shall be run down the pole on the side opposite the antenna coax, and away from all other conductors to avoid possible flashover.

4.1.3 Self-Supporting Lattice Towers

The self-supporting lattice tower grounding system shall consist of a ground rod adjacent to each tower leg. If necessary, additional ground rods shall be used to reduce the distance between rods to less than twice the length of a single ground rod. Ground rods shall be connected together to form a tower ground ring which shall be installed a minimum of 2 feet from the foundation as shown in FIGURE 4-8. Each leg of the tower shall be connected to the grounding system with #2/0 AWG tinned, solid or stranded bare copper wire. Connections to the tower leg shall be short and direct with no sharp bend.

4.1.4 Guyed Lattice Towers

The guyed lattice tower grounding system shall consist of three or four ground rods at the tower base. All ground rods shall be connected together to form a tower ground ring, which shall be installed a minimum of 2 feet from the foundation as shown in FIGURE 4-4. The ground conductors shall be connected to the grounding system with #2/0 AWG tinned, solid or stranded bare copper wire. Connections to the tower shall be short and direct with no sharp bends.

Additionally, a ground rod shall be installed at each guy anchor point approximately one foot from the anchor footing. The top of the ground rod shall be a minimum of 18 inches below finished soil surface, or below the frost line, whichever is greater. A #2/0 AWG tinned, solid or stranded bare copper wire shall be used for connecting each of the guy wires to the grounding system as shown in FIGURE 4-3. If a cathodic protection system is utilized, cables and or connectors shall not be shared with the grounding system. Where the guys are anchored within the site fencing, each ground rod shall be tied back to the tower ground ring below ground, using #2/0 AWG tinned, solid or stranded bare copper wire.

4.2 Nearby Metal Objects

The following items must be connected to the external grounding system using a #2/0 AWG tinned, solid or stranded bare copper wire.

- a. The transmission line entry window into the building. As this is the entry point into the equipment area, all transmission lines shall be grounded to this window, and extra care shall be exercised to ensure this is a very low inductance ground.
- b. Ice shield and exterior cable tray between tower and building. The ice shield shall be grounded as shown in FIGURE 4-9. The ice shield shall be bonded directly to the building external ground bus bar. All supports for the ice shield shall be grounded to the external grounding system. The ice shield shall not be bonded directly to the tower.
- c. Emergency generator and generator support base.
- d. Fuel tanks, either above or below ground.
- e. Any sizable metal object within 6 feet of the tower or building, or external grounding system.
- f. Ground system provided by the electric power utility or Telephone Company and as permitted by local electrical codes.

4.3 Transmission Line Grounding

The following applies only to antenna and transmission lines outside a building, with entry into the building and equipment room. It does not apply where antenna and transmission lines are contained entirely within a building.

4.3.1 Shield Ground

The outer conductor of coaxial transmission lines shall be grounded with appropriate coaxial cable grounding kits, such as Andrew Type 204989 or equivalent. These shall be installed per manufacturer's instructions at a minimum of three locations:

- a. At the top of the vertical run, near the antenna: The tail of the cable-grounding conductor shall be bonded to the tower using the clamp provided by the manufacturer. Additional grounding bonds shall be used for every 75 feet of the vertical transmission line run on the tower.
- b. At the bottom of the vertical run, just above its bend to the support bridge: This point shall be as low to the ground as feasible.
- c. Immediately outside the cable entrance to the equipment building, just prior to the coaxial suppressor.

4.4 Surge Suppressor Grounding

The surge suppressors used for protecting transmission lines entering the equipment room shall be connected to the single point ground window or bus plate using a #6 AWG green-jacketed copper conductor. The wires must not be closer than two inches to any other metallic objects, conduits, cable trays, or equipment cabinets or racks to minimize flashovers.

4.5 Tower-Top Amplifier Grounding

Internal preamplifier input port protective measures shall be verified with the amplifier manufacturer, and input port surge suppression device, PolyPhaser IS-GC50 Series or equivalent, shall be installed per the manufacturer's recommendation.

Additional tower-top pre-amp input protection can be provided by using DC-grounded (shunt-fed) antennas, with a short coaxial lead. The tower-top mounted preamplifier chassis shall be grounded to the tower. Internal preamplifier output port protective measures shall be verified with the amplifier manufacturer, and output port surge suppression devices shall be installed per amplifier manufacturer's recommendations.

