

**LPA – CONSULTANT  
PROFESSIONAL SERVICES AGREEMENT**

CITY OF LEXINGTON, NEBRASKA  
MILLER & ASSOCIATES, INC.  
PROJECT NO. URB-1705(3)  
CONTROL NO. 61457  
LEXINGTON EAST VIADUCT

THIS AGREEMENT, made and entered into by and between the City of Lexington, Nebraska, hereinafter referred to as the Local Public Agency or LPA, and Miller & Associates, Inc., hereinafter referred to as the Consultant.

WITNESSETH

WHEREAS, the LPA used a qualification based selection process to select the Consultant to render professional services for the above named project at the location shown on EXHIBIT "A", which is attached and hereby made a part of this agreement, and

WHEREAS, the Consultant is qualified to do business in Nebraska and has met all requirements of the Nebraska Board of Engineers and Architects to provide consultant engineering services in the State of Nebraska, and

WHEREAS, Consultant is willing to perform the services in accordance with the terms hereinafter provided agrees to comply with all federal, state, and local laws and ordinances applicable to this agreement, and agrees to comply with all applicable federal-aid transportation related program requirements, so that Consultant's costs under this agreement will be fully eligible for federal reimbursement, and

WHEREAS, the LPA and Consultant intend that the services under this agreement be completed in accordance with the terms and conditions of the Nebraska LPA Guidelines Manual for Federal Aid Projects; hereinafter referred to as LPA Manual (See definition in Section 1), and

WHEREAS, the Consultants primary contact person for LPA will be the LPA's representative, who has been designated as being in responsible charge of the project, and who is referred to herein as RC or Responsible Charge.

WHEREAS, the parties understand that the State of Nebraska, Department of Roads is involved in this federal-aid project on behalf of the FHWA only for issues related to the eligibility of the project for reimbursement of project costs with federal-aid funds.

NOW THEREFORE, in consideration of these facts, the parties hereto agree as follows:

## SECTION 1. DEFINITIONS

WHEREVER in this agreement the following terms are used, they will have the following meaning:

"LPA" stands for Local Public Agency, and in this agreement means the City of Lexington, Nebraska, unless the context otherwise requires. LPA may also be used to refer generally to other Local Public Agencies. Local Public Agencies include, but are not necessarily limited to; Nebraska Cities, Villages, Counties, Political Subdivisions, Native American Tribes, and other entities or organizations found to be eligible sub recipients of federal funds for transportation projects, and

"CONSULTANT" means the firm of Miller & Associates, Inc., and any employees thereof, whose business and mailing address is 2511 W 35<sup>th</sup> Street, Kearney, NE 68845, and

"SUBCONSULTANT/SUBCONTRACTOR" means the firm of Parsons Brinckerhoff, and any employees thereof, whose business and mailing address is 1111 Lincoln Mall, Suite 308, Lincoln, NE 68508 and the firm of Mid-State Engineering & Testing, Inc., and any employees thereof, whose business and mailing address is 279 Rd D, Columbus, NE 68601, and

"LPA MANUAL" shall mean the Nebraska Department of Roads' LPA Guidelines Manual for Federal-Aid Projects. The LPA Manual is a document approved by the Federal Highway Administration (FHWA) that sets out the requirements for local federal-aid projects to be eligible for federal reimbursement; the LPA Manual can be found in its entirety at the following web address: <http://www.transportation.nebraska.gov/gov-aff/lpa/lpa-guidelines.pdf>, and

"RESPONSIBLE CHARGE" or "RC" shall mean LPA's representative for the project whose duties and responsibilities are identified in federal law and in the LPA Manual, and

"STATE" means the Nebraska Department of Roads in Lincoln, Nebraska, its Director, or authorized representative. The State represents the interests of the United States Department of Transportation on federally funded transportation projects sponsored by a sub recipient of federal funds and any reference to the "State" in this agreement shall mean the State on behalf of the United States Department of Transportation, and

"FHWA" means the Federal Highway Administration, United States Department of Transportation, Washington, D.C. 20590, acting through its authorized representatives, and

"DOT" means the United States Department of Transportation, Washington, D.C. 20590, acting through its authorized representatives, and

To "ABANDON" the services means that the LPA has determined that conditions or intentions as originally existed have changed and that the services as contemplated herein is to be renounced and deserted for as long in the future as can be foreseen, and

To "SUSPEND" the services means that the LPA has determined that progress is not sufficient, or that the conditions or intentions as originally existed have changed, or the services completed or submitted are unsatisfactory, and that the services as contemplated herein should be stopped on a temporary basis. This cessation will prevail until the LPA determines to abandon or terminate the services or to reinstate it under the conditions as defined in this agreement, and

To "TERMINATE" or the "TERMINATION" of this agreement is the cessation or quitting of this agreement based upon action or failure of action on the part of the Consultant as defined herein and as determined by the LPA.

SECTION 2. THIS SECTION HAS INTENTIONALLY BEEN LEFT BLANK

SECTION 3. THIS SECTION HAS INTENTIONALLY BEEN LEFT BLANK

SECTION 4. TERM OF THE AGREEMENT

This agreement becomes effective on the date it is signed by the State and will end upon: (1) the waiver of an audit review or (2) the final completion of an audit review by the State or its authorized representative, and the resolution of all issues identified in the audit report.

SECTION 5. SCOPE OF SERVICES

LPA and Consultant understand that the Services provided by Consultant must be completed in accordance with all federal-aid reimbursement requirements and conditions. The Consultant agrees to provide preliminary engineering and environmental documentation services for Project No. URB-1705(3), Control No. 61457, in Dawson County, Nebraska as set out in Exhibit "B", entitled Scope of Services and Fee Proposal, which are attached and hereby made a part of this agreement.

Exhibit "B" is the result of the following process:

- (1) LPA provided Consultant with a document describing the detailed proposed Scope of Services for this project
- (2) Consultant made necessary and appropriate proposed additions, deletions, and revisions to LPA's detailed Scope of Services document
- (3) LPA and Consultant together reviewed the proposed Scope of Services, the proposed revisions and negotiated the final detailed Scope of Services and Fee Proposal document, which is attached as Exhibit "B".

The LPA has the absolute right to add or subtract from the scope of services at any time and such action on its part will in no event be deemed a breach of this agreement. The addition or subtraction will become effective seven days after mailing written notice of such addition or subtraction.

#### SECTION 6. STAFFING PLAN (For PE Services)

The Consultant has provided LPA with a staffing plan that identifies the employees of the Consultant who will be part of the primary team for this project. The primary team members will be agreed upon and identified in this agreement. The primary team is expected to be directly responsible for providing the services under this agreement. This document shall specify the role that will be assigned to each member of the primary team. This document is attached hereto as Exhibit "B" and is incorporated herein by this reference. During design, the Consultant may make occasional temporary changes to the primary team. However, any permanent change to the primary team will require prior written approval from the LPA.

Personnel who are added to the Staffing Plan as replacements must be persons of comparable training and experience. Personnel added to the Staffing Plan as new personnel and not replacements must be qualified to perform the intended services. Failure on the part of the Consultant to provide acceptable replacement personnel or qualified new personnel to keep the services on schedule will be cause for termination of this agreement, with settlement to be made as provided in the SUSPENSION, ABANDONMENT, OR TERMINATION section of this agreement.

#### SECTION 7. NEW EMPLOYEE WORK ELIGIBILITY STATUS

The Consultant agrees to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. The Consultant hereby agrees to contractually require any Subconsultants to use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

The undersigned duly authorized representative of the Consultant, by signing this agreement, hereby attests to the truth of the following certifications, and agrees as follows:

**Neb.Rev.Stat. § 4-114.** I certify compliance with the provisions of Section 4-114 and, hereby certify that this Consultant shall register with and use a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. I agree to require all Subconsultants, by contractual agreement, to require the same registration and verification process.

If the Consultant is an individual or sole proprietorship, the following applies:

1. The Consultant must complete the United States Citizenship Attestation form, and attach it to this agreement. This form is available on the Department of Roads website at [www.transportation.nebraska.gov/projdev/#save](http://www.transportation.nebraska.gov/projdev/#save).
2. If the Consultant indicates on such Attestation form that he or she is a qualified alien, the Consultant agrees to provide the US Citizenship and Immigration Services documentation required to verify the Consultant lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.
3. The Consultant understands and agrees that lawful presence in the United States is required and the Consultant may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

#### SECTION 8. NOTICE TO PROCEED AND COMPLETION DATE (PE)

The LPA will issue the Consultant a written Notice-to-Proceed when LPA determines that federal funding approval has been obtained for the project, upon full execution of the agreement and upon State concurrence that the form of this agreement is acceptable for federal funding eligibility. Any services performed by Consultant on the project prior to the date specified in the written Notice-to-Proceed will not be eligible for reimbursement.

The Consultant shall complete all the services according to the schedule in attached Exhibit "B" and shall complete all services required under this agreement in a satisfactory manner.

Any costs incurred by Consultant after the completion date are not eligible for reimbursement unless the Consultant has received a written extension of time from LPA.

The completion date will not be extended because of any avoidable delay attributed to the Consultant, but delays not attributable to the Consultant, such as delays attributable to the LPA may constitute a basis for an extension of time.

## SECTION 9. FEES AND PAYMENTS

The general provisions concerning payment under this agreement are set out on the Exhibit "D", attached hereto and hereby made a part of this agreement.

For performance of the services as described in this agreement, the Consultant will be paid a fixed-fee-for-profit of \$23,090.76 and up to a maximum amount of \$793,341.75 for actual costs in accordance with Exhibit "D". The total agreement amount is \$816,432.51.

## SECTION 10. PROFESSIONAL PERFORMANCE (LPA PE)

The Consultant understands that the LPA will rely on the professional training, experience, performance and ability of the Consultant. Examination by the LPA, State or FHWA, or acceptance or use of, or acquiescence in the Consultant's work product, will not be considered to be a full and comprehensive examination and will not be considered an approval of the Consultant's work product which would relieve the Consultant from any liability or expense that would be connected with the Consultant's sole responsibility for the propriety and integrity of the professional services to be accomplished by the Consultant pursuant to this agreement. The Consultant further understands that acceptance or approval of any of the work of the Consultant by the LPA or concurrence by the State/FHWA or of payment, partial or final, will not constitute a waiver of any rights of the LPA to recover from the Consultant, damages that are caused by the Consultant due to error, omission, or negligence of the Consultant in its work. That further, if due to error, omission, or negligence of the Consultant, the work project of the Consultant is found to be in error or there are omissions therein revealed during or after the construction of the project and revision, reconsideration, or reworking of the Consultant work product is necessary, the Consultant shall make such revisions without expense to the LPA. The Consultant shall respond to the LPA's or State's notice of any errors or omissions within 24 hours and give immediate attention to necessary corrections to minimize any delays to the project. This may involve visits by the Consultant to the project site, if directed by the LPA. If the Consultant discovers errors in its services, it shall notify the LPA and State of the errors within seven days. Failure of the Consultant to notify the LPA will constitute a breach of this agreement. The Consultant's legal liability for all damages incurred by the LPA caused by error, omission, or negligent acts of the Consultant will be borne by the Consultant without liability or expense to the LPA.

## SECTION 11. SUSPENSION, ABANDONMENT OR TERMINATION (2/8/12)

The LPA has the absolute right to suspend or abandon the work, or terminate the agreement at any time and such action on its part will in no event be deemed a breach of this

agreement. The LPA will give the Consultant seven days written notice of such suspension, abandonment, or termination. Any necessary change in Scope of Services shall follow the Consultant Work Order Process outlined in the FEES AND PAYMENTS section above.

If the LPA suspends or abandons the work or terminates the agreement as presently outlined, the Consultant shall be compensated in accordance with the provisions of 48 CFR 31 provided however, that in the case of suspension, abandonment or termination for breach of this agreement, the LPA will have the power to suspend payments, pending the Consultant's compliance with the provisions of this agreement. For the abandonment or termination of this agreement, payment to Consultant will be prorated based on the percentage of work completed by the Consultant prior to abandonment or termination compared to the total amount of work contemplated by this agreement.

#### SECTION 9. OWNERSHIP OF DOCUMENTS (11/17/11)

All surveys, maps, reports, computations, charts, plans, specifications, electronic data, shop drawings, diaries, field books, and other project documents prepared or obtained under the terms of this agreement are the property of the LPA and the Consultant shall deliver them to the LPA at the conclusion of the project without restriction or limitation as to further use.

LPA acknowledges that such data may not be appropriate for use on an extension of the services covered by this agreement or on other projects. Any use of the data for any purpose other than that for which it was intended without the opportunity for Consultant to review the data and modify it if necessary for the intended purpose will be at the LPA's sole risk and without legal exposure or liability to Consultant.

Further, Consultants' time sheets and payroll documents shall be kept in Consultants' files for at least three years from the completion of final cost settlement by FHWA and project closeout by the State.

#### SECTION 10. CONFLICT OF INTEREST LAWS

The Consultant shall review the Conflict of Interest provisions of 23 CFR 1.33 and 49 CFR 18.36(b)(3) and agrees to comply with all the Conflict of Interest provisions in order for the LPA's project to remain fully eligible for Federal funding. By signing this agreement, the Consultant certifies that Consultant is not aware of any financial or other interest the Consultant has that would violate the terms of these federal provisions.

#### SECTION 11. USE AND/OR RELEASE OF PRIVILEGED OR CONFIDENTIAL INFORMATION

Certain information provided by the LPA or State to the Consultant is confidential information contained within privileged documents protected by 23 U.S.C. §409. "Confidential

information" means any information that is protected from disclosure pursuant to state and federal law and includes, but is not limited to, accident summary information, certain accident reports, diagnostic evaluations, bridge inspection reports, and any other documentation or information that corresponds with said evaluations or reports, and any other information protected by 23 U.S.C. §409. "Privileged document" means any document pertaining to any file or project maintained by the LPA or State that is privileged and protected from disclosure, pursuant to appropriate state and federal law, including any document containing attorney-client communications between an LPA or State employee and Legal Counsel. This confidential and privileged information is vital and essential to the Consultant in order that the Consultant adequately design the project at hand on behalf of the LPA or State.

The Consultant agrees it will only use any information or documentation that is considered to be privileged or confidential for the purposes of executing the services by which it has agreed to render for the LPA or State for the project at hand only. The Consultant agrees not to reveal, disseminate, or provide copies of any document that is confidential and privileged to any individual or entity. The LPA agrees that any information or documentation that is considered to be privileged or confidential that is provided to Consultant will be marked with the following information (Approved 3/16/11):

**"CONFIDENTIAL INFORMATION:** Federal Law, 23 U.S.C §409, prohibits the production of this document or its contents in discovery or its use in evidence in a State or Federal Court. The LPA has not waived any privilege it may assert as provided by that law through the dissemination of this document and has not authorized further distribution of this document or its contents to anyone other than the original recipient."

The Consultant agrees to obtain the written approval of the Consultant Coordinator prior to the dissemination of any privileged or confidential information or documentation if it is unclear to the Consultant whether such information or documentation is in fact privileged or confidential.

The Consultant and the LPA agree that any unauthorized dissemination of any privileged or confidential information or documentation on the part of the Consultant will create liability on the part of the Consultant to the LPA for any damages that may occur as a result of the unauthorized dissemination. The Consultant agrees to hold harmless, indemnify, and release the LPA for any liability that may ensue on the part of the LPA for any unauthorized dissemination of any privileged or confidential information or documentation on the part of the Consultant.



## SECTION 12. FORBIDDING USE OF OUTSIDE AGENTS

The Consultant warrants that it has not employed or retained any company or person, other than a bona fide employee working for the Consultant, to solicit or secure this agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift, or any other consideration contingent upon or resulting from the award or making of this agreement. For breach or violation of this warranty, the LPA has the right to annul this agreement without liability or, in its discretion, to deduct from the agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gift, or contingent fee.

## SECTION 13. NON-RAIDING CLAUSE

The Consultant shall not engage the services of any person or persons presently in the employ of the State for services covered by this agreement without the prior written consent of the employer of the persons.

## SECTION 14. GENERAL COMPLIANCE WITH LAWS

The Consultant hereby agrees to comply with all federal, state, and local laws and ordinances applicable to the work in effect at the time of the work.

## SECTION 15. DISPUTES

Any dispute concerning a question of fact in connection with the work covered under this agreement will be addressed in accordance with LPA Manual Section 4.4.3.5 DISPUTE RESOLUTION.

## SECTION 16. RESPONSIBILITY FOR CLAIMS AND LIABILITY (PE) (1-24-12)

The Consultant agrees to save harmless the LPA from all claims and liability due to the error, omission, or negligence of the Consultant or those of the Consultant's agents or employees in the performance of services under this agreement. Further, it is expected that in carrying out the work under this agreement, Consultant will make various decisions and judgments and Consultant will determine what actions are required by Consultant and by others to properly complete the work. Nothing in this Agreement shall be interpreted to relieve Consultant from any liability it would otherwise have to LPA in carrying out the work under this agreement.

Finally, the Consultant shall for the life of this agreement, carry insurance as outlined in Exhibit "C" and attached hereto, and hereby made a part of this agreement. In any contract Consultant has with a subconsultant, Consultant shall require that the insurance requirements outlined in Exhibit "C" must be met by the subconsultant.

#### SECTION 17. PROFESSIONAL REGISTRATION

The Consultant shall affix the seal of a registered professional engineer or architect licensed to practice in the State of Nebraska, on all plans, documents, and specifications prepared under this agreement as required by the Nebraska Engineers and Architects Regulations Act, Neb.Rev.Stat §81-3401 et. seq.

#### SECTION 18. SUCCESSORS AND ASSIGNS

This agreement is binding on successors and assigns of either party.

#### SECTION 19. DRUG-FREE WORKPLACE POLICY

The Consultant shall have an acceptable and current drug-free workplace policy on file with the State.

#### SECTION 20. FAIR EMPLOYMENT PRACTICES ACT

The Consultant agrees to abide by the Nebraska Fair Employment Practices Act, as provided by Neb.Rev.Stat. 48-1101 through 48-1126, which is hereby made a part of and included in this agreement by reference.

#### SECTION 21. DISABILITIES ACT

The Consultant agrees to comply with the Americans with Disabilities Act of 1990 (P.L. 101-366), as implemented by 28 CFR 35, which is hereby made a part of and included in this agreement by reference.

#### SECTION 22. DISADVANTAGED BUSINESS ENTERPRISES

The Consultant shall ensure that disadvantaged business enterprises, as defined in 49 CFR 26, have the maximum opportunity to compete for and participate in the performance of subagreements financed in whole or in part with federal funds under this agreement. Consequently, the disadvantaged business requirements of 49 CFR 26 are hereby made a part of and included in this agreement by reference.

