

City of Sparks, Nevada
Independent Contractors Agreement
For Professional Engineering Services for
North Truckee Drain Realignment Design and Permitting

THIS AGREEMENT is made this 12th day of January, 2009 by and between the City of Sparks, a municipal corporation existing under and by virtue of the laws of the State of Nevada ("City"), and HDR Engineering, Inc., having a business address at 9805 Double R Boulevard, Suite 101, Reno, NV, 89521("Consultant").

RECITALS

WHEREAS, the City desires to engage Consultant in the performance of providing Professional Engineering Services for the design and permitting of the North Truckee Drain Realignment project which is more fully described in Consultant's Qualifications/Proposal. (Attached)

WHEREAS, Consultant's legal status is an Independent Contractor, Consultant is in good standing in the State of Nevada,

WHEREAS, Consultant desires to perform the Program under the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of these recitals and the promises set forth in this Agreement, the parties agree as follows:

1. **Term.** This Agreement shall become effective January 12, 2009 and will continue in effect until the Project is completed unless earlier terminated as provided herein. The parties anticipate that the Project will take 28,893 hours to complete and will require approximately 72 weeks of Consultant's time, although there may be some weeks during which Consultant may not perform any services at all and others during which the Consultant may work the entire week.
2. **Time Devoted to Work.**
 - 2.1 In performing the services contemplated under this Agreement, the services and the hours Consultant is to work on any given day will be on a mutually agreed upon basis, except for attendance at scheduled meetings, and City will rely upon Consultant to put in such number of hours as is reasonably necessary to fulfill the spirit and purpose of this Agreement.
 - 2.2 City understands that Consultant is engaged in the same or similar activities for others and that City may not be Consultant's sole client or customer. However, Consultant represents and warrants that it is under no obligation or restriction, nor will it assume any such obligation or restriction, that would in any way interfere or be inconsistent with the services to be performed under this Agreement.
3. **Program Services.** Consultant will provide Professional Engineering Service for the Design and Permitting of the North Truckee Drain Realignment project pursuant to the attached proposal dated June 4, 2008 and update letter dated December 23, 2008.
 - 3.1 Consultant will supply all equipment, tools, materials and supplies necessary to perform the services under this Agreement, the full scope of which are set forth in the proposal. (Attached)
 - 3.2 Consultant will have the right to control or direct the manner and the order in which it provides the services contemplated under this Agreement. The City will supervise and instruct Consultant as to how,

when and where work is to be performed.

3.3 Consultant represents and warrants that Consultant is engaged in an independent calling and has complied and will continue to comply with all local, state and federal laws regarding business permits and licenses that may be required to carry out the independent calling and to perform the services to be performed under this Agreement.

3.4 Consultant understands that the services it has been retained to perform may be inherently dangerous or may entail a peculiar unreasonable risk of harm to others unless special precautions are taken and Consultant agrees to exercise reasonable care to take such precautions.

4. **No Unfair Employment Practices or illegal harassment.**

4.1 In connection with the performance of work under this Agreement, Consultant agrees not to discriminate against any employee or applicant because of race, creed, color, national origin, sex, sexual orientation or age. Such agreement shall include, but not be limited to, the following: recruitment or recruitment advertising, rates or pay or other forms of compensation, and selection.

4.2 Any violation of these provisions by Consultant shall constitute a material breach of contract.

5. **Payment for Project Services.**

5.1 As full consideration for the Services to be performed by Consultant, City agrees to pay Consultant as set forth in accordance with the Fee Schedule set forth in the proposal and not to exceed fee of four million, seven hundred and eighty eight thousand, four hundred and fifty one dollars (\$4,788,451). The City will not hire or directly compensate the Consultant's employees, assistants or subcontractors, if any.

5.2 It is expressly understood and agreed that all work done by Consultant shall be subject to review as to its result by the City at the City's discretion. Payment of any invoice shall not be taken to mean that the City is satisfied with Consultant's services to the date of payment and shall not forfeit City's right to require the correction of any service deficiencies.

6. **Status of Consultant.**

6.1 It is the intent of the parties that Consultant shall be considered an independent contractor and that Consultant, and anyone else for whom it is legally liable, shall not be considered employees, servants or agents of the City for any purpose. Furthermore, this Agreement shall not be construed to be a partnership or joint venture.

6.2 Neither Consultant nor any of its employees or contractors shall be eligible to participate in City's industrial insurance, unemployment, disability, medical, dental, life or other insurance programs, or any other benefit or program that is sponsored, financed or provided by City for its employees.

6.3 Consultant agrees that it shall be Consultant's exclusive responsibility to pay all federal, state, or local payroll, social security, disability, industrial insurance, self-employment insurance, income and other taxes and assessments related to this Agreement. Neither FICA (Social Security), FUTA (Federal Employment), nor local, state or federal income taxes will be withheld from payments to Consultant. Consultant shall at Consultant's expense pay and be fully liable and responsible for, and indemnify and hold harmless City from, any assessments, fines or penalties relating to Consultant's failure to uphold any of these responsibilities.

7. **City Ownership of Proprietary Information.** All reports, drawings, plans, specifications, and other documents prepared by Consultant as products of service under this Agreement shall be the exclusive property of the City and all such materials shall be remitted to the City by Consultant in a timely manner upon completion, termination or cancellation of this Agreement. Consultant shall not use, willingly allow or cause to have such materials used for any purpose other than performance of Consultant's obligations under this Agreement without the prior written consent of the City.
8. **Public Records.** Consultant understands that City is subject to the provisions of NRS 239.010. As such, the City may have the duty to disclose the Consultant's reports or recommendations unless a particular record is made confidential by law or a common law balancing of interests.
9. **Insurance.**
 - 9.1 Consultant shall provide at its own expense Industrial Insurance pursuant to chapters 616A to 616D, inclusive, of the Nevada Revised Statutes, Employers' Liability Insurance, Professional Liability, and General Liability Insurance, and Automobile Insurance for bodily injury and property damage for the duration of this Agreement. Consultant shall provide proof of such coverage, including a certificate of compliance as discussed in NRS 616B.627, prior to or contemporaneous with the execution of this Agreement.
 - 9.2 Consultant assumes the risk of damage to its own supplies and equipment.
10. **Indemnification.** Consultant shall indemnify, defend and hold harmless the City from any and all costs, liabilities, damages, reasonable attorneys' fees, or expenses of any kind that arise out of, or are in any way related to, the negligence or misconduct, or acts or omissions, of Consultant while performing or failing to perform Consultant's duties under this Agreement.
11. **Termination.**
 - 11.1 Unless otherwise provided in this Agreement, this Agreement may only be terminated by either party upon ten (10) days written notice delivered in accordance with paragraph 15.1 specifying the reason for termination.
 - 11.2 If either party terminates the Agreement for breach of contract, the notice must specify which contractual provisions were breached and how they were breached. If the City terminates the Consultant for breach of contract, the City will pay Consultant all reasonable charges for work performed prior to the time City gives notice and for demobilization by Consultant through the tenth (10th) day after the City has given notice minus any amount the Consultant may owe the City in damages.
 - 11.3 Notwithstanding the preceding paragraph, the City may immediately terminate the Agreement, and Consultant waives any and all claim(s) for damages, upon the Consultant's receipt of notice under the following conditions:

- (a) If funding is not obtained, continued, or budgeted at levels sufficient to allow for purchase of the services contemplated under this Agreement;
- (b) If any federal, state or local law, including by not limited to, statutes, regulations, ordinances and resolutions, is interpreted by a third party judicial, legislative or administrative authority in such a way that the services contemplated under this Agreement are no longer authorized for purchase or appropriate for City financial participation;
- (c) If Consultant fails to comply with any local, state or federal law regarding business permits and licenses required to perform the services to be performed under this Agreement;
- (d) If it is found that any quid pro quo or gratuities were offered or given by the Consultant to any officer or employee of the City with a view towards securing favorable treatment with respect to awarding, extending, amending or making any determination with respect to the performance of this Agreement.

11.4 The indemnity and conflict resolution obligations of this Agreement shall survive the termination of this Agreement and shall be binding upon the parties' and the parties' legal representatives, heirs, successors and assigns.

12. **General Provisions.**

12.1 Drafting Presumption. The parties acknowledge that this Agreement has been agreed to by both parties, that both parties have consulted or have had the opportunity to consult with attorneys with respect to the terms, and that no presumption shall be created against the City as the drafter of the Agreement.

12.2 Governing Law. The laws of the State of Nevada shall govern this Agreement without regard to conflicts of law principles.

12.3 Jurisdiction: Venue. Any action or proceeding seeking to enforce any provision of, or based on any right arising out of, this Agreement must be brought against either of the parties in the courts of the State of Nevada, County of Washoe. Each of the parties consents to the jurisdiction of the court (and of the appropriate appellate court) in any such action or proceeding and waives any objection to venue laid therein.

12.4 Claims. Pursuant to NRS 268.020, which the parties agree to abide by contractually, all demands and accounts against the City must be presented to the Council, in writing, within six (6) months from the time the demands or accounts become due. No demand or account may be audited, considered, allowed or paid by the City unless this requirement is strictly complied with.

13. **Due Authorization.** Each party represents that all required authorizations have been obtained to execute this grant and for the compliance with each and every term hereof. Each person signing this agreement warrants and represents to the other party that he or she has actual authority to execute this agreement on behalf of the party for whom he or she is signing.


