RESOLUTION AUTHORIZING CHAIRMAN TO SIGN TASK ORDER #R160924.00 UNDER JEO CONSULTING GROUP MASTER AGREEMENT FOR PROFESSIONAL SERVICES FOR SARPY COUNTY PROJECT C-77(17-14) BOX EXTENSION LOCATED AT 54TH ST AND MAASS ROAD IN SARPY COUNTY

WHEREAS, pursuant to Neb. Rev. Stat. 23-104(6), the County has the power to do all acts in relation to the concerns of the County necessary to the exercise of its corporate powers; and,

WHEREAS, pursuant to Neb. Rev. Stat. 23-103, the powers of the County as a body are exercised by the County Board; and,

WHEREAS, the County and JEO Consulting Group, Inc. have previously executed an Engineering Master Services Agreement via Resolution 2014-90, for providing on-call/as-needed engineering services to Sarpy County, and,

WHEREAS, County and JEO Consulting Group, Inc. wish to enter into Task Order #R1160924.00 which outlines modifications and/or additional duties for professional services related to Sarpy County project C-77(17-14) Box Extension located at 54th Street and Maass Road in Sarpy County, Nebraska.

NOW THEREFORE, BE IT RESOLVED by the Sarpy County Board of Commissioners that pursuant to the statutory authority set forth above, the Task Order #R1160924.00 with JEO Consulting Group, Inc. for Professional services for Sarpy County Project C-77(17-14) Box Extension located at 54th Street and Maass Road in Sarpy County, Nebraska, a copy of which is attached hereto, is hereby approved.

BE IT FURTHER RESOLVED that the Chair and the Clerk are hereby authorized to execute said agreement on behalf of Sarpy County, Nebraska.

The above Resolution was approved by a vote of the Sarpy County Board of Commissioners at a public meeting duly held in accordance with the applicable law on the 20th day of August, 2016.

Attest

Sarpy County Board Chairman

COUNTY CLERK

[Signature]
MEMORANDUM

To: Sarpy County Board of Commissioners
From: Dennis L. Wilson, County Engineer
Subject: JEO Consulting Group Work Order #R160924.00 to Master Agreement
Date: August 10, 2016

I recommend approval of the Task Order #R160924.00 to the Master Agreement with JEO Consulting Group for Professional Services for Sarpy County Project C-77(17-14) Box Extension located at 54th Street and Maass Road. For a total not to exceed cost of $55,927.00.

DLW/bjh
In accordance with the Master Services Agreement between Owner and Engineer for Professional Services dated March 31, 2014 ("Agreement"), Owner and Engineer agree as follows:

Specific Project Data

A. Title: Maass Road Culvert

B. Description: Professional Engineering Services as described in Attachment "A" related to the above referenced projects including topographic and boundary surveys, wetland delineation, geotechnical engineering, design (including drainage, structural and right-of-way design) and permitting assistance.

1. Services of Engineer

Engineer shall provide, or cause to be provided, the services set forth herein and in Attachment "A".

2. Owner's Responsibilities

Exhibit "A" from the Master Services Agreement between Owner and Engineer for Professional Services as referenced above is modified as follows: None

3. Times for Rendering Services

Schedule for completion of the work is as follows.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Completion Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assumed Notice to Proceed (NTP)</td>
<td>August 18, 2016</td>
</tr>
<tr>
<td>Survey Complete:</td>
<td>September 9, 2016</td>
</tr>
<tr>
<td>Geotechnical Investigation, Studies, Kick-off:</td>
<td>September 20, 2016</td>
</tr>
<tr>
<td>30% (Plan-in-Hand):</td>
<td>October 12, 2016</td>
</tr>
<tr>
<td>60% Submittal:</td>
<td>November 10, 2016</td>
</tr>
<tr>
<td>90% Submittal:</td>
<td>December 8, 2016</td>
</tr>
<tr>
<td>Final Submittal (pending comments):</td>
<td>Two weeks after receiving comments.</td>
</tr>
</tbody>
</table>

4. Payments to Engineer

The total compensation for services identified under paragraph 1 of the Task Order is estimated to be $55,927.00 based on the following distribution.