The Consultant shall not discriminate on the basis of race, color, sex, or national origin in the award and performance of FHWA-assisted contracts. Failure of the Consultant to carry out the requirements set forth above will constitute a breach of this agreement and, after the notification of the FHWA, may result in termination of this agreement by the LPA or such remedy as the LPA deems appropriate.

## SECTION 23. NONDISCRIMINATION

- A. Compliance with Regulations: During the performance of this agreement, the Consultant, for itself and its assignees and successors in interest, agrees to comply with the regulations of the DOT relative to nondiscrimination in federally-assisted programs of the DOT (49 CFR 21 and 27, hereinafter referred to as the Regulations), which are hereby made a part of and included in this agreement by reference.
- B. Nondiscrimination: The Consultant, with regard to the work performed by it after award and prior to completion of this agreement, shall not discriminate on the basis of race, color, sex, or national origin in the selection and retention of Subconsultants, including procurements of materials and leases of equipment. The Consultant shall not participate either directly or indirectly in the discrimination prohibited by 49 CFR 21.5, including employment practices when the agreement covers a program set forth in Appendixes A, B, and C of 49 CFR 21.
- C. Solicitations for Subagreements, Including Procurements of Materials and Equipment: In all solicitations either by competitive bidding or negotiation made by the Consultant for work to be performed under a subagreement, including procurements of materials or equipment, each potential Subconsultant or supplier shall be notified by the Consultant of the Consultant's obligations under this agreement and the Regulations relative to nondiscrimination on the basis of race, color, sex, or national origin.
- D. Information and Reports: The Consultant shall provide all information and reports required by the Regulations, or orders and instructions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the LPA, State or FHWA to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Consultant is in the exclusive possession of another who fails or refuses to furnish this information, the Consultant shall certify to the LPA, State or FHWA, as appropriate, and set forth what efforts it has made to obtain the information.
- E. Sanctions for Noncompliance: In the event of the Consultant's noncompliance with the nondiscrimination provisions of this agreement, the LPA will impose such agreement sanctions as it or the State and FHWA may determine to be appropriate, including but not limited to withholding of payments to the Consultant under this agreement until the Consultant complies, and/or cancellation, termination, or suspension of this agreement, in whole or in part.

F. Incorporation of Provisions: The Consultant shall include the provisions of paragraphs A through E of this section in every subagreement, including procurements of materials and leases of equipment, unless exempt by the Regulations, orders, or instructions issued pursuant thereto. The Consultant shall take such action with respect to any subagreement or procurement as the LPA, State or FHWA may direct as a means of enforcing such provisions including sanctions for noncompliance, provided however, that in the event a Consultant becomes involved in or is threatened with litigation with a Subconsultant/ Subcontractor as a result of such direction, the Consultant may request that the LPA enter into such litigation to protect the interests of the LPA and, in addition, the Consultant may request that the State and United States enter into such litigation to protect the interests of the State and United States.

#### SECTION 24. SUBLETTING, ASSIGNMENT, OR TRANSFER

The Subconsultant/Subcontractor will provide environmental assessment and documentation, bridge analysis and design, traffic data and geotechnical services.

Any other subletting, assignment, or transfer of any professional services to be performed by the Consultant is hereby prohibited unless prior written consent of the LPA is obtained.

The Consultant shall enter into an agreement with its Subconsultants/Subcontractors for work covered under this agreement. All Subconsultant/Subcontractor agreements for work covered under this agreement, in excess of \$10,000, must contain similar provisions to those in this agreement. No right-of-action against the LPA will accrue to any Subconsultant/Subcontractor by reason of this agreement.

As outlined in the DISADVANTAGED BUSINESS ENTERPRISES Section of this agreement, the Consultant shall take all necessary and reasonable steps to ensure that disadvantaged business enterprises have the maximum opportunity to compete for and perform subagreements. Any written request to sublet any other work must include documentation of efforts to employ a disadvantaged business enterprise.

#### SECTION 25. CONSULTANT CERTIFICATIONS

The undersigned duly authorized representatives of the Consultant, by signing this agreement, hereby swears, under the penalty of law, the truth of the following certifications, and agrees as follows:

**A. Neb. Rev. Stat. § 81-1715(1).** I certify compliance with the provisions of Section 81-1715 and, to the extent that this contract is a lump sum or actual cost-plus-a-fixed fee professional service contract, I hereby certify that wage rates and other factual unit costs supporting the fees in this agreement are accurate, complete, and current as of the date of this agreement.

I agree that the original contract price and any additions thereto shall be adjusted to exclude any significant sums by which the LPA determines the contract price had been increased due to inaccurate, incomplete, or noncurrent wage rates and other factual unit costs.

- B. Neb. Rev. Stat. §§ 81-1717 and 1718.** I hereby certify compliance with the provisions of Sections 81-1717 and 1718 and, except as noted below neither I nor any person associated with the firm in the capacity of owner, partner, director, officer, principal investor, project director, manager, auditor, or any position involving the administration of federal funds:
1. Has employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above Consultant) to solicit or secure this agreement, or
  2. Has agreed, as an express or implied condition for obtaining this agreement, to employ or retain the services of any firm or person in connection with carrying out this agreement, or
  3. Has paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above Consultant) any fee, contribution, donation, or consideration of any kind for, or in connection with procuring or carrying out this agreement, except as here expressly stated (if any).

- C. Certification Regarding Debarment, Suspension, and Other Responsibility Matters- Primary Covered Transactions.** Section C1 below contains 10 instructions that consultant agrees to follow in making the certifications contained in C2.

**1. Instructions for Certification**

- a. By signing this agreement, the Consultant is providing the certification set out below.
- b. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this project. The Consultant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the State's determination whether to enter into this agreement. However, failure of the Consultant to furnish a certification or an explanation will disqualify the Consultant from participation in this agreement.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the State determined to enter into this agreement. If it is later determined that the Consultant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the State may terminate this agreement for cause or default.
- d. The Consultant shall provide immediate written notice to the State if at any time the Consultant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
- e. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549.

- f. The Consultant agrees that should the proposed covered transaction be entered into, it will not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the State before entering into this agreement.
- g. The Consultant further agrees to include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion - Lower Tier Covered Transaction," provided by the State without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
- h. The Consultant in a covered transaction may rely upon a certification of a prospective Subconsultant in a lower tier covered transaction that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A Consultant may decide the method and frequency by which it determines the eligibility of its principals.
- i. Nothing contained in the foregoing will be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the Consultant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- j. Except for transactions authorized under paragraph f of these instructions, if the Consultant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the federal government, the State may terminate this agreement for cause or default.

**2. Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions**

- a. By signing this agreement, the Consultant certifies to the best of its knowledge and belief, that it and its principals:
  - i. Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal department or agency;
  - ii. Have not within a three-year period preceding this agreement been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
  - iii. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph a.ii above; and
  - iv. Have not within a three-year period preceding this agreement had one or more public transactions (federal, state, or local) terminated for cause or default.

- b. Where the Consultant is unable to certify to any of the statements in this certification, such Consultant shall attach an explanation to this agreement. I acknowledge that this certification is to be furnished to the State and the FHWA in connection with this agreement involving participation of federal-aid highway funds and is subject to applicable, state and federal laws, both criminal and civil.

SECTION 27. (LPA) CERTIFICATION

By signing this agreement, I do hereby certify that, to the best of my knowledge, the Consultant or its representative has not been required, directly or indirectly as an express or implied condition in connection with obtaining or carrying out this agreement to:

- (a) employ or retain, or agree to employ or retain, any firm or person, or
- (b) pay or agree to pay to any firm, person, or organization, any fee, contribution, donation, or consideration of any kind.

I acknowledge that this certification is to be furnished to the FHWA, upon their request, in connection with this agreement involving participation of Federal-Aid highway funds and is subject to applicable state and federal laws, both criminal and civil.

SECTION 28. ALL ENCOMPASSED

This instrument embodies the whole agreement of the parties. There are no promises, terms, conditions, or obligations other than contained herein, and this agreement supersedes all previous communications, representations, or other agreements or contracts, either oral or written hereto.

IN WITNESS WHEREOF, the parties hereto have caused these presents to be executed by their proper officials thereunto duly authorized as of the dates below indicated.

After being duly sworn on oath, I do hereby acknowledge the foregoing certification and state that I am authorized to sign this agreement.

EXECUTED by the Consultant this \_\_\_\_ day of \_\_\_\_\_, 2012.

MILLER & ASSOCIATES, INC.  
Reed A. Miller

\_\_\_\_\_  
President

STATE OF NEBRASKA )  
                                  )ss.  
BUFFALO COUNTY     )

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
Notary Public

EXECUTED by the LPA this \_\_\_\_ day of \_\_\_\_\_, 2012.

CITY OF LEXINGTON  
John Fagot

\_\_\_\_\_  
Mayor

Subscribed and sworn to before me this \_\_\_\_ day of \_\_\_\_\_, 2012.

\_\_\_\_\_  
Clerk

STATE OF NEBRASKA  
DEPARTMENT OF ROADS  
Form of Agreement Approved for  
Federal Funding Eligibility:

\_\_\_\_\_  
Date



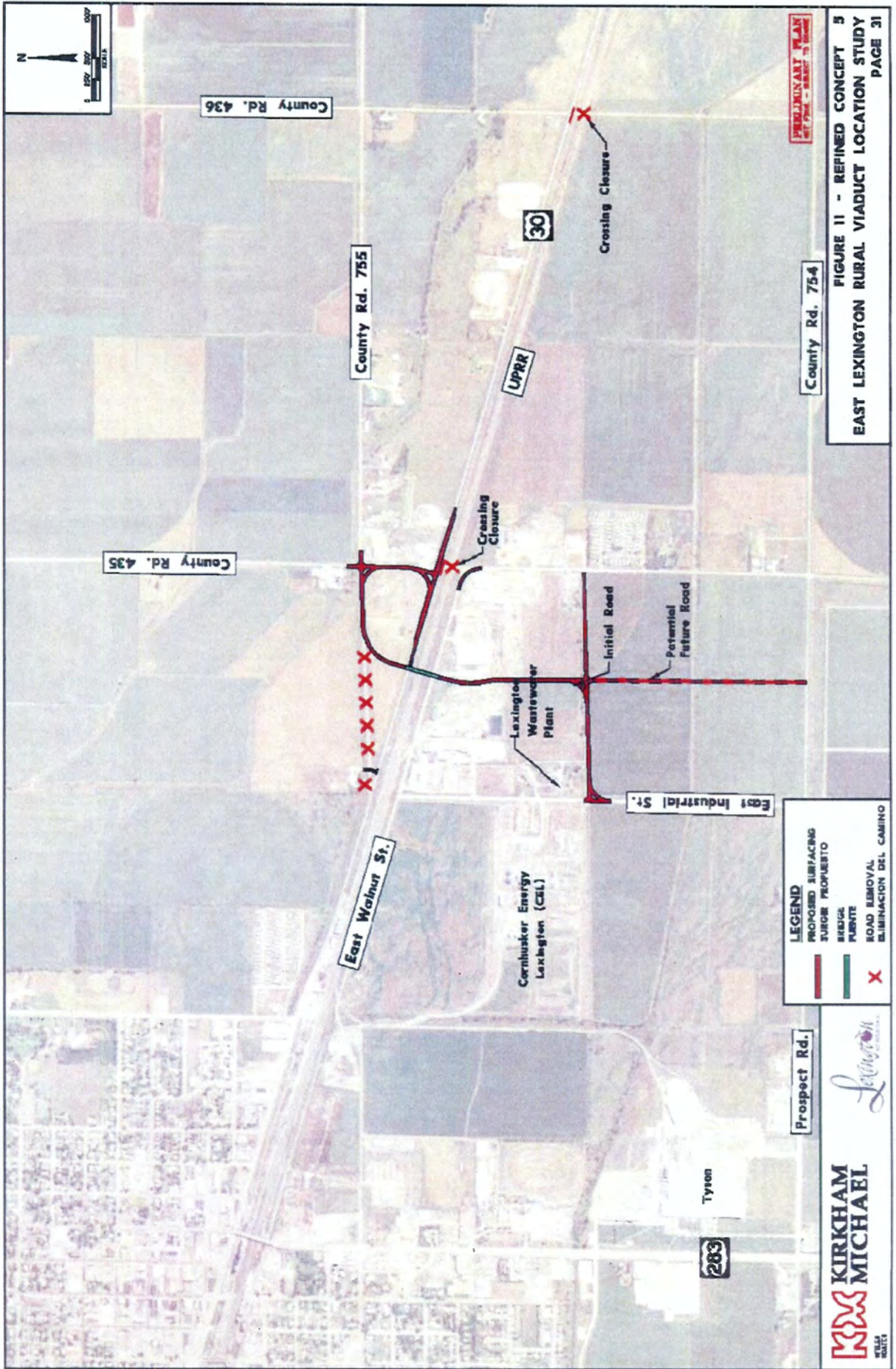


Exhibit "A"  
 Page 1 of 2

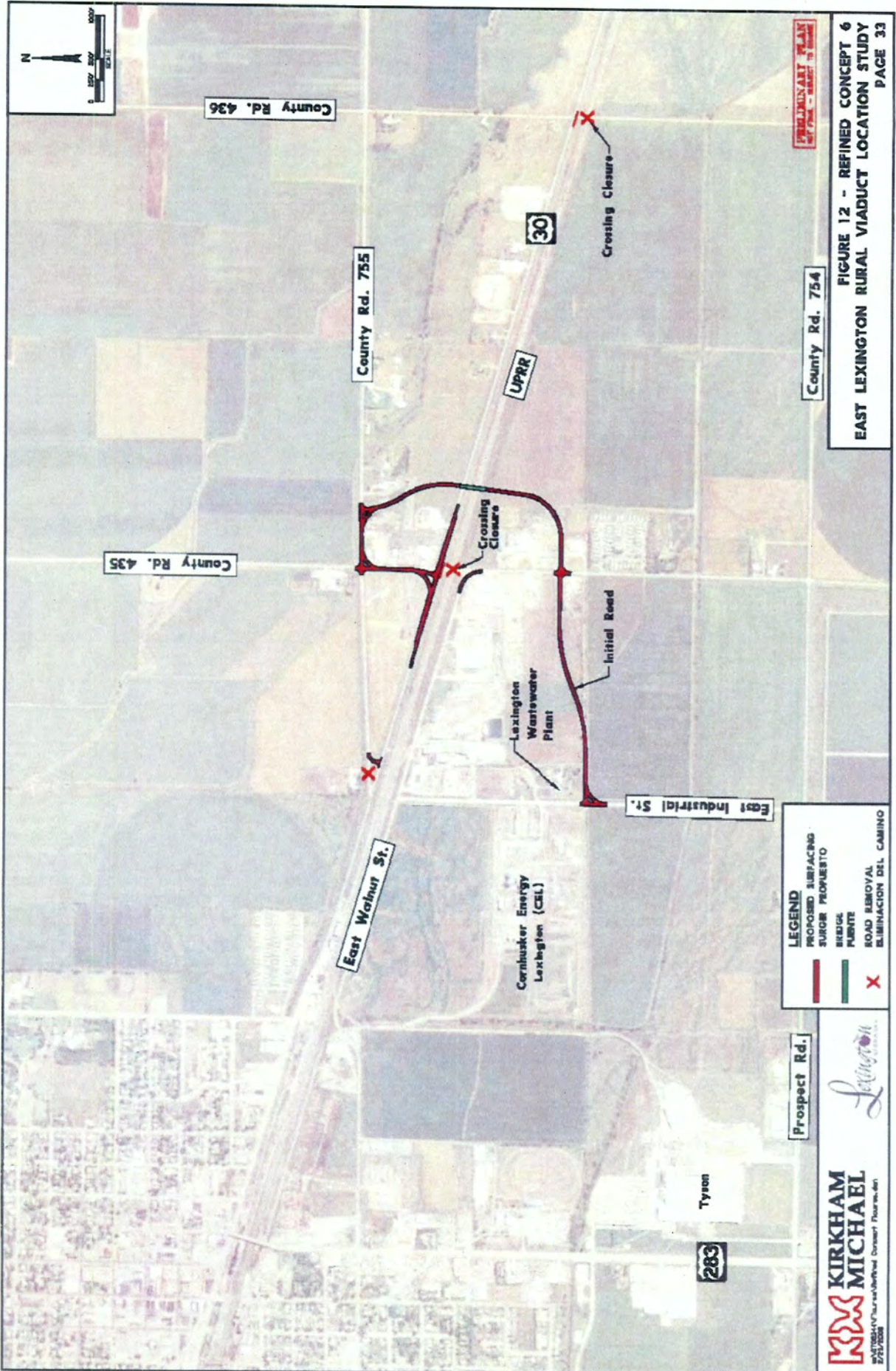


Exhibit "A"  
 Page 2 of 2

SOS Key	
	Miller & Associates
	Parsons Brinckerhoff
	JOINT (PB & Miller & Associates)

**SCOPE OF SERVICES  
FOR PRELIMINARY DESIGN AND  
NEPA ENVIRONMENTAL ASSESSMENT  
ON  
PROJECT NUMBER: URB 1705(3)  
CONTROL NUMBER: 61457  
LEXINGTON EAST VIADUCT**

**EXHIBIT B**

These scopes of services outlined below are services that Miller & Associates, Consulting Engineers, P.C. (Miller), and Parsons Brinckerhoff, Inc. (PB) will provide for the City of Lexington Nebraska (Owner and LPA). This project is in part using funds from the Nebraska Department of Roads and Federal Highway Administration and will follow the NDOR's Local Projects procedures.

**PROJECT DESCRIPTION**

The scope of the project consists of the construction of new roadways and viaduct over the Union Pacific Railroad and U.S. Highway 30 on the east side of Lexington. The viaduct will be in the proximity of County Road 435. New approach roadways will also be constructed. The final location of the roadway approaches and viaduct will be determined through analysis of alternatives through a NEPA Environmental Assessment process. The work required for this project includes: data collection, survey, environmental documentation, industrial economic analysis, public involvement, construction phasing, traffic analysis, roadway and bridge design plans, right-of-way investigation and design, geotechnical design, and utility coordination.