Tower-top pre-amps with outputs carrying both DC and RF via the coaxial line shall be protected by an impulse suppressor such as the PolyPhaser DC Injector, Model IS-DC50 or equivalent, and a DC pick-off Model IS-GC50 unit or equivalent. These units shall be installed according to manufacturer's instructions. Where penetration of cable entry bulk heads are a part of the coaxial cables between the tower top amplifier and the communications equipment, an added protection device shall be required. The PolyPhaser IS-DC50LNZ pickoff and re-injector (PICKOR) or equivalent shall be employed. All surge protection devices shall be located and installed so as to be easily replaceable.

4.6 Internal Master Ground Bus Bar

In cases where a pre-existing Internal Master Ground Bus Bar does not exist at an installation site, a suitably sized ground bus bar shall be installed at the point or area where the antenna transmission lines enter the equipment room as a single point ground connection for all internal equipment comprising the communications system.

The ground bus bar shall be a bare solid copper bus bar or plate of 1/4 inch or greater thickness.

Length and width dimensions shall depend on the number of grounding conductors to be connected. Each grounding conductor shall be independently connected to the bar.

This ground bus bar shall be installed inside the equipment room and be connected to an external ground system with #2/0 AWG solid or stranded green-jacketed copper wire. If this conductor extends below the earth's surface, the conductor shall be tinned and any splices shall be made with an exothermic process such as CADWELD or equivalent.

If there are multiple communications systems in the equipment room, multiple ground bus bars shall be employed, one for each system. Each ground bus bar should be connected to the main, single-point master ground bus bar by #2/0 AWG solid or stranded green-jacketed copper wire.

The following items shall be connected to the internal master ground bus bar:

- a. Internal Grounding Ring (Halo)

- b. The transmission line surge suppressors (via #6 AWG tinned, solid or stranded green-jacketed copper wire).
- c. Equipment Ground Bus

4.7 Equipment Rack Ground

Each equipment cabinet or rack shall have a vertical equipment ground bus, similar to that shown in FIGURE 4-10, with all units in the cabinet or rack to be connected. The vertical ground bus shall be #6 AWG stranded copper wire. The cabinet or rack ground bus shall be secured to the rack at a distance of 6 inches from power and signal leads. Each equipment chassis shall be connected to the rack ground bus using #10 AWG stranded copper wire, with appropriate connectors as shown in FIGURE 4-2.

Each equipment ground bus shall be connected to the single-point master ground bus bar via the shortest and most direct route. Communications equipment shall not be connected directly to the halo ground ring

An equipment ground bus shall be used to connect equipment racks directly to the master ground bus bar. The individual equipment ground bus from each rack, cabinet, or enclosure in a single row shall be connected to an equipment ground bus. Each single row of equipment shall have a separate equipment ground bus consisting of #2/0 AWG solid or stranded green-jacketed copper wire. Each equipment ground bus shall be connected to the master ground bus bar via the shortest and most direct route.

4.8 Connections to the Internal Ground Ring (Halo)

The following items shall be connected to the internal ground ring, using #6 AWG tinned, solid or stranded green-jacketed copper wire or larger.

- a. The AC power panel enclosure and power line protectors
- b. Telephone terminal block enclosure and telephone protectors
- c. The emergency generator (if it is located in the shelter)
- d. Metal battery racks
- e. Other significant metal objects (such as doors and doorframes, ventilation ducts, water pipes, etc.) within 6 feet of any other grounded object; such as doors and doorframes, ventilation ducts, water pipes, etc.

4.9 Equipment Frames and Other Metal Structures

Equipment frames and other metal structures within 6 feet of each other or any point in the grounding system shall be directly bonded together with #6 AWG solid or stranded copper wire to avoid side flashovers and other hazards.

4.10 Cable Trays

Cable trays shall be connected to the master ground bar or halo ground ring via a #2/0 AWG stranded copper wire. Cable tray sections shall also be bonded together using a conductor as called for by #6 AWG solid or stranded green-jacketed copper wire. Incidental paths through framework, cable trays, building steel, etc. shall not be depended upon for a reliable ground connection. When compression type connectors are employed at an installed site or system, the Burndy compression system (or equivalent) shall be used. This system consists of connectors for indoor taps, splices, and structural steel terminations.

4.11 Communications Center Grounding

A Communications Center ground bus (#2/0 AWG solid or stranded green-jacketed copper wire) shall be run under the flooring for each equipment row if possible, in a manner to allow each equipment to tie into this ground with a #6 AWG solid or stranded green-jacketed copper wire. The ground bus shall be short and direct with no sharp bends, and shall not run parallel, within 2 inches, to any power or signal leads. The ground bus shall connect to a single-point master ground bus bar and the central electronics rack ground, and then connect to the exterior building ground, except if no external ground system is being installed as part of the equipment installation. Any ground system installed shall be effectively connected to the existing building ground or electrical service ground.

