

EXHIBIT "A"

**Scope of Services
Broadway, 14th – 20th Street
City of Scottsbluff
Project No. URB-5701(8), CN: 51489
Engineering Design Services**

The scope of services for this project involves engineering design services required to produce final construction plans and specifications to improve Broadway, 14th – 20th Street. The required professional services will include geotechnical analysis, roadway design, drainage design, sidewalk, lighting, environmental documentation, project management, and public involvement.

I. Project Management

- A. Pre-Design Meeting
- B. Coordination with NDOR
- C. Progress Meetings (6)
- D. Plan-In-Hand Meeting
- E. Governing Body Meetings (2)
- F. Other Public Involvement Meetings (2)
- G. Contract Administration/Scheduling & Coordination of Design Professionals

II. Public Involvement

- A. Public Meetings (at 60% Design Completion) (2)
- B. Preparation of preliminary set of plans
- C. Preparation of Aerial Exhibits
- D. Stakeholder One-on-One Meetings as needed.

III. Preliminary Survey – Topographic Survey has been completed by [insert LPA] Staff

- A. Re-establish Horizontal and Vertical Control (verify)
- B. Property Corners (verify)
- C. Topographic Survey as required to supplement the previous survey completed by [insert name].
- D. Utility Locates
- E. Download, Reduce Notes and Develop Topographic Map from [insert LPA] electronic data files.

IV. Roadway Design

- A. Site Inspections (Field Check)
- B. Data Collection and Review
- C. Typical Sections
- D. Horizontal Alignment
- E. Vertical Alignment
- F. Geometric Design
- G. Sidewalk Design
- H. Roadway Cross Section
- I. Limits of Construction
- J. Estimate of Earthwork Quantity
- K. Storm Sewer Design and Hydraulic Analysis
- L. Construction and Removals
- M. Joints and Grades
- N. Roadway Lighting
- O. Erosion Control
- P. Utilities Coordination
- Q. Traffic Control and Construction Phasing Sheets
- R. Quantities/Estimates
- S. Right of way design including proposed construction easements
- T. NDOR submittals to PS&E
- U. Quality Review

- V. Special Provisions
- W. Detour Plan Sheets
- X. Address 90% Review Comments

V. Geotechnical Engineering

Conduct a geotechnical investigation for the project. Soil test borings performed along the roadway alignment will provide valuable information regarding pavement subgrade conditions, potential impact of varying fill heights, suitability of potential borrow and/or excavation areas and pavement design thicknesses based on projected average daily traffic volumes.

Drill (2) soil test borings to depths of 10 feet along the proposed roadway alignment. Testing to be conducted at 5' intervals utilizing ASTM D-1586, D-1587 Methodology.

Soil characteristics will be determined and recommendations concerning the soils and ground water conditions will be provided in a written report.

Engineering geotechnical report shall present conclusions recommendations and information on the following:

- Laboratory analysis includes proctor curve analysis.
- Recommendations related to concrete paving thicknesses.
- Discussion associated with site preparation and structural fill placement.
- Subgrade preparation and requirements for road areas. Recommendations associated with possible core-outs and over excavation of soft alluvial soils, if necessary.
- Recommendations regarding the thickness, moisture and compaction criteria of any backfill or structural fill.
- Discussion of anticipated groundwater concerns, along with recommendations for addressing these concerns during construction, if required.

VI. Environmental Documentation

- A. Environmental Determination. The [insert LPA] has belief that the proposed project will be classified as a Type II Categorical Exclusion (Justified CE) pursuant to 23 CFR 771.117(d). As such, Consultant will prepare an Environmental Determination Form and supporting documentation in compliance with the *NDOR LPA Manual for Preparing Categorical Exclusions for Local Federal Aid Projects*, and in compliance with the National Environmental Policy Act (NEPA), and all applicable State and Federal laws, Executive Orders, and regulations. The Determination Form and supporting documentation will provide a level of analysis commensurate with the level of impact of the proposed action and its alternatives.

Sections in the Determination Form include:

1. Project Description
2. Other Alternatives Considered
3. Right of Way, Relocations, Utility Coordination
4. Socio-Economic
5. Historic and Cultural Resources (Section 106)
6. Section 4(f) and Section 6(f)
7. Threatened and Endangered Species
8. Farmland
9. Wetlands/Waters of the United States/Waters of the State (Title 117)
10. Floodplains
11. Regulated Materials
12. Air Quality/Noise
13. Water Quality
14. Wild and Scenic Rivers
15. Construction Impacts
16. Public Involvement

17. Permitting and Environmental Commitments

The focus of these evaluations will be on important impacts and issues (i.e. resources with a reasonable likelihood of being affected to some extent), with less important areas only briefly discussed (i.e. resources with no potential to be affected to any extent). Based on the extent of adverse impacts, mitigation will be identified as required. Detailed mitigation plans with specific criteria and associated monitoring activities are outside of the scope of this study.

Consultant will contact various agencies and interested stakeholders, including U.S. Department of Defense, U.S. Army Corps of Engineers, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Nebraska State Historic Preservation Officers, Nebraska Department of Environmental Quality, Nebraska Department of Natural Resources, Nebraska Game and Parks Commission, and any other applicable agencies, and any other applicable stakeholders.

Consultant will gather information from the [insert LPA], agencies listed above, and other sources, including site visits. If necessary, the Consultant will arrange for an agency scoping meeting and site tour.

- B. Wetland Delineation. Complete a jurisdictional wetland evaluation of the wetland and waters of the U.S. for the project site. Wetlands identified during the investigation will be delineated in accordance with the U.S. Army Corps of Engineers (COE) 1987 Wetlands Delineation Manual, and wetland boundaries will be located by sub-meter accuracy GPS in the field. Data on soils, hydrology, and vegetation will be collected. Color photographs of the wetland and upland areas will be taken, and data sheets will be filled out at locations that will allow wetland boundaries to be determined. Areas that are not wetlands but meet the definition of “waters of the U.S.” will be identified on maps only and not delineated in the field. A wetland report will be prepared documenting the findings.
- C. Wetland Permitting Assistance. This project is assumed to qualify for a Nationwide Permit (either 23 for Approved CE or 14 for Transportation Projects).
- D. Complete NEPA Forms and support for CE; provide for revisions required
- E. Prepare Green Sheets and revisions required.
- F. Storm Water Plan, SWPPP, NOI to be completed by [insert LPA] staff only.

VII. Right-of-Way Services

- A. Title Searches to be completed by the [insert LPA].
 - B. Plats and Legal Descriptions to be identified for R.O.W. design
- ADDITIONAL R.O.W. Services to be negotiated as a supplement to the scope of services and engineering agreement will be made after R.O.W. design is completed for the project.
- C. Appraisals
 - D. Review Appraisals
 - E. Acquisition Negotiations
 - F. Coordinate with Appraisers, Title Company and Negotiators
 - G. NDOR Audit Compliance

VIII. Construction Phase Services

- A. Pre-Construction Meeting
- B. Progress Meetings
- C. Construction Inspection
- D. Material Sampling and Testing
- E. Environmental Compliance (SWPP & Green Sheets)
- F. As-built Plans
- G. Shop Drawing Review
- H. Traffic Control Plan
- I. Construction Staking
- J. Project Closeout