



# CLARK COUNTY, NEVADA REQUEST FOR QUALIFICATIONS

## RFQ NO. 604073-16 PROFESSIONAL ENGINEERING SERVICES FOR ELEVATED AND AT-GRADE LIMITED ACCESS AIRPORT EXPRESSWAY

The RFQ package is available as follows:

- Internet – Visit the Clark County Purchasing and Contracts Division website at <http://www.ClarkCountyNV.gov/Purchasing>. Click on “Current Opportunities” and locate Document No. 604073 in the list of current solicitations.
- Pick up - Clark County Government Center, 500 South Grand Central Parkway, Purchasing and Contracts Division, Fourth Floor, Las Vegas, NV 89106.

A Pre-Proposal Conference will be held on **APRIL 15, 2016** at **9:00 a.m.**, at the address specified above in the Gold Conference Room. If your firm is unfamiliar with the County Request for Qualification (RFQ) procedures and would like to obtain training on the submittal process for this RFQ, please contact Thomas Boldt, Senior Purchasing Analyst, at [tboldt@clarkcountynv.gov](mailto:tboldt@clarkcountynv.gov) no later than **THURSDAY, APRIL 14, 2016**, and a training session will be provided immediately following the pre-proposal conference referenced above.

Proposals will be accepted at the Clark County Government Center address specified above, on or before **MAY 9, 2016** at **3:00:00 p.m.**, based on the time clock at the Clark County Purchasing and Contracts front desk.

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## GENERAL CONDITIONS

RFQ NO. 604073-16

### PROFESSIONAL ENGINEERING SERVICES FOR ELEVATED AND AT-GRADE LIMITED ACCESS AIRPORT EXPRESSWAY

1. TERMS

The term "COUNTY," as used throughout this document will mean the County of Clark, Nevada. The term "BCC" as used throughout this document will mean the Board of County Commissioners which is the Governing Body of Clark County. The term "CHIEF FINANCIAL OFFICER" as used throughout this document will mean the Clark County Chief Financial Officer or her designee responsible for the Purchasing and Contracts Division. The term "PROPOSER" as used throughout this document will mean the respondents to this Request for Proposal. The term "RFQ" as used throughout this document will mean Request for Qualifications.

2. INTENT

COUNTY is soliciting proposals for Professional Engineering Services for Elevated and At-Grade Limited Access Roads approximately four miles along the route depicted on the Airport Express exhibit.

3. SCOPE OF PROJECT

Perform an alignment study, pre-design and final design for a limited access road that primarily serves vehicular traffic between McCarran International Airport and the Resort Corridor. The conceptual alignment is depicted on the Airport Express exhibit included herein. The conceptual design provides a northbound elevated two-lane structure beginning on Swenson Street south of Tropicana Avenue and continuing north along Swenson Street then curving west to Paradise Road then north along Paradise Road and returning to grade north of Flamingo Road. Left turns off the elevated road will be provided at Tropicana Avenue, Harmon Avenue and Flamingo Road. Along Tropicana Avenue, the westbound traffic off the elevated structure will go under Paradise Road and merge with Tropicana Avenue westbound west of Paradise Road. Koval Lane will provide southbound access from the Resort Corridor to the airport. The elevated structure will begin north of Flamingo Road and continue to Tropicana Avenue then turn east and return to grade approximately 1100 feet east of Koval Lane. Right turn on-ramps from Flamingo Road and Harmon Avenue will provide access to the elevated structure. The services to be provided will include public outreach, right-of-way engineering, surveying, geotechnical engineering, structural engineering, electrical components, signing and striping surface road modifications utility coordination, relocation of utilities, constructability reviews, and maintenance of traffic recommendations to complete plans and specifications for the construction of a complete and serviceable project.

4. DESIGNATED CONTACTS

COUNTY'S representative will be Joe Yatson, P.E., Design Engineering Manager, email: jyatson@clarkcountynv.gov. This representative will respond to questions concerning the scope of work of this RFQ. Questions regarding the selection process for this RFQ may be directed to Thomas Boldt, Senior Purchasing Analyst, Clark County Administrative Services Department, Purchasing and Contracts Division, e-mail: tboldt@clarkcountynv.gov.

5. CONTACT WITH COUNTY DURING RFQ PROCESS

Communication between a PROPOSER and a member of the BCC or between a PROPOSER and a non-designated COUNTY contact regarding the selection of a proponent or award of this Contract is prohibited from the time the RFQ is advertised until the item is posted on an agenda for award of the Contract. Questions pertaining to this RFQ shall be addressed to the designated contact(s) specified in the RFQ document. Failure of a PROPOSER, or any of its representatives, to comply with this paragraph may result in their proposal being rejected.

6. TENTATIVE DATES AND SCHEDULE

Pre-Proposal Meeting: April 15, 2016, 9:00 a.m. Pacific, Gold Conference Room

Last Day to Ask Questions: April 27, 2016

Proposal Due Date: May 9, 2016, 3:00:00 p.m. Pacific

Finalists Selection: May 2016

Finalists Oral Presentations: May 2016, if requested by County

Final PROPOSER Selection: June 2016

Contract Negotiations: June - July 2016

Award & Approval of the Final Contract(s): July 2016

7. METHOD OF EVALUATION AND AWARD

Since the service requested in this RFQ is considered to be a professional service, award will be in accordance with the provisions of the Nevada Revised Statutes, Chapter 332, Purchasing: Local Governments, Section 332.115.

The proposals may be reviewed individually by staff members through an ad hoc committee to assist the PURCHASING MANAGER OR HER DESIGNEE. The finalists may be requested to provide COUNTY a presentation and/or an oral interview. The ad hoc staff committee may review the proposals as well as any requested presentations and/or oral interviews to gather information that will assist in making the recommendation. COUNTY reserves the right to award the Contract based on objective and/or subjective evaluation criteria. This Contract will be awarded on the basis of which proposal COUNTY deems best suited to fulfill the requirements of the RFQ. COUNTY also reserves the right not to make an award if it is deemed that no single proposal fully meets the requirement of this RFQ.

The fees for the professional services will be negotiated with the PROPOSER(S) selected.

8. SUBMITTAL REQUIREMENTS

The submittal shall not exceed 18 pages single sided or 9 pages double sided. Form A and tab dividers will not be included in the page counts. Please do not add any corporation brochure or place any information on the tab dividers.

All submittals shall have Arial font with a font size of 12 point, with half-inch minimum margins, and be on **8-1/2" x 11" paper** bound with **tabbed dividers labeled by section to correspond with the evaluation criteria information** requested.

The FIRM shall submit **(1) original submittal, clearly marked as such, (1) CD in 300 dpi PDF format, and (5) hard copies of the submittal.** The name of the FIRM shall be indicated on the spine and cover of each binder.

The following are detailed delivery/mailing instructions for proposals:

Hand Delivery

Clark County Government Center  
Purchasing and Contracts Division  
500 South Grand Central Parkway, 4<sup>th</sup> Fl  
Las Vegas, Nevada 89106

U.S. Mail Delivery

Clark County Government Center  
Attn: Purchasing and Contracts, 4<sup>th</sup> Fl  
500 South Grand Central Parkway  
P.O. Box 551217  
Las Vegas, Nevada 89155-1217

Express Delivery

Clark County Government Center  
Attn: Purchasing and Contracts, 4<sup>th</sup> Fl  
500 South Grand Central Parkway  
Las Vegas, Nevada 89106

Submittals shall be delivered by 3:00:00 p.m. (PST), May 9, 2016. Any submittal delivered after the specified time and date will be considered late and rejected.

9. WITHDRAWAL OF PROPOSAL

PROPOSER(S) may request withdrawal of a posted, sealed proposal prior to the scheduled proposal opening time provided the request for withdrawal is submitted to the Purchasing Analyst in writing or a proposal release form has been properly filled out and submitted to the Purchasing and Contracts Division reception desk. Proposals must be re-submitted and time-stamped in accordance with the RFQ document in order to be accepted.

No proposal may be withdrawn for a period of 90 calendar days after the date of proposal opening. All proposals received are considered firm offers during this period. The PROPOSER'S offer will expire after 90 calendar days.

If a PROPOSER intended for award withdraws their proposal, that PROPOSER may be deemed non-responsible if responding to future solicitations.

10. REJECTION OF PROPOSAL

COUNTY reserves the right to reject any and all proposals received by reason of this request.

11. PROPOSAL COSTS

There shall be no obligation for COUNTY to compensate PROPOSER(S) for any costs of responding to this RFQ.

12. ALTERNATE PROPOSALS

Alternate proposals are defined as those that do not meet the requirements of this RFQ. Alternate proposals will not be considered.

13. ADDENDA AND INTERPRETATIONS

If it becomes necessary to revise any part of the RFQ, a written addendum will be provided to all PROPOSERS in written form from the Purchasing Analyst. COUNTY is not bound by any specifications by COUNTY'S employees, unless such clarification or change is provided to PROPOSERS in written addendum form from the Purchasing Analyst.

14. PUBLIC RECORDS

COUNTY is a Public Agency as defined by State Law, and as such, is subject to the Nevada Public Records Law (Chapter 239 of the Nevada Revised Statutes). Under the law, all of COUNTY'S records are public records (unless otherwise declared by law to be confidential) and are subject to inspection and copying by any person. However, in accordance with NRS 332.061(2), a proposal that requires negotiation or evaluation by COUNTY may not be disclosed until the proposal is recommended for award of a Contract.

15. PROPOSALS ARE NOT TO CONTAIN CONFIDENTIAL / PROPRIETARY INFORMATION

Proposals must contain sufficient information to be evaluated and a contract written without reference to any confidential or proprietary information. PROPOSER(S) shall not include any information in their proposal that they would not want to be released to the public. Any proposal submitted that is marked "Confidential" or "Proprietary," or that contains materials so marked, will be returned to the PROPOSER and will not be considered for award.

16. BUSINESS LICENSE REQUIREMENTS

CLARK COUNTY BUSINESS LICENSE / REGISTRATION

Prior to award, the successful PROPOSER will be required to obtain a Clark County business license or register annually as a limited vendor business with the Clark County Business License Department.

- A. Clark County Business License is Required if:
  - i. A business is physically located in unincorporated Clark County, Nevada.
  - ii. The work to be performed is located in unincorporated Clark County, Nevada.
- B. Register as a Limited Vendor Business Registration if:
  - i. A business is physically located outside of unincorporated Clark County, Nevada.
  - ii. A business is physically located outside the state of Nevada.