**APPLICABLE PUBLICATIONS**

Miller & PB shall follow the criteria of the applicable publications. These publications and others which Miller & PB shall use in this work are:

- Nebraska Minimum Design Standards – Counties, Municipalities, State, 2008 (<http://www.transportation.nebraska.gov/gov-aff/pdfs-docs/MinDesStds.pdf>)
- NDOR Publication "So You Want Access To The Highway"  
<http://www.nebraskatransportation.org/row/pdfs/accessshwy.pdf>
- Rules & Regulations for Highway-Rail Grade Crossings
- Accessible Public Rights of Way Guide, July 2007)
- Americans with Disabilities Act (ADA)
- Americans with Disabilities Act Accessibility Guidelines (Public Rights-of-Way Accessibility Guidelines (PROWAG))
- AASHTO Guide for the Development of Bicycle Facilities, 4<sup>th</sup> Edition, 2012
- 23 CFR 771 and 774, and FHWA T-6640.8A.A Policy on Geometric Design of Highways and Streets 6<sup>th</sup> Edition, 2011 (AASHTO)
- State of Nebraska 2006 Roadway Design Manual (<http://www.transportation.nebraska.gov/roadway-design/pdfs/rwdesignman.pdf>).
- Highway Capacity Manual - Transportation Research Board Special Report HCM2010
- State of Nebraska, Department of Roads, Standard Specifications for Highway Construction 2007 (<http://www.transportation.nebraska.gov/ref-man/specbook-2007.pdf>)
- NDOR Policy for Accommodating Utilities on State Highway Rights-of-Way
- Manual on Uniform Traffic Control Devices (FHWA), 2009 Edition  
[http://mutcd.fhwa.dot.gov/pdfs/2009/pdf\\_index.htm](http://mutcd.fhwa.dot.gov/pdfs/2009/pdf_index.htm)
- Nebraska 2005 Supplement to the MUTCD  
<http://www.nebraskatransportation.org/traffeng/mutcd/MUTCD-2005.pdf>
- Traffic Control Devices Handbook (FHWA)
- Hydraulic Design of Highway Culverts Report No. NHI-01-020
- Roundabouts: Informational Guide 2<sup>nd</sup> Edition, NCHRP 672

\* If discrepancies occur between these publications, PB shall get a decision from the State. Any deviations from the above must be approved by the LPA/NDOR prior to preparation of plans.

**LPA and/or NDOR TO PROVIDE OR COMPLETE**

Miller & PB anticipates the LPA or NDOR will provide or arrange for the following items to be used by Miller & PB in the development of project deliverables:

1. Sample plans on a similar project
2. As-built plans of existing road and bridges as applicable
3. Existing traffic counts and accident data
4. Electronic aerial photos in TIF format

5. Identify railroad utilities
6. All Deed and Title Research including deeds for previous R.O.W. projects (including railroad maps, railroad leases and city plats, if applicable)
7. Control points, ties, and benchmark information
8. Any existing LIDAR DTM (DAT or TIN) information on DVD
9. USGS Quad map(s) for the project
10. Names of known utilities, addresses and permits listing use and occupancy permit data
11. Name and mailing addresses of property owners/renters along study corridors

### **UNDERSTANDINGS AND ASSUMPTIONS**

Design efforts for this scope of services will be considered preliminary engineering. The probable cost estimates provided under this Scope of Services will be based on Miller & PB's professional experience and judgment and shall be deemed to represent PB's opinion. Miller & PB has no control over the cost of labor, material, equipment and other relevant factors that could influence the ultimate construction costs. Thus, Miller & PB does not guarantee that the actual cost will not vary from estimate or opinion of probable cost.

### **GENERAL INFORMATION**

Miller & PB will prepare and submit to each other the following items from services provided under this scope of services:

1. Technical memos for all pertinent meetings
2. Meeting minutes from all meetings
3. Miscellaneous correspondence and information related to the project
4. Summary of quantities and estimates of probable costs
5. Special Provisions for items not covered in the 2007 edition of the Nebraska Department of Roads Standard Specifications and Special Provisions for Highway Construction

### **TASK 100 - PROJECT MANAGEMENT**

The Miller Project Manager will service as point of contact for the LPA and Owner. The PB Project Manager will serve as point of contact for Miller, maintain project schedule and budget, and be responsible for coordinating work of the PB team.

This task includes activities to initiate and monitor project schedules, workload assignments, and internal cost controls throughout the project. Also included are efforts to prepare and process invoices, prepare project correspondence; and maintain project records. Up to 18 monthly progress reports shall be prepared by PB and submitted according to the schedule provided by Miller, which may or may not coincide with Miller's invoicing schedule.

PB will coordinate their design with Miller, agencies and/or other consultants that are involved with this project or adjacent projects. Coordination includes one-on-one meetings with the agencies or consultants. Included with this task is coordination with Union Pacific Railroad regarding bridge elements, construction access, right-of-way agreements, and track alignment concepts.

#### **Task 101 – Project Meetings with Owner (assumption of 10) via phone conference**

#### **Task 102 – Develop Public Involvement Plan and Present to Owner and NDOR**

Miller will provide public involvement services related to the preliminary design services. PB will provide public involvement services related to the preparation of the NEPA documentation and in preparation of the design plans. The following outlines the anticipated public involvement services to be provided. Any additional public involvement services not identified in this task shall be performed by supplemental agreement.

##### **102.1 Kick-Off Meeting (1)**

Upon notice from the LPA RC, and Miller, PB (one individual) will attend a kick-off meeting with the Local Public Agency (LPA) staff.

##### **102.2 Progress Meeting (2)**

Two project progress meetings in Lexington are included in this task. One (1) individual from PB will participate in the meetings. All materials and summaries will be prepared by Miller.

Utility review / coordination will occur with the progress meetings.

##### **102.3 Review Meetings (3)**

Miller & PB will attend review meetings to receive the Owner's review comments from the submittals.

##### **102.4 Plan-in-Hand**

Miller & PB (one individual) will attend a plan-in-hand field inspection. This field inspection will follow the review of the plan-in-hand plans by the Owner and NDOR. The meeting will

be scheduled to coincide with the second public meeting described under the Public Involvement Meetings heading.

**102.5 NEPA Scoping Meeting (1)** PB will schedule and prepare information (handouts, mosaics, preliminary plans for an agency scope meeting in Lincoln, NE. Two (2) individuals from PB will attend the meeting. Comments received will be summarized and included in the NEPA documentation.

### **Task 103**

#### **103.1 – Project Meetings (2)**

1. The NDOR LPD will review arrangements for the two (2) public meeting and one public hearing on the DEA all located in Lexington, NE. Project specific brochures, such as a Project Fact Sheet for public meetings shall be prepared by PB. Materials will be prepared in both English and Spanish. PB will perform the Spanish translation. State approval will be required before they are finalized and distributed. PB will post the materials on the project website (if any), and provide a Spanish language interpreter at all public meetings. PB will prepare mosaics, participate in the public information meetings and prepare meeting notes. Two (2) individuals from PB will attend each meeting.
2. One public information meeting will be held early in the study process during the development of the range of alternatives (Preliminary Design), to gather information from public agencies, potentially affected land-owners and interested citizens. It is anticipated that this meeting will be held shortly after approval of the draft Purpose and Need Statement. The initial concept or alternatives will be illustrated on aerials. The meeting will be held in Lexington, NE and attended by two (2) individuals from PB. Materials will be prepared in both English and Spanish. PB will perform the Spanish translation. State approval will be required before they are finalized and distributed. PB will post the materials on the project website (if any), and provide a Spanish language interpreter at all public meetings
3. The second public information meeting will be held approximately midway through the study, at the Functional Design stage to explain the initial concept and gather public input for modifying it or adding other concepts. The initial concept or alternatives will be illustrated on aerials. The meeting will be held in Lexington, NE and attended by two (2) individuals from PB. Materials will be prepared in both English and Spanish. PB will perform the Spanish translation. State approval will be required before they are finalized and distributed. PB will post the materials on the project website (if any), and provide a Spanish language interpreter at all public meeting
4. The third public meeting is a public hearing held after FHWA has signed the preliminary DEA. This public hearing will be in compliance with the most current NDOR Public Involvement Manual & Procedures. A narrated presentation will be prepared by PB for use at the public hearing. PB will prepare the preliminary presentation, which includes a power point presentation and the narration text. After NDOR review, PB will finalize the presentation and narration text. NDOR will record the narration and add it to the presentation. Information to be presented shall be provided to FHWA for review and approval prior to the meeting. The hearing will be held in Lexington, NE, and attended by two (2) individuals from PB. Materials will be prepared in both English and Spanish. PB will perform the Spanish translation. State approval will be required before they are finalized and distributed. PB will post the materials on the project website (if any), and provide a Spanish language interpreter at all public meetings..
5. In addition to the public meetings described in the previous sections, PB will be available to present study information to local community groups, such as Chambers of Commerce, service organizations, etc. These meetings will be coordinated with trips to the project site or other public meetings. Separate trips to the study area will not be made to participate in these meetings.
6. Investigation and responses to the assembled public comments received at the public meetings will be completed by PB and provided to NDOR for distribution. Up to fifty (50) comments regarding the Environmental Assessment are anticipated for each public meeting, of which up to fifty (50) will require significant response effort. PB will draft responses for the City review and approval signatures

#### **103.2 Public Involvement Plan**

PB will develop a public involvement plan for review and approval by the LPA RC. The plan will include dates of anticipated meetings, anticipated forms of communication with the public (i.e. website, newsletter, door hangers, etc.), and a database of adjacent property owners and other project stakeholders. All information to be sent to the public or posted to the web shall be reviewed by the LPA RC prior to distribution. The information will be submitted for review a minimum of one week prior to publication. The City of Lexington shall identify project stakeholders. PB will maintain a database of project stakeholders, their primary contact (if an organization), their available contact information, and a record of any information or comments provided or received.

**Deliverables:** Public Involvement Plan (electronic submission), Meeting minutes (electronic submission) where applicable, public involvement summaries (electronic submission) for inclusion in NEPA documentation, drafts of meeting advertisements up to three, up to 100 flyers, up to 50 door hangers, public notice drafts (electronic submission), meeting agendas (electronic submissions). PowerPoint Presentation (electronic submission), Mosaics (up to 30 boards), NEPA scoping meeting handouts (up to 20 copies)

#### **Task 104 – Project Administration**

This task includes activities to initiate and monitor project schedules, workload assignments and internal cost controls throughout the project. Also included are efforts to prepare and process invoices, prepare project correspondence with the client; and maintain project records. Up to 18 monthly progress reports shall be prepared and submitted according to the schedule provided by the Owner.

**Deliverables:** Monthly invoices and progress reports. It is estimated that the project duration for reporting is 18 months.

#### **Task 105 – CADD Management**

Task includes initial set up of design file system, file maintenance, and closeout and archiving of project design files. Set up of file sharing site for use by Miller and PB staff.

**Deliverables:** A formal submission is not included with this task.

#### **Task 106 – Railroad Coordination**

As a key part of the design process, coordination with the Union Pacific railroad will need to occur to review development options, design criteria, and obtain construction agreements. This task includes the following items:

##### **106.1 Coordinate with Union Pacific Railroad for their Operations and Facility Requirements.**

- Meeting with UP operations and PB staff to discuss existing rail operations and alternate bridge locations. Two meetings at Union Pacific offices in Omaha and one in Kansas City are budgeted for two staff members. Develop strategies for staging construction.
- Coordinate development of force account estimates.
- Develop memorandum of understanding (MOU)/Agreements for railroad construction, right-of-way adjustments, and temporary trackage. Include provisions to close at-grade crossings which will no longer be required for traffic.

##### **106.2 Analyze methods for upgrading existing rail line to handle new industrial sidings.**

- Maintaining existing sidings and connections to existing industries.
- Assess feasibility/cost of new industrial tracks.

##### **106.3 Evaluate realignment of UP facilities.**

- Determine plan and profile needs for future operations.
- Develop up to three alternate connecting track alignments for industrial customer service.
- Evaluate need and costs for new passing siding including new power operated turnouts, and signal/interlockings.

**Deliverables:** Report of findings with probable cost estimates.

### **Task 107 - Quality Assurance/Quality Control (QA/QC)**

This task includes performing a quality control/Quality Assurance review of all formal submittals prior to submittal to the client (RC). Formal submittals include traffic study, economic study, environmental documentation, visualizations, bridge TS&L plans, and preliminary plans. As part of this task, a copy of their QA/QC plan will be provided to the LPA RC at the start of the project. PB will also submit in writing that this plan has been used during the project at each submittal with the name of the person responsible for performing the QA/QC the review.

## **TASK 200 - CONCEPT DEVELOPMENT / ECONOMIC DEVELOPMENT**

### **Task 201 – Review & Revisit Existing Viaduct Study**

This task will review documentation of alignments and traffic assumptions from the previous feasibility study to incorporate usable information into planning, traffic and NEPA Studies.

**Deliverables:** A formal submission is not included with this task.

### **Task 202 – Planning/Industrial Economic Analysis**

The purpose of this task is to identify and evaluate economic development activities that may be attributable to constructing the viaduct. The task includes identifying and assessing economic development opportunities for five subtasks:

#### **202.1 Determine the Economic Needs and Opportunities of the Region**

Through analysis of the regional economy and discussions with representatives of local and State of Nebraska economic development agencies, PB will determine what economic needs of the Lexington region are not being met as well as what economic opportunities exist for the region. PB will identify the trends in domestic and international commerce that Lexington can leverage. We will examine emerging economic sectors and existing industries, and their requirements for rail transportation.

#### **202.2 Inventory Assets and Liabilities of the Region**

To assist in assessing the attractiveness of development in Lexington, PB will prepare a “balance sheet.” PB will identify the benefits of Lexington and the specific site as a logistics or industrial center. We will also identify factors that would inhibit or prevent rail-related development as well as mitigation strategies.

#### **202.3 Evaluate Competitiveness of Lexington**

To complement the inventory of assets and liabilities, PB will evaluate the competitiveness of Lexington in attracting development. PB will examine other economic initiatives in the region (both competitive and complementary) and as well as the attractiveness of other communities. We will look for discriminators that separate Lexington from other communities.

#### **202.4 Identify Constraints to Rail Related Development**

UP and other Class I railroads caution developers and industries seeking to locate trackside that the presence of a rail line does not necessarily ensure rail access. Factors such as the existing availability of train service in the local area and the ability to serve new businesses without interfering with the high-speed freight operations on the line are very important. With respect to the latter, UP has issued guidelines on industry access from its lines. PB will meet with UP to discuss alternative uses and access requirements, as well as its interest in supporting development in Lexington.

#### **202.5 Determine Opportunities for Development**

Based on the preceding subtasks, PB will identify opportunities for economic development. These will include candidate industries, and to the extent known, candidate companies. PB will document their rail requirements and the role that rail plays in their logistic chain.

**Deliverables:** The results of the analysis will be documented into a report for submittal to the client.

**Task 203 – Evaluate two structure alternatives for each of the alignment alternates that will be evaluated for the Environmental Assessment.**

#### **203.1 Develop alignment (schematic alignment only beyond project limits)**

#### **203.2 Develop schematic profiles and sections**

#### **203.3 Develop cost estimates based on average square foot costs for the selected structure types.**

#### **203.4 Develop cost estimates on roadway alignment for purpose of cost/benefit consideration for roadway outside of project limits.**

**Deliverables:** Schematic profiles and sections in electronic Adobe PDF format.

**Task 204 – Develop assessment criteria for bridge alternatives and evaluate up to 2 alternatives to select preferred alternative**

The task will develop criteria on bridge design to be used in analysis of the alternatives in the NEPA study process.

**Deliverables:** Assessment criteria in electronic Adobe PDF format; conceptual layout drawings showing alignments, memorandum of economic analysis findings, preliminary cost estimates for alternatives.

### **TASK 300 - ENVIRONMENTAL ANALYSES, PERMITS, and CLEARANCES**

This work task, as completed by PB (& Miller for a portion of the work pertaining to the Flood Plain) shall assess how the environment will be affected by the project and must be considered in relation to the physical limitations and impacts consistent with 23CFR771 and 774, and FHWA T-6640.8A.

#### **(A) LPA or STATE TO PROVIDE OR COMPLETE**

1. Provide as-built or design plans of the existing and adjacent highways (if available)
2. Previously completed preliminary roadway design alternatives, corridor study reports or engineering review reports (if available). DVD of scanned aerial photos in .TIF format (digital ortho), as well as electronic version of the photo mosaic.
3. Train count information for public crossings and identify railroad utilities.
4. NDOR Grade Separation Policy
  - Nebraska Highway Reference Log Book 2008.  
(<http://www.transportation.nebraska.org/docs/logbook.pdf>).
  - NDOR Access Control Policy, 2006  
<http://www.nebraskatransportation.org/roway/pdfs/accesscontrol.pdf>
5. Names of known utilities, addresses and permits listing use and occupancy permit data.
6. Current traffic volume data (ADT and AM/PM Peak Hour turning counts) at a minimum of ten intersections including: Road 755 & US-30; Road 755 & Road 435; Road 755 & Road 436; US-30 & Road 435; US-30 & Road 436; E. Industrial Park Road & E. Walnut Street; E. Walnut Street & Road 435; E. Industrial Park Road & Road 754; Road 754 & Road 435 and Road 754 & Road 436.
7. Design Year 2035 "no-build" traffic volume projections at the ten intersections listed above. Traffic volume information will include AADT, AM / PM Peak Hour turning volumes, truck percentage breakdown, design hourly volume (DHV) and Directional Distribution (DD)
8. Three years of crash history data at the ten intersections listed above as well as the highway and/or local roads that connect the intersections
9. Archaeological and historic review and coordination with State Historical Preservation Officer (SHPO) and tribal coordination, if applicable.
10. Provide any permitting documentation.
11. Any previous NEPA documentation or other environmental documents prepared for this or adjacent projects or portions thereof.

**Task 301** The assessment of impacts will include an Environmental Scoping Meeting with Federal, State and local agencies. FHWA and agency scoping meeting to be held early in the study process. It is anticipated that this meeting will be held in Lincoln.

Another agency scoping meeting will be scheduled at the project site to give resource agencies an opportunity to view the study corridor. It is anticipated that this meeting will be held in Lexington, NE. the same day as the first public information meeting.

The Environmental Assessment (EA) must indicate all measurements in English units. The EA must contain a discussion of the following general topics:

- (a) Purpose and need statement, developed in coordination with the public.
- (b) Description of the proposed action
- (c) Discussion of the alternatives considered – alternative analysis to screen the alternatives to carry forward
- (d) Discussion of social, economic, and environmental impacts of the proposed action alternative (affected environment and environmental consequences)
- (e) Listing of agencies/persons consulted, including property owner notification (to be conducted by Miller).
- (f) The no-build alternative and two appropriate build alternatives will be evaluated.

The focus must be on the important impacts and issues with less important areas only briefly discussed. Items not discussed will be identified.

Based upon the extent of adverse impacts, mitigation measures must be identified, as required. Detailed mitigation plans with specific criteria and associated monitoring activities are outside the scope of this study.

**301.1 Purpose and Need Statement.** The EA will include a complete discussion of the purpose of the project and the documented need for the project. In addition, this section will include a discussion of logical termini. A draft Purpose & Need Statement will be



submitted for review as a stand-alone report. Any comments received will be addressed and resubmitted in a Final Purpose & Need that will be incorporated into the EA.

~~301.2 Screening Process. The EA will include a description of the preferred alternative that was developed through the alternative development and screening process.~~

**Task 302 Discussion of Alternatives.** This section will include a discussion of the development of alternatives as well as screening alternatives to determine how well they meet project purpose and need. This section will identify alternatives that are carried forward for more detailed analysis of social, economic, and environmental impacts.