14. **Notice.** Except as otherwise specified, all notices under this Agreement shall be in writing.

Notice to Contractor shall be addressed to:
HDR Engineering, Inc.
9805 Double R Boulevard, Suite 101
Reno, NV, 89521

Notice to City shall be addressed to:
City of Sparks
431 Prater Way
Sparks NV 89431

IN WITNESS WHEREOF, the parties hereto have duly executed his agreement as of the date first above written.

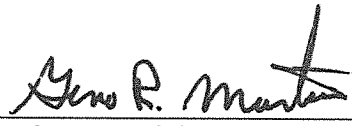
CONSULTANT:
HDR Engineering, Inc.
9805 Double R Boulevard, Suite 101
Reno, NV, 89521



Signature
Lolene J. Terry

Print Name of Signer

CITY OF SPARKS:
431 Prater Way
Sparks, NV 89431

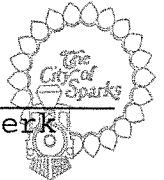


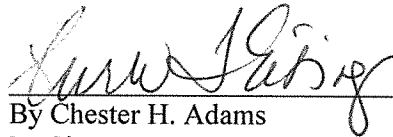
By Geno Martini.

Its Mayor
ATTEST:



Linda K. Patterson, City Clerk
APPROVED AS TO FORM:





By Chester H. Adams
Its City Attorney

December 23, 2008

City of Sparks
910 Roberta Lane
Sparks, NV 89431
Attn: Shawn Gooch, PE

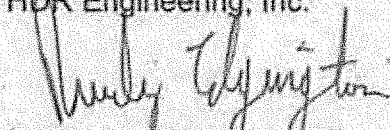
**RE: NORTH TRUCKEE DRAIN REALIGNMENT PROJECT – FINAL DESIGN
AND ENVIRONMENTAL ASSESSMENT UPDATED PROJECT BUDGET
ESTIMATE AND DESIGN SCHEDULE**

Dear Mr. Gooch,

Pursuant to your request, please find enclosed an updated project schedule and budget estimate based on an assumed notice to proceed (NTP) date of January 19, 2009. It is our understanding that the USACE Section 104 draft letter for the North Truckee Drain project has been received by the City of Sparks. Based on this assumption, the enclosed schedule and budget estimate have been adjusted assuming the NTP date stated above. Our revised fee estimate totals \$4,788,451.

If you have any questions regarding the enclosed budget estimate or the project schedule or if I can be of any assistance to you, please do not hesitate to contact me at 337-4700.

Sincerely,
HDR Engineering, Inc.



Ruedy P. Edgington, P.E.
Vice President/Project Manager

pc: Noel Laughlin (HDR)
Pam Pierce (HDR)
Mitch Blum (HDR)
Dan Lahde (HDR)

Task Description	Total Hours	2008 Cost	2008 Hours	2009 Hours	2010 Hours	Fixed Cost Percentage
			Cost Factor 1	Cost Factor 1.04	C F 1.04	
Project Management						
Project Administration	840.0	\$185,181.29		528.0	338.0	\$185,891.85
Kick-Off Meeting	144.0	\$24,006.58		144.0		\$24,006.54
Progress Meetings	489.0	\$91,485.97		383.0	188.0	\$99,747.58
Quality Assurance/Quality Control	130.0	\$20,631.82		72.0	48.0	\$21,836.51
Deliverables	0.0	\$0.00				
PCRR Support						
PCRR Survey Support	112.0	\$18,720.00		112.0		\$18,828.80
CH2MHILL Subcontract Section 2 effort (11/20/08)	604.0	\$153,344.40		604.0		\$158,438.18
PCRR Utility Support	458.0	\$79,128.40		458.0		\$82,293.54
PCRR Utility Location Support	128.0	\$20,838.00		128.0		\$21,672.96
PCRR Contact Support	84.0	\$12,727.50		84.0		\$13,235.08
Deliverables	0.0	\$0.00				
Environmental Assessment (EA)						
Review of Government-Furnished Materials	28.0	\$3,705.00		28.0		\$3,863.20
Site Visit and Data Gathering	24.0	\$3,614.70		24.0		\$3,735.28
Purpose and Need and Description of Alternatives	72.0	\$10,501.40		72.0		\$10,921.48
Biological Resources Survey	26.0	\$4,182.88		26.0		\$4,318.98
Endangered Species Review and Analysis	14.0	\$1,344.85		14.0		\$1,388.64
Endangered Species Act Consultation (Support USA Section 7)	60.0	\$7,607.00		60.0		\$7,887.28
Fish and Wildlife Consultation Act Report	8.0	\$1,247.43		8.0		\$1,301.35
Cultural Resources Analysis	100.0	\$12,674.00		100.0		\$13,182.00
Wetlands/Waters of the US	32.0	\$3,753.75		32.0		\$3,902.80
Hazardous Waste Review	41.0	\$7,029.43		41.0		\$7,370.80
Preliminary Draft EA and Draft FONSI	232.0	\$31,222.48		232.0		\$32,578.38
Draft EA/FONSI	40.0	\$5,488.80		40.0		\$5,688.16
Public Hearing	58.0	\$9,177.00		58.0		\$9,544.08
Preliminary Final EA and FONSI	34.0	\$5,157.10		34.0		\$5,383.38
Final EA and FONSI	18.0	\$3,840.85		18.0		\$3,942.27
Administrative Report	80.0	\$3,823.93		80.0		\$3,956.09
Meetings (assume 23 1.5 hr meetings), 3 hours each	180.0	\$30,351.17		180.0		\$31,568.22
Deliverables	38.0	\$5,738.94		38.0		\$5,917.30
Environmental Permitting						
Preconstruction Notification	8.0	\$1,229.38			8.0	\$1,239.12
Agency Coordination and Consultation	88.0	\$11,855.24		40.0	48.0	\$12,802.12
Deliverables	18.0	\$1,478.14			18.0	\$1,603.09
Permit Application Development and Submittal						
Submittal	54.0	\$5,838.30		54.0		\$6,072.77
Deliverables	74.0	\$8,123.63		36.0	38.0	\$8,706.78
Preliminary Design Services						
Alternatives Evaluation to Cross I-60, UPRR and Vicks Blvd	888.0	\$181,368.50		888.0		\$186,812.84
Preliminary Drainage & Final Design						
Hydraulic Report	1,977.0	\$258,877.23		1,977.0		\$266,330.34
Preliminary Structural Review	448.0	\$67,320.50		448.0		\$70,013.32
Value Engineering	424.0	\$70,938.40		424.0		\$73,773.24
CH2MHILL Subcontract Section 5 effort	1,550.0	\$203,541.00		1,550.0		\$211,682.84
Utility Relocation Design - HDR	268.0	\$37,209.80		268.0		\$38,888.30
Preliminary Plans - 20% Design Level	1,668.0	\$217,858.33		1,668.0		\$226,678.88
Preliminary Design Report	680.0	\$88,913.30		680.0		\$92,470.04
Conduct PCRR Review Workshop & Final Design Report	64.0	\$11,115.00		64.0		\$11,509.60
Deliverables	0.0	\$0.00				
Final Design Services						
60% Design Documents Development	6,384.0	\$817,868.16		8,324.0		\$850,687.83
Conduct 90% Design Review Workshop & Final Design Report	72.0	\$11,831.39		72.0		\$11,992.85
90% Design Documents Development	5,882.0	\$755,718.39		5,882.0		\$769,945.05
100% Design Documents Development	3,728.0	\$481,728.34			3,728.0	\$523,185.86
Deliverables	0.0	\$0.00				
Bidding Phase Support Services						
Advertise Bid	64.0	\$11,281.84			64.0	\$12,232.08
Pre-Bid Conference	8.0	\$2,081.39			8.0	\$2,238.87
Addenda & Clarifications	290.0	\$41,004.59			290.0	\$44,530.98
Bid Opening	8.0	\$2,061.59			8.0	\$2,238.67
			0.0	24,166.0	4,785.0	
	28,981.0	\$3,980,983.83		Labor	Sub-total	\$4,180,603.44

28951.0

Sub-Contracts		Pro-rated Time	
Higby Subcontract	\$110,000	1.00	\$114,400.00
Subtronic Subcontract	\$85,400	1.00	\$88,816.00
Kleinfelder Subcontract	\$190,000	1.00	\$197,600.00
		Sub	Sub-total
			\$400,816.00
ODCs		Pro-rated Time	
Travel	\$14,408.00	0.80	\$11,526.75
Technology Charge	\$118,461.00	0.80	\$94,769.12
Postage and Freight	\$3,100.00	0.80	\$2,480.00
Cultural Resources Search	\$300.00	N/A	\$300.00
Miles	\$3,225.00	0.25	\$806.25
Public Hearing	\$5,800.00	1.00	\$6,032.00
Outside Reproduction Services	\$50,000.00	0.50	\$25,000.00
		ODC	Sub-total
			\$207,831.78
	\$4,560,876		Total
			\$4,788,451.22

Notes: 4% inflation assumed for salaries and incidentals
10% inflation used for travel

Attachment A

Scope of Services - Phase 2

North Truckee Drain Realignment Project -Final Design and Environmental Services

Project Understanding

The North Truckee Drain Re-Alignment Project is a flood control project intended to reduce flooding potential upstream of Interstate 80 within the North Truckee Drain floodplain area and in the lower Truckee Meadows by re-routing North Truckee Drain to a more downstream confluence location. This scope of services is for the 100% design and Environmental Assessment of the North Truckee Drain element of the larger Corps of Engineers (COE) Truckee Meadows Flood Control Project. The COE and the local sponsors have come to the conclusion that the design of the Truckee Meadows Flood Control Project will be based upon the 117-year return period. The COE has also adopted the version of the North Truckee Drain element that is based upon the feasibility study performed by HDR. HDR conducted an alternatives analysis which resulted in a preferred alignment by the project stakeholders. This 100% design contract will follow the preferred alternative from the referenced study as the basis of design. Therefore, the earlier version of this project element developed by the COE will not be considered in this preliminary design effort.