The Clark County Department of Business License can answer any questions concerning determination of which requirement is applicable to your firm. It is located at the Clark County Government Center, 500 South Grand Central Parkway, 3<sup>rd</sup> Floor, Las Vegas, NV, or you can reach them via telephone at (702) 455-4253 or toll free at (800) 328-4813.

You may also obtain information on-line regarding Clark County Business Licenses by visiting the website at [http://www.clarkcountynv.gov/Depts/business\\_license/Pages/default.aspx](http://www.clarkcountynv.gov/Depts/business_license/Pages/default.aspx)

17. EVALUATION CRITERIA

Submittals should contain the following information in addition to a coversheet on company letterhead (coversheet will not be included in the page count):

- A. **Tab 1 – Firm and Subconsultant Qualifications (15%)**

Provide the FIRM'S information as requested on **Form A**. (Form A will not be included in the page count)

Provide a brief summary of qualifications of the firm and any subconsultants that would be performing work on the project. Provide a brief summary of the FIRM's and subconsultant's knowledge and familiarity with Clark County needs, goals, requirements, and regulations.
- B. **Tab 2 – Staff Qualifications and Availability (30%)**

Provide a brief summary of the firm's and any subconsultant's present workload and a schedule indicating the ability to perform the work to meet the Project completion requirements. Provide information concerning the educational background, professional licenses, and experience of those key personnel who would actually perform work on the project, as well as an organization chart. Identify if those persons presently reside in Clark County, Nevada or elsewhere. Indicate the present workload of the project staff to demonstrate their ability to devote sufficient time to meet the proposed schedule. Include discussion of key personnel regarding facilities built within navigable waters of the U.S., as well as the ability of staff to coordinate and schedule work with local, state, and federal agencies. The successful FIRM and subconsultants shall not change proposed project personnel for which a resume is submitted without OWNER approval.

FIRM must indicate that the FIRM and subconsultants will perform over fifty percent of the total work on the Project through a local office. The responsible project manager must also be located in the FIRM's local office during the term of the contract, and the FIRM must be able to legally execute contracts within its local office.

C. **Tab 3 – Experience (25%)**

Provide a detailed description of similar project(s) performed of the FIRM and all subconsultants within the last 5 years. Include name of agency contact and telephone number. Indicate other factors the FIRM determines appropriate which would indicate to the OWNER that the FIRM and subconsultants have the necessary capability, competence, and performance record to accomplish the project in a timely and cost-effective manner.

The summary should include descriptions of relative past performance in management, cost control, timely performance and thoroughness of work on similar projects.

Complete and return Form B. (Form B will be included in the page count)

D. **Tab 4 – Project Understanding and Approach (30%)**

Provide FIRM'S understanding of project goals and requirements. Provide FIRM'S approach to achieving project goals and requirements. Identify complications that might be encountered and possible resolutions.

E. **Tab 5 – Schedule**

Provide an estimated time for completion of design and construction with all associated tasks.

18. CONTRACT

A sample of Standard Professional Engineering Services Contract is attached. Any proposed modifications to the terms and conditions of the Standard Contract are subject to review and approval by the Clark County Department of Public Works and the District Attorney's Office.

**SAMPLE CONTRACT**  
**PROFESSIONAL ENGINEERING SERVICES CONTRACT FOR**

**THIS CONTRACT**, made and entered into this [redacted] day of [redacted], 2016, between Clark County, Nevada, a political subdivision of the State of Nevada, hereinafter referred to as COUNTY, and [redacted], a corporation authorized to do business under the laws of the State of Nevada, hereinafter referred to as ENGINEER.

The initial addresses of the parties, which one party may change by giving notice to the respective other party, are as follows:

<b>COUNTY</b>	<b>ENGINEER</b>
Denis Cederburg, Director Clark County Department of Public Works 500 South Grand Central Parkway Las Vegas, Nevada 89106 (702) 455-6020	

**W I T N E S S E T H**

**WHEREAS**, the COUNTY desires to obtain quality professional engineering services in connection with the work hereinafter described; and,

**WHEREAS**, the ENGINEER desires to provide such services in exchange for the fees hereinafter specified.

**NOW, THEREFORE**, for and in consideration of the premises and mutual covenants herein contained, it is agreed as follows:

**ARTICLE I: DEFINITIONS**

As used in this Contract, the following terms shall have the meanings as set out below:

“Basic Services” are those services as set forth in Section 2.02.

“County Surveyor” means the County Surveyor, or Deputy County Surveyor, for the County of Clark as designated by the Director to administer the Land Surveying aspects of this Contract.

“Director” means the Director of Public Works of the County of Clark and all persons designated by him, in a notice to the ENGINEER, to administer this Contract.

“Direct Salary” is defined as the actual base rate of pay on an hourly basis of the ENGINEER’s employees whose time will be directly chargeable to this Contract. The ranges of base rate of pay to be used by the ENGINEER under this Contract are those specified in Exhibit “A” attached hereto and made a part hereof by this reference.

“P.L.S.” is a professional licensed land surveyor in the State of Nevada, performing services for this Project.

“Project Manager” is the designated person for the County of Clark, as designated by the Director to administer this Contract.

“Project Area” means the area within Clark County, Nevada.

“Special Services” are those services as set forth in Section 2.03.

Project” means the roadway improvements on \_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_. Such improvements are to include, at a minimum, hot mix asphaltic concrete pavement providing six (6) travel lanes, a two-way left-turn lane with raised medians at major intersections, storm drainage facilities, curbs, gutters, sidewalks, streetlighting, traffic signals, utility modifications and relocations, traffic control devices, pavement markings, intersecting streets, horizontal and vertical transitions, and other necessary appurtenances required to make a good, complete, and serviceable Project within a foot right-of-way, except where additional lanes may be required (MODIFY PER PEROJECT).

## **ARTICLE II: SCOPE OF SERVICES**

### **2.01 In General**

The ENGINEER shall perform the Basic Services specified in section 2.02 hereof, as well as those Special Services specified in section 2.03 hereof that the Director authorizes the ENGINEER in writing, to perform.

Whenever the ENGINEER, in the course of performing the Basic Services, is required to present recommendations to the Director with respect to the advisability of or the need for any Special Service, such recommendation will be in writing and shall include a recommended scope of work for such Special Services and a recommended range of fees. If the ENGINEER recommends subcontract services, the recommendation shall also include the name(s) of the subcontractor(s) recommended by the ENGINEER and, if requested, a copy of the subcontract proposal(s).

#### **2.01.1 Engineer Assignment**

The ENGINEER shall assign \_\_\_\_\_, as the Project Manager (“Project Manager”). All of the services specified by this Contract shall be performed by the Project Manager, or by the ENGINEER’s associates, employees and subconsultants

under the personal supervision of the Project Manager. Should the Project Manager be unable to complete his or her responsibility for any reason, the ENGINEER shall notify the Director in writing, and within four (4) calendar days thereafter, nominate a replacement for the Director approval, in its reasonable discretion, who has an equivalent amount of experience performing the same type of services as required for the Project. An approved replacement shall be assigned to the Project within ten (10) calendar days. If the Director is not satisfied with the replacement then the Director may terminate the Contract by giving five (5) day written notice to the ENGINEER.

### **2.01.2 Subconsultant Services**

With respect to any subconsultant services performed in connection with performance of the terms and obligations imposed under these Contract provisions, the ENGINEER agrees as follows:

- A. To pay the subconsultant if any when the ENGINEER is paid for the subconsultant's portion of the work by the COUNTY. The ENGINEER shall provide to the COUNTY lien releases from its subconsultants.
- B. The subconsultant does not have any contractual rights with the COUNTY.
- C. The Director has the right in its discretion to approve every subconsultant prior to such subconsultant's performance of any portion of the Project.
- D. The ENGINEER shall require that each subconsultant performing any portion of the Project:
  - Is duly formed, in good standing, and authorized to do business in the State of Nevada;
  - Is a duly licensed or registered architect, engineer, or other professional, as the case may be, with the State of Nevada, and such license or certificate of registration is in full force and effect;
  - Has obtained any and all licenses, certificates and permits that are required to be obtained by subconsultant by the Nevada Revised Statutes and the Nevada Administrative Code, and by any other law, rule, regulation or ordinance applicable to subconsultant and to the performance of any part of the Project by subconsultant;
  - Is duly licensed and authorized to do business in the COUNTY, and such business license is in full force and effect; and
  - To comply with all laws, rules, regulations, and ordinances, as such may be amended, supplemented or modified from time to time, that are applicable to subconsultant and any portion of the Project performed by subconsultant.

### **2.02 Basic Engineering Services**

Beginning on the date the Director notifies the ENGINEER to begin performance; the ENGINEER shall proceed with furnishing the engineering detailed construction plans and specifications, which enable the COUNTY to advertise, award, and administer a

construction contract for the Project. Without limiting the generality of the following, the Basic Services shall include the following specific tasks:

**A. Kickoff Meeting:** Within 30 calendar days following the date of execution of this Contract hold a Project kick-off meeting.

At the Project kick-off meeting and at each submittal thereafter, provide a P.L.S. stamped preliminary survey control plan, and an updated design schedule in a Microsoft Project format.

The County Surveyor shall review the preliminary survey control plan prepared by the P.L.S. The preliminary survey control plan shall be stamped to verify the existence of the control based upon field verification. The County Surveyor shall determine the level of use of previously recorded records of survey, the necessity of an updated P.L.S. Record of Survey, and the extent of additional survey monumentation necessary for the Project. The County Surveyor shall further determine the method of perpetuation of any additionally required P.L.S. established monuments.

The project design schedule shall be provided electronically and on hard-copy and shall include all elements identified in Section 4.01 herein, projected date of advertisement for construction bids, progress of right-of-way engineering, utility conflict identification and resolution, permit applications and coordination, and progress of on-going Project action items identified by the Director, as applicable.

- Deliverable: Project kickoff meeting, meeting minutes and design schedule.
- Deliverable: P.L.S. Stamped Preliminary Survey Control Plan on 24" x 36" bond.