Console bays shall be bonded together, and shall be connected to the Communications Center ground bus with a short, direct run of #6 AWG solid or stranded green-jacketed copper wire, avoiding sharp bends.

4.12 Ground Resistance Measurement

Unless specified elsewhere, the desired maximum resistance between the resistance between any point on the ground system ground and earth ground shall be less than 5 ohms. Higher ground resistance may be acceptable at some sites where conditions make 5 ohms impractical, will be determined jointly by contractor and project manager.

Equipment specifically designed and generally accepted by the telecommunications industry for this purpose shall be used to measure the resistance of a point to ground, and the measurement shall be made using the instructions provided with the instrument in making this measurement.

5. Surge Protection

5.1 Transmission Line Protection

All RF transmission lines, including unused spares, must be protected by PolyPhaser coaxial suppressors or equivalent and grounded at the internal master ground bus bar to remove surge currents from the center conductor. The types of coaxial suppressors used shall be based upon the applications and manufacturer's recommendation.

5.2 Tower-Top Amplifier Protection

Internal preamplifier input port protective measures shall be verified with the amplifier manufacturer, and input port surge suppression device, PolyPhaser IS-GC50 Series or equivalent, shall be installed per the manufacturer's recommendation.

Additional tower-top pre-amp input protection can be provided by using DC-grounded (shunt-fed) antennas, with a short coaxial lead. The tower-top mounted preamplifier chassis shall be grounded to the tower.

Internal preamplifier output port protective measures shall be verified with the amplifier manufacturer, and output port surge suppression devices shall be installed per amplifier manufacturer's recommendations.

Tower-top pre-amps with outputs carrying both DC and RF via the coaxial line shall be protected by an impulse suppressor such as the PolyPhaser DC Injector, Model IS-DC50 or equivalent, and a DC pick-off Model IS-GC50 unit or equivalent. These units shall be installed according to the manufacturer's instructions. Where penetration of cable entry bulk heads are a part of the coaxial cables between the tower top amplifier and the communications equipment, an added protection device shall be required. The PolyPhaser IS-DC50LNZ pickoff and re-injector (PICKOR) or equivalent shall be employed. All surge protection devices shall be located and installed so as to be easily replaceable.

6. Transient Voltage Surge Suppressors

6.1 Main/Branch AC Panel Protection

A transient voltage surge suppressor (TVSS), Transtector APEX series or equivalent, shall be placed at on the source side of service entrance panels, and on the load side of transfer switches or distribution panels. The suppressor shall be installed in parallel via a circuit breaker sized according to the manufacturer's recommendation (typically 60-amp) rated for the interrupting current of the panel. The lead lengths from the protective devices shall be as short as possible. The TVSS enclosure shall be grounded to the internal grounding ring (halo) with #6 AWG solid or stranded green-jacketed copper wire. A remote status indicator must be available.

6.2 AC Power In-Line Protection

When the above TVSSs are used, no additional TVSSs are required on site. The TVSS shall be located at the equipment cabinet as shown in FIGURE 4-11, with a #6 AWG solid copper wire or strap, to system ground. The protective device shall not rely on the green ground wire in the AC power cable.

6.3 Electrostatic Discharge Protection

The following precautions shall be followed to reduce possible damage caused by ESD during the installation and maintenance process.

- a. Use of body grounding devices (wrist straps, heel straps with grounded conductive floor mats) by all inspection, service and installation personnel.
- b. Use of static free grounded work surfaces (table or floor mats) where appropriate.
- c. Use of anti-static packaging for ESD sensitive electronic circuit or component handling.