Feasibility analyses show that this element reduces the depth of flooding on the upstream side of Interstate 80 within the North Truckee Drain floodplain by as much as 8 inches over a large industrial and residential area between Prater Way and I-80 for the 117-yr storm. The benefits are achieved by providing an outfall for the North Truckee Drain located downstream of its current outfall (where the water surface elevation is lower) and through the use of a structure having more capacity than the existing system.

It is the City of Sparks's goal to construct this element of the project prior to the initiation of the Truckee Meadows Flood Control Project and seek federal cost sharing through Section 104 reimbursement credit. To this end, the City of Sparks initiated an alternatives analysis study for the purposes of garnering support from the local stakeholders for the project and ultimately to select a feasible, cost effective alignment acceptable to those most impacted by this facility. This project was completed in February 2008 recommending a preferred alternative.

There are numerous utilities along the preferred alignment corridor. The HDR team will be required to coordinate with the utility owners regarding availability of as-built plans and other information regarding the location, size and condition of these existing utilities. Potholing will be required for each utility.

Existing data to be provided to HDR for use on this project includes:

- Updated topographic mapping by the Corps of Engineers for the Truckee Meadows Flood Control Project (provided by the USACE).
- Updated topographic mapping by the City of Sparks. This mapping is assumed to consist of topographic mapping and point and breakline and data (provided by the City of Sparks).
- HEC-RAS unsteady flow models prepared for the Truckee Meadows Flood Control Project (provided by the USACE).
- North Truckee Drain channel improvement plans (provided by the City of Sparks).
- I-80 construction drawings (obtained from NDOT). It is understood that HDR will be required to perform any necessary research in this contract.
- Peoples Drain improvement plans (provided by the City of Sparks).
- Reports and plans for the Marina SAD (provided by the City of Sparks).
- Any other useful data, reports or plans in the possession (provided by or through the City of Sparks).
- Supporting documentation and data gathered for the Truckee River Flood Control Project (provided by the Local Sponsors to the Flood Project).
- Copies of wetland/waters delineation report for the Truckee River Flood Control Project (provided by the Local Sponsors and the USACE).
- Copies of any previous Cultural Resources documentation (provided by the City of Sparks, USACE).
- HEC-RAS input and output files from the COE for the existing and proposed plans (provided by the USACE).

As a part of the final design of the project, environmental documentation will be required. Previous investigation of this subject with the Corps has resulted in the opinion that an environmental assessment (EA) will be required for this project. Original thinking was that this project, being listed as an element of the overall Truckee River Flood Project, would be covered by the Corps EIS document, currently expected for release in July of 2008 in draft form to the public. Since this project will precede the authorization of the Truckee River Flood Project by Congress in order to maintain the Section 104 reimbursement credit, it has been determined by the Corps that the North Truckee Drain Re-alignment Project will need a separate EA prior to construction. This task will require coordination with the Sacramento District Corps of Engineers for compatibility with the Truckee Meadows Project process and overall project environmental documentation.

The preferred alignment will require crossing Interstate 80 and the UPRR tracks, generating the need for permits from NDOT and the Railroad. Permit approval from the Railroad will require that there be no disruption to rail traffic. The North Truckee Drain Alternatives Analysis Report included the boring option for crossing these transportation corridors for alternative comparison purposes only; but recommends approaching both of these agency/operators to enter into

negotiations for the purposes of open cutting type construction to install the proposed culvert structures.

The intent for this scope of services (PROJECT) is for development of a 100% level of construction documents and environmental assessment for the proposed twin culvert structure (IMPROVEMENTS) as recommended in the North Truckee Drain Alternatives Analysis Report.

Standards

The PROJECT shall be designed in accordance with the following locally adopted standards and procedures.

1. Standard Specifications and Standard Details for Public Works Construction, Sponsored and Distributed by Washoe County, City of Sparks, City of Reno, Carson City and City of Yerrington, current edition (Orange Book).
2. Draft Washoe County Hydrology Manual
3. International Building Code, 2006, as adopted by the CITY.
4. Uniform Plumbing Code, 2006 as adopted by the CITY.
5. Department of Justice, Code of Federal Regulations 28 CFR Part 36 as of July 1, 1994 for Americans With Disabilities.
6. American Association of State Highway and Transportation Officials (AASHTO) Bridge Design Specifications
7. Generally the design of this project will conform to the USACE Engineering Manuals listed in the following web site: <http://www.usace.army.mil/publications/eng-manuals/>. When the local requirements supersede the Corps requirements, the local requirements will prevail.

When the PROJECT involves other infrastructures, the adopted standards for such shall be recognized and followed. Such standards may include:

8. Truckee Meadows Water Authority, Engineering & Construction Standards
9. Manual on Uniform Traffic Control Devices, Federal Highway Administration, current edition.
10. Union Pacific Railroad Bridge Standards for Concrete Box Culverts and Drawings.
11. American Railway Engineering And Maintenance – Of – Way Association Guidelines

Purpose

The purpose of Attachment A is to establish the scope for the following items of work.

1. **Preliminary Engineering Services** - Services intended to establish proposed configuration of the project improvements to a 30% design level before proceeding into final design for the work. This work effort will include negotiations with the Nevada Department of Transportation (NDOT) and the Union Pacific Railroad (UPRR) for the purposes of open cutting their facilities for the construction of the proposed conveyance system.
2. **Final Design Services** – Services related to preparation of construction Contract Documents and construction cost estimates for the project improvements.
3. **Land Survey** – HDR shall perform Land Survey to support design tasks. HDR will identify lands, easements and right-of-way requirements and develop legal descriptions for the same.
4. **Utility Location** – HDR shall perform utility locating service for utilities posing a threat of impact to the preferred alternative alignment.
5. **Design Level Geotechnical Investigation** – HDR shall perform a geotechnical investigation for the preferred alternative alignment.
6. **Environmental Assessment (EA)** – HDR shall develop an environmental assessment for the preferred alignment.
7. **Agency Permitting** – HDR shall develop necessary permit applications and mapping for utility crossing, and other agency permits, such as NDOT and UPRR.

Scope of Work

Based on the project understanding described above, HDR proposes the following scope of services.

1 Project Management

1.1 Project Administration

HDR shall:

- Perform day-to-day work to administer interrelated activities.
- Manage personnel and resources.
- Develop a project schedule within 14 days of receipt of notice to proceed.
- Prepare and distribute monthly schedule updates.
- Monitor schedules and budgets.
- As directed by the CITY's project manager, coordinate with CITY's project manager and other CITY Departments and Divisions and other agencies as required. It is anticipated that general coordination will require periodic phone conversations with other CITY representatives. It is expected that close coordination with other CITY representatives and some agency representatives will occur during regular project progress meetings held with the CITY.
- Prepare meeting minutes and agendas and communicate with CITY representatives regarding all project issues. HDR staff will record "off-record" conversations held by HDR staff and other CITY staff as well as other stakeholders, agencies and the public. The meeting minutes as noted will be sufficient to record conversations, agreements and direction given during regularly scheduled project progress meetings

1.2 Kick-Off Meeting

HDR shall:

- Organize and conduct a PROJECT Kick-Off Meeting with the CITY and other agencies, as required, to initiate the PROJECT. This meeting is intended to introduce key PROJECT personnel, define areas of responsibilities and communication protocols, review the scope of work, discuss data and information provided by the CITY, review the PROJECT schedule prepared by HDR, review the timing and intent of PROJECT deliverables, clarify the CITY's and other government agency requirements for the PROJECT, establish procedures for communicating potential changes in the work or schedule, and discuss data and information needs necessary to proceed with the PROJECT.
- Prepare three (3) color/aerial display boards to be used at this and other meetings and presentations. The CITY shall keep two of the display boards and HDR shall keep one.
- Prepare meeting agenda and meeting minutes to be reviewed by the CITY prior to issuing final versions for distribution.

1.3 Progress Meetings

The following tasks shall be accomplished during the noted periods of performance at the stated frequency as determined by the project schedule milestones in this Scope of Service. HDR shall:

- Conduct twice monthly progress meetings during the Preliminary Design phase. This is estimated at 11 meetings.
- Conduct monthly progress meetings during the Final Design phase. This is estimated at 2 meetings.
- Prepare the agendas and meeting minutes (for the above mentioned meetings), which record the issues discussed and decisions reached according to format established by the CITY.
- Prepare and deliver appropriate correspondence, meeting notices and agendas, work plans, and schedules in draft form for review by the CITY, prior to issuing final versions for distribution.