**B. Final Survey Control and/or Record of Survey Meeting:** Prior to completion of the 30% design level plans, meet with the County Surveyor and to obtain final approval of the P.L.S. Stamped Survey Control Plan and/or Record of Survey. Provide County Surveyor approval signature blocks on the final drawings of the survey control plan and/or Record of Survey.

Requirements for approval by the Survey Control Plan and/or Record of Survey shall include but not be limited to the following: 1.) Perform land surveying services to establish horizontal and vertical control for the Project and prepare a Survey Control Plan and/or Record of Survey as described in Exhibit "B" attached hereto and made a part hereof by this reference; 2.) Provide alignment information for the roadway and its intersections and side street alignments as necessary; 3.) The Survey Control Plan shall be prepared in conformance with the Record of Survey, where applicable, and shall be sealed by a P.L.S.; 4.) Field verification of existing monuments, as well as any additional monuments to be set by the P.L.S. to perpetuate the alignment, shall be completed by a P.L.S. and approved by the County Surveyor prior to final acceptance of the Survey Control Plan and Record of Survey; 5.) The Survey Control Plan will be tied to the County's established vertical control network, the United States Public Land Survey System, and where applicable, the County's established horizontal

geodetic control network. Existing monuments within the project limits will be tied into this control network; 6.) Prior to submittal of 30% plans, the P.L.S. shall further submit to the County Surveyor a stamped right-of-way drawings. The right-of-way drawings shall depict all encroachments, as determined by the P.L.S., and additional right-of-way acquisitions necessary to accommodate the proposed limits of construction submittal. The right-of-way status sheet shall be supported by P.L.S. research of legal descriptions, acquisition maps, easement maps, right-of-way maps, and other back up information as requested by the County Surveyor. The County Surveyor shall coordinate/provide all title reports, outsourced to third party title companies, as necessary to complete the Project.

Note: The ENGINEER must receive a separate written authorization to proceed beyond the 30 percent design. Authorization is contingent upon the formal acceptance of the Survey Control Plan and/or, if determined necessary, a Record of Survey. Formal approval can only be achieved by the County Surveyor's endorsement of the Survey Control Plan and/or Record of Survey final mylar sheets.

- Deliverable: Survey Control Plan, and Record of Survey CD with file format in an AutoCAD.dwg and a scanned PDF of the final County Surveyor's endorsed acceptance.
- Deliverable: Survey Control Plan shall be inclusive within all stages of detailed construction plans.
- Deliverable: If determined necessary, a recorded copy Record of Survey complete with the County Surveyor's approval by endorsement filed on 24" x 36" mylar.
- Deliverable: Right-of-Way drawings.

**C. Progress/Review and Public Meetings:** Participate in all Project, progress, and right-of-way review meetings at 30%, 60%, 90%, pre-final and final design levels unless otherwise determined by the Director including field (walk-through) reviews. Assist the COUNTY by attending Project pre-bid meetings, preparing addendums, tabulation, and analysis of bids received for the Project, and present written recommendations with respect to such bids to the Director.

Prepare exhibits and/or PowerPoint presentations for public meetings and attend public meetings with key staff to answer questions and explain design elements; respond to questions and concerns generated at the public meeting; attend meetings of Clark County Board of Commissioners to provide pertinent background information as requested by the Director. Document progress of public meetings.

- Deliverable: Project progress/review meetings and public meeting minutes and exhibits, PowerPoint presentations, bid tabulation, addendum, award recommendation and other documents, if any, associated with bidding.
- Progressively updated Project schedules.

**D. Utility Coordination & Location Identification:** Utilities shall be accurately located and shown on the plans to ensure no unanticipated impacts to existing underground and overhead utilities during construction of the Project. The ENGINEER shall provide Subsurface Utility Engineering (SUE) services. The SUE services shall consist of designating and locating subsurface and overhead utilities located within the Project limits. ENGINEER shall provide all equipment, personnel and supplies needed to perform utility location services as described in Exhibit “C”.

Prepare and furnish to the Director notices of utility removal or relocation as may be required in the COUNTY’s franchise agreement with local utility companies. Prepare a Utility Conflict Schedule in the form prescribed by the Director and submit at the 30%, 60% and subsequent design stages as needed and as required by the Director. The Utility Conflict Schedule at 30% shall identify all surface and subsurface utility features that may conflict or be affected by the Project’s improvements, together with the proposed resolution to and the party responsible for such resolution and shall be updated through the subsequent design stages as needed and as required by the Director. Provide utility companies and governmental agencies with plans, specifications for the Project, and other information concerning the relocation and modification of utility facilities necessary to construct the Project; all correspondence between utilities and ENGINEER to be copied to the Director. Obtain utility company and government agency approvals of utility modifications and relocations. Document the resolution of all utility conflicts and coordinate such with the respective utility owner and the Director.

- Deliverable: Utility Conflict Schedule, copies of correspondence, notices of utility removal or relocations required and documentation of detailed resolutions, report of finding for utility potholes. Utility Conflict Schedule must have valid resolutions to all conflicts prior to obtaining County sign-offs on cover sheet.
- Deliverable: The ENGINEER will incorporate the pothole field survey and CADD line work into the project base mapping.
- Deliverable: Provide all designation information for inclusion into preliminary and intermediate plan sheets. 30%, 60%, 90%, pre-final, and final design levels.

**E. Permit Coordination:** Identify and assist the Director in obtaining all permits required for the Project. Prepare and furnish to the Director all engineering data, draft applications, and associated exhibits, which may be necessary for applications to, or permits from, local, state, and federal authorities together with the proposed resolution, if required, to the party responsible for such resolution. Provide governmental authorities with plans, specifications and other information concerning the permit necessary to construct the Project. All correspondence between governmental authorities and ENGINEER shall be copied to the Director. Document the resolution of all permit related issues and coordinate such with governmental agencies and the Director.

- Deliverable: A permit identification list will be prepared and submitted to the Director at the 30% Stage. Applicable permits may include but shall not be limited to Stormwater Discharge, and COE (404) Permits.
- Deliverable: Permit application, copies of correspondence and documentation of resolutions.

**F. Construction Cost Estimates:** Prepare detailed cost estimates by funding source and proposal forms including summaries of bid items and quantities all based upon a unit price system of bidding unless the Director prescribes another system of bidding; such estimates to be based on the best available data. The construction cost estimate shall be submitted beginning at the 60% design stages and shall be updated through subsequent design stages as needed and as required by the Director. Plan sets with approximate quantities broken out per plan sheet will be submitted with the 60% plans.

- Deliverable: Construction cost estimates at 60% design and subsequent stages.

**G. Quality Control/Quality Assurance:** Perform quality control/quality assurance reviews, for all submittals, and make all corrections and/or revisions on all reports, drawings, specifications and any other documents prior to submittal to the Director for review and comment. All submittals made to the Director shall include a letter from the ENGINEER certifying that all quality control/ quality assurance reviews have been performed by the ENGINEER and corrections made prior to submitting to the Director. Upon request by the Director, Consultant shall furnish a copy of the quality control/quality assurance review set of plans and specifications. Additionally, The ENGINEER shall estimate the quantities of materials for the Project using the care and skill employed by professionals engaged in similar tasks. The ENGINEER shall attest to the accuracy of the plan quantities provided by the ENGINEER for the bid schedule and that such quantities have been checked by two independent calculations and any differences reconciled. The ENGINEER shall furnish a copy of the two independent worksheets of the plan quantities checking and shall attend a special quantity review meeting if necessary and as determined by the Director.

- Deliverable: Quality control/quality assurance letter certifications. Assurance review set of plans and specifications, upon request.
- Quantity check testament letter and worksheets of independent quantity checking.

**H. Developer Coordination:** Perform coordination with adjacent property owners, developers and their representatives as requested by the Director. Review design drawings for concurrent developments within Project limits, provided by the County, for conformance with proposed design improvements.

- Deliverable: Review comments on improvement drawings for adjacent development projects. Documentation of correspondence with adjacent property owners, developers and their representatives.

- I. Research:** Obtain and review previous reports, prior studies, off-site improvement plans, and other information pertaining to the Project.
- J. Site Visit:** Conduct a visual survey of the Project site and the immediate Project site vicinity and report any indications of potential contamination or contamination generators. Perform digital video recording of the existing conditions of the Project site. The video shall be high resolution (a minimum of 1920 x 1080 pixels) at 60 frames per second and date-stamped on the frame.
- Deliverable: DVD copy of the digital video recording of existing conditions.
- K. Topographic Base Mapping:** Provide base mapping per Exhibit “D”
- Deliverable: CD of topographic surveying data in an AutoCAD.dwg 2009 format or most recent.
  - Deliverable: 24” x 36” colored plots of topographic survey data plotted at a scale of 1” = 40’ horizontal.
- L. Special Service Recommendations:** Present recommendations to the Director as to the advisability of, or the need for, any of the Special Services as set out in Section 2.03 hereof; and upon approval of such services by the Director, plan and supervise such services in relation to the ENGINEER’s other tasks.
- Deliverable: Written recommendations of Special Services
- M. Hydrologic and hydraulic analysis:** Review existing drainage studies on file with Clark County. Review the current Clark County Regional Flood Control District Master Plan Update. Prepare a hydrology study that will identify the drainage area tributary to the Project, analytical methodologies, rainfall data and rainfall distribution curves, drainage area and subarea characteristics, existing drainage facilities, peak run-off flows and flow-routing, among other considerations. The study shall be performed in accordance with the Regional Transportation Commission’s Policies and Procedures and the Regional Flood Control District’s Hydrologic Criteria and Drainage Design Manual. Such study shall include an analysis, a summary of results, and recommendations concerning the handling of storm water runoff for the Project.
- Deliverable: Drainage study report and backups upon request.
- N. Geotechnical Investigation:** By subcontractor or otherwise, perform geotechnical evaluations consisting of \_\_\_\_ borings at five hundred foot (500’) intervals along the roadway alignment to a depth ranging from ten feet (10’) to twenty (20’) below the design finish grade; during the drilling process, field personnel will observe samples for the presence of hydrocarbons by odor, texture and color. If the presence of hydrocarbons is suspected, the ENGINEER will notify the COUNTY that further testing may be required. Perform soil resistivity tests of in-situ soils by subcontractor

or otherwise, perform additional soils tests regarding soils unit weight, moisture contents, R-values, moisture density curves, gradations, plasticity, soil classifications, ultimate soil strength, chemical composition, settlement potential, and other appropriate tests and analysis of data as needed and as required by the Director. Provide pavement sections and subgrade recommendations and prepare a report of soil conditions applicable to the Project.