Figure 4-1: Typical Ground Connection

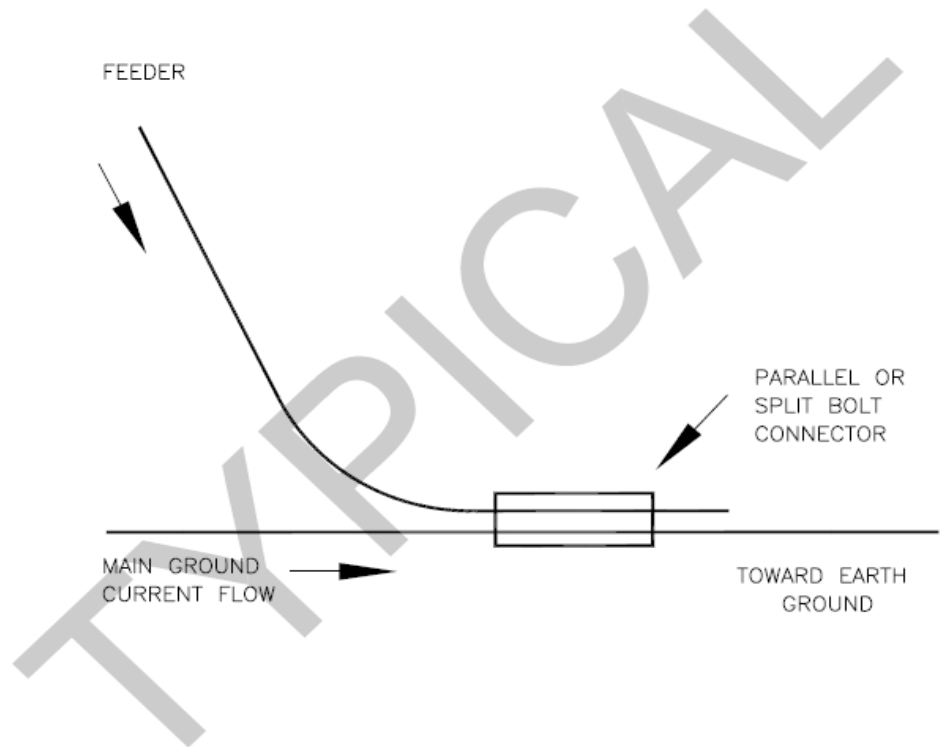


Figure 4-2: Typical Connectors and Lugs for Grounding

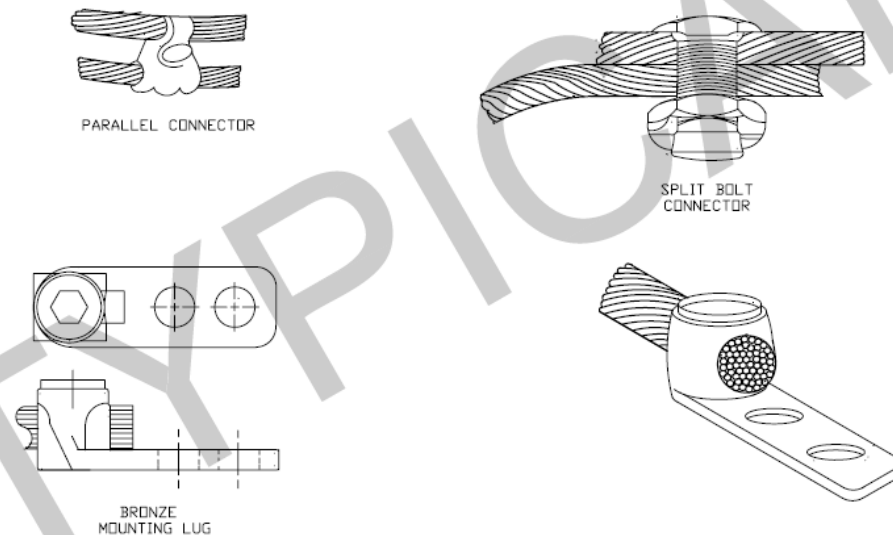