1.4 Quality Assurance/Quality Control

HDR shall have responsibility for the accuracy and completeness of the plans, calculations, and related documents furnished under this Scope of Services; HDR shall:

- Submit, to the CITY within thirty (30) calendar days after receipt of Notice to Proceed, two (2) copies of a quality assurance plan. This plan will be developed to HDR internal standards for quality control and project guidance and is known internally as a “Project Guide”. The CITY shall review the plan to determine if the CITY’s QA/QC procedures have been met. The CITY shall return any comments to HDR within 14 calendar days. The revised plan will be resubmitted with 7 calendar days after receipt of comments; this time period may vary depending on the number of comments received from the CITY.
- HDR will perform an internal quality assurance review of all deliverables listed in this scope of services prior to submittal to the CITY. Copies of the review comments and responses shall be provided to the CITY upon request.

1.5 Deliverables

The following list of deliverables pertain to previous Sections 1.1 through 1.4.

- Project schedule and schedule updates
- Display boards for use during the Kick-off Meeting.
- Agendas and meeting minutes for progress and other PROJECT meetings.
- Project Guide

2 Field Investigation

2.1 Design Level Land Surveying Services

HDR shall subcontract with Bigby & Associates to provide the following services:

- Aerial mapping and field design surveys will be used to develop engineering base sheets and digital terrain models (DTM). All aerial mapping and DTM will be produced from aerials flown at an altitude to produce 1 inch to 30 feet horizontal scale with one-foot contour intervals per National Mapping Accuracy Standards. The final mapping will be in Washoe County “grid” format.
- Full cultural topographic surveys of existing features, nominally including building foundations and walls, bridge piers, structural locations and elevations, exposed drainage system information such as culvert inverts and soffits, headwalls, outlet invert elevations, fence locations, etc, will be completed in the field to supplement aerial photography; in addition information to be collected includes street curb and gutter information a minimum of 100 feet from curb returns points of curvature and tangents as well as the same for the roadway centerline, changes in grade, sanitary and storm sewer inverts, rims, manhole locations, water valve locations, etc. and appropriate spot elevations. This effort will include a minimum of 25 cross sections that have been previously identified. The field survey will also collect top of rail (4 rails for main rails and 2 rails for each spur) information, top of ballast information (on either side of ties), for UPRR main tracks, switches (beginnings and ends) and spurs for an area extending for one (1) mile east and one (1) mile west of the intersection of the existing North Truckee Drain and the UPRR tracks. Finally the field survey shall collect cross sectional information of the Truckee River, including bathymetry.
- Establish a minimum of six (6) horizontal and vertical control points to be used for design and construction staking. The control points shall be spread throughout the PROJECT area and placed in a permanent location protected from normal traffic and impact. The control survey will be tied to Washoe County established horizontal and vertical control network utilizing control information provided by the CITY/County. HDR will establish PROJECT alignments from control information found in the field and record information provided by the City. Finally Bigby will develop a Horizontal Control Plan and to be included in the plans, showing ties to existing monumentation, centerline bearings and distances, project benchmarks, etc. stamped by a Nevada PLS. Bigby will record any pertinent information in a summary memorandum of survey effort.
- Bigby will use CITY and Washoe County right-of-way information, Title Reports, Parcel Maps, Records of Survey and plats and other pertinent information to identify and establish the right-of-way limits. Bigby will establish existing property lines and current owners and encumbrances in areas where right-of-way is to be acquired. Bigby will develop legal descriptions and map exhibits for up to 25 temporary and 15 permanent easements. The legal descriptions will be based on the 60% design plan set including review comments from all agencies.

- Bigby & Associates shall comply with HDR’s safety regulations, where appropriate, throughout this project. Bigby & Associates will contact the UPRR and obtain necessary permits to survey on railroad property and comply with all railroad requirements including, training and maintenance of all required equipment while on railroad property.

2.2 Utility and Entity Coordination

HDR shall subcontract with CH2MHILL INC, and together shall:

- Coordinate with all affected CITY departments and divisions including: Design and Construction, Maintenance Services, Utilities and Development Services.
- Coordinate with the affected utility companies and other governmental agencies to obtain information on existing and proposed utility facilities within the area of the PROJECT. Agencies to be contacted shall include, but not be limited to: Sierra Pacific Power Company, Truckee Meadows Water Authority, MCI/Verizon, Charter Communications, Idacom/American Fiber Systems, Williams Communications, Wiltel/Level 3, Southwest Gas, Kinder/Morgan, RTC of Washoe County, NDOT and UPRR. This coordination effort should be considered separate from Section 5.1 in this scope.
- Track all utility submittals and comments on a Utility Submittal Matrix. This will include information provided from the pot hole subcontractor such as permits and records of correspondence.
- Coordinate with ongoing CITY, RTC and NDOT Capital Improvement Projects within the PROJECT area.
- Provide progress drawings to utilities, coordinate with utility representatives, and prepare formal notification letters to alert affected utility agencies of the CITY’s needs and requirements and of utility removals or relocations
- Advise the CITY of utility conflicts, coordinate utility requests for information, monitor status of proposed utility projects within the projects limits and meet as required with utility companies to resolve conflict.
- Determine and document existing locations of tie-in locations for wet utilities. HDR shall coordinate with Bigby Surveying, a licensed land surveyor to document inverts, rims, manhole locations, water valve locations, etc., needed to complete design work for the PROJECT.

2.3 Subsurface Utility Investigation

HDR shall subcontract with Subtronic Corporation to provide the following services:

- Locate subsurface utilities that impact, cross or are affected by the alignment of the PROJECT.
- Subtronic shall comply with HDR’s safety regulations, where appropriate, throughout this project., obtain all necessary permits and permissions from utility purveyors (noted in Section 2.2), including but not limited to City of Sparks Encroachment Permit, NDOT Encroachment Permit and UPRR Encroachment Permit. Subtronic will contact USA Underground prior to any boring operations to mark locations of underground utilities. A

Kinder/Morgan representative will be present during location of the Kinder/Morgan fuel line or a written acknowledgement from Kinder/Morgan shall be provided indicating their refusal to have a representative present. Subtronic will provide traffic control plans and traffic control as necessary. The CITY will assist Subtronic in obtaining permissions to enter private property, but contact and scheduling the field work will be Subtronic's responsibility.

- Subtronic shall utilize non-destructive excavation methods as allowed by the respective utility purveyors for all utility locations.
- Subtronic shall individually locate each pothole utility location both vertically and horizontally according to the survey requirements within this scope.
- Subtronic shall determine outer size and dimensions of each utility located in the field.
- Subtronic shall record resulting investigative information into a summary report summarizing field conditions experienced, condition and locations of utilities. Subtronic shall take photographs of drilling methods and utility for each utility uncovered and include photos in the report.
- It is assumed that the potholing activities will not require any additional fees or bonds in order to perform the work described. Such additional costs are not included in this scope of services.

2.4 Geotechnical Investigation

HDR shall subcontract with Kleinfelder, INC., to provide the following services:

- Conduct a geotechnical investigation consisting of borings and development of a geotechnical report for the design of the PROJECT.
- Kleinfelder, INC. shall comply with HDR's safety regulations, where appropriate, throughout this project.. Kleinfelder, INC. will contact the UPRR and obtain necessary permits to conduct the investigation on railroad property and comply with all railroad requirements including, training and maintenance of all required equipment while on railroad property.
- Obtain all necessary permits and permissions, including but not limited to City of Sparks Encroachment Permit, NDOT Encroachment Permit, Nevada Department of Water Resources Monitoring Well Permit, and Washoe County Monitoring Well Permit to perform borings as scoped. Kleinfelder will contact USA Underground prior to any boring operations to mark locations of underground utilities. Kleinfelder will provide all traffic control plans as necessary. The CITY will assist Kleinfelder in obtaining permissions to enter private property, but contact and scheduling the field work will be Kleinfelder's responsibility. If it appears that the landowner may require additional time or negotiations, then it is permissible to alter the predetermined boring sites, provided another appropriate site can be determined with no increase in cost.
- Perform up to 11 borings at predetermined locations. Each boring will be advanced to approximately 10 feet below the proposed invert of the culvert. Planned in-situ testing methods include standard penetration test and pocket penetrometer tests, where applicable.

Borings will be backfilled with soil cuttings using hand equipment. Three of the borings will be converted to monitoring wells to monitor groundwater surface elevations. Borings slated for location on railroad right-of-way and highway right-of-way shall be positioned if at all possible to determine the composition of the embankment fill supporting the transportation facility.

- Perform necessary laboratory tests. This task will consist of soil classification, unit weight and moisture content, and consolidation and/or soil strength where applicable. In addition pH, resistivity and corrosion potential tests will be run.
- Develop a technical report detailing results of field and laboratory efforts and recommendations for placement and design of the proposed conveyance system. Recommendations will include lateral earth pressures, consolidation & differential settlement, allowable soil pressures, appropriate side slopes and potential for corrosion.

2.5 Deliverables

- Aerial survey mapping and supplemental cultural survey.
- Control survey and summary memorandum.
- Legal descriptions for temporary and permanent easements.
- Utility Submittal Matrix and provide updates as information changes.
- Notification of utility conflicts.
- Pot Hole Summary Report.
- Geotechnical Report.