- Deliverable: Soils investigation report and addendums as required.

**O. Right-of-Way Engineering:** Perform research and obtain certified copies of deeds, and data depicting property ownerships within the proposed road right-of-way. Using this information, and the title reports provided, prepare a right-of-way map depicting all properties within the Project limits in the form prescribed by the COUNTY and containing the information called for in Exhibit “E” attached hereto and made a part hereof by this reference.

Perform and prepare individual acquisition maps and legal descriptions of proposed right-of-way acquisitions and temporary construction easement maps in the forms prescribed by the COUNTY and containing the information called for in Exhibit “E” attached hereto and made a part hereof by this reference.

- Deliverable: P.L.S. stamped legal descriptions, acquisition maps, easement maps, right-of-way maps, and backups upon request.

**P. 30% Plans:** Develop (30%) preliminary plans showing the vertical and horizontal alignments of the proposed typical roadway sections and any details as may be necessary. Include any major drainage facility plans, profiles and cross-section(s) as may be necessary. Field verify and identify the locations where conflicts may occur between recommended Project features and existing or proposed utility and other facilities. Preliminary plans, profiles and pertinent details in the draft report shall be presented on 11” x 17”, drawings. Establish geometry necessary to determine alignment and right-of-way requirements; layout improvements and facilities in sufficient detail to establish limits of construction for the Project; general construction staging and traffic control constraints; safety lighting. Provide proposed grades at centerline of roadways and back of curb.

The preliminary plans to be submitted will include the cover sheet, typical sections, roadway construction plan and profiles, grading plans, drainage and flood control plan and profiles, and permanent signing, striping, lighting, signal and ITS plans, and any other existing/proposed facilities plans required.

- Deliverable: 30% plans

**Q. Draft Predesign Report:** Prepare and submit to the COUNTY five (5) copies of the draft reports completed by ENGINEER under Subsections 2.02 subsection M and N; and five (5) copies of a draft Predesign Report covering all aspects of the research,

analyses and recommendations performed in Subsection 2.02 A through P above and tabulations of the total anticipated cost for the Project.

- Deliverable: Five (5) copies of the draft reports and draft Predesign Report with five (5) sets of 11 x 17 (half-size) plan sets.

**R. Final Predesign Report:** Upon written notice to proceed, prepare and submit five (5) copies of final reports completed by the ENGINEER under Subsection 2.02 subsections M and N; and five (5) copies of the final Predesign Report to the COUNTY incorporating all clarifications and modifications to the Draft Predesign Report as required by the Director and memorandum summarizing all reviews and comments made on the submittals made under 2.02 subsection Q above, complete with appropriate responses.

- Deliverable: One (1) copy of the final recorded plat 24 x 36 (full size), five (5) copies of the final Predesign Report with five (5) sets of 11 x 17 (half-size) plan sets. Two (2) hard copies of technical appendices containing all hydrologic and hydraulic calculations and supporting data. Two (2) CD ROMs of technical appendices and preliminary plans in .pdf format or other appropriate format as approved by the Director.

**S. 60 Percent, 90 Percent Pre-final Plans, and Special Provisions:** Upon receipt of comments from the Director and a separate written authorization, prepare the design plans and specifications at the 60 percent and 90 percent pre-final stages unless otherwise determined by the Director.

The design plans to be submitted will include the cover sheet, sheet layout and index of drawings, legend and abbreviations, general notes, estimate of quantities, monumentation and survey control sheet, Record of Survey, typical sections, removal and relocation plans, roadway construction plan and profiles, grading plans, drainage and flood control plans, utility plans, permanent signing/stripping/signal/ITS plans and any other existing/proposed facility plans required for the Project..

- Deliverable: Fifteen (15) to scale sets of plans at half size (11" x 17") and/or full-size (24" x 36") as determined by the Director and fifteen (15) sets of special provisions, updated Permit Matrix, prior review comments, and responses, detailed cost estimate, updated conflict schedule and drainage design updates. Two (2) sets of CD ROMs of design plans, special provisions and technical appendices in .pdf format or other appropriate format shall be submitted upon request of the Director.
- Pre-final submittal shall include completed; Utility Conflict Schedule, Right-of-Way Map, Quantity work sheets, and QA/QL Letter.

**T. Final Plans and Special Provisions:** Complete and furnish to the Director final one hundred percent (100%) plans and specifications ready for advertisement for construction bids along with a detailed engineers cost estimate; final Permit Matrix

and Permit Applications, prior review comments, all in a form approved by the Director and suitable for reproduction. A summary of all reviews and comments made on the pre-final submittals shall be provided, complete with appropriate responses.

Prepare and submit at the one hundred percent (100%) design level roadway, channel and/or any other facility grading earthwork cross-sections plotted at fifty foot (50') intervals and/or grade breaks with cut and fill quantities. Such information shall be deposited in the County File Transfer Protocol (FTP) site as required by the Director.

- Deliverable: One (1) set of final plans at half size (11" x 17") and full-size (24" x 36") each to scale, one (1) set of special provisions and final cost estimate, earthwork cross-sections and all design updates as needed or as required by the Director. Two (2) sets of CD ROMs of final plans, special provisions, technical appendices, and current downloaded Clark County Uniform Standard Specifications/Drawings in .pdf format or other appropriate format shall be submitted upon request of the Director.

**U. Bidding assistance phase:** The bidding assistance phase will begin once the COUNTY advertises the Project for construction bids. Typical items completed during this phase include:

Participate in the pre-bid conference, answer contractors' questions, prepare addenda, attend the bid opening, tabulate the bids, analyze the bids for mistakes and anomalies, and provide a contractor recommendation.

- Deliverable: Spreadsheet as furnished by County that includes bid form, bid tabulation, and low bid by funding source.

**V. Issued for Construction Plans:** Within thirty (30) days following opening of construction bids for the Project, furnish to the Director full and half size reproducible plans (one set of each) and special provisions, and two (2) sets of CD ROMs with all drawing files in AutoCAD's ".dwg" format or ".dxf" format incorporating all revisions, clarifications and addenda identified during bidding in ".pdf" or other appropriate format and as requested by the Director. These documents shall constitute the "Issued for Construction" contract documents. Each drawing sheet shall be dated and stamped to indicate "Issued for Construction Plans." The cover or index sheet of the special provisions shall be dated and stamped to indicate "Issued for Construction Specifications."

- Deliverable: One (1) set of "Issue for Construction" full-size (24" x 36") and half size (11" x 17") plans each to scale, and special provisions with two sets of CD ROMs containing all drawings files and technical appendices.

## 2.03 Special Services

The ENGINEER understands and agrees that execution of this Contract is not authorization to perform any work as specified in Section 2.03 Special Services.

The ENGINEER shall submit a written request to the Director for each Special Service desired to perform. The written request shall include a detailed description for the work to be performed, an amount “not to exceed” for each Special Service to be performed, and the time of performance to complete the Special Service. The ENGINEER shall perform the following Special Services if, as, and when approved in writing by the Director in the amount “not to exceed” and time period approved by the Director. Compensation will only be provided for work completed as authorized in writing by the Director up to the total maximum amount for the Special Services listed below as specified in Section 5.02:

- A. Provide additional design and related services in the event the Director finds it necessary to perform additional work not specified in Sections 2.02, but required for and related to the Project.
- B. Include P.L.S. stamped copies of all work, prepare P.L.S. stamped legal descriptions; perform office computations and drafting related to the tasks in this Section 2.03.
- C. Assist the COUNTY as an expert witness in any litigation with third parties or administrative proceedings arising in relation to the Project.
- D. Perform additional research and obtain certified copies of additional deeds, title reports, and data depicting property ownerships within the proposed additional road right-of-way/easement and prepare a right-of-way map depicting all properties within the added Project limits in the form prescribed by the COUNTY and containing the information called for in Exhibit “E” attached hereto and made a part hereof by this reference. Perform and prepare additional individual acquisition maps and legal descriptions of additional right-of-way acquisitions and temporary construction easement maps in the forms prescribed by the COUNTY and containing the information called for in Exhibit “E” attached hereto and made a part hereof by this reference.
- E. Obtain P.L.S. stamp certified topographic mapping of the additional Project area in sufficient detail and coverage to prepare construction plans and other studies for the Project.
- F. Perform services related to a re-advertisement for bids not caused by the ENGINEER’s failure to perform in the first instance.
- G. Utility Potholing – Excavate and expose utilities, at additional ENGINEER recommended pothole locations per the requirements of Basic Services.

- H. Perform post-design services as requested by the COUNTY in writing after, the COUNTY awards the construction of this Project to a contractor. Items may include:
1. Respond to contractor initiated requests for additional information.
  2. Attend construction meetings and field meetings, as requested by the COUNTY.
  3. Review and make recommendations on shop drawings submittals made during construction of the Project.
- I. Cause a registered professional engineer, who has substantial responsibility with respect to the design and preparation of the plans and specifications for the Project, to make periodic visits to the construction site to observe the progress and general quality of the work. Such visits shall be made at a frequency as specified by the Director. After each visit, the ENGINEER shall make a written report to the Director with respect to the progress and general quality of the work and the relationship of the work to the construction contract documents. This task shall not be construed to include the services of a Resident Project Representative.
- J. Present written recommendations with respect to items submitted by the Director to the ENGINEER for evaluation under a “substitution clause” of a construction contract, evaluate the items and revise the plans and specifications accordingly.
- K. Provide written responses to requests from the Director for technical clarifications and information during construction of the Project when such clarifications and need for technical information are not the result of error or omission on the part of the ENGINEER.
- L. Perform review of and make recommendations on shop drawings submittals made during construction of the Project.
- M. Research property ownerships, recorded deeds, surveys, and the Clark County Assessor’s records to determine a basis of assessment for each assessable parcel, and prepare the provisional order and final assessment plats for a special improvement assessment district as further prescribed by the COUNTY in accordance with the latest edition of the Clark County Department of Public Works Design Engineering Division Special Improvement District guidelines.
- N. Following completion of Project construction and within sixty (60) days of receipt of hard copy as-built mark-ups, furnish to the Director full and half size drawings, and two (2) sets of CD ROMs with all drawing files in AutoCAD’s “.dwg” format or “.dxf”, formats incorporating all revisions and clarifications identified during construction and as requested by the Director. These documents shall constitute the “Record” contract documents. Each drawing sheet shall be dated and stamped to indicate “Record Drawings.” The ENGINEER shall also return the hard copy as-built mark ups to the Director. An index of all drawing files, including reference files, shall also be provided.