Figure 4-3: Typical Guy Anchor Grounding

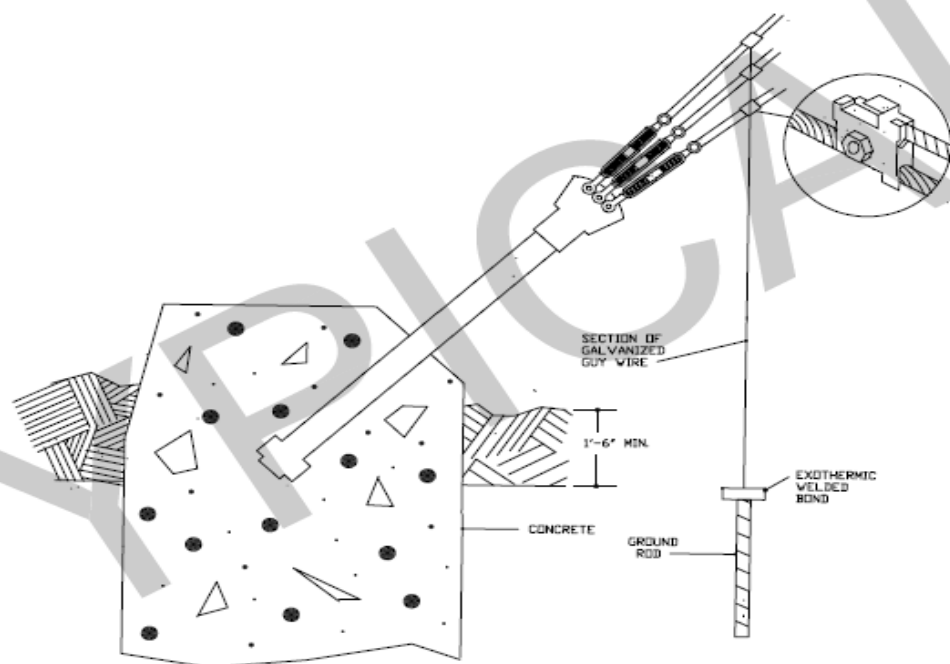


Figure 4-4: Typical External Grounding System

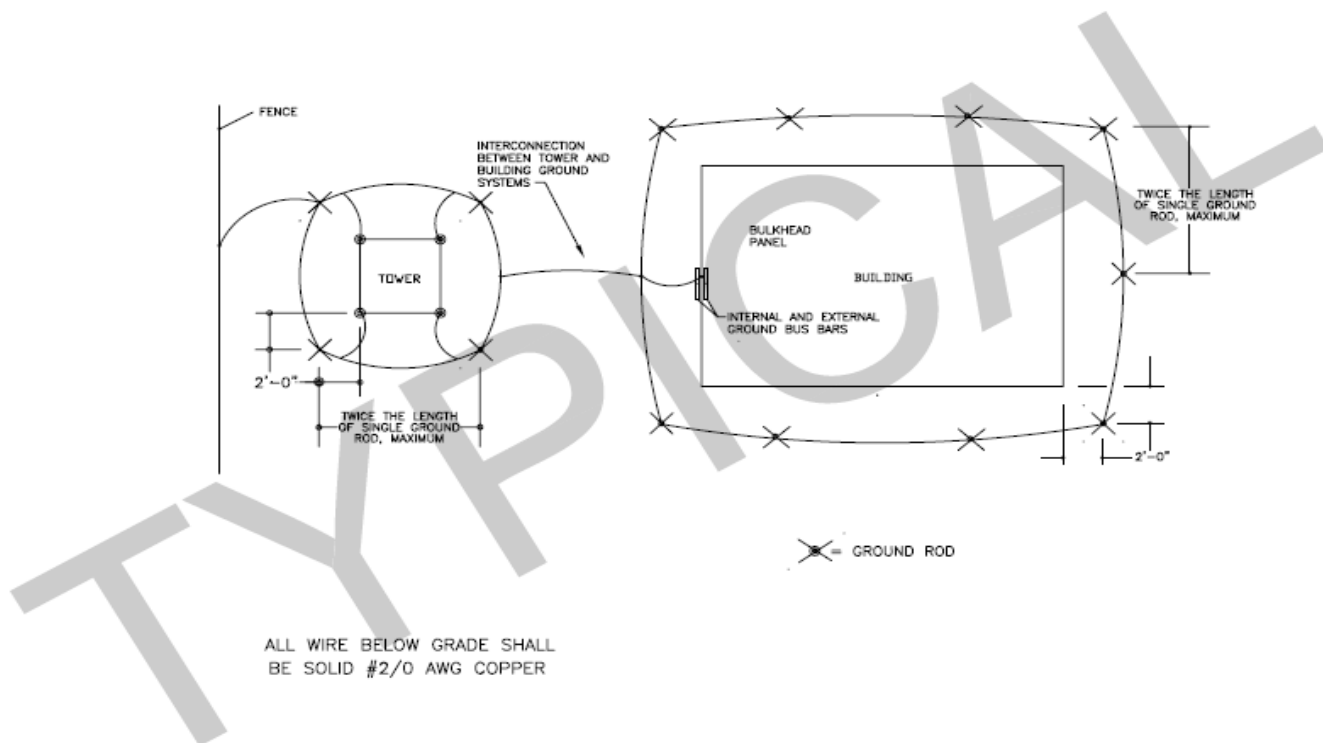


Figure 4-5: Typical Monopole Mast Grounding