**Task 303 ~~Complete Environmental Assessment~~**

~~(a) PB shall prepare one Environmental Assessment (EA) document covering the entire corridor. PB shall prepare a Draft Purpose and Need and submit to NDOR and FHWA for review prior to scheduling the Agency and Public Scoping Meetings. PB shall prepare a preliminary draft of the EA and submit up to 5 copies (discuss requirements prior to printing) to the State for internal distribution and review. PB shall conduct internal QA/QC reviews.~~

~~(b) PB will respond to comments from NDOR (and FHWA and revise the preliminary draft EA (DEA). Forty (40) comments are anticipated, of which ten (10) will require significant response effort.~~

**Task 304 Property Owner Notification** - The purpose of this task to distribute door hangers and/or sending letters to property owners/business's for giving notice of the three public meetings. PB hours are to coordinate and help draft the language of the notices for three public meetings. Miller time is to go door to door to put the hangars out.

**Task 305 Develop Social Economic Characteristics of the Study Area: Environmental Justice Impacts**

(a) PB shall document existing conditions relative to the following categories and review with the respective community planning staff:

- Land use plans
- Visual and Aesthetics
- Zoning ordinances
- Community facilities and services
- Neighborhood boundaries, circulation patterns, and activity centers

(b) PB shall document potential social impacts based on the identification of the following issues:

- The number of and type of displacements (residential, commercial, industrial) characteristics of displaces, availability of replacement housing, etc., due to right-of-way acquisition [see T-6640.8A – Relocation Impacts].
- Changes in access to community facilities and city/county services (including emergency vehicle access)
- Changes in development patterns induced by the project
- Changes to existing neighborhood/community boundaries and community cohesion
- Consistency of proposed alternatives to existing land use/development plans

Economic Impacts

- (a) PB shall conduct field review inventory of businesses (including farms and farm accesses) in the study area, noting proximity to existing roadways.
- (b) PB shall assess the potential impacts to businesses near the highway as a result of changes in access, travel patterns, improved traffic capacity, and visibility.
- (c) PB shall assess the potential impacts to the local tax base associated with Right-of-Way acquisition and any relocation of businesses/households.

Environmental Justice

- (a) Using existing data, supplemented through contact with the affected community, PB shall identify the minority and low-income populations in the study/affected area. PB shall identify adverse impacts and determine whether there is a disproportionately high and adverse effect on minority and/or low-income populations. PB shall determine the spatial distribution of impacts. PB shall determine if the project, either individually or cumulatively, has disproportionately high impacts to minority or low-income populations.

**Task 306 Historic/Cultural Resources –Section 106 Analysis**

NDOR will coordinate the archaeological and historic structure investigations and will identify 4(f) sites (historic resources). As needed PB will provide comments on the Section 106 coordination package for consistency with project documentation, project description, and potential impacts of the alternatives. Based upon the coordination efforts of NDOR, PB shall

review data, summarize in the environmental document, and evaluate project impacts to the identified sites. A Section 4(f) statement of efforts to avoid and minimize impacts to historic resources will be prepared by PB in coordination with the State. Section 106 coordination with SHPO and other entities such as tribes will be through the State.

View shed Analysis & Utilities - Evaluate whether or not the project would cause view shed impacts to cultural or historic resources.

Evaluate the impacts to utilities attributed to project alternatives. Summarize and evaluate in the EA document.

**Task 307 Prepare Section 4(f) and 6(f) determinations and documentation for submittal**

**Recreational Facility Impacts**

PB shall identify existing and planned public use recreational areas, community parks, wildlife and waterfowl protection areas, bike trails, hiking trails, snowmobile trails, fishing and hunting access areas, or other land uses that may be subject to Section 4(f) requirements within the study area. Any 6(f) land will be identified as well.

~~**Task 308 Meetings Involving Agencies**~~ - See Task 102 above.

**Task 309 Ecological Survey**

- (a) Habitat/Flora/Fauna Impacts - PB shall identify and describe general habitat types within the project study area, and provide assessment of project impacts. Measurements must be approximations through the use of aerial photographs and limited site inspections.
- (b) Threatened and Endangered Species - PB will review the project for: (1) impacts to State and Federal threatened and endangered species protected by the Endangered Species Act and the Nebraska Non-game and Endangered Species Conservation Act; (2) impacts to bald and golden eagles protected by the Bald and Golden Eagle Protection Act; and (3) potential impacts to migratory birds. If a 404 permit is required for the project, the project will be reviewed for: (4) impacts to fish and wildlife resources protected by the Fish and Wildlife Coordination Act, including discussion of resources that will be impacted (ex. wetland acres impacted, ROW, native grasslands); (5) efforts to avoid and minimize impacts to fish and wildlife resources; and (6) aquatic biota movements, fish movement, and impacts to non-listed species.

PB will prepare the Consultation Forms and related documentation, submit them to NDOR, and revise them in response to NDOR comments. If all of the Species Evaluation Parameter questions are checked "No", PB will prepare the Overview of Effects and Required Conservation Conditions (OERCC). If any of the Species Evaluation Parameter questions are checked "Yes", PB will prepare the Matrix Spreadsheet for those species and the activities found in the Activity Checklist. If the Matrix determination is "No Effect", PB will submit the Matrix and Consultation Forms. If determination for an individual species is "NLAA-CC", PB will prepare the OERCC Form. If the determination for an individual species is "MA", PB will prepare an Individual Project Level Evaluation (supported by figures, literature review, and other supplemental information such as aerial photos and resource agency correspondence), and include appropriate conservation conditions in the OERCC for that and other species with a "MA".

If surveys for other threatened and endangered species are required, a scope amendment will be negotiated in a supplement to agreement for services.

PB shall submit the T&E species review materials to NDOR in electronic format, and summarize the findings in the NEPA document.

### **Task 310 Agricultural/Farmland Impacts**

PB shall document the number and type of farming operations affected by the projects. PB shall evaluate the impacts according to the guidelines in the Federal Farmland Protection Policy Act. Primary subtasks include the following:

- Lists of prime and other important farmlands must be obtained from the Natural Resources Conservation Service (NRCS) office for each county within the study area.
- Farmlands within the project area must be identified.
- Impacts including severance and access must be quantified and mitigation discussed as appropriate (State to assist in calculations of impacts).
- USDA Form NRCS-CPA-106 must be completed and coordinated with the local NRCS offices.

### **Task 311 Floodplains / Modeling**

(a) Wetlands. Wetland documentation must be consistent across the range of alternatives at each level of analysis. A GIS desktop data comparison may be appropriate at the initial alignment screening stage. However, a preliminary wetland determination shall be conducted for all the reasonable alignment alternatives selected to be carried forward to further design. Any existing wetland determination data must be revisited and verified. Consultant shall coordinate with the NDOR design team for decisions regarding the level of documentation and consideration of alternatives.

Preliminary Determination shall mean identifying potential wetlands and other waters of the US with field observations documented using the Routine Wetland Determination Data Forms (from the 1987 Corps Wetland Delineation Manual); however, no soil sampling will be necessary. Wetland information shall include Cowardin classification (including water regime) and Nebraska Wetland Subclass. Stream channel information shall include general stream channel type (ephemeral, intermittent, perennial) and estimates of width. Locations and estimated boundaries of wetlands and waters shall be recorded on an aerial photograph. Additional figures and ground level photographs should be provided as necessary to characterize the wetlands.

PB will complete a full Wetland Delineation and write the Wetland Delineation Report and submit to NDOR for review and approval.

Prior to the site visit, PB will review existing resources and prepare the NDOR Wetland Determination Checklist prior to the site visit. For cultivated fields, PB shall review the past 10 years of aerial photographs (if available) and the official 5-year NRCS slide set used for their wetland determinations.

The Preliminary Determination shall be provided for the area 150 feet outside of the LOCs or ROW, whichever is farthest from the centerline, and for any area that likely would be used for construction access, staging, stockpiling, or waste disposal (e.g. interchange/intersection areas, culvert and bridge construction sites, etc.) provided by NDOR.

PB shall plot the data on aerial photographs with the roadway alignment and stationing. Data will include preliminary wetland boundaries, wetland types, waters of the US (OHWM) and location of data collection points and photographs. Map scale must be drawn to a scale no smaller than 1-inch = 200-feet.

PB shall request the Corps to make a Preliminary Jurisdictional Determination. If it is determined that on-site or off-site mitigation must be developed, PB shall identify a minimum of two potential mitigation sites along the project corridor. Recommendations will be submitted in a Mitigation Site Suitability Memorandum to NDOR, and locations of the mitigation sites will be plotted on the aerial photographs. If two sites cannot be identified, this will be explained in the memorandum.

PB shall submit the determination materials to NDOR in electronic format, and summarize the findings in the NEPA document.

(b) Floodplains. PB & Miller shall provide floodplain evaluations to define approximate floodplain limits for rivers and streams that affect corridor structure crossings or embankment encroachments. Floodplain delineation limits must be determined using available floodplain mapping including the USGS Map of Flood Prone Areas and appropriate FEMA mapping.

Miller shall provide floodplain evaluations to determine potential impacts of encroachments on floodplains. Work includes developing HEC-RAS models for alternatives considered to ensure that project alternatives meet floodplain development regulations.

PB & Miller shall evaluate and quantify wetland and floodplain impacts in accordance with outside agency procedures for implementing wetland and floodplain presidential executive orders (Practicable alternatives, mitigation measures, etc.).

### **311.1 Water Quality Impacts**

PB shall:

1. Compile information from existing data regarding water sources, municipal/industrial, quality/quantity, groundwater, irrigation, recreational water use. Identify any wellhead protection areas. Review and verify stream and lake classifications and special resource classifications. Identify any water bodies on the State list of impaired waters.
2. Evaluate the potential impact on water quality from construction and/or operation of the proposed alternatives and identify/evaluate potential mitigation consistent with State policies and guidelines.

**Task 312 Hazardous Materials Technical Report (HMTR) & Construction Impacts-** PB will conduct a HMTR within the project site area to identify the presence or likely presence of known or potential hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures, on the property or into the ground, groundwater, or surface water of the property.

The HMTR will include a regulatory file review (local, state and federal agencies) in accordance with the requirements listed in American Society for Testing Materials (ASTM) Standard Practice for Environmental Site Assessments E 1527-05. The purpose of this review will be to identify sites within the projects construction corridor (one quarter mile on either side of the project). Any sites identified during the file review will be assessed and their potential impact on the project discussed in the NEPA documentation.

The HMTR will cover: (1) conducting a corridor study of local, state and federal database records; (2) conducting a windshield site reconnaissance survey; (3) reviewing readily available aerial photographs; (4) conducting interviews with local agencies and regulators, if necessary; and (5) preparing a written technical memorandum of the findings. The report will be included as an appendix to the NEPA document, with the findings summarized in the main body of the NEPA document.

Construction Impacts - PB will discuss potential adverse impacts associated with construction (air, noise, water, detours, traffic congestion, safety, etc.).

**Task 313 Noise Analysis (1 day of field data collection to coincide with Haz Mat review).** PB shall complete a noise study for the proposed project that would evaluate the impacts of the alternatives carried forward. The Noise Study shall be performed in accordance with current NDOR Noise Policy (dated July 13, 2011). The Noise Study will include an analysis of the reasonableness and feasibility of mitigation for adverse noise impacts, including noise barriers, adjusting horizontal or vertical profiles, and other steps as defined in the Noise Policy. ~~This task does not include field measurements of noise due to the close proximity of the railroad and difficulty in separating railroad and traffic noise. Field measurements could be done under a supplement to this agreement.~~ PB will summarize the results of the Noise Study in the EA, and the Noise Study will also be included as an Appendix to the EA. If needed, PB will coordinate with the City to conduct an additional Public Meeting to address voting for noise barriers, but this would require a supplement to this Agreement.

**Task 313.1 Indirect and Cumulative Impacts** The indirect and cumulative impact section of the EA will evaluate the effects to the study area of the incremental consequences associated with the project when added to other past and reasonably foreseeable actions. PB will identify other actions in the study area that would be assessed in connection with the project.

**Task 314 Prepare Draft Environmental Document** - PB shall prepare the DEA documentation and submit approximately 5 copies (discuss requirements prior to printing) to the State (paper and electronic – CD). The State will be responsible for the submission of the DEA to FHWA. PB shall conduct internal QA/QC reviews throughout the process. PB shall prepare revisions to the environmental document based on comments from State's and FHWA's preliminary reviews. After FHWA signature, PB shall provide up to 5 copies (discuss prior to printing) of the DEA, to the State (paper and electronic – CD). Distribution of the DEA will be done by the State. If Section 4(f) and/or Section 106 documentation is determined to be warranted, and directed by the State, PB will be responsible for completing the appropriate evaluation and documentation. The preparation of Section 4(f) and 106 documents are separate from the EA document scope of work. The scope of work and cost estimate to complete the 106 and 4(f) documentation will be negotiated, based on results of preliminary analysis, and included as a supplement to the existing agreement.

~~**314.1 Design Criteria/Roadway Character/Bridge-Culvert Criteria** – Activity Number Not Used – Scope Reflected Elsewhere~~

~~**314.2 Right-of-way/Relocations/Utilities** – Activity Number Not Used – Scope Reflected Elsewhere~~

~~**314.3 Environmental Commitments Summary** – Activity Number Not Used – Scope Reflected Elsewhere~~

**Task 315 Final Environmental Assessment** - The EA is a decision document that provides the basis for determination of whether to prepare an EIS or finding of no significant impact (FONSI). The resultant decision expected under this agreement is the preparation of a FONSI. (The FONSI will be completed by NDOR and FHWA and is not included in this scope of services). Based on comments received on the DEA document, PB shall prepare the Final EA, including supporting documentation, to be submitted to FHWA for review.

The Final EA will consist of a Summary of Agency and Public Comments and Responses, an Errata, identifying changes to DEA; 314.3 and a list of mitigation items that include DEA listed mitigation and any additions or changes.

PB shall:

- (a) Summarize all written comments (up to 50) from agencies, interest groups, local governments, and individuals and prepare a list of issues/concerns/responses for use in the final document and prepare an Erratum identifying changes to DEA.
- (b) Assist in the identification of a selected alternative.
- (c) Prepare preliminary Final EA document that identifies the selected alternative, basis for selection, impacts, and mitigation, and responds to all input received as a result of draft document availability and the public hearing.
- (d) Prepare the Final EA document and submit up to ten (10) copies (discuss requirements prior to printing) to the State (paper and electronic – CD). Prepare revisions to the Final EA based on comments from State's and FHWA's reviews. It is assumed that there will be no significant changes to the Final EA. PB will be responsible for the printing with distribution of the Final EA being done by the State.
- (e) Through the environmental assessment review process, it will be determined whether a FONSI or an EIS will be developed. As such, a Decision Notice memo will be prepared to accompany the Final EA.

~~315.1 Prepare FONSI – Activity Number Not Used – Scope Reflected Elsewhere~~

~~Task 316 Prepare Green Sheet for PSE package submittal~~

**Deliverables:** As noted above, within each section.

## TASK 500 - SURVEY

**Task 501 Establish Horizontal and Vertical Control** Miller shall provide a list of horizontal control points with coordinates, descriptions, station and offset. Horizontal control will be referenced to the State Plate Coordinate System using known land survey monuments. Vertical control will be completed by differential level circuit referenced to NAVD 88. No ties to control used for other projects in the area are anticipated for "design-fit" confirmation.

**Task 502 Coordinate with Utility Companies for Locations** Utilities will be drawn from surveying above ground features, including markings by utility companies resulting from the locate request. Record drawing information supplied by utility companies will be used to supplement surveyed locations identifying the placement of existing utilities on the plans. Locations from utility record drawings will be transferred into the topographic survey CAD files. Where available, above-ground features will be used to improve accuracy. Miller will add a disclaimer to the drawings with respect to the undetermined location of underground utilities.

**Task 503 Topographic Survey Field Work** Miller will perform the necessary topographic ground survey including the existing centerline, intersecting streets, alleys and drives, tying the location of land monuments to the existing centerline, cross-sections and profiles necessary for the hydrologic study and hydraulic design of the drainage system. Miller will perform a topographic survey using electronic GPS technology. The means and methods used shall be consistent with industry standards and shall be at the sole discretion of Miller. Miller will submit copies of field book records and electronic records to the LPA RC at the completion of final design. Natural topographic features and man-made features (the existing bridge deck & features below the bridge) will be recorded by coordinates to the nearest one-tenth (0.1) of a foot. As part of the survey, the low chord of the existing bridge will be taken and the top of all railroad tracks. All such topographic features, which are pertinent to the design or are necessary to properly show the effect of the proposed work upon the adjoining property and/or improvements, will be recorded. Work assumes 7 trips to site for preliminary surveying, plus one return trip to pick up survey of delineated wetlands once completed.

**Task 504 Stake Geotechnical Boring Locations** Coordinate with PB to determine desired locations for geotechnical borings and stake those locations in the field.

**Task 505 Download Survey, Develop Base Drawing Sheets** Convert all survey data collected to drawing sheets for design and create preliminary drawing sheets.

**Deliverables:** None.

## TASK 600 - GEOTECHNICAL ENGINEERING

**Task 601 Bridge Foundation Field Investigation/Coordinate geotechnical testing with subconsultant**

**601.1** PB will review preliminary plans and available geotechnical data, reports, and geologic maps.

- 601.2** PB will develop field investigation program including boring locations, depths, and sampling requirements based on selected bridge alignment and span arrangement.
- 601.3** Miller will coordinate field investigation requirements with drilling subcontractor (Mid States and PB). (Note: It is assumed that the drilling subcontractor will be responsible for locating and clearing utilities at boring locations, obtaining right of entry permits and permission from property owners, including the UP Railroad, and providing any required traffic control or railroad flagmen for borings. It is also assumed that staking and surveying of boring locations will be performed by Miller)
- 601.4** PB will observe the drilling and sampling activities and prepare field logs from the borings.
- 601.5** PB will prepare laboratory testing assignments. Testing is anticipated to consist of moisture content, grain size analysis, Atterberg Limits, consolidation tests, unconfined compression tests, and triaxial shear tests.
- 601.6** PB will determine boring locations
- 601.7** PB will determine testing required on boring samples

**Deliverables:** A field investigation program will be furnished by PB to Miller to provide to the drilling subcontractor.