- O. Concurrent with the completion of 2.03 M above, furnish to the Director a CD containing the imaged as-built “Record Drawings” for the Project, imaged preliminary or final design reports, if applicable, and other imaged documents as requested by the Director. The format for imaged files shall be Class IV, single image, 200 dpi “tagged image file format (tiff)” or other format acceptable to the Director. An index of all files shall also be provided.

#### **2.04 Coordination**

In association with the Basic Services and upon request of the Director, the ENGINEER shall set up and attend periodic meetings with City, COUNTY, and State and federal officials designated by the Director as well as interested citizens. Such meetings will include the design conferences, design progress meetings, public meetings and hearings, and general information meetings for interested citizens.

#### **2.05 Approvals Required**

For the plans and specifications, the ENGINEER shall obtain the approval and signature of authorized representatives of the public utilities and governmental agencies affected by the Project, in addition to the signatures of COUNTY officials indicated on the COUNTY’s standard title block formats and drawings.

#### **2.06 Engineer’s Responsibility for Accuracy**

ENGINEER is responsible for the accuracy on their drawings, plans, calculated quantities, specifications, and proposals furnished by the ENGINEER under this Contract.

All items of improvements and work shown on final drawings and plans must be accurately set forth in the bid schedule prepared by the ENGINEER.

### **ARTICLE III: DUTIES OF THE COUNTY**

#### **3.01 Other Duties**

- A. Provide access to the ENGINEER for all data and allow the ENGINEER to make copies of documents in the possession and control of the COUNTY Public Works Department, or available to the COUNTY Public Works Department, which are requested by the ENGINEER to perform its engineering services under this Contract.
- B. Perform and provide to the ENGINEER, evaluations on the ENGINEER’s performance of the work specified herein. Evaluations will be made at the sixty percent (60%) level of completion of the ENGINEER’s work and after the COUNTY has awarded a bid for the construction of the Project.

**ARTICLE IV: TIME OF PERFORMANCE**

**4.01 Time of Performance**

Subject to Section 4.02 hereof, the ENGINEER shall complete the following specific tasks, and all the work preceding such tasks on or before the date set out below:

<u>TASK</u>	<u>COMPLETION TIME</u>
2.02 O Draft Preliminary Design Report and (30%) Plan Submission.	Within 30 calendar days following the receipt of the notice from the Director to begin work under this Contract.
2.02 O Final Preliminary Design Report and 30% Plans Submission.	Within 10 calendar days following the receipt of comments from the Director on the Draft Preliminary Design Report and 30% Plans/
2.02 P Sixty Percent (60%) Plan Submission	Within 45 calendar days following the receipt of comments from the Director on the 30 Percent Plan Submission and written authorization, pursuant to Section 2.02.B.
2.02 Q Ninety Percent (90%) Plan Submission	Within 30 calendar days following the receipt of comments from the Director on the 60% Plan Submission.
2.02 R One Hundred Percent (100%) Pre final Plan Submission	Within 15 calendar days following the receipt of comments from the Director on the Plan Submission.
2.02 S Final Plans and Special Provisions	Within 10 calendar days following the receipt of comments from the Director on the Pre final Plan Submission.
2.02 T Bidding Assistance Phase	Beginning when Project is advertised and lasting until Project is awarded to low bidder.
2.03 Special Services	Within time period as specified by the Director.

The ENGINEER shall complete all Basic Services and authorized Special Services within completion times as set forth above and by the end of \_\_\_\_\_ Date, unless the COUNTY amends such date.

#### **4.02 Time Extensions**

Upon written request of the ENGINEER, the Director may grant time extensions to the extent of any delays caused by the COUNTY or other agencies with whom the work must be coordinated and over whom the ENGINEER has no control, but only to the extent that the exercise of due diligence and care, on the part of the ENGINEER, within the scope of its work under this Contract could not have avoided such delays and to the extent of any delays caused by force majeure, as that term is defined in Section 9.12 hereof.

### **ARTICLE V: PAYMENT FOR SERVICES**

#### **5.01 Maximum Amount Payable**

The maximum amount payable by the COUNTY to the ENGINEER shall be a sum of money equal to the Basic Service fees plus the Special Service fees, if, as, and when approved by the Director, and provided, however, that under no circumstances may the total amount payable to the ENGINEER under this Contract or in connection with the subject matter of this Contract, exceed the sum of \_\_\_\_\_ for the Basic Service fees, and Fifty Thousand and 00/100 Dollars (\$50,000.00) for Special Services fees, unless such sum is increased by the Clark County Board of Commissioners, but only to the extent such total sum is increased.

The ENGINEER is not authorized to perform any work outside the Scope of Services. Compensation will be only for work completed as authorized by the Scope of Services. Any changes to the Scope of Services must be approved by the Director in writing prior to the commencement of work as a supplement to this Contract. No additional compensation shall be paid to the ENGINEER for any additional work outside scope of services without the prior written authorization of the Director.

#### **5.02 Basic Services and Special Services Fees**

Compensation for the engineering services provided herein will be made on the basis of ENGINEER's direct salary, times a multiplier not to exceed of \_\_\_\_\_ plus direct non-salary expenses, plus actual approved subcontractor or subconsultant costs. The ENGINEER shall provide certified payrolls and Federal or State audited overhead rates at the Director's request.

Direct non-salary expenses incurred by the ENGINEER for work done under this Contract eligible for reimbursement by the COUNTY are as specified below:

- A. Identifiable reproduction costs applicable to the work, such as printing, binding, and related expenses.
- B. Identifiable communications expense, such as long distance telephone, overnight delivery charges (FedEx, UPS) and postage.

C. Subconsultant or subcontractor services provided the COUNTY has given written prior approval for such service.

The Basic Services and Special Service fees shall not be paid to the ENGINEER unless the Director approves the purpose and the amount of such fees in writing.

In no event may the fees exceed the following Basic Services and the Special Services fees shown below in purposes or amounts:

<u>TASK</u>	<u>MAXIMUM AMOUNTS</u>
Basic Services 2.02 .....	\$ _____
Special Services 2.03 .....	\$ _____
Grand Total Basic and Special Services .....	\$ _____

**5.03 Method of Payment for Basic and Special Services Fees**

The ENGINEER will be paid on the basis of monthly invoice, submitted by the ENGINEER and approved by the Director. The ENGINEER shall invoice on a monthly basis regardless of the amount of work performed in the preceding month. The invoice shall include a summary of work completed by the ENGINEER during the preceding month. Additionally, the ENGINEER shall furnish with each invoice a summary of work performed during the invoice period. Within thirty (30) days of receipt of an invoice, the Director shall approve, or reject with cause, the invoice. The approved invoice shall then be reduced by five percent (5%); such five percent (5%) representing a retention. The ninety-five percent (95%) not retained shall be paid to the ENGINEER after receipt of an approved invoice, as set forth below. Failure of the ENGINEER to provide a monthly invoice may result in the invoice payment being rejected by the COUNTY.

Fees shall be invoiced in the month which follows performances of such services and shall be paid by the COUNTY within sixty (60) days after receipt of an invoice submitted by the ENGINEER and approved by the Director unless the Director notifies the ENGINEER within such period of time that a payment or a portion thereof for the services rendered is in dispute. The COUNTY agrees that it will not unreasonably delay or withhold payment or approval of any invoice submitted by the ENGINEER.

At the sole discretion of the Director, in consultation with the ENGINEER, the retention shall be paid to the ENGINEER 120 days after notice from the Director of satisfactory completion of Basic Services or after completion of fifty percent (50%) of the construction contract value or at such earlier time as the Director deems appropriate. The ENGINEER shall submit an invoice request payment of retention for approval by the Director. No interest will be paid on retention, but not withstanding the release of retention, the ENGINEER shall continue to be responsible for its obligations under this agreement, including but not limited to any errors and omissions under the terms of this Contract.

The parties hereby agree that no penalty will be imposed upon the COUNTY for failure to pay the ENGINEER in a timely manner nor will the COUNTY require a discount for timely payment in accordance with the terms set forth in this Contract.

## **ARTICLE VI: DESIGN CRITERIA; APPROVALS**

### **6.01 Design Criteria**

The ENGINEER shall employ design criteria established by the most recent publications of the American Association of State Highway and Transportation Officials (AASHTO) and standards established by the current policies and procedures of the Regional Transportation Commission of Southern Nevada, as well as those adopted by the Clark County Board of Commissioners. These shall include the most recent editions of the following publications:

- A. A Policy of Geometric Design of Highways & Streets and American Association of State Highways & Transportation Officials (AASHTO).
- B. Uniform Standards Specifications for Public Works' Construction of Off-Site Improvements, Clark County, Nevada, Regional Transportation Commission of Southern Nevada.
- C. Uniform Standard Drawings for Public Works Construction of Off-Site Improvements, Clark County Area, Nevada Volumes I and II.
- D. Manual on Uniform Traffic Control Devices for Streets and Highways, Federal Highway Administration, U.S. Department of Transportation.
- E. Hydrologic Criteria and Drainage Design Manual, Clark County Regional Flood Control District.
- F. Standard Specifications for Road and Bridge Construction, State of Nevada Department of Transportation.
- G. Standard Plans for Road and Bridge Construction, State of Nevada Department of Transportation, English edition.
- H. Standard Highway Signs, Nevada Supplement, State of Nevada Department of Transportation, English edition.

### **6.02 Approvals**

An approval by the Director, or any other instrumentality of the COUNTY, of any part of the ENGINEER's performance shall not be construed to waive compliance with this

Contract or to establish a standard of performance other than that established by law unless such approval is in writing and expressly refers to:

- A. Specific items and the characteristics of such items subject to such a waiver; and,
- B. This Article VI, and in such event, such a waiver shall only be effective as to the specific items and the characteristics thereof identified in the writing.

The COUNTY's approval herein shall not relieve the ENGINEER of its responsibility to correct errors on the drawings, plans, specifications and proposals furnished by the ENGINEER under this Contract, and no payment to the ENGINEER will be made by the COUNTY for correction of such errors.