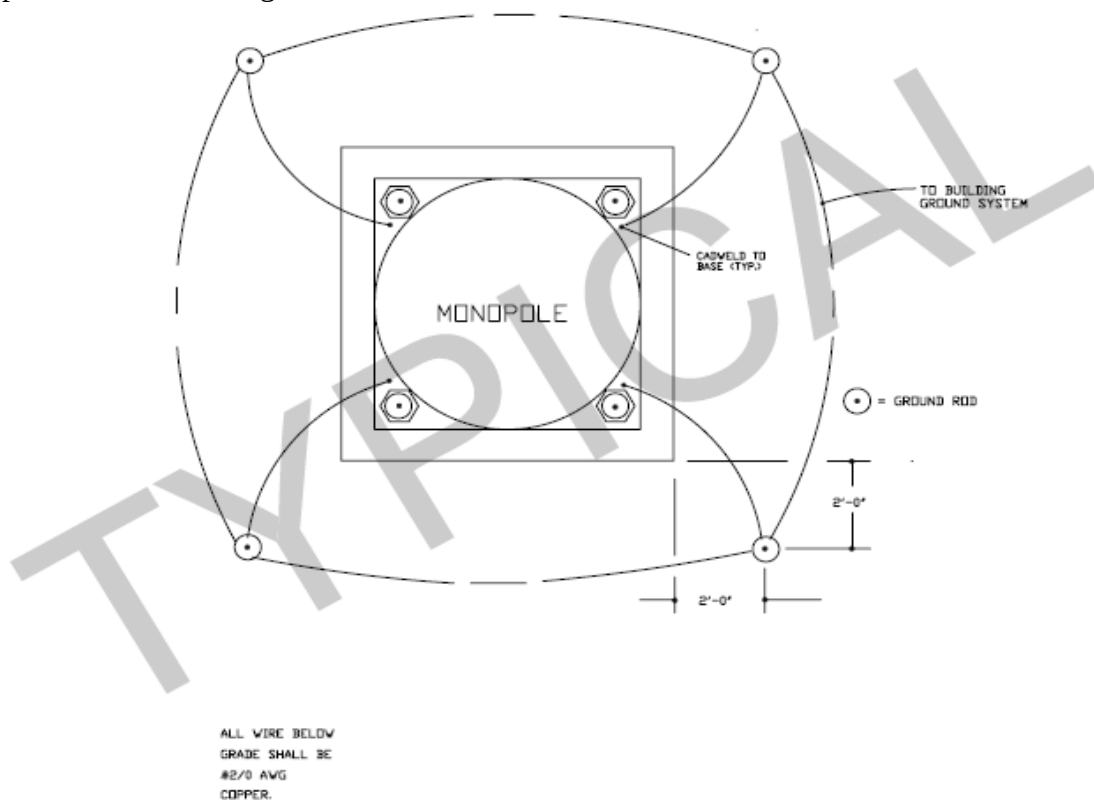


Figure 4-6: Typical Grounding with Monopole Mast

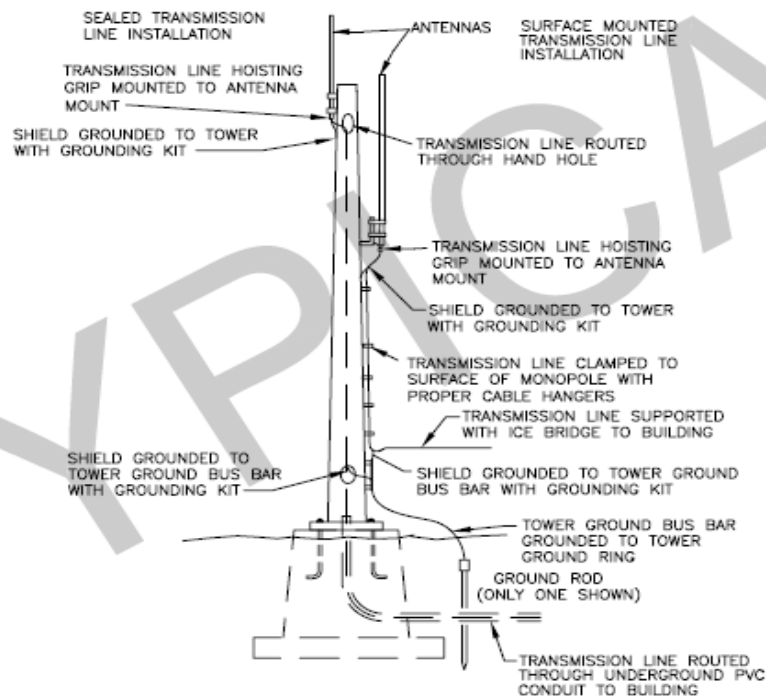


Figure 4-7: Typical Grounding of Wooden Antenna Pole