#### **Task 602 Geotechnical Field Work and Testing (by Mid-State)**

- 602.1** Miller will coordinate access to private property for drilling, including UPRR

#### **603, 603.1 and 603.2 Bridge Foundation Analysis and Design**

- 603.3** Prepare final geotechnical boring logs.
- 603.4** Prepare a bridge subsurface profile.
- 603.5** Evaluate and recommend suitable bridge foundation types (piles or drilled shafts assumed).  
Perform axial capacity analyses for selected foundation type.
- 603.6** Provide parameters for lateral load analyses of foundation type.
- 603.7** Evaluate settlement at abutments and potential down drag on deep foundations.
- 603.8** Perform pile drivability study where driven piles are selected
- 603.9** Evaluate stability of embankments at abutments.
- 603.10** Prepare a foundation design report that presents geotechnical data, findings, and foundation design recommendations.
- 603.11** Provide geotechnical input to special provisions and addendum to standard specifications for.
- 603.12** ~~Provide QC review of the above tasks and review final drawings.~~

**Deliverables:** subsurface profiles and borings logs, special provisions for final plans. Foundation Design Report in an electronic Adobe PDF will be provided to the City and NDOR.

**Task 604 – Pavement Design/Alternatives Analysis** Miller will provide complete documentation of the structural pavement design analysis used for the project. The pavement analysis will be a nationally recognized method, such as AASHTO, AIM, PCA, etc. The Pavement Determination Data Sheet (supplied by NDOR) will be completed and forwarded to the RC for approval by the NDOR. Pavement shall be concrete for all roads. Pavement determination will not be completed for Highway 30, as pavement will be designed to match existing type and thickness.

### **TASK 700 - PRELIMINARY DRAWINGS**

**Task 701 – Roadway Design** Miller will prepare a design memorandum using DR Form 190, "Principle Controlling Design Criteria" establishing the design criteria to be used on the project and submit the information to Responsible Charge (LPA RC) for concurrence.

Title/Typical Section Sheets Typical cross-sections will be developed which accurately represents the lane width, depth of surfacing, curbs, shoulder widths, side slopes, lateral obstacle clearances and sidewalks. A legend will be placed on the plans detailing the information shown in the typical cross-sections. Typical cross-sections will be developed for the total length of the project as noted on the Title Sheet and for any improvements involving surfacing and a vertical and horizontal alignment.

Aerial Photo Sheets \ Wetland Sheets (2A\2W) Sheets will show the pavement outline, north arrow and scale and identify wetlands and channels.

Horizontal/Vertical Control Sheets (2H) Sheets will show the horizontal and vertical control points and ties.

General Notes Sheet (2N) General notes show or note design details unique to the project.

Detour Plans (2P) Miller will develop a detour route and with input from the NDOR District Engineer and the City.

Large Scale Plans (2L)

- Geometric sheets will show stations and offsets or coordinate points of the geometric points needed to construct the roadway.
- Joints and Grades will show joints and top of slab elevations. The grades will be shown at even 25' intervals or where needed for plan clarity.
- Construction \ Drainage Sheets will use NDOR standard bid items and units of measure. Non-standard bid items will need to be reviewed and approved by NDOR. These sheets will also include build notes for minor adjustments to any City owed water or sanitary sewer lines. Additionally, includes effort for the hydrologic and hydraulic computations used to design the drainage system.
- Removal Sheets will use NDOR standard bid items and units of measure. Non-standard bid items will need to be reviewed and approved by NDOR.
- Sediment and Erosion Control Sheets (SWPPP) will be developed using best management practices.

Plan and Profile Sheets Plans will show the following information:

- Vertical and horizontal curve information
- Roadway stationing
- Geometric information if space allows
- Bench marks
- Roadway grades
- Existing topography (manmade and natural)
- Existing known above and below ground utilities
- North Arrow / Scale
- Elevations of the existing roadway along centerline and finished grade elevations.
- Limits of Construction
- Improvements to intersections and drives
- Sidewalk construction (ADA Compliant)
- Existing right-of-way

Roadway Cross-sections These plans will are to show the existing and proposed roadway cross-section, stationing, grade elevations, the location of the right of way and easements.

Summary of Quantities Miller will prepare quantity estimates, (DR-342, 343E) for all construction and removal items on the plans and submit them to the LPA as follows:

Cost Update 1	Status 30 Preliminary Plans
Cost Update 2	Status 40 Functional Plans

**Deliverables:** Preliminary drawings.

**Task 702 & 702.1 – Bridge Design**

PB will develop the Type, Size, and Location plan (TS&L) and bridge data sheet for the preferred alternative structure. Meet with UPRR to review the preliminary bridge plan, constructability and potential impacts to UPRR operations.

**Deliverables:** TS&L and Bridge Data Sheet in electronic Adobe PDF format.

**702.2 - Develop Bridge Alignment and Span Arrangement**

This task will identify locations of piers, length and number of spans to be used in the selected alternative.

**702.3 Foundation Design**

Develop preliminary foundation loads; Select foundation type

**702.4 Develop Preliminary Pier Design**

Establish pier configuration; Establish pier dimensions

**702.5 Develop Preliminary Abutment Design**

Determine abutment type; Establish abutment dimensions

**702.6 Develop Preliminary Superstructure Design**

Develop preliminary beam design; Develop deck design

**Task 703 – Street Lighting Design**

The preliminary design submittal will consist of a narrative of lighting design criteria developed from NDOR Standards, AASHTO and the Illuminating Engineering Society of North America (IESNA) Handbook. Lighting will meet applicable safety requirements from these sources as well as other input from NDOR. Aesthetic/decorative lighting will not be



~~provided. Fixtures styles will be presented in this preliminary submittal along with estimate of construction cost of each alternative. Coordination with local electric utility will be initiated to determine point of service. Sketches will be provided as necessary to supplement the narrative. Technical review and QC check will be performed on the preliminary design documents by an electrical engineer with street lighting experience.~~

~~**Deliverables:** Lighting design narrative.~~

#### **Task 704 – Drainage Design**

Miller will develop drainage design within the preliminary drawings. Design will follow NDOR Drainage and Erosion Control Manual. Cross-sections need to show the size, type and location of the proposed structure. The height of fill and the drainage calculations (hydrologic and hydraulic) used to size the structure. Storm sewer profiles shall show the type and size of the inlet, the size of the storm sewer pipe, pipe grades and flow line elevations, and top of lid elevations.

#### **Task 705 – Utility Coordination**

**705.1 Research:** Miller will review the utility locations shown on the plans, and verify these locations during field inspections. After survey is complete, plans will be printed and distributed to the Utility Companies for verification of ownership, type, size, location, and cased or uncased. It is assumed identification and verification of major utility conflicts such as fiber optic lines, gas pipelines, crude oil pipelines, high-pressure waterlines, transmission lines, etc., will be accomplished by the individual Utility Company or others in a timely manner.

**705.2 Incorporate information:** Miller will request that the Utility Companies return to the Consultant marked up plans with utility verification. Miller will incorporate the information into the topography. All utilities identified in the topographic survey and verified by the individual utility will be incorporated into the plans.

**705.3 Notify utility companies:** With each plan submittal to the LPA Miller will distribute plans to public and private utilities within the project limits for review and comment.

**705.4 Incorporate into NEPA analysis**

#### ~~**Task 706 – Updated Construction Estimate**~~

~~Develop estimates of probable costs for lighting and bridge construction based on square footage or length of design elements.~~

~~**Deliverables:** Estimates of probable cost in electronic Adobe PDF format.~~

#### ~~**Task 707 – QAQC**~~

~~Documents submitted will be reviewed prior to submittal to client.~~

#### **Task 708 – Preliminary Estimate based on selected alternative**

Estimate of probable construction cost of the bridge, and roadway will be developed by use of NDOR's standard bid items and average unit prices where applicable.

**Deliverables:** Estimate of probable cost for bridge and lighting for up to two alignment alternatives using NDOR's standard item list as applicable.

#### **Task 709 – Submit to NDOR for PIH meeting**

Miller will coordinate submittal of drawings and requested information for PIH meeting. All plan sheets will have the following information in a standard NDOR title block. The title block will show the QC/QC review was performed and the name of the individual who performed the review for the PE firm. The work items to be completed and the level of detail at this stage of the design may be found on Checklist 06-10, Plan in Hand (30%) Review Checklist at the following website (<http://www.dor.state.ne.us/gov-aff/lpa/lpachecklists/index.html>).

**Deliverables:** Preliminary drawings, preliminary estimate

#### **Task 710 – Plan-in-Hand Meeting Preparation & Report**

Plan-In-Hand Meeting in Lexington; one individual from PB will participate in the meeting. All materials and summaries will be prepared by Miller, including agendas and reports.

**Deliverables:** PIH Meeting Minutes.

### **TASK 800 – 3D VISUALIZATION**

PB proposes the development of a digital 3D model to communicate the design alternatives for the Lexington Viaduct to both professional and non-professional audiences. The model would be inclusive of the proposed Lexington Viaduct corridor design and the existing surrounding areas.

Once produced, the model can be used to generate photo-simulations, still renderings and 3D animations for the project.

**Task 801 – Development of 3D context model**

- Determine model boundaries and required level of detail
- Gather aerial photography, Lexington Viaduct Project Basemap and USGIS data and import into 3DS Max
- Extrude building data to appropriate elevation based on GIS data
- Model any additional structures not included in GIS data
- Extract colors and materials of buildings and structures from photographs and apply to 3D geometry
- Run test animation paths for group review

**Task 802 – 3D modeling of proposed design (2 alternatives)**

- Gather Approved CAD data from the Project Team, this includes plan, profile, sections and elevations.
- Model the preferred alignment in 3D using 3D wire frame drawings and InRoads files as reference
- Review preliminary renderings for accuracy
- Apply texture mapping to the 3D model to give it a realistic look

**Task 803 – 3D Animation**

- Identify all required views to be shown in the video and identify style of music, if applicable that is desired using a storyboard
- Data collection of all technical drawings, photos, reference imagery and other design data pertaining to the project for the purpose of the deliverable
- Incorporation of Scene staging elements such as traffic (generic and/or imported from VISSIM), people, signage, landscaping etc.
- Animatics (wire frame animations) are rendered to demonstrate basic geometry, animation path and timing and are edited with the music.
- Presentation to Owner

**Task 804 – Animatics** (wire frame animations) are rendered to demonstrate basic geometry, animation path and timing and are edited with the music

## **Task 805—QA/QC**

### **Deliverables:**

- Draft 1 Output
- Draft 2 Output
- Draft 3 Output
- Final Deliverable Output

## **TASK 900—BRIDGE ENGINEERING—FOR SELECTED ALTERNATIVE**

### **Task 901—Evaluate 2 structure alternatives for NEPA (See Task 302)**

## **TASK 1000 - TRAFFIC ENGINEERING**

As a key part of the preliminary design and NEPA process, traffic operations will be analyzed for existing conditions, design-year no-build, and two design-year alternative designs. Each of these four scenarios will have an AM and a PM peak hour model prepared, for a total of eight models. This includes the following items:

### **Task 1001 – Traffic Volume Data and Forecasting**

Existing turning-movement counts will be collected by Parsons Brinckerhoff or a sub for 14 hours at 14 different intersections including:

1. Road 755 & US-30
2. Road 755 & Road 435
3. Road 755 & Road 436
4. US-30 & Road 435
5. US-30 & Road 436
6. E. Industrial Park Road & E. Walnut Street
7. E. Walnut Street & Road 435
8. E. Industrial Park Road & Road 754
9. Road 754 & Road 435
10. Road 754 & Road 436
11. Road 756 & Road 435
12. Road 756 & Road 436
13. Road 754 & Road 434
14. Road 435 & Heartland Road

No average daily traffic data will be collected for any roadway segment.

NDOR and the LPA will provide the design year growth projections to the traffic volumes within the study area. PB will distribute traffic volumes based on the forecasted growth for the design year No-Build and design-year design alternatives (up to two alternatives) for the AM and PM peak hour.

With the estimated 2035 Design Year AM / PM Peak Hour volumes based on current and future development within the study area, Parsons Brinckerhoff will redistribute AM / PM Design Year traffic volumes (2035) to up to 14 intersections and 14 roadway segments for each of two build alternatives. Work with NDOR and the LPA to validate the distribution of traffic within each build alternative.

**Deliverables:** Traffic data collection and forecasting section of Traffic Report

### **Task 1002 – Crash Analysis**

PB will perform a safety analysis of the existing conditions by reviewing three years of crash data and developing up to ten crash diagrams at existing intersections within the study area. Existing crash patterns will be identified and a list of interim countermeasures will be drafted for potential safety improvements.

**Deliverables:** Crash analysis chapter of Traffic Report

### **Task 1003 – Capacity Analysis**

The Level of Service (LOS) for peak hour (AM/PM) conditions will be calculated for up to 14 intersections and 14 roadway segments for the AM and PM peak hour of the four scenarios as described in Task 1000 (Existing Conditions, Design-Year No-Build, Design-Year Design Alternative 1, Design-Year Design Alternative 2). This makes for eight analyses in total.

The intersection operational analyses will be conducted using SYNCHRO version 8 or later and the roadway segments will be conducted using the Highway Capacity Software (HCS2010).

**Deliverables:** Capacity analysis chapter of Traffic Report and analysis files

### **Task 1004 – Microsimulation Analysis**

PB will develop microsimulation models of the study area for the AM and PM peak hour of each of the four scenarios as described in Task 1003. Microsimulation models allow for the explicit modeling of the interaction of individual vehicles and their interactions with each other on a roadway network that cannot be captured in as much detail in the macroscopic analyses conducted in Task 1003. The microsimulation models will be used to validate the analyses conducted in Task 1003, as well as identify additional opportunities for improvement if there are any traffic flow or queuing issues that are spilling back between intersections or along the freeway segments. Countermeasures to any identified issues will be recommended and tested in the microsimulation models. The VISSIM microsimulation software will be used to review and validate the capacity analyses conducted in Task 1003 and to assess the operational benefits of the intersection modifications and system designs. Task includes one (1) draft for agency review.

**Deliverables:** Microsimulation analysis section of Traffic Report and analysis files.

### **Task 1005 – Coordinate review with NDOR for work on US-30**

Parsons Brinckerhoff will coordinate with NDOR on the required review for work to be performed on US-30

**Deliverables:** Report of traffic analysis, including geometric recommendations

## **TASK 1100 – RIGHT-OF-WAY**

### **Task 1101 – Ownership Plans**

#### **1101.1 Title Search Ownership**

#### **1101.2 Develop Ownership Drawings**

### **Task 1102 – Preliminary R.O.W. Design**

**1102.1 Add LOC's from Preliminary Plans:** Miller will place the right-of-way survey on the topographic survey, adding the section lines, 1/4 section lines, subdivision lots, block, and names, etc., section-township-range, etc. Deeds for all properties shall be provided by the LPA or other entity in paper or electronic form. Deeds shall contain written description of all property boundaries and any easements located on the property. All existing Permanent Easements with their usage descriptions and project number must also be shown on the plans.

~~Miller will check all previous ROW plans against existing right of way deeds to verify ownership and place on plans.~~ Station and offset all ROW break points including section lines and 1/4 section lines (show in small text size). All Existing right of way, controlled access and permanent easements shown on the plans must be supported by deed. If no deed is provided by the LPA, Miller will inform the LPA of any missing deeds.

Based on the provided information, Miller will identify established boundaries of existing public ROW and easements, including hatching and/or labeling existing ROW and easements. Station and offsets will also be placed at points where the existing ROW and easements intersect with property lines, lot-lines, section lines, quarter section lines, etc. Miller will generate coordinate geometry points from previous ROW and easements. Miller will place the locations with the property lines labeled on the plans.

Design Miller will label all streets and highways on the plans. Miller will prepare a title sheet (R-1) with centerline, property lines, section lines, 1/4 section lines, lots, blocks, etc., displayed.

Miller will place the limits of construction (L.O.C.'s) and new design (pavement, sidewalks, sewers, drives, culverts, dikes, retaining walls, alignment geometrics, etc.) on the plans.

**1102.2** Show easements and acquisition area: Miller will determine the easements (temporary and permanent) and right-of-way needed for construction and maintenance of the roadway.

Miller will design the new R.O.W. according to these general guidelines:

- Thirteen (13) feet behind the back of curb in urban areas or to lateral obstacle clear zone, whichever is greater, with permanent easements (P.E.) and/or temporary easements (T.E.) considered beyond the thirteen (13) foot distance.
- Design ROW station break to nearest +05 station and offset to nearest five (5) feet based on project centerline to be used.

Miller will prepare legal descriptions (distances and deflections, no bearings or azimuths) for all R.O.W. takings, permanent easements, and temporary easements.

Miller will place all R.O.W. break points on the plans by station and offset distance from the project design centerline to be used. This must include but is not limited to all points of new R.O.W., existing R.O.W., points of intersection with all section lines, 1/4 section lines, and property lines, and new P.E., T.E., C.A. and R.O.W. break points. Computed stations and offsets must be to nearest 0.01 foot.

All Permanent and Temporary Easement areas must be labeled separately and include their respective purposes on the plans, i.e., TE1, PE1. If more than one easement description occurs per tract, a consecutive number will be given, i.e., TE2, PE2. The areas are to be shown compiled on the R-2 sheet.

Miller will prepare a summary of areas sheet; identified as the R-2 sheet.