## **ARTICLE VII: TERM AND TERMINATION**

### **7.01 In General**

This CONTRACT shall be in force and effect from and after the day on which the Director gives notice to the ENGINEER to begin work under this CONTRACT under Section 2.02 above. This CONTRACT shall remain in effect until one (1) year from the date listed in Article 4.01. This section shall not be construed to relieve either party of its obligations to perform under this CONTRACT while the CONTRACT is in effect. Termination of this CONTRACT shall not release either party from any of its continuing obligations hereunder. This section shall not be construed to change any disputes arising out of this CONTRACT or in connection with the subject matter hereof, nor shall this section be construed to change the date or the time on which a cause of action arising out of this CONTRACT, or the subject matter hereof, would otherwise accrue under the statutes of limitations or doctrines of law.

### **7.02 Termination by the COUNTY**

The Director may terminate this Contract at any time by giving thirty (30) days notice in writing to the ENGINEER. Upon receipt of such notice, the ENGINEER shall, unless the notice directs otherwise, immediately discontinue all services in connection with this Contract and shall proceed to cancel promptly all existing orders and contracts insofar as such orders or contracts are chargeable to this Contract. As soon as practicable after receipt of notice of termination, the ENGINEER shall submit a statement showing in detail the services performed under this Contract to the date of termination. The COUNTY shall then promptly pay the ENGINEER that portion of the prescribed fee which the services actually performed under this Contract bear to the total services called for under this Contract, less such payment on account of the fee as had been previously made.

### **7.03** The ENGINEER, or agent/representative of the ENGINEER, shall not offer or give any gratuities (in the form of entertainment, meals, gifts, or otherwise) to any officer or

employee of the COUNTY with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or making of any determinations with respect to the performance of this Contract.

## ARTICLE VIII: INSURANCE

NOTE TO WRITER: PER PUBLIC WORKS DIRECTOR 4/05/06: ALL REQUESTS BY ENGINEER FOR INSURANCE DEDUCTIBLES ABOVE THOSE SPECIFIED IN SECTION 8.02 HEREOF SHALL BE FORWARDED TO CLARK COUNTY RISK MANAGEMENT FOR APPROVAL.

### 8.01 In General

The ENGINEER shall obtain and maintain, for the duration of this Contract, insurance against claims for injuries to persons or damages to property or other losses which may arise from or in connection with the ENGINEER's negligence or fault in the performance of the work hereunder by the ENGINEER, the ENGINEER's agents, representatives, employees, or subcontractors of any tier.

### 8.02 Insurance Coverages

The ENGINEER will provide the COUNTY with certificates of insurance for coverage as listed below and endorsements establishing coverage required by this Contract within ten (10) calendar days after approval of this Contract by the Clark County Board of Commissioners. The certificate of endorsement for each insurance policy is to be signed by a person authorized by that insurer and licensed by the State of Nevada, and shall include the Project name and number on the certificate. The insurance coverages are in the following amounts:

A. The ENGINEER will maintain general liability coverage at limits of no less than One Million and 00/100 Dollars (\$1,000,000.00) specified combined single limit per occurrence for bodily injury (including death), personal injury and property damages. Coverage shall be on an "occurrence" basis only and not on a "claims made" basis; and the coverage must be provided on ISO commercial liability or on ISO broad form comprehensive general liability forms with no exception to the coverage provided in such forms. The policies must include, but not be limited to, coverage for: bodily injury, personal injury, broad form property damages, premises operations, severability of interest, products and completed operations, contractual and independent contractors. The COUNTY, its officers, its employees, and its volunteers must be expressly covered as "additional insureds." All deductibles and self-insured retention shall be fully disclosed in the Certificate of Insurance. No deductible of self-insured retention may exceed \$25,000.

B. Maintain automobile coverage at limits of no less than One Million and 00/100 Dollars (\$1,000,000.00) combined single limit "per accident" for bodily injury and property damage for all owned automobiles, non-owned automobiles, hired automobiles, or any automobile. The COUNTY, its officers, its employees, and its designated volunteers must be expressly covered as "additional insureds."

All deductibles and self-insured retention shall be fully disclosed in the Certificate of Insurance. No deductible of self-insured retention may exceed \$25,000.

C. Maintain professional liability insurance at limits of no less than One Million and 00/100 Dollars (\$1,000,000.00) per occurrence and to insure against claims or losses arising out of the services provided by the ENGINEER, the ENGINEER's agents, representatives or employees pursuant to the ENGINEER's contract with the COUNTY. "Claims made" insurance coverage will continue for a period of three (3) years beyond the term of this Contract. Any retroactive date must coincide with or predate the date of this Contract and may not be advanced without the COUNTY's consent. The ENGINEER's professional liability insurance must provide coverage for the ENGINEER's subcontractor if the subcontractor does not maintain professional liability insurance in the same amounts and manner as required for the ENGINEER.

If aggregate limits are imposed on bodily injury and property damage and professional liability coverage, the amount of such a limit must not be less than twice the amount of the limits required herein. All aggregates must be fully disclosed, and the amount must be entered on the required certificate of insurance. Any notice given to the ENGINEER with respect to the exhaustion of limits of insurance shall also be sent to the COUNTY. Each insurance company's rating, as shown in the latest "Best's Key Rating Guide" shall be fully disclosed and entered on the required certificate of insurance. The adequacy of the insurance supplied by the ENGINEER, including the rating and financial health of each insurance company providing coverages, is subject to approval by the COUNTY.

### **8.03 Additional Coverage**

The ENGINEER's insurance shall be primary as respects to the COUNTY, its officers, its employees, and its volunteers. Any other coverage available to the COUNTY, its officers, its employees, and its volunteers shall be in excess over the insurance required of the ENGINEER. The insurance requirements specified herein do not relieve the ENGINEER of his responsibility or limit the amount of the ENGINEER's liability to the COUNTY or other persons, and the ENGINEER is encouraged to purchase such additional insurance as the ENGINEER deems necessary.

### **8.04 Notice of Cancellation**

The insurance certificates supplied by the ENGINEER must provide for a thirty (30) day notice to the COUNTY before implementation of a proposal to cancel required insurance coverage. This notice requirement does not waive the insurance requirements contained herein. In addition, the ENGINEER shall notify the COUNTY within thirty (30) days of any reduction in coverage or limits.

## **8.05 Special Conditions**

- A. ENGINEER agrees, as a condition precedent to the performance of any work under this Contract and as a precondition to any obligation of COUNTY to make any payment under this Contract, to provide COUNTY with a certificate issued by the Employer's Insurance Company of Nevada in accordance with Nevada Revised Statutes Section 616B.627. Prior to the expiration of such coverage, ENGINEER shall provide COUNTY with proof of continued coverage as a condition precedent to the continuation of work and payments under this Contract.
  
- B. ENGINEER agrees to maintain coverage for industrial insurance pursuant to the terms of Nevada Revised Statutes Chapter 616 throughout the term of this Contract. If ENGINEER does not maintain such coverage, or fails to provide proof of continued coverage, ENGINEER agrees that COUNTY may withhold payment, order the ENGINEER to stop work, suspend the Contract or terminate the Contract.

## **8.06 COUNTY's Remedies**

If the ENGINEER fails to maintain any of the insurance coverages required under this Contract, the COUNTY will have the option to:

- A. Terminate the Contract;
- B. Declare the ENGINEER in breach of Contract;
- C. Purchase replacement insurance; or
- D. Pay the premiums that are due on existing policies in order that the required coverage may be maintained.

The ENGINEER is responsible for any costs incurred by the COUNTY to maintain such insurance, and the COUNTY may collect the same from the ENGINEER or deduct the amount of costs incurred from any sums due the ENGINEER under this Contract.

## **ARTICLE IX: MISCELLANEOUS PROVISIONS**

### **9.01 Indemnification**

This section survives termination and expiration of this Contract.

ENGINEER agrees to indemnify and hold harmless COUNTY and all the officers, employees and agents of the COUNTY, and each of them, from and against any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees and costs, to the extent such liabilities, damages, losses, claims, actions or proceedings are caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER, ENGINEER's employees and/or agents, in the performance of this CONTRACT. If the ENGINEER is adjudicated to be liable by a trier of fact, the trier of fact shall award reasonable attorney's fees and costs to be paid to the COUNTY, as reimbursement for the attorney's fees and costs incurred by the COUNTY in defending the action, by the ENGINEER in an amount which is proportionate to the liability of the ENGINEER.

ENGINEER further agrees to defend the COUNTY and all the officers, employees and agents of the COUNTY, and each of them, from and against any and all liabilities, damages, losses, claims, actions or proceedings caused by the negligence, errors, omissions, recklessness or intentional misconduct of the ENGINEER, and ENGINEER's employees and/or agents, in the performance of this CONTRACT when said liabilities, negligence, errors, omissions, recklessness or intentional misconduct are not based upon or arising out of the professional services performed under this CONTRACT.

ENGINEER will not be required to defend, indemnify or hold harmless the public body or the employees, officers or agents of the COUNTY from any liability, damage, loss, claim, action or proceeding caused by the negligence, errors, omissions, recklessness or intentional misconduct of the employees, officers or agents of the County.

As to acts or omissions which do not arise directly out of the performance of the professional services, including but not limited to those acts or omissions normally covered by general and automobile liability insurance, ENGINEER agrees to indemnify, defend (at COUNTY's option), and hold harmless COUNTY, its officers, employees from and against any and all losses, damages, fines, liability, claims, demands, causes of action, costs, expenses, judgments, including but not limited to reasonable costs of investigation, reasonable attorneys' fees and expenses, reasonable consultants' fees and expenses, reasonable expert witnesses' fees and expenses and all court or arbitration or other alternative dispute resolution costs arising out of or in connection with the ENGINEER's and its principals, employees, agents, consultants, and/or contractor's performance or failure to perform, under the terms of this Contract.

Furthermore, this entire Section 9.01 survives any termination or completion of this Contract.

## **9.02 Non-Discrimination**

ENGINEER acknowledges that the COUNTY has an obligation to ensure that public funds are not used to subsidize private discrimination. ENGINEER recognizes that if they or their subcontractors are found guilty by an appropriate authority of refusing to hire or do business with an individual or company due to reasons of race, color, religion, sex, sexual orientation, gender identity or gender expression, age, disability, national origin, or any other protected status, the COUNTY may declare the ENGINEER in breach of the Contract, terminate the Contract, and designate the ENGINEER as non-responsible.