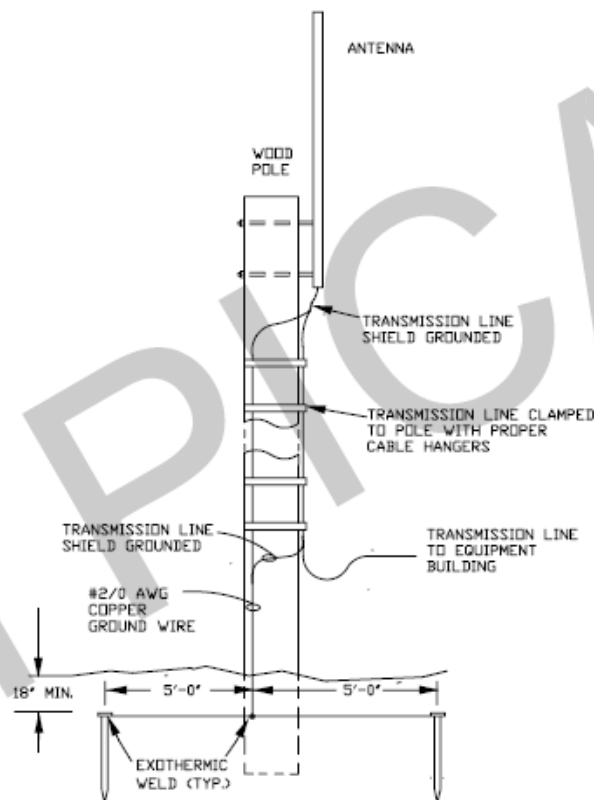


Figure 4-8: Typical Grounding of Self-Supporting Tower

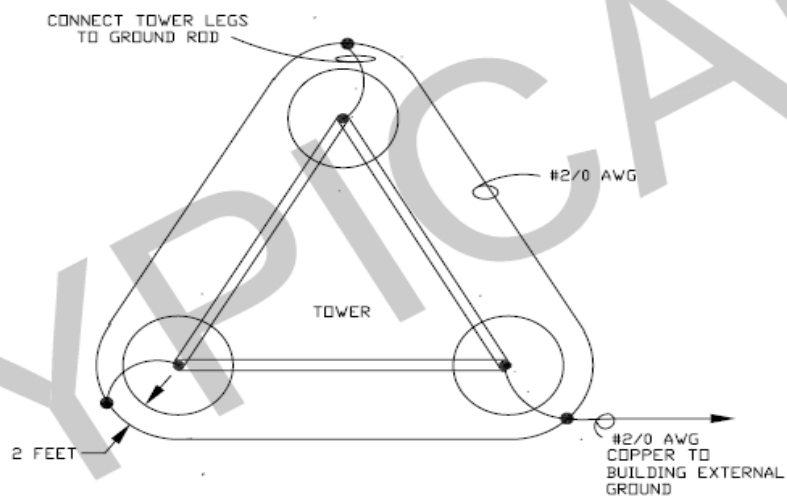
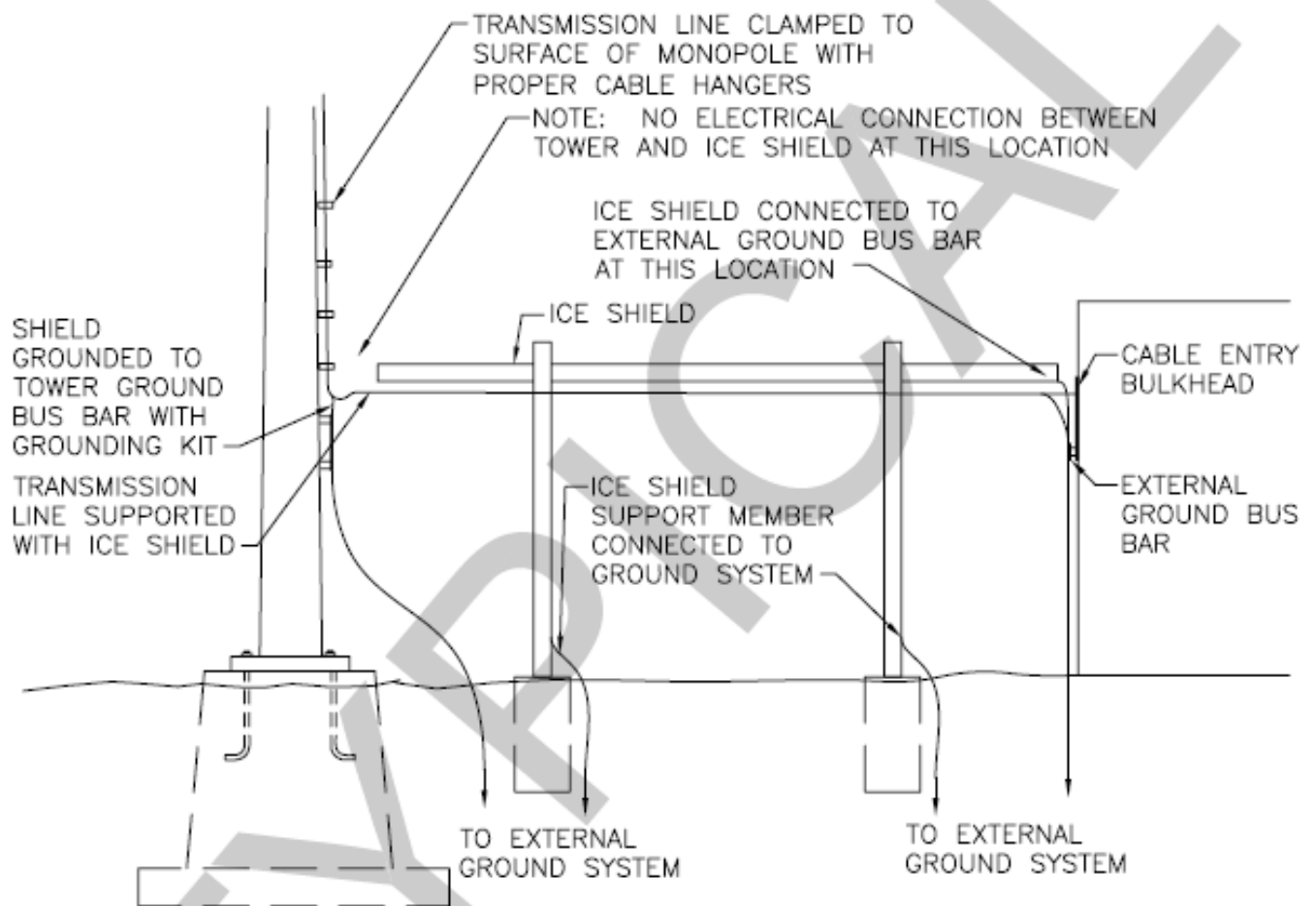