3 Environmental Assessment (EA)

HDR shall prepare the EA for the proposed action, in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (Public Law 91-190, 42 U.S.C. 4321-4347), and the Council on Environmental Quality (CEQ) Implementing Regulations (40 CFR Parts 1500-1508). After analyzing the potential environmental impacts of the proposed action and alternatives, the EA will present a comparison of alternatives and impacts. If the resulting analysis warrants a Finding of No Significant Impact (FONSI), HDR shall prepare this document. The Corps of Engineers will be the lead federal agency in this effort in accordance with NEPA, and the Corps Environmental Manager will provide project management and guidance for completing the requirements of the NEPA document.

The Corps will decide, following review of the Preliminary Draft EA, whether HDR shall prepare a Final EA or if impacts are significant enough to warrant preparation of an Environmental Impact Statement (EIS). This scope of work only covers efforts for an EA and FONSI. Any work towards an EIS will be covered in a contract modification or a separate contract action.

The primary source of information for the impact analysis will be data previously obtained by the Corps and used in the draft EIS/General Reevaluation Report (GRR) for the Truckee Meadows Flood Control Project.

The following are the subtasks to be completed to develop the environmental assessment.

3.1 Review of Government-Furnished Materials

HDR shall become familiar with the Government-furnished materials. HDR shall identify necessary information that is not within the Government-furnished material and search to identify relevant, existing information for the analysis. If necessary, HDR shall propose additional data gathering or field efforts not currently in this scope.

3.2 Site Visit and Data Gathering

HDR shall visit the proposed project locations and conduct interviews with City, County, and appropriate staff for data collection. HDR shall meet with the Corps and the City of Sparks for a kickoff meeting and follow-up data collection as necessary. HDR shall coordinate with local, state and federal agencies in conjunction with data collection.

3.3 Purpose and Need and Description of Alternatives

HDR shall coordinate with the CITY and the Corps to develop draft and final versions of the Purpose and Need sections, and a description on the proposed project and the alternatives to be addressed in the environmental documents.

3.4 Biological Resources Surveys and Analysis

HDR shall perform biological surveys for areas not previously surveyed and documented within the Government-furnished materials, at least 30-meters either side of the preferred project alternative (referenced within the North Truckee Drain Realignment Alternatives Analysis) within undeveloped areas. The current preferred alternative assumes a bore crossing of the I80 and UPRR right-of-way, one additional alternative will be investigated during the preliminary engineering services under this contract, that of open cutting and replacement of the existing facilities beneath the referenced agency properties. The biological resources survey will be extended to cover this alternative as well. Surveys must be performed in compliance with all federal, state, and local laws and regulations. Flora and fauna data and field summary will be provided in a separate technical memo to file and summarized in the EA.

3.5 Endangered Species Review and Analysis

Species-specific surveys for the project are not expected to be required for this project. HDR has assumed that sufficient information is available from federal (i.e., Corps and U.S. Fish and Wildlife Service (USFWS)) and state agencies (e.g., NDOW) to adequately address the

potential impacts on protected fish species (i.e., Lahontan cut throat trout and cui-ui). The other two listed species, Steamboat buckwheat and Truckee barberry are not expected to occur in the project area. The Bald Eagle, recently removed from the list, also may occur in the area, but specific surveys should not be necessary. If, during consultations with NDOW and the USFWS, additional species are identified as potentially being in the project area, HDR shall coordinate with the CITY and the Corps to determine the survey requirements and obtain a contract modification for those surveys. The EA will include sufficient information on identified species so that consultation with the resource agencies can be coordinated.

The species listed in this section is considered as inclusive of all endangered species requiring discussion and analysis under this section. This list does not include species that may become listed as threatened or endangered during progression of this contract.

3.6 Endangered Species Act Consultation Support (ESA Section 7)

HDR shall develop a Biological Assessment (BA) summarizing the potential impacts of the project on listed species in accordance with Corps guidance and USFWS requirements. Species to be covered in the BA include the Lahontan cutthroat trout and the cui-ui. HDR will draft a letter for the Corps to the USFWS requesting a list of species potentially impacted by the project. HDR shall coordinate with the USFWS and the Corps prior to drafting the BA to confirm expectations on data and level of detail to be included. HDR will compile existing information into a draft BA for the CITY and Corps review. HDR shall revise the document based on comments from the CITY and the Corps, and subsequently provide the Corps a revised draft for submittal to the USFWS for informal review of the draft. HDR will review USFWS's comments with the Corps and the CITY and produce a final BA for the Corps to submit to the USFWS, initiating formal consultation. HDR will support the Corps in the consultation through attending meetings with the USFWS and reviewing the draft Biological Opinion provided by the USFWS. HDR will prepare responses to up to 50 comments.

3.7 Fish and Wildlife Coordination Act Report

HDR shall assist the Corps in providing information gathered during this project to support development of the Fish and Wildlife Coordination Act Report in close coordination with the USFWS. The report will be developed by the Service.

3.8 Cultural Resources Analysis

The project area consists of an approximately 20 ft wide by ¼ mile long parcel, which is assumed to define the area of potential effects (APE) for the project.

The proposed Cultural Resources Scope of Work consists of the following tasks:

- Conduct a records search encompassing a one-mile radius around the APE.
- Review data collected as a result of the records search and that provided by the client.

- Prepare a brief summary report of the results of the records search for incorporation into the environmental assessment document.

3.8.1 Records Search

HDR will first review existing information compiled and summarized by the Corps in to support the Truckee River Flood Damage Minimization Project EIS. HDR shall then conduct a records review of cultural resource surveys and sites previously documented within a one-mile radius of the Area of Potential Effect (APE). The records review will include data obtained from the Nevada State Museum, the National Register of Historic Places (NRHP) online database, and any cultural resources materials provided by the client. In addition, HDR will conduct a one-day field visit to the project area to examine the local conditions. Based on the results of the records check and field visit, HDR will prepare a brief summary report to be incorporated in the Environmental Assessment. Based on the results of the records check, a Class III survey or additional fieldwork may be required, but these efforts have been identified and described in an Optional Task.

It is assumed that the Corps will be responsible for conducting all SHPO coordination and Native American Consultation, with limited support from HDR.

3.8.2 Deliverables

- Draft and Final Summary Report for Cultural Resources Records Review.

3.9 Wetlands/Waters of the US

HDR shall review the documents and data available from the CITY and the Corps and determine if waters of the U.S. delineations have been completed for the proposed project area. Due to the lack of discussion of such efforts and reports, HDR assumes such surveys have not been completed. Therefore, HDR shall conduct delineations of the wetlands and waters of the US within the proposed project area, including the NO Action alternative, in accordance with the 1987 guidelines and recent guidance. HDR shall develop a draft jurisdictional delineation report for the CITY and the Corps, identifying the wetlands and other waters potentially impacted, and recommendations for permitting approach based on the findings. HDR shall incorporate comments and generate a final version for submittal to the Corps Regulatory Branch for review and concurrence.

3.10 Hazardous Waste Review

The efforts for the GRR/EIS related to hazardous wastes only covered a portion of the area for the proposed project. HDR shall complete a hazardous waste report, per ASTM standards, which will include research public records for known locations of potential hazardous waste

sources in the project area. Qualified HDR staff will visit the project area to identify potential hazardous materials present within the area in accordance with accepted protocol. HDR shall produce a report documenting the results of the research and site visits.

3.11 Preliminary Draft EA and Draft FONSI

HDR shall prepare, print, and submit copies of a Preliminary Draft EA and Finding of No Significant Impact (FONSI). The level of analysis shall be in sufficient detail to permit determination of the significance of the impacts to the resources of concern. HDR shall deliver Preliminary Draft EA/FONSI (up to 5 copies) for review and comment. HDR shall include information from other state or federal agencies in the Preliminary Draft EA/FONSI. The document will be reviewed by the Corps and comments will be provided for HDR to revise the document. HDR will review comments and prepare responses to each comment (up to 50 comments) and review the responses with the Corps prior to revising the document. Upon completion, the Corp environmental manager shall review these documents and verify appropriate Government comments have been successfully incorporated.

Detailed technical and analytical information and data shall remain as field notes or preparatory material included in the project file. Format and outline of the EA shall generally follow the following. Significant deviations require Corps and CITY concurrence:

EXECUTIVE SUMMARY

- 1.0 PURPOSE AND NEED FOR ACTION
 - 1.1 Introduction
 - 1.2 Background
 - 1.3 Purpose and Need
- 2.0 DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES
 - 2.1 Proposed Action
 - 2.2 Methodology for Alternative Identification
 - 2.2.1 Minimum Selection Criteria
 - 2.2.2 Desirable Selection Criteria
 - 2.3 Alternatives to the Proposed Action
 - 2.4 Alternatives Considered But Not Carried Forward
 - 2.5 Environmental Impact Analysis Process
 - 2.5.1 Public and Agency Involvement
 - 2.5.2 Regulatory Compliance
 - 2.5.3 Permit Requirements
 - 2.6 Comparison of Alternatives
- 3.0 AFFECTED ENVIRONMENT
 - 3.1 Land Use Resources
 - 3.2 Transportation
 - 3.3 Visual Resources
 - 3.4 Land Use
 - 3.5 Socioeconomics and Environmental Justice
 - 3.6 Cultural resources
 - 3.7 Fisheries

- 3.8 Vegetation and Wildlife
- 3.9 Wetlands
- 3.10 Endangered Species
- 3.11 Water Resources
- 3.12 Air Quality
- 3.13 Hazardous Materials and Waste Management
- 3.14 Noise