**1102.3** Show railroad impacts

**1102.4** Submit to NDOR for review

**Deliverables:** Preliminary R.O.W. Plans

**ANTICIPATED SCHEDULE** (Consultant to provide – date indicates “week of”)

1. **9-17-12** Notice to Proceed (NTP)
2. **10-1-12** Scoping (Kick-off) Meeting with NDOR/FHWA, Consultants & LPA
3. **1-7-13** Preliminary Draft Purpose and Need to NDOR (*can be earlier if traffic and safety information is available*)
4. **1-7-13** Progress Meeting & Preliminary Draft Purpose and Need to FHWA
5. **4-15-13** Progress Meeting & Begin Field Data/Wetlands Delineation Collection
6. **11-5-12** Submit Wetland Delineation Documentation to NDOR
7. **4-15-13** Submit Alternatives Analysis to NDOR
8. **3-25-13** Agency Scoping Meeting & Public Information Meeting #1
9. **6-17-13** Progress Meeting-NDOR & Consultant Screen Alternatives & Consultant Evaluation
10. **7-15-13** Consultant attends the Field Inspection of Alternatives (Plan-In-Hand) & Submit 30% Plans to NDOR
11. **7-22-13** Public Information Meeting #2
12. **As Needed** Progress Meeting
13. **9-16-13** Preliminary DEA to NDOR
14. **10-14-13** Submit Preliminary DEA to FHWA
15. **12-16-13** Public Hearing Dry Run
16. **9-16-13** Progress Meeting/ Address any questions regarding FHWA comments
17. **10-21-13** Submit revised Preliminary DEA to NDOR (NDOR submits to FHWA)
18. **As Needed** Progress Meeting & Consultant Evaluation
19. **12-16-13** Submit Final DEA to NDOR/FHWA
20. **As Needed** Progress Meeting
21. **2-10-14** FHWA signature on Final DEA
22. **12-16-13** DEA out for Public & Agency review
23. **As Needed** Progress Meeting
24. **1-20-14** Public Hearing
25. **2-10-14** End Agency Comment Period
26. **As Needed** Progress Meeting

27. **3-17-14** Preliminary Final EA to NDOR
28. **4-7-14** Final EA to NDOR, then FHWA/Agencies
29. **4-14-14** Final EA Complete & Preliminary Plan Submittal
30. **4-21-14** FONSI Complete or start EIS process / Consultant Evaluation

# NEPA Categorical Exclusion and Preliminary Engineering Project Cost Summary

**Project Name:** Lexington East Viaduct  
**Project Number:** URB-1705(3)  
**Control Number:** 61457  
**Location (City, County):** Lexington, Dawson County, Nebraska  
**Firm Name:** Miller & Associates, Consulting Engineers, P.C.  
**Consultant Project Manager:** Kent E. Cordes  
**Phone/Email:** 308/234-6456 kent@miller-engineers.com  
**LPA Responsible Charge:** Dennis Burnside  
**Phone/Email:** 308/324-2341 dburnside@cityoflex.com  
**NDOR Project Coordinator:** Glen Steffensmeier  
**Phone/Email:** 402/479-3845 glen.steffensmeier@nebraska.gov  
**Date:** August 28, 2012



Direct Labor Costs:			
Personnel Classification	Hours	Rate	Amount
Principal	37	\$55.00	\$2,035.00
Project Manager	513	\$50.00	\$25,650.00
Project Engineer	484	\$35.00	\$16,940.00
Engineering Technician	113	\$29.00	\$3,277.00
CAD #1	112	\$45.00	\$5,040.00
CAD #2	284	\$20.00	\$5,680.00
Licensed Land Surveyor	65	\$30.00	\$1,950.00
Survey Crew	106	\$19.00	\$2,014.00
Clerical #1	48	\$45.00	\$2,160.00
Clerical #2	31	\$15.00	\$465.00
<b>TOTALS</b>	<b>1793</b>		<b>\$65,211.00</b>

Direct Expenses:	Amount
Printing and Reproduction Costs	\$1,950.00
Mileage/Travel	\$1,363.20
Lodging/ Meals	
Other Miscellaneous Costs	\$100.00
Subconsultant - PB	\$584,763.22
Subconsultant - MidState	\$28,900.00
Other Miscellaneous Costs	
<b>TOTALS</b>	<b>\$617,076.42</b>

Total Project Costs:	Amount
Direct Labor Costs	\$65,211.00
Overhead @ 1.7030%	\$111,054.33
Total Labor Costs	\$176,265.33
Fixed Fee @ 13.10%	\$23,090.76
Direct Expenses	\$617,076.42
<b>PROJECT COST</b>	<b>\$816,432.51</b>

M&A
PB
Joint
Midstate

Task	Task Description	PR	PM	PE	Engr Tech	CAD#1	CAD#2	Licensed Land Surveyor	Crew 1	Clerical 1	Clerical 2	Total
<b>TASK 100)</b>	<b>PROJECT MANAGEMENT</b>											
101	Project Meetings (10) with Owner		20									20
102	Develop Public Involvement Plan and Present to Owner and NDOR											0
102.1	Kickoff Meeting (1)		4							2		6
102.2	Progress Meetings (2)		4	2		2	3				2	13
102.3	Review Meetings (3) (Coincides with Public Hearing)		3			2	3					8
102.4	Plan-in-Hand Meeting (1) (Coincides with 2nd Open House)		4								2	6
102.5	NEPA Scoping Meeting (1) (Coincides with 1st Open House)		3									3
103	Project Meetings (2)											0
103.1	Public Hearing		4								2	6
	Open House 1		2									2
	Open House 2		2									2
103.2	Public Involvement Plan		10	2							2	14
104	Project Administration	4	80	20						20		124
105	CADD Management		16			40	12					68
106	Railroad Coordination											0
106.1	Coordinate with UPRR for their operations and facility requirements											0
106.2	Analyze methods for upgrading existing rail line to handle new industrial sidings											0
106.3	Evaluate realignment of UPRR facilities											0
107	QAQC	16	48	20		8						92
	<b>SUBTOTAL</b>	<b>20</b>	<b>200</b>	<b>44</b>	<b>0</b>	<b>52</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>20</b>	<b>10</b>	<b>364</b>
	Subtotal Fee	\$1,100.00	\$10,000.00	\$1,540.00	\$0.00	\$2,340.00	\$360.00	\$0.00	\$0.00	\$900.00	\$150.00	\$16,390.00
<b>TASK 200)</b>	<b>CONCEPT DEVELOPMENT/ ECONOMIC DEVELOPMENT</b>											
201	Review & Revisit Existing Viaduct Study		8									8
202	Planning/Industrial Economic Analysis											0
202.1	Determine the Economic Needs and Opportunities of the Region											0
202.2	Inventory Assets and Liabilities of the Region											0
202.3	Evaluate Competitiveness of Lexington											0
202.4	Identify Constraints to Rail Related Development											0
202.5	Determine Opportunities for Development											0
203	Evaluate two structure alternatives for each of the alignment alternatives that will be evaluated for the Environmental Assessment.											0
203.1	Develop Alignment		12	46	8	4	24					94
203.2	Develop schematic profiles and sections											0
203.3	Develop cost estimates based on average square foot costs for the selected structure types											0
203.4	Develop cost estimates on roadway alignment		8	16	8	2	6			1		41
204	Develop assessment criteria for bridge alternatives and evaluate up to 2 alternatives to select preferred alternative.	2	8	2	4	4	8			1		29
	<b>SUBTOTAL</b>	<b>2</b>	<b>36</b>	<b>64</b>	<b>20</b>	<b>10</b>	<b>38</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>172</b>
	Subtotal Fee	\$110.00	\$1,800.00	\$2,240.00	\$580.00	\$450.00	\$760.00	\$0.00	\$0.00	\$90.00	\$0.00	\$6,030.00
<b>TASK 300)</b>	<b>ENVIRONMENTAL ANALYSIS, PERMITS, CLEARANCES</b>											
301a	Purpose & Need Statement											0
301b	Description of Proposed Action											0
301c	Discussion of Alternatives											0
301d	Discussion of Social, Economic and Environmental Impacts											0
301e	Listing of agencies/persons consulted (Property Owner Notification completed by M&A)											0
301f	Evaluate 2 alternatives for Environmental Considerations											0
301.1	Purpose & Need Statement											0
301.2	Screening Process											0
302	Discussion of Alternatives											0
303	Complete Environmental Assessment											0
304	Property Owner notification (by M&A)		3		6					4		13
305	Develop Social and Economic characteristics of the study area: Environmental Justice											0
306	Historical/Cultural Resources (Section 106 Analysis)											0
307	Prepare Section 4(f) and 6(f) determinations and documentation for submittal											0
308	Meetings involving agencies											0
309	Ecological survey											0
310	Agricultural/Farmland Impacts											0
311	Floodplain / Modeling / Coordination		40	52	8	8	40	8	16	4	2	178
311e	Water Quality Impacts											0
312	Hazardous Materials Technical Report (HMTR) & Construction Impacts											0
313	Noise Analysis (1 day of field data collection)											0
313.1	Indirect & Cumulative Impacts											0
314	Prepare Draft Environmental Document and submit to NDOR for comments											0
314.1	Design Criteria/Roadway Character/Bridge-Culvert-Criteria											0
314.2	Right-of-way/Relocations/Utilities											0
314.3	Environmental Commitments Summary											0
314.4	Prepare Draft Environmental Document											0
315	Prepare and submit Final Environmental Document to NDOR											0
315.1	Prepare FONSI											0
316	Prepare Green Sheet											0
	<b>SUBTOTAL</b>	<b>0</b>	<b>43</b>	<b>52</b>	<b>14</b>	<b>8</b>	<b>40</b>	<b>8</b>	<b>16</b>	<b>8</b>	<b>2</b>	<b>191</b>
	Subtotal Fee	\$0.00	\$2,150.00	\$1,820.00	\$406.00	\$360.00	\$800.00	\$240.00	\$304.00	\$360.00	\$30.00	\$6,470.00
<b>TASK 500)</b>	<b>SURVEY</b>											
501	Establish Horizontal and Vertical Control	2	1		6			16	8			33
502	Coordinate with utility companies for locations		1		4	2		12			2	21



Task	Task Description	PR	PM	PE	Engr Tech	CAD#1	CAD#2	Licensed Land Surveyor	Crew 1	Clerical 1	Clerical 2	Total
503	Topographic Survey Field work		1					3	70			74
504	Stake geotechnical boring locations		3	2		2		2	12			21
505	Download survey, develop base drawing sheets		2			8	48	12				70
	<b>SUBTOTAL</b>	2	8	2	10	12	48	45	90	0	2	219
	<i>Subtotal Fee</i>	\$110.00	\$400.00	\$70.00	\$290.00	\$540.00	\$960.00	\$1,350.00	\$1,710.00	\$0.00	\$30.00	\$5,460.00
<b>TASK 600)</b>	<b>GEOTECHNICAL ENGINEERING</b>											
601	Coordinate geotechnical testing with subconsultant	2	8									10
601.1	Review preliminary plans and available geotechnical data											0
601.2	Develop investigation program for bridge structure											0
601.3	Coordinate field investigation requirements with drilling sub											0
601.4	Observe drilling and sampling activities and prepare field logs											0
601.5	Prepare laboratory testing requirements											0
601.6	Determine boring locations		6	8	1		4					19
601.7	Determine testing required on boring samples		4	4	2							10
602	Geotechnical field work and testing											0
602.1	Coordinate access to private property for drilling, including UPRR		12		8					1		21
603	Bridge foundation design and analysis											0
603.1	Bridge Foundation Field Investigation											0
603.2	Bridge Foundation Analysis and Design											0
603.3	Prepare final geotechnical boring logs											0
603.4	Prepare bridge subsurface profile											0
603.5	Evaluate and recommend suitable foundation types											0
603.6	Provide parameters for lateral load analysis											0
603.7	Evaluate settlement at abutments and downdrag on foundations											0
603.8	Perform pile driveability study											0
603.9	Evaluate stability of embankments at abutments											0
603.10	Prepare foundation design report											0
603.11	Provide geotechnical input to special provisions and addendum											0
603.12	QC review											0
604	Pavement design/alternatives analysis		16							1		17
	<b>SUBTOTAL</b>	2	46	12	11	0	4	0	0	2	0	77
	<i>Subtotal Fee</i>	\$110.00	\$2,300.00	\$420.00	\$319.00	\$0.00	\$80.00	\$0.00	\$0.00	\$90.00	\$0.00	\$3,319.00
<b>TASK 700)</b>	<b>PRELIMINARY DRAWINGS</b>											
701	Roadway design	6	50	200		4	72			4	2	338
702	Bridge Design											0
702.1	Bridge Design - Bridge Data Sheet											0
702.2	Develop bridge alignment and span arrangement											0
702.3	Foundation Design											0
702.4	Develop Preliminary Pier Design											0
702.5	Develop preliminary abutment design											0
702.6	Develop preliminary superstructure design											0
703	Lighting design											0
704	Drainage design		60	20								80
705	Utility coordination											0
705.1	Research		10	4	12	4				2	2	34
705.2	Incorporate Information		10	12		8	20				2	52
705.3	Notify utility companies		2		8					2	2	14
705.4	Incorporate into NEPA analysis		8		6	4				2		20
706	Updated Construction Estimate											0
707	QAQC											0
708	Preliminary Estimate based on selected alternative		16	36	20	2	4					78
709	Submit to NDOR for PIH meeting	2	4							2	4	12
710	Plan-in-Hand Meeting Preparation and Report		6	4	4						3	17
	<b>SUBTOTAL</b>	8	166	276	50	22	96	0	0	12	15	645
	<i>Subtotal Fee</i>	\$440.00	\$8,300.00	\$9,660.00	\$1,450.00	\$990.00	\$1,920.00	\$0.00	\$0.00	\$540.00	\$225.00	\$23,525.00
<b>TASK 800)</b>	<b>3D VISUALIZATION</b>											
801	Development of 3D context model											0
802	3D Modeling of Proposed Design (2 alternatives)											0
803	3D Animation-Rendering of animatics (wire frame animations) and presentation to Owner											0
805	QAQC											0
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0	0
	<i>Subtotal Fee</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 900)</b>	<b>BRIDGE ENGINEERING - FOR SELECTED ALTERNATIVE</b>											
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0	0
	<i>Subtotal Fee</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 1000)</b>	<b>TRAFFIC ENGINEERING</b>											
1001	Traffic Volume Data and Forecasting - With collected 2012 traffic data, calculate and distribute design year traffic volumes (2035)											0
1002	Crash Analysis - Analyze existing crashes and create collision diagrams. Recommend any low-cost-safety-improvements as a result of the existing crash analysis											0
1003	Capacity Analysis - Calculate level of service (LOS) along the proposed alignment of selected alternative											0
1004	Microsimulation Analysis - Perform VISSIM simulation analysis for alternatives to analyze traffic operations and help determine a preferred alternative											0
1005	Coordinate review with NDOR for work on US 30											0
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0	0
	<i>Subtotal Fee</i>	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 1100)</b>	<b>RIGHT-OF-WAY</b>											
1101	Ownership Plans (Midwest Removed)											0
1101.1	Title Search Ownership											0
1101.2	Develop Ownership Drawings											0
1102	Preliminary R.O.W. Design											0
1102.1	Add LOC's from Preliminary Plans		2	14		4	12					32
1102.2	Show Easements and Acquisition Areas			8	8		12	8				36
1102.3	Show Railroad Impacts		4	4		4	16					28

Task	Task Description	PR	PM	PE	Engr Tech	CAD#1	CAD#2	Licensed Land Surveyor	Crew 1	Clerical 1	Clerical 2	Total
1102.4	Submit to NDOR for review	3	8	8				4		4	2	29
	<b>SUBTOTAL</b>	<b>3</b>	<b>14</b>	<b>34</b>	<b>8</b>	<b>8</b>	<b>40</b>	<b>12</b>	<b>0</b>	<b>4</b>	<b>2</b>	<b>125</b>
	Subtotal Fee	\$165.00	\$700.00	\$1,190.00	\$232.00	\$360.00	\$800.00	\$360.00	\$0.00	\$180.00	\$30.00	\$4,017.00
	Travel Time											

Totals	37	513	484	113	112	284	65	106	48	31	1793
Time minus travel	37	513	484	113	112	284	65	106	48	31	1793
Hours/day											

**DIRECT LABOR COST SUMMARY**

Category	Rates	Amount
PR - Principal	\$55.00	\$ 2,035.00
PM-Project Manager	\$50.00	\$ 25,650.00
PE-Project Engineer	\$35.00	\$ 16,940.00
Engr Tech	\$29.00	\$ 3,277.00
CAD #1	\$45.00	\$ 5,040.00
CAD #2	\$20.00	\$ 5,680.00
Licensed Land Surveyor	\$30.00	\$ 1,950.00
Survey Crew	\$19.00	\$ 2,014.00
Clerical #1	\$45.00	\$ 2,160.00
Clerical #2	\$15.00	\$ 465.00

TOTAL DIRECT LABOR (M&A)		\$ 65,211.00
OVERHEAD (M&)	1.703	\$ 111,054.33

**TOTAL LABOR AND OVERHEAD \$ 176,265.33**

**DIRECT PROJECT EXPENSES**

M&A Expenses	Cost
Mileage: 1440 mi.	\$ 806.40
Mileage: Survey Vehicle 960 mi.	\$ 556.80
Construction Staking Materials 100 each	\$ 100.00
Meals 0 days	\$ 0.00
Printing: 1950 copies	\$ 1,950.00
Outside Audit 0 each	\$ 0.00
<b>TOTAL DIRECT PROJECT EXPENSES</b>	<b>\$3,413.20</b>

**SUBCONSULTANTS**

Midwest Right-of-way	Not Included
Midstate Engineering & Testing	\$28,900.00
	<b>\$28,900.00</b>

TOTAL LABOR AND OVERHEAD		\$176,265.33
FIXED FEE PERCENT	13.10%	\$23,090.76
DIRECT PROJECT EXPENSES		\$3,413.20
SUBCONSULTANTS		\$28,900.00
		<b>\$231,669.29</b>

## STAFFING PLAN

Consultant  
 Project Name  
 Project Number  
 CN:

Miller & Associates, Consulting Engineers, P.C.  
 Lexington East Viaduct  
 URB-1704(3)  
 61457

Calendar Days:  
 Time in weeks:  
 Travel Time to Site  
 Mileage to Site

700  
 100  
 0.75 hour  
 40 miles (80 miles round trip)

<i>Employee Classification</i>	<i>Name</i>	<i>Rate</i>
Principal (PR)	Reed Miller	\$55.00
Project Manager (PM)	Kent Cordes	\$50.00
Project Engineer (PE)	Dave Mead	\$35.00
Project Engineer (PE)	Luke Dutcher	\$35.00
Project Engineer (PE)	Lindsey Connot	\$35.00
Project Engineer (PE)	Lance Harter	\$35.00
Engineering Technician	Randy Deans	\$29.00
Engineering Technician	Dana Daniels	\$29.00
CAD Technician 1	Craig Bennett	\$45.00
CAD Technician 2	Andrew Olson	\$20.00
CAD Technician 2	Travis Zerr	\$20.00
CAD Technician 2	Tracy Schroeder	\$20.00
Licensed Land Surveyor	Ron Ridgway	\$30.00
Survey Crew 1	Chad Dixon	\$19.00
Survey Crew 2	Todd Schepler	\$19.00
Clerical 1	Jacque Haupt	\$45.00
Clerical 2	Lisa Schmidt	\$15.00



July 30, 2012

City of Lexington  
c/o Miller & Associates  
1111 Central Avenue  
Kearney, NE. 68847

**RE: PROPOSAL OF WORK AND COSTS  
LEXINGTON, NEBRASKA VIADUCT**

Dear Sirs,

Mid-State Engineering & Testing, Inc. is pleased to submit this proposal to provide a Geotechnical Report for the proposed viaduct in Lexington, Nebraska. This proposal will outline our proposed work scope and the associated costs required to complete this study.

**PROJECT DESCRIPTION**

Based on preliminary discussions with Miller & Associates, its expected the proposed viaduct will have 4 to 5 intermediate supports on each side of the rail line, with a deep pile foundation for support. Maximum embankment heights on the order of 15 to 25 feet are expected.

**MOBILIZATION**

Its expected 4 to 5 days will be required to complete the field evaluation. Based on this work scope, a total mobilization cost of \$400.00 will be required to coordinate utility locates and mobilize the drill crew too and from the project site.

**DRILLING AND SAMPLING**

Based on the project scope, its expected a total of 10 to 14 soil borings will be required for site evaluation. Assuming a deep pile foundation, boring depths on the order of 50 to 90 feet are indicated.