## **9.03 Engineer's Responsibility for Services and Materials**

Until the COUNTY's acceptance of the services performed by the ENGINEER the ENGINEER shall have the charge and care of the services and of the materials to be used herein and shall bear the risk of injury, loss and/or damages to any part thereof by the action of the elements or from any other cause, whether arising from the execution or from the non-execution of the services. The ENGINEER shall rebuild, repair, restore and make good all injuries, losses and/or damages to any portion of the services to be performed or the materials occasioned by any cause before its completion and acceptance and shall bear the expense thereof.

## **9.04 Independent Contractor**

The relationship of the ENGINEER to the COUNTY shall be that of an independent contractor.

## **9.05 Business Structure and Assignments**

The ENGINEER shall not assign this Contract or dispose of all or substantially all of its assets without the written consent of the Clark County Board of Commissioners.

## **9.06 Subcontractors**

The ENGINEER shall not subcontract any part of its performance under this Contract without the written consent of the Director. Subcontractor shall carry insurance coverage equivalent to the ENGINEER.

## **9.07 Parties and Interests**

This Contract shall not bestow any rights upon any third party, but rather shall bind and benefit the COUNTY and the ENGINEER only.

## **9.08 Non-waiver**

Failure of either party hereto to insist on the strict performance of any of the agreements herein or to exercise any rights or remedies accruing hereunder upon the fault or failure

of performance, shall not be considered a waiver of the right to insist upon and to enforce by any appropriate remedy, strict compliance with any other obligation hereunder, or to exercise any right or remedy occurring as a result of any future default or failure of performance.

**9.09 Applicable Laws**

This Contract is subject to all the laws of the State of Nevada, the ordinances of the County of Clark, Nevada, the laws of the federal government of the United States of America, and all of the rules and regulations of any regulatory body or officer having jurisdiction.

**9.10 Notices**

All notices required or permitted hereunder shall be in writing and shall be deemed delivered three (3) days after deposit in a United States Postal Service Post Office receptacle with proper postage affixed (certified mail, return receipt requested) to the respective other party at the address prescribed in the preamble to this Contract.

**9.11 Property: Copyrights**

The ENGINEER shall furnish to the COUNTY all field notes, reports, data, and electronic or magnetic media, and original tracings of all drawings and plans, maps, photographs, and other materials (including, if requested by the Director, design computations, design sketches and review drawings) prepared pursuant to this Contract (hereinafter collectively referred to as "Documents"). The originals of such Documents shall be and remain the property of the COUNTY.

All of such Documents shall be deemed to be "works made for hire" prepared for the COUNTY. The ownership of all copyrights and all rights embodied in the copyrights in or to such Documents shall rest in the COUNTY when any such is subject to copyright. The ENGINEER agrees that it, nor any of its employees, shall have any right to copyright any of such Documents. The ENGINEER further agrees that neither it nor any of its employees shall exercise any of the rights embodied in the copyrights in or to such Documents, unless authorized to do so by the Clark County Board of Commissioners. The ENGINEER shall place a conspicuous notation upon each such Document which indicates that the copyright thereto is owned by the COUNTY.

Should it be finally determined, by a court or other tribunal of competent jurisdiction, that any of such Documents is not a "works made for hire," it is agreed that the provisions of this section shall be termed an assignment, sale, and transfer of the copyright in or to such Document to the COUNTY for the longest term allowed by law. Notwithstanding the foregoing, the ENGINEER may retain copies of such Documents and such copies shall remain the property of the ENGINEER. The ENGINEER shall have the right to use such copies as it may desire, but the ENGINEER may not sell, license, or otherwise market such Documents.

Documents, including drawings and specifications prepared by ENGINEER pursuant to this Contract, are not intended or represented to be suitable for reuse by COUNTY or others on extensions of the services provided for the Project or any other Project. Any use of completed Documents for other projects and/or any use of uncompleted Documents without specific written authorization from ENGINEER will be at the COUNTY's sole risk and without liability or legal exposure to ENGINEER.

#### **9.12 Force Majeure**

In the event either party is rendered unable, wholly or in part by force majeure to carry out any of its obligations under this Contract, it is agreed that on such party's giving notice of the particulars of such force majeure in writing to the other party as soon as possible after the occurrence of the cause relied upon, then the obligations of the party giving such notice, to the extent it is affected by force majeure and to the extent that due diligence is being used to resume performance at the earliest practicable time, shall be suspended during the continuance of any inabilities so caused as to the extent provided, but for no longer period. Such cause shall, as far as possible, be remedied with all reasonable dispatch. In such an event, the ENGINEER shall provide an updated schedule satisfactory to the COUNTY for the completion of the remaining work called for under this Contract.

The term "force majeure" as used herein, shall include acts of God, acts of the public enemy, war, insurrections, riots, epidemics, landslides, lightning, earthquakes, fires, storms, floods, washouts, tornadoes, hurricanes, and restraints of government and people, explosions, breakage and not within the control of the party claiming such inability, which by the exercise of due diligence and care such party could not have avoided. The term "force majeure" as used herein, does not include strikes, lockouts, work slowdowns, and other labor disturbances.

#### **9.13 Inspections and Audits**

The Director shall have the right to perform, or cause to be performed, audits of the books and records of the ENGINEER and inspections of all places where work is undertaken in connection with this Contract provided that the ENGINEER shall not be required to keep such books and records longer than three (3) years after the termination of this Contract.

#### **9.14 No Gratuities or Gifts**

The ENGINEER, or agent/representative of the ENGINEER, shall not offer or give any gratuities (in the form of entertainment, meals, gifts, or otherwise) to any officer or employee of the COUNTY with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or making of any determinations with respect to the performance of this Contract.

**9.15 Entire Agreement**

This Contract contains all of the agreements of the parties.

**IN WITNESS WHEREOF**, the parties have executed this Contract as of the date herein above set forth.

CLARK COUNTY, NEVADA

NAME OF EXTERNAL PARTY

---

Donald G. Burnette  
County Manager

---

Name of External party  
Title

ATTEST:

---

Lynn Marie Goya  
County Clerk

APPROVED AS TO FORM:

---

Christopher D. Figgins  
Chief Deputy District Attorney

**EXHIBIT "A"**  
**MAXIMUM DIRECT SALARY OF THE ENGINEER'S EMPLOYEES STANDARD  
RATES**

CLASSIFICATION	DIRECT SALARY (Not to Exceed) (Standard Rates)
<u>Principal/Associate</u>	
<u>Project Manager</u>	
<u>Land Surveyor</u>	
<u>Project Engineer</u>	
<u>Senior Engineer</u>	
<u>Engineering Technician</u>	
<u>CADD Technician</u>	
<u>Cales Technician</u>	
<u>Drafter</u>	
<u>Secretary</u>	
<u>Survey Party Chief</u>	
<u>Survey Instrumentation</u>	
<u>Survey Chairman</u>	

## **EXHIBIT "B"**

### **RECORD OF SURVEY**

The ENGINEER will cause a professional land surveyor to provide the following services for the Project:

Establish horizontal alignment for the Project and file a Record of Survey in the Office of the County Recorder. The Record of Survey will comply with the requirements of Nevada Revised Statutes 625.350 and Nevada Administrative Codes 625.650 through 625.720, or as determined by the county surveyor, and will also contain the following information:

1. Bearings of the centerline of legal rights-of-way for all streets to be constructed and extending centerline bearing beyond construction area a minimum of one half mile or to the next quarter section or full section line.
2. Bearings of the centerline of legal rights-of-way of all intersecting streets at which curb returns exist or will be constructed by the Project.
3. Ground distances along the centerlines of legal rights-of-way between intersections and descriptions of monuments used to control this alignment.
4. Ground distances to and descriptions of monuments controlling the centerlines of legal rights-of-way on intersecting streets.
5. Relationship to government land corners if right-of-way alignment is not coincident with sectional land lines.
6. The statement that: "This field survey was performed to establish and memorialize the legal rights-of-way and/or boundary limits for the construction of the Project that all intersections and other control points for the Projects will be monumented in accordance with applicable State statutes and local ordinances at the completion of roadway construction."
7. Seal; date and signature of a State of Nevada registered professional land surveyor.
8. Description of all monuments both found and set. Monuments set must be sufficient in number, durability, and placement so as not to be easily disturbed and to ensure, together with monuments already existing, the perpetuation of facile reestablishment of any point or line of the survey.
  - A. Where an "offset" centerline alignment is to be used, the "offset" centerline shall be tied along the alignment to aliquot part corners. The "offset" centerline shall be so labeled on the Record of Survey.
  - B. Verify vertical control, checking existing bench marks against other Clark County bench marks in the area to insure their reliability. Establish sufficient construction benches proximate to the construction to facilitate satisfactory completion of the Project. All vertical control will be based on the North American Vertical Datum of 1988.
  - C. Before causing the Record of Survey to be recorded, the ENGINEER must receive a written notice of acceptance from the County Surveyor.

## EXHIBIT "C"

### UTILITY COORDINATION & LOCATION IDENTIFICATION

The following description of the designation and locating phases are not intended to be comprehensive or inclusive, but is provided as a general outline of the work that is expected by the ENGINEER.

Phase I – Designating: For the purpose of this section Designating shall mean the process of using geophysical methods to determine the presence of a subsurface utility and mark its location using acceptable survey standards. SUE services shall include:

- Conduct records research to identify utility owners that are within the Project limits. The sources of information may include but is not limited to the utility company records and as-built plans, contract plans, One-Call, Public Utilities offices, and County offices.
- When designation and or location activities are to take place outside of right-of-ways, the ENGINEER shall request an access permit from the property owner prior to any entry on private property.
- Provide all maintenance and control of traffic to perform work. This includes obtaining an encroachment permit from the local permits officer and complying with all requirements imposed by said permit prior to initiating any field surveys. All traffic control plans must conform to the Manual on Uniform traffic Control Devices.
- Designate, field mark and record the approximate horizontal location of existing subsurface utilities using all of the following Quality Levels.

Quality Level D: information comes solely from existing utility as-built records.

Quality Level C: involves surveying visible aboveground utility facilities, such as manholes, valve boxes, posts, etc., and correlating this information with existing utility as-built records.