Figure 4-9: Typical Ice Shield Grounding



4-10: Typical Rack Grounding

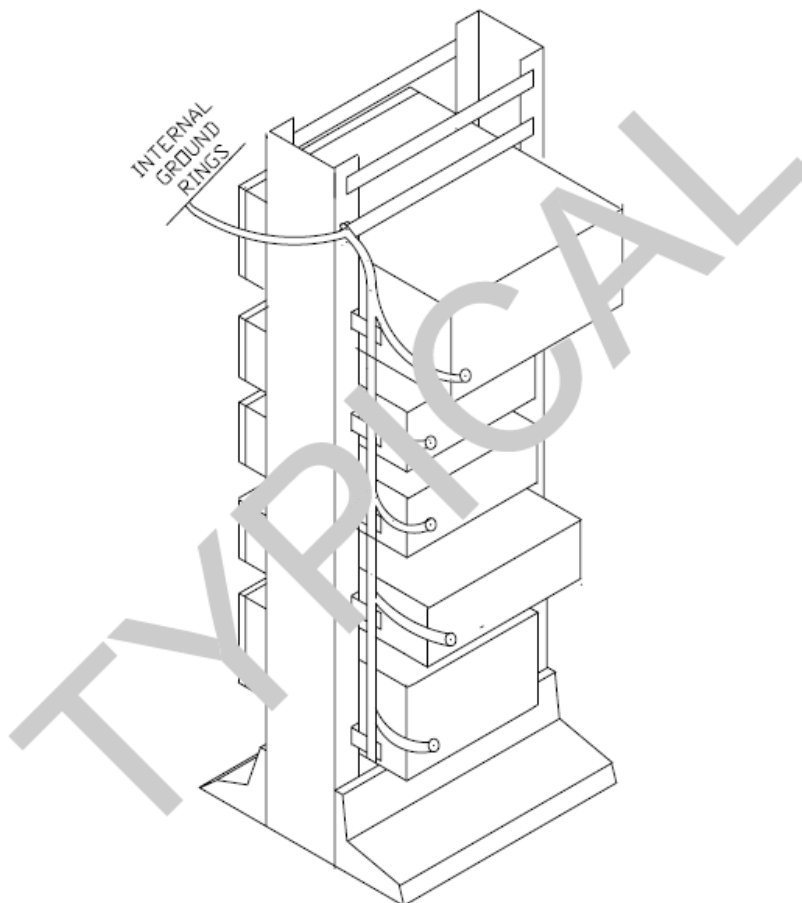


Figure 4-11: Typical Equipment Protection AC Power Line