Drilling and sampling at intervals of 5 feet or less will be performed with a mobil drill rig using hollow stem augers. All drilling will be performed at a unit cost of \$13.00/lineal foot for boring depths of 50 feet or less. Boring depths greater than 50 feet will be performed at a rate of \$15.00/l.f. Borings will be logged in the field by a Professional Geotechnical Engineer or Engineering Technician. Based on a total drilling footage of 1050 lineal feet, with approximately 350 to 450 lineal feet, at the \$15.00/hour rate, total drilling costs are estimated at \$13,000 to \$14,500.00.

11 EAST 11TH STREET  
KEARNEY, NEBRASKA 68847  
PHONE (308)-237-0187

279 ROAD D  
COLUMBUS, NEBRASKA 68601  
PHONE (402)-562-7824

**MID-STATE**  
**ENGINEERING & TESTING**

Lexington Viaduct  
Lexington, Nebraska  
July 30, 2012  
Page 2 of 3

Bentonite hole plug will be used to fill the soil borings. Its expected total material costs will be \$300.00.

**LABORATORY TESTING**

Based on discussions, we anticipate the following tests will be required to evaluate the engineering properties of the various soils. Testing will be performed at the following unit rates:

Moisture Contents (D2216-80) .....	\$ 7.00 each
Unit Weight Determinations (D2216-80).....	25.00 each
Unconfined Compression Tests (D2166-85).....	35.00 each
Atterberg Limits (D4318-84) .....	50.00 each
Wash Sieve Analysis .....	90.00 each
P-200 Sieve Analysis .....	20.00 each
One Dimensional Consolidation Test.....	150.00 each
Flexible Wall Permeability Testing (D-698).....	250.00 each
Standard Proctor Testing (D-698).....	125.00 each

Based on the scope of work indicated, we anticipate lab testing will range between \$4,500.00 and \$6,700.00.

**ENGINEERING**

Mid-State Engineering time will be performed at a rate of \$90.00 per hour for a Professional Engineer and \$105.00 per hour for a Senior Level Geotechnical Engineer. This includes the costs of data reduction, report preparation and consultation during design. We anticipate total Mid-Sate Engineering costs will range between \$5,000.00 and \$7,000.00.

**ESTIMATED TOTAL COST**

Based on the indicated work scope, the total Mid-State cost for this study is estimated at \$23,200.00 to \$28,900.00. The \$28,900.00 figure will not be exceeded unless additional work is authorized by Miller & Associates or the City. All work will be invoiced at the unit rates noted in this proposal for the actual work performed.

Mid-State Engineering & Testing Inc. is accredited through the AASHTO Accreditation Program in asphalt, concrete, and aggregates. Inspections and proficiency tests are performed through CCRL and AMRL. Our field technicians are certified through NICET, ACI, and NDOR. Mid-State Engineering & Testing, Inc. carries a full range of general and professional liability insurance, which would be in effect for this project.

**MID-STATE**  
ENGINEERING & TESTING

Lexington Viaduct  
Lexington, Nebraska  
July 30, 2012  
Page 3 of 3

We anticipated being able to perform the drilling within two (2) week of notification to proceed, with a lab evaluation completed approximately 3 to 4 weeks after drilling.

If you have any questions or need further information, please contact us at 402-562-7824. If this proposal of work and cost is acceptable, please return a signed copy at your convenience.

Respectfully Submitted,  
Mid-State Engineering & Testing, Inc.



Jim Musilek, P.E.

Accepted by: \_\_\_\_\_ Date: \_\_\_\_\_

	M&A
	PB
	Joint
	Midstate

Task	Task Description	Sr. Engineering Mgr \$95.75	Sr. Supervising Engineer \$70.11	Senior Engineer \$61.40	Lead Engineer \$51.67	Task Lead \$41.64	Design/Environmental Planner \$36.97	Senior Technician \$33.19	Design Engineer \$30.02	Administrative Asst \$26.47	Total
<b>TASK 100)</b>	<b>PROJECT MANAGEMENT</b>										
101	Project Meetings (10) with Owner										0
102	Develop Public Involvement Plan and Present to Owner and NDOR. Plan to include:										0
102.1	Kickoff Meeting (1)			12							12
102.2	Progress Meetings (2)			24							24
102.3	Review Meeting (3) (coincides with Public Hearing)			20							20
102.4	Plan-in-Hand Meeting (1) (coincides with 2nd Open House)		16								16
102.5	NEPA Scoping Meeting (1) (coincides with 1st Open House)			8							8
103	Project Meetings (2)										0
103.1	Public Hearing			24	46	10	80	24			184
	Open House 1			12	36	10	40	24			122
	Open House 2			12	40	10	80	24			166
103.2	Public Involvement Plan				4						4
104	Project Administration	8		228						32	268
105	CADD Management				8			60			68
106	Railroad Coordination										0
106.1	Coordinate with UPRR for their operations and facility requirements	28									28
106.2	Analyze methods for upgrading existing rail line to handle new industrial sidings	8	8	16							32
106.3	Evaluate realignment of UPRR facilities	8	8	24							40
107	QA/QC			100							100
	<b>SUBTOTAL</b>	<b>52</b>	<b>32</b>	<b>480</b>	<b>134</b>	<b>30</b>	<b>200</b>	<b>132</b>	<b>0</b>	<b>32</b>	<b>1092</b>
	Subtotal Fee	\$4,979.00	\$2,243.52	\$29,472.00	\$6,923.78	\$1,249.20	\$7,394.00	\$4,381.08	\$0.00	\$847.04	\$57,489.62
<b>TASK 200)</b>	<b>CONCEPT DEVELOPMENT / ECONOMIC DEVELOPMENT</b>										
201	Review & Revisit Existing Viaduct Study			8							8
202	Planning/Industrial Economic Analysis										0
202.1	Determine the Economic Needs and Opportunities of the Region	8	40								48
202.2	Inventory Assets and Liabilities of the Region	8	40								48
202.3	Evaluate Competitiveness of Lexington	8	40								48
202.4	Identify Constraints to Rail Related Development	8	40								48
202.5	Determine Opportunities for Development	8	40								48
203	Evaluate two structure alternatives for each of the alignment alternatives that will be evaluated for the Environmental Assessment	12	24	4	24			24	32	0	120
203.1	Develop Alignment										0
203.2	Develop schematic profiles and sections										0
203.3	Develop cost estimates based on average square foot costs for the selected structure types		8	4		8			16	0	36
203.4	Develop cost estimates on roadway alignment										0
204	Develop assessment criteria for bridge alternatives and evaluate up to 2 alternatives to select preferred alternative		16	4		16					36
	<b>SUBTOTAL</b>	<b>52</b>	<b>248</b>	<b>20</b>	<b>24</b>	<b>24</b>	<b>0</b>	<b>24</b>	<b>48</b>	<b>0</b>	<b>440</b>
	Subtotal Fee	\$4,979.00	\$17,387.28	\$1,228.00	\$1,240.08	\$999.36	\$0.00	\$796.56	\$1,440.96	\$0.00	\$28,071.24
<b>TASK 300)</b>	<b>ENVIRONMENTAL ANALYSIS, PERMITS, CLEARANCES</b>										
301a	Purpose & Need Statement										0
301b	Description of Proposed Action					2					6
301c	Discussion of Alternatives										0
301d	Discussion of Social, Economic and Environmental Impacts										0
301e	Listing of agencies/persons consulted (Property Owner Notification completed by M&A)			2		4					6
301f	Evaluate 2 alternatives for Environmental Considerations			8		24	8				40
301.1	Purpose & Need Statement			4		40	32				76
301.2	Screening Process										0
302	Discussion of Alternatives			2		4	2				8
303	Complete Environmental Assessment										0
304	Property Owner notification (by M&A)			2		4					6
305	Develop Social and Economic characteristics of the study area; Environmental Justice			12		60	28				100
306	Historical/Cultural Resources (Section 106 Analysis)			6		6					12
307	Prepare Section 4(f) and 6(f) determinations and documentation for submittal			2		6					8
308	Meetings involving agencies										0
309	Ecological survey			22		120	8	40			190
310	Agricultural/Farmland Impacts			3		8					11
311	Floodplain / Modeling				8	4					12
311e	Water Quality Impacts			2		8	4				14
312	Hazardous Materials Technical Report (HMTR) & Construction Impacts			24		56	8	40			128
313	Noise Analysis (1 day of field data collection)			22		136	16				174
313.1	Indirect & Cumulative Impacts			12		52	8				72
314	Prepare Draft Environmental Document and submit to NDOR for comments			24		52	12				88
314.1	Design Criteria/Roadway Character/Bridge-Culvert Criteria										0
314.2	Right-of-way/Relocations/Utilities										0
314.3	Environmental Commitments Summary										0
314.4	Prepare Draft Environmental Document										0
315	Prepare and submit Final Environmental Document to NDOR			24		52	12				88
315.1	Prepare FONSI										0
316	Prepare Green Sheet										0
	<b>SUBTOTAL</b>	<b>0</b>	<b>0</b>	<b>173</b>	<b>8</b>	<b>640</b>	<b>138</b>	<b>80</b>	<b>0</b>	<b>0</b>	<b>1039</b>
	Subtotal Fee	\$0.00	\$0.00	\$10,622.20	\$413.36	\$26,649.60	\$5,101.86	\$2,655.20	\$0.00	\$0.00	\$45,442.22
<b>TASK 500)</b>	<b>SURVEY</b>										
501	Establish Horizontal and Vertical Control										0
502	Coordinate with utility companies for locations										0
503	Topographic Survey Field work										0
504	Stake geotechnical boring locations										0
505	Download survey, develop base drawing sheets										0
	<b>SUBTOTAL</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	Subtotal Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 600)</b>	<b>GEOTECHNICAL ENGINEERING</b>										

Task	Task Description	Sr. Engineering Mgr	Sr. Supervising Engineer	Senior Engineer	Lead Engineer	Task Lead	Design/ Environmental Planner	Senior Technician	Design Engineer	Administrative Asst	Total
		\$95.75	\$70.11	\$61.40	\$51.67	\$41.64	\$36.97	\$33.19	\$30.02	\$26.47	
601	Coordinate geotechnical testing with subconsultant										0
601.1	Review preliminary plans and available geotechnical data		2				4				6
601.2	Develop investigation program for bridge structure		2				4				6
601.3	Coordinate field investigation requirements with drilling sub		8				16				24
601.4	Observe drilling and sampling activities and prepare field logs		4				64				68
601.5	Prepare laboratory testing requirements		2				4				6
601.6	Determine boring locations										0
601.7	Determine testing required on boring samples										0
602	Geotechnical field work and testing										0
602.1	Coordinate access to private property for drilling, including UPRR										0
603	Bridge foundation design and analysis										0
603.1	Bridge Foundation Field Investigation										0
603.2	Bridge Foundation Analysis and Design										0
603.3	Prepare final geotechnical boring logs		1				6				7
603.4	Prepare bridge subsurface profile						4				4
603.5	Evaluate and recommend suitable foundation types		4				2				6
603.6	Provide parameters for lateral load analysis		2				8				10
603.7	Evaluate settlement at abutments and downdrag on foundations		4				16				20
603.8	Perform pile driveability study		2				12				14
603.9	Evaluate stability of embankments at abutments		4				20				24
603.10	Prepare foundation design report		16				24				40
603.11	Provide geotechnical input to special provisions and addendum		4								4
603.12	QC review										0
604	Pavement design/alternatives analysis										0
	<b>SUBTOTAL</b>	0	55	0	0	0	184	0	0	0	239
	Subtotal Fee	\$0.00	\$3,856.05	\$0.00	\$0.00	\$0.00	\$6,802.48	\$0.00	\$0.00	\$0.00	\$10,658.53
<b>TASK 700)</b>	<b>PRELIMINARY DRAWINGS</b>										
701	Roadway design										0
702	Bridge Design										0
702.1	Bridge Design - Bridge Data Sheet		4	2	8			16			30
702.2	Develop bridge alignment and span arrangement		8		12			20			40
702.3	Foundation Design		4	2	4			4			14
702.4	Develop preliminary pier design		4		8			24	24		60
702.5	Develop preliminary abutment design		4		8			24	24		60
702.6	Develop preliminary superstructure design		8		16			32	28		84
703	Lighting design										0
704	Drainage design		12	4							16
705	Utility coordination										0
705.1	Research										0
705.2	Incorporate Information										0
705.3	Notify utility companies										0
705.4	Incorporate into NEPA analysis										0
706	Updated Construction Estimate										0
707	QAQC										0
708	Preliminary Estimate based on selected alternative		8	8		16	16		16		64
709	Submit to NDOR for PIH meeting										0
710	Plan-in-Hand Meeting Preparation and Report		16								16
	<b>SUBTOTAL</b>	0	68	16	56	16	16	80	132	0	384
	Subtotal Fee	\$0.00	\$4,767.48	\$982.40	\$2,893.52	\$666.24	\$591.52	\$2,655.20	\$3,962.64	\$0.00	\$16,519.00
<b>TASK 800)</b>	<b>3D-VISUALIZATION</b>										
801	Development of 3D context model										0
802	3D Modeling of Proposed Design (2 alternatives)										0
803	3D Animation - Rendering of Animatics (wire frame animations) and presentation to Owner										0
805	QAQC										0
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0
	Subtotal Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 900)</b>	<b>BRIDGE ENGINEERING - FOR SELECTED ALTERNATIVE</b>										
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0
	Subtotal Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
<b>TASK 1000)</b>	<b>TRAFFIC ENGINEERING</b>										
1001	Traffic Volume Data and Forecasting - With collected 2012 traffic data, calculate and distribute design year traffic volumes (2035)			35				80			115
1002	Crash Analysis - Analyze existing crashes and create collision diagrams. Recommend any low-cost-safety-improvements as a result of the existing crash analysis			10				50			60
1003	Capacity Analysis - Calculate level of service (LOS) along the proposed alignment of selected alternative			30				130			160
1004	Microsimulation Analysis - Perform VISSIM simulation analysis for alternatives to analyze traffic operations and help determine a preferred alternative			30				350			380
1005	Coordinate review with NDOR for work on US 30			8				16			24
	<b>SUBTOTAL</b>	0	0	113	0	0	0	626	0	0	739
	Subtotal Fee	\$0.00	\$0.00	\$6,938.20	\$0.00	\$0.00	\$0.00	\$0.00	\$18,792.52	\$0.00	\$25,730.72
<b>TASK 1100)</b>	<b>RIGHT-OF-WAY</b>										
1101	Ownership Plans										0
1101.1	Title Search Ownership										0
1101.2	Develop Ownership Drawings										0
1102	Preliminary R.O.W. Design										0
1102.1	Add LOC's from Preliminary Plans										0
1102.2	Show Easements and Acquisition Areas										0
1102.3	Show Railroad Impacts										0
1102.4	Submit to NDOR for review										0
	<b>SUBTOTAL</b>	0	0	0	0	0	0	0	0	0	0
	Subtotal Fee	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Totals	104	403	802	222	710	538	316	806	32	3933
Time minus travel	104	403	802	222	710	538	316	806	32	3933
Hours/day	\$9,958.00	\$28,254.33	\$49,242.80	\$11,470.74	\$29,564.40	\$19,889.86	\$10,488.04	\$24,196.12	\$847.04	\$183,911.33

**DIRECT LABOR COST SUMMARY**

Category	Amount
Sr. Engr Mgr	\$958.00
Sr. Supervising Engr	\$28,254.33
Sr. Engineer	\$49,242.80



Task	Task Description	Sr. Engineering Mgr	Sr. Supervising Engineer	Senior Engineer	Lead Engineer	Task Lead	Design/ Environmental Planner	Senior Technician	Design Engineer	Administrative Asst	Total
Lead Engr		\$95.75	\$70.11	\$61.40	\$51.67	\$41.64	\$36.97	\$33.19	\$30.02	\$26.47	\$ 11,470.74
Task Lead				\$41.64							\$ 29,564.40
Designer / Environmental Planner				\$36.97							\$ 19,889.86
Sr. Technician				\$33.19							\$ 10,488.04
Design Engineer				\$30.02							\$ 24,196.12
Admin Asst				\$26.47							\$ 847.04
<b>TOTAL DIRECT LABOR (PB)</b>											\$ 183,911.33
<b>OVERHEAD (PB)</b>		1.63									\$ 299,775.47
<b>TOTAL LABOR AND OVERHEAD</b>											\$ 483,686.80

DIRECT PROJECT EXPENSES	PB Expenses	Cost
Mileage	5000	\$ 0.560
Flights/Airfare	14	\$ 800.00
Car Rental	29	\$ 80.00
Fuel for Rental Car	470	\$ 4.00
Lodging	34	\$ 92.00
Lodging	4	\$ 106.00
Lodging	2	\$ 114.00
Per Diem	29	\$ 46.00
Per Diem	6	\$ 61.00
Monochrome Copies 8.5 x 11	10400	\$ 0.15
Monochrome Plots 11x17	7840	\$ 0.25
Printing: 11x17 (Colored)	30	\$ 1.60
Printing: DVD	1	\$ 1.00
Printing: DVD Label	1	\$ 0.25
Printing: Cover Stock	130	\$ 1.00
Bindings	65	\$ 4.00
Express Mail	13	\$ 25.00
Misc. Postage	400	\$ 1.00
Traffic Data Collection (Sub consultant - Miovision)	9349.2	\$ 1.00
<b>TOTAL DIRECT PROJECT EXPENSES</b>		\$37,713.45

TOTAL LABOR AND OVERHEAD		\$483,686.80
FIXED FEE PERCENT	13.10%	\$63,362.97
DIRECT PROJECT EXPENSES		\$37,713.45
<b>TOTAL FEE</b>		<b>\$584,763.22</b>