Quality Level B: involves the use of surface geophysical techniques to determine the existence and horizontal position of underground utilities. This activity is called "designating". Two-dimensional mapping information is obtained.

Quality Level A: involves the use of nondestructive digging equipment at critical points to determine the precise horizontal and vertical position of underground utilities, as well as the type, size, condition, material, and other characteristics. This activity is called "locating." It is the highest level presently available.

Phase II – Locating: For the purpose of this section, Locating shall mean the process of exposing and recording the precise vertical and horizontal location of a utility by excavating a pothole using vacuum extraction or comparable nondestructive equipment. The

ENGINEER will determine and identify potential utility conflicts, which, if necessary, will require potholes to determine actual vertical location. The hours developed for this scope of work are based on \_\_\_\_\_ potholes. The initial \_\_\_\_\_ potholes shall be included in Basic Services. Additional potholes will be considered as Special services and will require written authorization, from the Project Manager, prior to performing the work. The ENGINEER shall:

- Provide all maintenance and control of traffic to perform work. This includes obtaining an Encroachment permit from the permits officer and complying with all requirements imposed by said permit prior to initiating any potholes or field surveys. All traffic control plans must conform to the Manual on Uniform Traffic Control Devices.
- Coordinate with utility companies for inspection as required.
- Neatly cut and remove existing paving. Excavate pothole in such a manner as to prevent any damage to wrappings, coatings, or other protective coverings of the utility facility. Where conduits are concrete encased, determine top and bottom of encasements in addition to both sides. Utilities over 48" in diameter (or 4' in width on RCB's) will require potholes at the centerline of the utility and both sides. Utilities shall also be potholed on each side of the proposed structure location, located transversely to any proposed structure with a width in excess of 6 feet.
- Where existing pavement exists, provide a restoration patch of pavement or concrete within the limits of the original cut at time of backfill, as required by the permitting agency. Such restoration and backfill procedures shall comply with the standards of the governmental authority that issued the applicable excavation permit. Whenever potholes are excavated outside of roadway pavement, these disturbed areas shall be restored, as nearly as possible, to the condition that existed prior to excavation.
- Furnish, install and color code per utility standards, a permanent above ground marker (i.e. P.K. nail, steel pin or hub) directly above the centerline of the structure (or by using offsets), and record the elevation of the marker. Prepare a sketch of each pothole, showing location of the existing utility in relation to the hub. Survey the ground marker and determine elevation of utility, and include in sketch.
- Provide an AutoCAD sheet file of the potholes horizontal and vertical location as well as the individual detailed information of each hole.
- Provide the following pothole information in an excel spreadsheet:

Pothole reference number and description of the utility.

Elevation of top of utility.

Horizontal location using the x y coordinates further translated to project stationing and offset.

Identify the freeway, highway, route or city street on which the pothole is located.

Outside diameter of pipe or width of duct banks and configuration of non-encased, multi-conduit systems.

Identification of utility structure material composition, when possible.

Identification of benchmarks used to determine elevations.

Pavement thickness and type.

Elevation data shall be accurate to within 0.05' +/- based on benchmarks shown by consultant and horizontal accuracy shall be within 0.5' +/- based on the projects horizontal control.

## EXHIBIT “D”

### TOPOGRAPHIC BASE MAPPING

***PREPARERS NOTE: CHOOSE ONE OF THE TWO FOLLOWING PARAGRAPHS AND MODIFY FOR PROJECT SPECIFICS. I.E. CHOOSE AERIAL MAPPING SUPPLEMENTED WITH CONVENTIONAL FIELD SURVEY TECHNIQUES, OR JUST CONVENTIONAL FIELD SURVEY.***

**Aerial Mapping Supplemented with Conventional Field Survey:** Develop engineering base sheets and digital terrain models (DTM) utilizing aerial mapping. DTM will be produced from aerials flown at an altitude to produce 1 inch to 40 feet horizontal scale with one-foot contour intervals per National Mapping Accuracy Standards. Contours will be developed utilizing a digital terrain program and the aerial mapping. Conventional ground topographic surveying techniques will be further utilized to supplement aerial mapping. Specifically these tasks shall be performed by the P.L.S. and include, but are not limited to, the following: 1.) Set panel locations for control in obtaining aerial topography. Topographic mapping to be relative to a published County benchmark; 2.) Horizontal and vertical mapping shall be consistent with control established by the Survey Control Map or Record of Survey; 3.) Conduct field survey to identify and locate existing improvements as necessary to supplement the aerial topography. Collect field survey data along the project alignment, including but not limited to existing edge of pavement, drop inlet locations and invert elevations, storm drain and sanitary sewer manhole lids and invert elevations, and gutter flow line, top of curb and back of sidewalk elevations, water valve box lid and water valves top of operating nut elevations, visible surface utilities and potholed sub-surface references. In areas where it is anticipated that storm drain construction will require full street reconstruction, obtain field survey shots at 50-foot intervals along the top of curbs and street centerline, plus shots at edges of driveways, transitions, and curb returns. Aerial and field survey shall extend a minimum of 100 feet for minor street intersections and 150 feet for major street intersections beyond curb returns of adjacent streets. Aerial and field survey shall extend a minimum of 200 feet beyond the beginning and end stations of the project limits. Aerial and field data shall extend a minimum of 100 feet beyond existing and/or anticipated right-of-way limits.

**Conventional Field Survey Mapping:** Develop engineering base sheets and digital terrain models (DTM) utilizing conventional field design survey methods provided by the P.L.S. DTM will be produced from points collected by conventional ground survey techniques. One-foot interval contours will be developed utilizing a digital terrain program. Specific topographic surveys, provided by the P.L.S. of existing features will be completed in the field. These tasks shall include, but are not limited to, the following: 1.) Elevation data shall be based upon a published County benchmark; 2.) Horizontal and vertical mapping shall be consistent with control established by the Survey Control Map or Record of Survey; 3.) Conduct field survey to identify and locate all existing improvements. Collect field survey data along the project alignment, including but not limited to existing edge of pavement, drop inlet locations and invert elevations, storm drain and sanitary sewer manhole lids and invert elevations, gutter flow lines, top of curb and back of sidewalk elevations, water valve box lid and water valves top of operating nut elevations, visible surface utilities and pothole hubs. In areas where it is anticipated that storm drain construction will require full street reconstruction, obtain field survey shots at 50-foot intervals along the top of curbs and street centerline, plus shots at edges of driveways,

transitions, and curb returns. Field survey shall extend a minimum of \_\_\_\_ feet for minor street intersections and \_\_\_\_ feet for major street intersections beyond curb returns of adjacent streets. Field survey shall extend a minimum of \_\_\_\_ feet beyond the beginning and end stations of the project limits. Field survey data shall extend a minimum of 100 feet beyond existing and/or anticipated right-of-way limits where accessible. **NOTE: THE ABOVE PARAGRAPH SHALL BE PROJECT SPECIFIC BASED UPON R/W WIDTH AND SCOPE OF WORK.**

## EXHIBIT "E"

### RIGHT-OF-WAY MAPS, LEGAL DESCRIPTIONS, INDIVIDUAL ACQUISITION MAPS, AND TEMPORARY CONSTRUCTION EASEMENT MAPS

#### RIGHT-OF-WAY MAPS

Right-of-way-maps shall be 24" x 36" sheets to a scale of 1" = 100' and shall include the following information as a minimum:

1. Project alignment information for section lines and sectional ties.
2. Subdivision map references; section and section subdivision (aliquot) part reference.
3. Existing encroachment conflict improvements and improvements in acquisition areas and immediately adjacent thereto.
4. Existing and proposed right-of-way lines; with right-of-way widths, (right-of-way acquisition area to be shaded).
5. Property lines, together with the recorded document reference that created the property line, and/or the current vesting document by its recorded reference.
6. Recorded document reference for existing rights-of-way, roadway and utility easements, and patent reservations.
7. Tax parcel numbers and owner's names for all parcels from which right-of-way may be required; tax parcel numbers only for all other parcels shown.
8. Street names, together with street widths.
9. Curve data to include radius, delta, arc length and tangent.
10. Legend.
11. City limits of municipalities.
12. Property schedule; property owner, and on parcels which require additional right-of-way provide acquisition areas in square feet and acres.
13. Basis of bearing.
14. North arrow.
15. Maps shall be signed and sealed by a Nevada licensed professional land surveyor (P.L.S.)
16. Acquisition schedule; detailing acquisition progress at the time of all plan submittals.

#### LEGAL DESCRIPTIONS

P.L.S. shall prepare legal descriptions in compliance with Nevada Revised Statutes Section 625.790.

## INDIVIDUAL ACQUISITION MAPS

Individual acquisition maps shall be 8-1/2" x 11" maps for all properties from which right-of-way is required. Individual acquisition maps shall include:

1. Tax parcel number and owner's name.
2. Subdivision map references, sectional and/or subdivision (aliquot) part references.
3. Existing and proposed right-of-way lines, with right-of-way widths.
4. Dimensions and bearings of the acquisition area.
5. Acquisition area to be shaded.
6. Existing cultural topo. Show contour lines only if appropriate.
7. Parcel areas in square feet and acres: total area, acquisition areas, remainder area, and area under existing improvements shall be indicated.
8. North arrow and scale.
9. U.S.A. patent reservations and area of right-of-way acquisition within U.S.A. patent reservation.
10. Listing of reference documents used to construct the map.
11. Existing improvements within the acquisition area and immediately adjacent thereto; all improvements shall be identified and dimensioned, as appropriate.
12. All property lines of the subject parcel together with the recorded document reference that created the property lines and/or the current vesting document by its recorded reference.
13. Existing easements of record within the acquisition area, with recording reference.
14. Curve data, including radius, delta, arc length and tangent.
15. Street names, together with street widths.
16. Maps shall be signed and sealed by a Nevada licensed professional land surveyor.

## TEMPORARY CONSTRUCTION EASEMENT MAPS

Temporary construction easement maps shall be individual 8-1/2" x 11" maps and shall include all data required for Individual Acquisition Maps including section views showing existing and proposed improvements, and indicating horizontal and vertical dimensions and purpose of the required easement.

## EXHIBIT "F"

### BID ITEM TOLERANCES

<u>Bid Item Measurement</u>	<u>Acceptable Tolerance</u>
Each (Except Raised Pavement Markers)	None
Each (Raised Pavement Markers)	5%
Linear	5%
Area	5%
Volume	5%