- 4.0 ENVIRONMENTAL CONSEQUENCES
 - 4.1 Land Use Resources
 - 4.2 Transportation
 - 4.3. Visual Resources
 - 4.4 Land Use
 - 4.5 Socioeconomics and Environmental Justice
 - 4.6 Cultural resources
 - 4.7 Fisheries
 - 4.8 Vegetation and Wildlife
 - 4.9 Wetlands
 - 4.10 Endangered Species
 - 4.11 Water Resources
 - 4.12 Air Quality
 - 4.13 Hazardous Materials and Waste Management
 - 4.14 Noise

- 5.0 CUMULATIVE EFFECTS AND IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES
 - 5.1 Cumulative Effects
 - 5.1.1 Definition of Cumulative Effects
 - 5.1.2 Past, Present, and Reasonably Foreseeable Actions
 - 5.1.3 Analysis of Cumulative Impacts
 - 5.2 Irreversible and Irretrievable Commitment of Resources

- 6.0 REFERENCES
- 7.0 LIST OF PREPARERS
- 8.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS
(Including a permits matrix)

- APPENDICES

3.12 Draft EA/FONSI

HDR shall revise the preliminary Draft EA/FONSI according to Corps comments and produce a Draft EA/FONSI suitable for public release. HDR shall print (up to 25 copies) and submit copies of the Draft EA/FONSI. HDR shall distribute the Draft EA/FONSI to designated repositories, agencies and interested public. HDR will develop a Mailing/Distribution list of interested parties encountered during investigations, scoping, and in reply to specific requests. The Draft EA/FONSI shall be made available for a 30-day public comment period.

3.13 Preliminary Final EA and FONSI

HDR shall revise the Draft EA and prepare a Preliminary Final EA/FONSI according to comments generated by the public and agency review or by Corps. HDR shall compile all written comments in a comment matrix to track and resolve comments. The matrix should include the comment, the commenter, and action taken or an explanation as to why no action was taken. HDR shall print (up to 5 copies) and submit copies of the Preliminary Final EA/FONSI. The Corps will review these documents and provide comments as necessary. If further revisions are required, HDR shall work with the environmental manager and if necessary, provide the revised Preliminary Final EA/FONSI to the Corps to verify all comments and issues are appropriately addressed. Once the Preliminary Final EA/FONSI have been accepted by the Corps, the EA and unsigned FONSI will be staffed for signature. After approval, a copy of the signed FONSI shall be provided to HDR for binding into the Final EA.

3.14 Final EA and FONSI

HDR shall provide copies of the Final Environmental Assessment in hard copy and CD format following Corps approval and submittal of the signed FONSI. HDR shall print (25 copies) and submit copies of the Final EA in accordance with the Deliverables Sections of this SOW. HDR shall also distribute the Final EA based upon the most current Mailing/Distribution list.

3.15 Administrative Record

HDR shall maintain an Administrative Record for the project in accordance with Corps and CEQ guidelines. The Administrative Record will be provided to the Corps Environmental Manager within 30 calendar days after the signed FONSI is published. The Record will be indexed with a table of contents, and provided in hard copy or digital format.

3.16 Meetings

It is assumed that the Corps will coordinate with SHPO and that this meeting will not be required for this scope.

- Data collection with CITY, County, and Corps in Sparks
- USFWS for Informal Coordination to evaluate needs for Biological Assessment and Fish and Wildlife Coordination Act Report
- Team Meetings – City of Sparks and Corps (1 meeting per month, up to 6 meetings).
- Coordination with NDOW, Nevada Division of Environmental Protection (NDEP), Nevada Department of Transportation (NDOT), Federal Highway Administration (FHWA), Other Agencies

3.17 Deliverables

- Endangered Species List Request Letter

- Draft Biological Assessment – 2 copies
- Final Biological Assessment – 5 copies
- Draft Wetland Delineation Report – 2 copies
- Final Wetland Delineation Report – 5 copies
- Draft Cultural Resources Report – 2 copies
- Final Cultural Resources Report – 2 copies
- Draft and Final Summary Report for Cultural Resources Records Review – 2 copies
ea
- Preliminary Draft EA and Draft FONSI
- Mailing/Distribution List
- Public Draft EA/FONSI
- Summary of Response to public comments by HDR
- Preliminary final EA/FONSI
- Final EA/FONSI
- Administrative Record

3.18 EA submittals shall conform as follows per Corps direction:

- **SIZE:** Final trim size of deliverables shall be 8.5 X 11 inches. Image size of standard text shall not exceed 7 X 10 inches.
- **FOLDOUTS:** Wherever appropriate, use of oversized illustrations, charts, maps, photographs or art work, may be used; however, 8 ½ X 11 inch is preferred. Foldouts shall not exceed 11 X 17 inches with maximum image size of 9.75 X 15.5 inches.
- **COLOR:** Color shall be used in cases where color differentiation of graphics (illustrations, maps, diagrams, charts) is deemed appropriate for explanation and clarification.
- **PRINTING:** The Draft EA submittals should be double-sided, single-spaced. Subsequent version reports should be double-sided single-spaced with the exception of the Executive Summary. Each text page should have 1.5 inch mirror margin to allow for binding and a 1-inch margin on all other sides.
- **BINDING:** All reports shall be comb bound. Other use of perfect-binding, comb-binding or three-ring binding should be approved by the Corps prior to use.
- **ELECTRONIC MEDIA:** All deliverables shall be stored on CD or other agreed-upon media compatible with a personal computer operating Windows XP Professional. The word processing software used to generate the text should be Microsoft Word 2003. Graphics must be in a form that can be imported into the Word documents. Any public meeting displays shall be produced with software compatible with the Corps computer systems and stored on CD or other agreed-upon media.
- Data and calculations generated during technical surveys and during preparation of the EA shall be documented and categorized in the project file.
- **QUALITY:** Report copies should be clean and of sufficient quality to be easily read on subsequent reproductions. All narrative portions shall be presented in clear, standard grammar with correct spellings and punctuation.

4 Permitting

HDR’s approach to obtain the necessary permits and approvals for the proposed project are outlined in the following tasks, which are described in more detail in following sections.

- Task 1 - Clean Water Act Nationwide Permit Application
- Task 2 - Other Permits

4.1.1 Clean Water Act Nationwide Permit Application Preconstruction Notification

HDR will complete and submit, in coordination with the CITY, the necessary Preconstruction Notification (PCN) in accordance with Clean Water Act Nationwide Permit 43¹, Wetland Restoration. The PCN will include the required information listed in the General Condition 27 of the NWP, including design plans for the proposed project and supporting documentation of the environmental reviews.

4.1.2 Agency Coordination and Consultation

HDR will coordinate closely with the USACE; the Natural Resources Conservation Service (NRCS); the USFWS; and the CITY to support the Application process. NRCS reviews and approves wetland restoration plans. One site visit may be required to support verification of the delineation. HDR will meet once with the USACE, NRCS, and the USFWS to introduce the project and discuss permit requirements. Additional coordination will be conducted by phone and mail for agencies that are located outside the cities of Reno and Sparks

4.1.3 Deliverables

- Draft and Final Wetland Delineation Report
- Draft and Final Preconstruction Notification forms and correspondence
- Documentation of conversations with State and Federal Agencies
- Draft and Final Summary Report for Class 1 Records Review.

4.2 Other Permits

A number of additional local, state, and federal permits will be required for the proposed project. Potential permits and approvals for the North Truckee Drain Realignment Project are identified in Table 4-1. Nationwide Permit Application. Some of these permits can be completed and submitted by the City of Sparks, and others will have to be submitted by the Contractor selected to construct the project. Table 1 provides a list of the permits identified as being required for this project and whether the CITY or the Contractor is responsible for obtaining the permit. For those permits that are the responsibility of the CITY, HDR will provide support for obtaining the permits as described below. In addition, HDR will support

¹ The use of the Nationwide 43 Permit is contingent on the USACE concurrence with the final design of the project.

permit efforts that are the Contractor's responsible if requested by the CITY under a separate or amended scope of work.

4.2.1 Permit Application Development and Submittal

On behalf of the CITY, HDR will obtain the necessary information from previous studies or permitting efforts, and complete and file the necessary permit applications with the appropriate agencies. Permit application fees must be paid by the CITY, therefore HDR will request checks be drawn by the CITY for such applications. These requests will be made with sufficient advanced notice to meet submittal schedules.

Each agency will review the application to determine the completeness of the filing. If the application is determined to be incomplete, the agency must specify the deficiencies and ways to correct them. HDR will respond to such requests for additional information and re-file the application. Typically, the agency has another 30 days to review for completeness after re-filing.

HDR will maintain contact with the appropriate staff at the regulatory agencies to ensure agencies complete their review and take action on the permit applications within the required timeframes. A secondary goal of this coordination is to encourage regulatory agency staff to not impose infeasible or impracticable mitigation measures in the final permit/approval.

To minimize delays in the permit completion phase, HDR would:

- Keep each agency apprised of the project status.
- Provide any addition information immediately.
- Encourage each regulatory agency to act on its respective permit application within statutory time limits.

4.2.2 Deliverables

- Draft and Final Permit Applications
- Monthly Permitting Status Reports with Permit Status and Compliance Tracking Matrix with Permit Conditions.