## STAFFING PLAN

Name	Title	Unburdened Rate	Average Rate	Labor Categories
Raja Govindaswamy	Senior Engineering Manager (PIC)	\$96.76	\$95.75	Senior Engineering Manager
Joe Gurskis	Strategic Consultant	\$96.54		
John "Jack" Tone	Senior Engineer	\$93.94		
Jennifer Graf	Senior Environmental Scientist	\$73.27	\$70.11	Senior Supervising Engineer
John Jenkins	Geotechnical Engineer	\$71.38		
Alice Lovegrove	Senior Environmental Planner	\$71.11		
John Elwell	Senior Structural Engineer	\$69.81		
Rhonda Boyer	Senior Environmental Planner	\$69.77		
Arthur Marrone	Senior Environmental Scientist	\$65.33		
Abdul Hamada	Senior Structural Engineer	\$64.17	\$61.40	Senior Engineer
David Loduca	Senior Electrical Engineer	\$63.51		
Karl Fredrickson	Senior Supervising Engineer	\$60.97		
David Church	Traffic Engineer	\$60.08		
David VanGoethem	Senior Environmental Scientist	\$59.98		
Stephanie Foell	Senior Environmental Scientist	\$59.68		
Dave Long	Supervising Structural Engineer	\$55.70	\$51.67	Lead Engineer
Michelle Winkelmann	Senior Engineer	\$52.82		
Steve Lane	Environmental Scientist	\$52.16		
Henry Ward	Environmental Planner	\$51.21		
Rob Roseman	Electical Engineer/Task Manager	\$49.30		
Linda Minten	Administrative/Clerical	\$48.85		
James Hamilton	Environmental Scientist	\$42.09	\$41.64	Task Lead
Todd Channer	Design Technician	\$41.82		
Brad Shores	Structural Engineer	\$41.00		
Mirna Plavric	Lighting Designer	\$37.32	\$36.97	Designer/ Environmental Planner
Valerie Robbins	Environmental Planner	\$36.83		
Stan Hill	Supervising CADD Tech	\$36.75		
Hillary Seminick	Environmental Scientist	\$33.19	\$33.19	Sr. Technician
Keturah Jordan	Electrical Drafter	\$30.66	\$30.02	Design Engineer
Brian Geiger	Traffic EIT	\$30.03		
Ashley Slominski	Design Engineer	\$29.38		
Matt Christie	Design Engineer	\$28.13	\$26.47	Admin Assisten
Valerie Morris	Administrative/Clerical	\$26.09		
Donna Ownbey	Administrative/Clerical	\$25.20		

# Traffic Data On Demand Project Calculator

## Project Scope

Intersections	14
ATRs (by direction)	0
Roundabout Counts	0
Multi-Camera Roundabout Counts	0
Gap Studies	0
Current Credit Rate (see rate table)	\$ 1.06

## TMC Costs

Hours per count	9
Credits/hour	70
Credits/study	630
Cost per count	\$ 667.80

## ATR Costs

Hours per count	0
Lanes per location	4
Credits/lane/hour	12
Credits/study	0
Cost per count	\$ -

14.90909091

## Roundabout Costs

Hours per count	0
Credits/hour	90
Credits/study	0
Cost per count	\$ -

## Multi-camera Roundabout Costs

Hours per count	0
Credits/hour	195
Credits/study	0
Cost per count	\$ -

## Project Totals

Total Credits	8,820
<b>Total Project Cost</b>	<b>\$ 9,349.20</b>
One time admin & training fee	\$ 2,650.00
Total PB Cost	\$ 11,999.20

## Gap Study Costs

Hours per count	0
Credits/hour	75
Credits/study	0
Cost per count	\$ -

## Credit Rates

PayGo	\$ 1.45
2,500 credits	\$ 1.15
5,000 credits	\$ 1.12
10,000 credits	\$ 1.09
<b>20,000 credits</b>	<b>\$ 0.96</b>
35,000 credits	\$ 0.89
50,000 credits	\$ 0.87
75,000 credits	\$ 0.84
100,000 credits	\$ 0.82

## Hours of TMC 4 hour TMC counts

36	9
71	18
143	36
<b>286</b>	<b>71</b>
500	125
714	179
1071	268
1429	357

## EXHIBIT "C"

### INSURANCE REQUIREMENTS FOR PROFESSIONAL SERVICE PROVIDERS LPA PROJECTS

#### Consultant agrees to:

- (1) Make a detailed review of its existing insurance coverage,
- (2) Compare that coverage to the expected scope of the work under this contract,
- (3) Obtain the insurance coverage that it deems necessary to fully protect Consultant from loss associated with the work. Also, Consultant shall have at a minimum the insurance described below:

#### General Liability –

Limits of at least:

\$ 1,000,000 Per Occurrence

\$ 2,000,000 General Aggregate

\$ 2,000,000 Completed Operations Aggregate (if applicable)

\$ 1,000,000 Personal/Advertising Injury

- Consultant shall be responsible for the payment of any deductibles.
- Coverage shall be provided by a standard form Commercial General Liability Policy covering bodily injury, property damage including loss of use, and personal injury.
- General Aggregate to apply on a Per Project Basis.
- The LPA shall be named as Additional Insured on a primary and non-contributory basis including completed operations (the completed work/product) for three (3) years after the work/product is complete.
- Consultant agrees to waive its rights of recovery against the LPA. Waiver of Subrogation in favor of the LPA shall be added to, or included in, the policy.
- Contractual liability coverage shall be on a broad form basis and shall not be amended by any limiting endorsements.
- If work is being done near a railroad track, the 50' railroad right of way exclusion must be deleted.
- In the event that this contract provides for consultant to construct, reconstruct or produce a completed product, products and completed operations coverage in the amount provided above shall be maintained for the duration of the work, and shall be further maintained for a minimum period of five years after final acceptance and payment.

- Policy shall not contain a total or absolute pollution exclusion. Coverage shall be provided for pollution exposures arising from products and completed operations (as per standard CG0001 Pollution Exclusion or equivalent). (If the standard pollution exclusion as provided by CG0001 has been amended, please refer to the following section entitled "Pollution Coverage.")
- **Pollution Coverage –**
- In the event that the standard pollution exclusion as provided by CG0001 has been amended, coverage may be substituted with a separate Pollution Liability policy or a Professional Liability policy that includes pollution coverage in the amount of \$1.0 million per occurrence or claim and \$1.0 million aggregate. If coverage is provided by a "claims made" form, coverage will be maintained for three years after project completion. Any applicable deductible is the responsibility of the Consultant.

**Automobile Liability –**

Limits of at least: \$ 1,000,000 CSL Per Accident

- Coverage shall apply to all Owned, Hired, and Non-Owned Autos.

**Workers' Compensation –**

Limits: Statutory coverage for the State where the project is located.

Employer's Liability limits: \$100,000 Each Accident  
 \$100,000 Disease – Per Person  
 \$500,000 Disease – Policy Limit

- Consultant agrees to waive its rights of recovery against the LPA. Waiver of Subrogation in favor of the LPA shall be added to, or included in, the policy

**Professional Liability –**

Limits of at least: \$ 1,000,000 Per Claim and Annual Aggregate

- Coverage shall be provided for three years after work/project completion.

**Electronic Data and Valuable Papers –**

Limits of at least: \$100,000 Electronic Data Processing Data and Media  
 \$25,000 Valuable Papers

**Umbrella/Excess –**

Limits of at least: \$1,000,000 Per Occurrence and Annual Aggregate

- Policy shall provide liability coverage in excess of the specified Employers Liability, Commercial General Liability and Auto Liability.
- The LPA, shall be an "Additional Insured".
- Consultant agrees to waive its rights of recovery against the LPA. Waiver of subrogation

in favor of the LPA shall be provided.

**Additional Requirements –**

- Any insurance policy shall be written by a reputable insurance company acceptable to the LPA or with a current Best's Insurance Guide Rating of A – and Class VII or better, and authorized to do business in Nebraska.
- Evidence of such insurance coverage in effect shall be provided to the LPA in the form of an Accord certificate of insurance executed by a licensed representative of the participating insurer(s).
- For so long as insurance coverage is required under this agreement, the Consultant shall have a duty to notify the LPA and the State of Nebraska Department of Roads (State) when the Consultant knows, or has reason to believe, that any insurance coverage required under this agreement will lapse, or may be canceled or terminated. The Consultant must forward any pertinent notice of cancelation or termination to the LPA and to the State by mail (return receipt requested), hand-delivery or facsimile transmission within 2 business days of receipt by Consultant of any such notice from an insurance carrier. Copies of notices received by the Consultant shall be sent to the LPA, in care of the LPA's Responsible Charge and to the State at the following address:  
  
Nebraska Department of Roads  
Construction Division – Insurance Section  
1500 Highway 2, P. O. Box 94759  
Lincoln, NE 68509-4759  
Facsimile No. 402-479-4854
- Failure of the owner or any other party to review, approve, and/or reject a certificate of insurance in whole or in part does not waive the requirements of this agreement.
- The Limits of Coverage's set forth in this document are suggested minimum limits of coverage. The suggested limits of coverage shall not be construed to be a limitation of the liability on the part of the consultant or any of its subconsultants/tier subconsultants. The carrying of insurance described shall in no way be interpreted as relieving the consultant, subconsultant, or tier subconsultant of any responsibility of liability under the contract.
- If there is a discrepancy of coverage between this document and any other insurance specification for this project, the greater limit or coverage requirement shall prevail.

## FEES AND PAYMENTS

### EXHIBIT "D"

- A. **Payment Method.** Payment under this agreement will be made based on Actual Costs plus a Fixed Fee for profit.
- B. **Total Agreement Amount.** For performance of the services as described in this agreement, the Consultant will be paid a fixed-fee-for-profit of \$23,090.76 and up to a maximum amount of \$793,341.75 for actual costs as defined in paragraph "H" of this section. The total agreement amount is \$816,432.51. The Consultant's compensation shall not exceed this maximum amount without prior written approval of the LPA.
- C. **Ineligible Costs.** The LPA is not responsible for costs incurred prior to the Notice-to-Proceed date or after the completion deadline date set out in the NOTICE TO PROCEED AND COMPLETION section of this agreement or as provided in a written time extension notification.
- D. **Federal Cost Principles.** For performance of Services under the terms of this agreement, the Consultant will be paid subject to the terms of this agreement and all requirements and limitations of the federal cost principles contained in the Federal Acquisition Regulation (48 CFR 31).
- E. **Subconsultant Over-runs and Under-runs.** The Consultant shall require any subconsultant to notify Consultant if at any time the subconsultant determines that its costs will exceed its negotiated fee estimate. The Consultant shall not allow any subconsultant to exceed its negotiated fee estimate without prior written approval of the LPA. The Consultant understands that the amount of any subconsultant cost under-run will be subtracted from the total compensation to be paid to Consultant under this agreement, unless prior written approval is obtained from the LPA and, when applicable, FHWA.
- F. **Out of Scope Services and Consultant Work Orders.** The LPA may request that Consultant provide services that, in the opinion of Consultant, are in addition to or different from those set out in the Scope of Services. When the LPA decides that these services require an adjustment in costs, the Consultant shall: (a) describe the proposed services, (b) provide an explanation why Consultant believes that the proposed services are not within the original scope of services and additional work effort is therefore required, and (c) estimate the cost to complete the services. Consultant must receive written approval from the LPA before proceeding with the out-of-scope services. Before

written approval will be given by the LPA, the LPA must determine that the situation meets the following criteria:

- That the additional work is beyond the scope of services initially negotiated with Consultant; and
- That the proposed services are within the scope of the Request for Proposal under which Consultant was selected and contract entered into; and
- That it is in the best interest of the LPA that the services be performed under this agreement.

Once the need for a modification has been established, a supplemental agreement will be prepared.

If the additional work requires the Consultant to incur costs prior to execution of a supplemental agreement, the LPA shall use the process set out below:

- The Consultant Work Order (CWO) – DR Form 250 shall be used to describe and provide necessary justification for the additional the scope of services, effort, the deliverables, modification of schedule, and to document the cost of additional services. The CWO form is available on the Department of Roads website at [www.transportation.nebraska.gov/gov-aff/lpa-guide-man.html#forms4](http://www.transportation.nebraska.gov/gov-aff/lpa-guide-man.html#forms4). The CWO must be executed to provide authorization for the additional work and to specify when that work may begin. This agreement will be supplemented after one or more CWOs have been authorized and approved for funding.

G. **Payments.** Payment for work under this agreement will be made based on actual costs plus a fixed fee for profit. Actual costs include direct labor costs, direct non-labor costs, and overhead costs.

(1) Direct Labor Costs are the earnings that individuals receive for the time they are working directly on the project.

(a) Hourly Rates: For hourly employees, the hourly earnings rate shall be the employee's straight time hourly rate for the pay period in which the work was performed. If overtime hours are worked on this project, the premium pay portion of those hours is not allowable as a direct labor cost.

For salaried employees, the hourly earnings rate shall be their actual hourly rate as recorded in the Consultant's accounting books of record.

(b) Time records: The hours charged to the project must be supported by adequate time distribution records. The records must clearly indicate the distribution of



hours to all activities on a daily basis for the entire pay period, and there must be a system in place to ensure that time charged to each activity is accurate.

- (2) Direct Non-Labor Costs: These costs include all necessary, actual, and allowable costs related to completing the work under the agreement, including but not limited to: meals, lodging, mileage, subject to the limitations outlined below; communication costs; reproduction and printing costs; special equipment and materials required for the project; special insurance premiums if required solely for this agreement; and such other allowable items.

A non-labor cost charged as a direct cost cannot be included in the Consultant's overhead rate. If for reasons of practicality, the consultant is treating a direct non-labor cost category, in its entirety, as an overhead cost, then costs from that category are not eligible to be billed to this project as a direct expense.

Consultant shall submit to the LPA an invoice or billing itemizing all direct non-labor costs claimed for work under this agreement, and all supporting receipts or invoices.

The LPA will pay the Consultant for all necessary, allowable, eligible and properly documented direct non-labor costs related to the work under this agreement.

The following expenses will be reimbursed at actual costs, not to exceed the rates as shown below.

- (a) The reimbursement for mileage associated with the use of company owned vehicles shall be the prevailing standard rate as established by the Internal Revenue Service (IRS) through its Revenue Procedures. Reimbursement for mileage associated with the use of a privately owned vehicle (POV), is limited to the lesser of:

- 1) The mileage rate which the consultant reimbursed to the person who submitted the claim for POV use, or
- 2) The prevailing standard rate as established by the IRS.

- (b) Automobile Rentals and Air Fares will be actual reasonable cost and if discounts are applicable the Consultant shall give the LPA the benefit of all discounts.

- (c) The reimbursement for meal and lodging rates shall be limited to the prevailing standard rate as indicated in the current website address for U.S. General Services Administration's (GSA) rates which is indicated below:

<http://www.gsa.gov/portal/category/100120>

- 1) For the Consultant and its employees to be eligible for the meal allowance, the following criteria must be met.

Breakfast:

- a) Employee is required to depart at or before 6:30 a.m., or
- b) Employee is on overnight travel.

Lunch:

- a) Employee must be on overnight travel. No reimbursement for same day travel.
- b) Employee is required to leave for overnight travel at or before 11:00 a.m., or
- c) Employee returns from overnight travel at or after 2:00 p.m.

Dinner:

- a) Employee returns from overnight travel or work location at or after 7:00 p.m., or
- b) Employee is on overnight travel.

Meals are not eligible for reimbursement if the employee eats within 20 miles of the headquarters town of the employee.

The Consultant shall note the actual lodging and meal costs in a daily diary, expense report, or on the individual's time report along with the time of departure to the project and time of return to the headquarters town. The total daily meal costs must not exceed the GSA rates set out above.

- (3) Overhead Costs include indirect labor costs, indirect non-labor costs, and direct labor additives that are allowable in accordance with 48 CFR 31. Overhead costs are to be allocated to the project as a percentage of direct labor costs. The Consultant will be allowed to charge the project using its actual allowable overhead rate. Overhead rate increases which occur during the project period will not be cause for an increase in the maximum amount established in this agreement.

- H. **Fee for Profit (Actual Cost Plus Fixed Fee).** The Fixed Fee for Profit was computed upon the negotiated direct labor and overhead costs. The Fee for Profit is not allowable upon direct non-labor costs. For monthly or progress invoices, the Fee for Profit is calculated by multiplying the sum of the direct labor and overhead costs billed by the negotiated Fee for Profit Rate of "13.10%". Upon completion of the work under this

agreement, the Consultant shall invoice the LPA any remaining Fixed Fee for Profit. If all of the work under this agreement is not completed for any reason, fixed fee for profit will be adjusted based on the LPA's determination of the actual percentage of work completed.

I. **Invoices and Progress Reports.** The Consultant shall submit invoices to the LPA no more frequently than at monthly intervals and in accordance with the "LPA Reimbursement Procedures" which can be found on the State's website at: <http://www.transportation.nebraska.gov/gov-aff/lpa-guide-man.html#policies4>. The invoices must present actual direct labor, actual overhead, actual direct non-labor costs, as well as the Fee for Profit based upon the actual direct labor and overhead costs billed for that period. The invoices must identify each employee by name and classification, the hours worked, and each individual's actual labor cost. Direct non-labor expenses must be itemized and provide a complete description of each item billed.

Each monthly invoice must include a completed "Cost Breakdown Form" (see State's webpage at <http://www.transportation.nebraska.gov/gov-aff/lpa-guide-man.html>) and must be substantiated by a progress report which is to include/address, as a minimum:

1. A description of the work completed for that period
2. A description of the work anticipated for the next pay period
3. Information needed from the LPA
4. Percent of work completed to date

Consultant shall submit a progress report monthly even if Consultant does not submit a monthly invoice.

J. **Progress Payments.** Payments will not be made unless the monthly progress reports provide adequate substantiation for the work and the LPA and the State determine that the work has been properly completed. The LPA will make a reasonable effort to pay the Consultant within 30 days of receipt of the Consultant invoices.

K. **Final Invoice.** Upon completion of the work under this agreement, the Consultant shall submit their final invoice with a letter identifying it as the final invoice. The letter shall also include the following information/statements:

1. Project name/location, project number, control number, service provided, and agreement number.
2. All the work under this agreement has been completed and all required deliverables have been submitted to the LPA,

3. Consultant has no outstanding issues to be resolved regarding the work under this agreement.

In addition, the Consultant shall review the overhead costs billed to-date to determine if the overhead rates used on the progress billings match the actual allowable rate applicable to the time period that the labor was incurred. If cost adjustments are necessary, they should be reflected on the final invoice. If a particular year's actual overhead has not yet been computed or approved by the State, the most recent years accepted rate should be applied.

- L. **Final Payment.** Upon determination by the LPA and the State that the work was adequately substantiated and completed in accordance with this agreement, payment will be made in the amount of the approved final invoice. The acceptance by the Consultant of the final payment will constitute and operate as a release to the LPA and the State for all claims and liability to the Consultant, its representatives, and assigns, for any and all things done, furnished, or relating to the services rendered by or in connection with this agreement or any part thereof.
- M. **Audit and Final Cost Adjustment.** Upon acceptance by the LPA and the State, the State, or its authorized representative, may complete an audit review of the payments made under this agreement. The Parties understand that the audit may require an adjustment of the payments made under this agreement. The Consultant agrees to reimburse the LPA for any overpayments identified in the audit review, and LPA agrees to pay Consultant for any identified underpayments.
- N. **Consultant Cost Record Retention.** The Consultant shall maintain, and also require that its Subconsultants/Subcontractors maintain, all books, documents, papers, accounting records, and other evidence pertaining to costs incurred and shall make such material available for examination at its office at all reasonable times during the agreement period and for three years from the date of final cost settlement by FHWA and project closeout by the State. Such materials must be available for inspection by the LPA, State, FHWA, or any authorized representative of the federal government, and when requested, the Consultant shall furnish copies.