Table 4-1 Potential Permits and Approvals for the North Truckee Drain Realignment Project		
Permit Description	Responsibility City/Contractor	Agency
Biological Opinion and Incidental Take Provision per Section 7 of the Endangered Species Act	City of Sparks	US Fish and Wildlife Service, Nevada Fish & Wildlife Office
Clean Water Act (CWA), Section 404 Permit	City of Sparks	US Army Corps of Engineers
Section §401 Water Quality Permit	City of Sparks	Nevada Division of Environmental Protection
Right-of-Way Occupancy Permit	City of Sparks	Nevada Department of Transportation
Nevada State Historic Preservation Officer	City of Sparks	National Historic Preservation Act - Section 106 Permit
NPDES Construction Storm Water Pollution Prevention Plan	Contractor	Nevada Division of Environmental Protection
Permit to Use State Land	City of Sparks	Nevada State Lands
Temporary Permit Application for Working in Waterways	City of Sparks	Nevada Division of Environmental Protection
NDEP Special Use Permit for working in waterways	City of Sparks	Washoe County
Grading Permit	City of Sparks	City of Sparks, Building Division
Encroachment/Excavation Permit Application	City of Sparks	City of Sparks, Building Division
Dust Control Permit	Contractor	Washoe County District Health Department, Air Quality Management Division
Vector Control Permit Submitted through the Washoe County Community Development Package Application	City of Sparks	Washoe County District Health Dept.
Railroad Access and Occupancy Permit for Railroad ROW	City of Sparks	Union Pacific Railroad
Utility Encroachment Permits	City of Sparks	

5 Preliminary Design Service

5.1 Alternatives Evaluation to Cross I-80, UPRR and Vista Blvd

The North Truckee Drain Realignment Alternatives Analysis Report includes a preferred PROJECT alignment. This alignment assumes the method to construct the crossing at I-80 and the UPRR tracks is a micro-tunnel and jack operation. A second alternative for performing this crossing may be an “open cut” process, depending on cost and feasibility. HDR shall:

- Consult with the UPRR, on behalf of the CITY, to conceptually plan and design a rail shoofly to allow for an open cut operation for extending the proposed culverts beneath the UPRR tracks. This will include a structural/foundation review of the rail “fly-over” and the feasibility of placing the proposed box culvert structure in between the piers that support the rail “fly-over” structure. This work effort shall include development of typical cross sections of the shoo-fly embankment, overall length and switching impact for the bypass.
- Consult with NDOT, on behalf of the CITY, to conceptually plan and design construction of the proposed culverts beneath the I-80 roadway using an open cut operation.
- Record results of discussions with NDOT and the UPRR indicating feasibility of performing the “open cut” method to construct the crossing of each respective facility. Develop a cost estimate for the purpose of comparing micro-tunneling and jacking vs. open cutting.
- HDR will perform a comparison of two alternatives for crossing Vista Blvd. HDR will develop a technical memorandum summarizing costs, and benefits for each crossing alternative and include a recommended alternative.

5.2 Preliminary Drainage & Final Design Hydraulic Report

HDR shall:

- Prepare a drainage report for the PROJECT area. The report will include a hydrologic analysis for the PROJECT surface area and associated preliminary drainage calculations for the purposes of reestablishing or revising drainage patterns due to the impact of the PROJECT.
- Perform final hydraulic analysis of the proposed culverts. HDR will revise the HEC-RAS, LPP unsteady flow model, for two conditions; (1) 117-yr event on the Truckee River and the concurrent flow in the North Truckee Drain, (2) 117-yr event in the North Truckee Drain and the 50-yr flow in the Truckee River. This analysis will be based on the data provided by the Corps of Engineers and data developed in the North Truckee Drain Realignment Alternatives Analysis Report.
- Perform an analysis comparing alternative connection options for the Peoples Drain. This will include evaluation of a direct connection to the North Truckee Drain box culvert and a bypass system that makes an independent connection to the Truckee River at the current North Truckee Drain outfall location.

- As part of the hydraulic design report, HDR will identify fish barrier requirements in consultation with Nevada Department of Wildlife (NDOW) and the USFWS. HDR will develop a conceptual barrier design that can be approved by the referenced agencies for use on the PROJECT.

5.3 Preliminary Structural Review

HDR shall:

- Review and compare the various standards that may apply for the structural design of the culvert system (PROJECT). This will include a comparison of structural design criteria from AASHTO, NDOT, UPRR and the Corps. HDR will determine if suppliers of large pre-cast box culvert structures can meet any or all of these design criteria. This information will be used to determine a feasible size (dimensions) for the box structure for, among other reasons, to establish the final vertical alignment of the structure.
- Obtain and review “as-built” information from the UPRR for the rail “fly-over” structure located near the existing intersection with the North Truckee Drain and the UPRR main tracks. HDR will check for clearances and feasibility according to UPRR design standards, for placement of the culvert in between the pier supports of the fly-over structure. HDR will work with Kleinfelder to determine the earthen stability and potential for impact to the fly-over structure due to placement of the culvert system.

5.4 Value Engineering

HDR shall:

- Conduct a value engineering workshop for the proposed design. This task will come after completion of Sections 2.2 through 2.4 and 5.1 through 5.3 of this scope. The CITY and HDR will identify the participants to the workshop, as well as the fields of engineering practice that are appropriate for inclusion among the participants of the workshop. HDR will propose to the CITY resumes of individuals from HDR that are not currently involved with the North Truckee Drain project and can therefore participate with a completely unbiased opinion. Each individual will have a minimum of 15 years of experience as a professional in their respective field. HDR will provide the facilitator for the workshop; the CITY will provide the location.
- The facilitator will compile all comments noted during the value engineering workshop and prepare a Value Engineering report. The PROJECT team will address each comment as to feasibility, appropriateness and state a recommendation for each value engineering comment.
- HDR and the CITY will determine if any of the comments represent a significant departure from this scope of services and develop a scope for additional work if necessary.

5.5 Utility Relocation Design

HDR shall subcontract with CH2MHILL to provide the following services:

- Coordinate with each utility as described in Section 2.2 of this scope of services. HDR shall discuss design concepts with all utilities contacted and make necessary adjustments to the PROJECT design, when appropriate, to better accommodate utility interests that share the public right-of-way.
- Perform preliminary engineering for relocations of water, sanitary sewer and storm drains. HDR will coordinate with each property owner on Larkin Circle to develop feasible service laterals. HDR will coordinate the design with the respective utility owner and negotiate for approval of the design concept. The anticipated impacted utility agencies are listed in Section 2 of this scope. HDR assumes that the costs associated with utilities other than water, sewer and storm drain are not included in this scope and that relocation designs will be performed by the utility owner, and payment for this work will be the responsibility of the CITY.

5.6 Preliminary Plans - 30% Design Level

HDR shall:

- Develop preliminary plan & profile sheets for the culvert conveyance system drawn at a 40 scale horizontal and 4 scale vertical. This is estimated at 5 sheets.
- Develop preliminary utility relocation plan & profile sheets drawn at a 40 scale horizontal and 4 scale vertical. This is estimated at 10 sheets including a sewer lift station site plan.
- Develop typical sections throughout the project.

5.7 Preliminary Design Report

HDR shall:

- Prepare a Preliminary Design Report (PDR) detailing the results from all subtask efforts for the 30% design. The PDR will include pertinent aspects of the project explored to date, including design criteria and assumptions used to develop the design and any alternatives. Probable construction costs will be estimated based upon recommendations made in the PDR and will be broken out by funding source. The PDR will include, but is not limited to, the following:
 - Table of Contents
 - Executive Summary
 - Survey Control
 - Preliminary Right-of- Way Setting
 - Geotechnical Considerations & Draft Geotechnical Investigation
 - Design Criteria and Assumptions
 - Preliminary Drainage & Final Hydraulic Report
 - Preliminary Structural Analysis
 - Utility issues and conflicts

- I-80 and UPRR Crossing Summary Memorandum
- Preliminary estimate of construction quantities
- Opinion of construction costs
- Outline of specifications and Special Provisions
- Preliminary drawings, plans and profiles, figures, typical cross sections, and tables to support analyses and recommendations
- Matrix of permits from Federal, State and local agencies, as required
- Project correspondence file, including meeting minutes
- Listing of record drawings and maps reviewed
- Submittal must be sealed by a Licensed Professional Engineer (Civil) in the State of Nevada. Subcontract work such as survey and geotechnical investigations or utility relocations shall be sealed by the respective engineer/surveyor.

5.8 Conduct PDR Review Workshop & Final Design Report

HDR shall:

- Submit the Draft PDR to the CITY, and the Corps of Engineers for review.
- Conduct a single workshop to meet with the CITY and the Corps of Engineers to review comments, resolve issues, and conduct a detailed “plans-in-hand” on-site review.
- Provide meeting minutes that summarize any design considerations or plan revisions. Comments received on the PDR will be addressed in writing. Adjustments will be made to the associated design and analysis as necessary. Documentation of the changes made such as physical copies of plans, models, and calculations will be submitted with the Final PDR.
- Revise PDR as necessary and resubmit to CITY as a Final Design Report. All meeting minutes will be included in the FDR in the appendix.

5.9 Deliverables

- Preliminary Design Report, formatted as per Section 5.7.
- Preliminary Plan set
- Final Design Report

6 Final Design Services

6.1 60% Design Documents Development

HDR shall:

- Design and prepare drawings, Contract Documents and Specifications, Bid Schedule, and Construction Cost Estimate to reflect a 60% level of completion.
- The drawings are anticipated to consist of the following (for the open cut method to cross I-80 and UPRR):
 - Cover, Legend, Drawing Index, General Notes and Details.
 - Horizontal Control Plan with existing Right of Way.

- Monumentation Map.
 - Culvert Plan and Profile Plans.
 - Rail Shoo-fly Plans.
 - Water Relocation Plans.
 - Sanitary Sewer Relocation Plans.
 - Sewer Lift Station Plan.
 - Storm Drain Relocation Plans.
 - Culvert Details – Crossing I-80
 - Culvert Details – Crossing UPRR
 - Culvert Structural Details.
 - Culvert structural details
 - Culvert headwall details
 - Fish Barrier
 - General Details.
 - Maintenance access details
 - Roadway details.
 - Temporary erosion control details
 - Water Relocation Details.
 - Sanitary Sewer Relocation Details.
 - Storm Drain Relocation Details.
 - Construction Phasing Map.
 - Traffic Control Plans.
 - BMP & Temporary Erosion Control Plans.
-
- Update the preliminary drainage report to include final design calculations to determine system capacities and dimensions.
 - Update preliminary right-of-way estimates and develop legal descriptions for temporary and permanent right-of-way acquisitions.
 - The previous list of plans assumes that relocation of fiber-optic lines, the Kinder Morgan fuel line, gas, power and cable lines will be relocated by the respective utility but coordinate with the HDR design.
 - The “front end” legal and contractual sections including Invitation to Bid, Instruction to Bidders, Bid Form and General Conditions will be provided by the CITY and reviewed and completed by HDR for insertion in the Bid Package.
 - Prepare the special conditions, special provisions, and appendices for insertion into the Contract Documents to the 60% level of completion.
 - Prepare the following items consistent with a 60%-level of design completion:
 - PROJECT schedule.
 - Opinion of probable construction cost.
 - Utility submittal matrix.

6.2 Conduct 60% Design Review Workshop & Final Design Report

HDR shall:

- Conduct a single workshop to meet with the CITY and the Corps of Engineers to review comments, resolve issues, and conduct a detailed “plans-in-hand” on-site review.
- Provide meeting minutes that summarize any design considerations or plan revisions.
- Prepare formal response to each comment received from the CITY and the Corps of Engineers, indicating name of commenter, HDR’s agreement/disagreement, and recommended action.

6.3 90% Design Documents Development

HDR shall:

- Develop 90% design documents and incorporate applicable responses to 60%-review comments. Edit, incorporate and combine front end documents into the specifications and special provisions to provide full comprehensive biddable documents.
- Update utility relocation/clearance status.
- Submit copies of the progress drawings to all utilities for comment and begin to obtain approvals.
- Meet with the CITY, following a three-week review period by CITY staff, to discuss review comments.
- Conduct a single workshop to meet with the CITY and the Corps of Engineers to review 90% review comments.
- Address and incorporate applicable comments and provide written responses to all comments in a matrix format.

6.4 100% Design Documents Development

HDR shall:

- Develop 100% design documents and incorporate applicable responses to 90%-review comments into the final plans, front-end contract documents, special provisions, bid schedule and engineers estimate.
- Prepare an engineers estimate
- Prepare construction schedule for CITY’s review.
- Furnish the CITY copies of all PROJECT drawings on CD-ROMs in AutoCAD 2007 format.
- Prepare one (1) set of final, sealed, full-size original mylar drawings (signed as necessary by the appropriate public agencies and utility companies), Contract Documents, special provisions and geotechnical report all in a form approved by the CITY and suitable for reproduction.
- Provide calculations, design worksheets, and other information for the CITY’s file.

6.5 Deliverables

- 60% Plans, and Specifications according to the following distribution list:
 - Five (5) progress drawing sets of 11" x 17" and one (1) 24" x 36" set for the CITY;
 - Three (3) progress drawing sets of 11"x 17" for the Corps;
 - Two (2) sets of specifications for the CITY and two (2) sets of specifications for the Corps. The specifications will include the special conditions, special provisions, and appendices for insertion into the contract documents.
- Updated Preliminary Drainage Report
- 60% opinion of probable cost.
- 60% CITY/Corps review comments and responses.
- Project schedule updated monthly OR after change throughout duration of Final Design Task.
- 90% Plans, and Specifications according to the following distribution list:
 - Ten (10) progress drawing sets of 11" x 17" and two (2) 24" x 36" sets for the CITY;
 - Three (3) progress drawing sets of 11"x 17" for the Corps;
 - Four (4) sets of bound special provisions for the CITY and two (2) sets for the Corps. The special provisions will include, "front end" documents, bid schedule, special conditions, special provisions, and technical specifications.
- 90% CITY/Corps review comments and responses.
- Utility submittal matrix at 90% design.
- 100% Contract documents and support information:
 - Four (4) stamped copies of 11" x 17" project plans.
 - One (1) stamped copy of 24" x 36" project plans.
 - Two (2) stamped copies of unbound special provisions.
 - Two (2) copies of contract specific front end documents.
 - One (1) unbound copy of the geotechnical investigation suitable for reproduction.
 - All drawings, specifications, and reports shall be sealed by a professional engineer(s) legally licensed in Nevada.
- Electronic copy of the engineer's estimate, bid schedule and funding distribution broken out by funding source (Microsoft Excel format).
- Electronic copy of the project plans (AutoCAD format) with support files.
- Electronic copy of the special provisions (Microsoft Word format)
- One (1) copy of the plans shall be distributed to each utility.
- Construction schedule (Microsoft Project format)

7 Bidding Phase Support Services

Upon receipt of written authorization by the CITY, HDR shall perform the following tasks to provide bidding phase support to the CITY.

7.1 Advertise Bid

HDR shall:

- Print copies of bid documents for distribution.
- Advertise the project according to CITY policy. The CITY is responsible to pay for advertising fees.
- Distribute (sell) construction document sets to prospective bidders.
- Maintain a list of prospective bidders for issuance of addenda and other notifications.

7.2 Pre-Bid Conference

HDR shall attend and provide technical support at one (1) pre-bid conference to be held at the CITY offices.

7.3 Addenda & Clarifications

HDR shall:

- Provide assistance to the CITY to coordinate and provide technical and design clarifications as needed during the bid period.
- Support and assist the CITY in preparing addenda to the construction contract documents as requested by the CITY.

7.4 Bid Opening

HDR shall:

- Attend the bid opening, evaluate bid proposals, and provide written recommendations on rejection or award of the construction contract.

8 Optional Tasks

8.1 Cultural Resource Surveys

HDR anticipates that detailed Class 3 surveys will not be required for this project due to the developed nature of the majority of the area, and the previous NEPA work conducted by the Corps. It is possible that results from the records search, consultation with SHPO, or directives from cooperating agencies may require additional, detailed surveys of all or portions of the project area. Such surveys would be an optional task. HDR staff would conduct field surveys of areas identified as a potential concern. Results from the surveys would be included in a technical report summarizing the findings of the surveys.

Our approach to the archaeological tasks assumes no archaeological excavation work or other subsurface evaluation. If necessary to determine National Register eligibility, such work would have to be undertaken as a separate project once the records search has been completed and the scope of such a program determined.

8.2 Right-of-way Acquisition

8.2.1 Preliminary/Appraisals

HDR shall:

- Provide assistance to the CITY to coordinate and provide technical and design clarifications as needed during the bid period.
- Support and assist the CITY in preparing addenda to the construction contract documents as requested by the CITY.
- Review preliminary title commitments, provided by City of Sparks, for standard owners' coverage, including each listed exception.
- Tour project and visit sites prior to making offers.
- Obtain determinations of value and acquisition documents from City of Sparks.
- Prepare offer letter in the form approved by City of Sparks.
- Provide monthly status report.
- Maintain records in accordance with statutory, regulatory, and policy requirements.
- Prepare a transmittal package for each acquisition in form approved by City of Sparks.
- Meet with City of Sparks staff as necessary to resolve negotiation issues, coordinate with engineering staff, and discuss parcel status.

8.2.2 Negotiations

HDR shall:

- Negotiate up to 15 permanent easements and 25 temporary easements in accordance with statutory and regulatory requirements.
- Maintain negotiator's logs.
- Make settlement recommendations as appropriate.

Project Cost

HDR will perform the previously noted Scope of Service for the City of Sparks for the “Not-To-Exceed” cost of \$4,549,200.

Table 1: Cost Summary

Task Number	Task Description	Cost
1	Project Management	\$327,800
2	Field Investigation	\$676,000
3	Environmental Assessment (EA)	\$151,700
4	Permitting	\$30,500
5	Preliminary Design Service	\$1,178,200
6	Final Design Services	\$2,132,800
7	Bidding Phase Support Services	\$57,900
	Total	\$\$\$4,554,900

Project Schedule

HDR is proposing that the following schedule represents the significant completion date milestones for this project. There are decision points that may occur during the project that may impact these estimated milestone dates.

Table 2: Milestone Summary

Task Number	Task Description	Cost
2	Field Investigation	12/5/08
3	Environmental Assessment (EA)	2/9/09
4	Permitting	6/18/10
5	Preliminary Design Service	12/24/08
6	Final Design Services	3/11/10
7	Bidding Phase Support Services	5/13/10