<table>
<thead>
<tr>
<th>Phase</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey and ROW acquisition plats:</td>
<td>$4,490.00</td>
</tr>
<tr>
<td>Environmental:</td>
<td>$3,926.00</td>
</tr>
<tr>
<td>Geotechnical:</td>
<td>$5,610.00</td>
</tr>
<tr>
<td>Preliminary Study Phase</td>
<td>$7,248.00</td>
</tr>
<tr>
<td>Design:</td>
<td>$33,850.50</td>
</tr>
<tr>
<td>Permitting Assistance:</td>
<td>$802.50</td>
</tr>
</tbody>
</table>

Engineer may alter the distribution of compensation between individual phases noted herein to be consistent with services actually rendered, but shall not exceed the total Lump Sum amount unless approved by the Owner.
Task Order

5. **Other Modifications to Master Agreement**: None

Approval and Acceptance: Approval and Acceptance of this Task Order, including the attachments listed above, shall incorporate this document as part of the Agreement. Engineer is authorized to begin performance upon its receipt of a copy of this Task Order signed by Owner.

The Effective Date of this Task Order is **8/16/2016**.

Engineer: JEO Consulting Group, Inc.

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Designated Representative for Task Order:

Eric S. Dixon
Name
Project Manager
Title
2700 Fletcher Ave., Lincoln, NE 68504
Address
edixon@jeo.com
E-Mail Address
402.474.8779
Phone
402.435.4110
Fax

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Designated Representative for Task Order:

Bill Herr
Name
Project Administrator
Title
1210 Golden Gate Dr., Papillion, NE 68046
Address
bherr@sarpy.com
E-Mail Address
402.537.6906
Phone
402.537.6955
Fax

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Approved as to form:

Sarpy County Attorney
Scope of Services

Project Description: The project is located in Sarpy County on Maass Road, approximately 0.8 miles south of the intersection with Highway N-370. The box culvert crossing Maass Road at this location is failing, causing the eastern embankment of Maass Road to collapse. This project will replace/extend the box culvert, construct guardrail if needed, and restore the roadway embankment.

The existing box culvert is estimated to have been constructed in the mid to late 1930’s. At the inlet, the existing culvert measures 8-feet span by 5-feet rise. Near the outlet, the box culvert drops 30-foot vertically. The outlet of the box culvert is buried in silt. The exposed concrete headwall at the outlet is broken. The roadway embankment and a portion of the roadway at the outlet is collapsing, causing the guardrail to fail. As an interim measure to keep the road open, the County has closed a lane, installed temporary concrete barriers, and erected appropriate signage and barricades. The roadway will be closed to all traffic during construction of the project.

JEO will provide professional services related to surveying, roadway and drainage design, right-of-way design and limited environmental permitting assistance. Our sub-consultant Thiele Geotech, Inc. will perform the geotechnical services. The following is a detailed scope of services:

1. Preliminary Field Work and Studies
   1.1. Topographic Survey:
       1.1.1. Conduct a topographic survey of the site.
           Unless otherwise directed by the County, the survey will be performed in reference to NAD 83, Nebraska State Plane Coordinate System and the NAVD88 vertical datum. Using GPS survey equipment and the Sieler VRS Network. The coordinates would be modified to use the local Nebraska Department of Roads Ground Scale Factor (DAF). All survey control would be established using GPS equipment and the VRS Network. It is assumed that differential leveling would not be required.

           1.1.1.1. Topography shall include 200-feet each side of the existing culvert, as measured along the centerline of Maass Road; 50-feet west of the centerline of Maass Road; and 150-feet east of the centerline of Maass Road.

           1.1.1.2. Topography shall include the following elevations of the existing culvert downstream of the project, crossing Timberridge Drive; the overtopping elevation of Timberridge Drive and the inlet elevation of the culvert.

           1.1.2. Utility locate requests will be made with the Nebraska One Call system and utilities surveyed as marked by locators.

           1.1.3. Process topography using CAD software to create base drawings.

   1.2. Boundary Survey:
       1.2.1. Locate and survey Section and Property Corners. Estimate 3 Section and approximately 6 property corners to be located.
1.2.2. Perform On-Line research and obtain copies of existing plats, deeds and easements recorded with the Sarpy County Register of Deeds. Deliverables for this task do not include title reports, title commitments or title abstracts.

1.2.3. Draw boundary information using CAD software to create base drawings. Estimate 2 parcels along the project.

1.2.4. Prepare a ROW plat for the parcel(s) as needed.

1.3. Structural Study; and Hydrological and Hydraulic Study:

1.3.1. Structural Study and Hydrological and Hydraulic Study.

1.3.1.1. JEO will complete a structural study of the existing box culvert.

1.3.1.1.1. The structural study will be limited to visual observations of the portions of the existing box culvert which are readily accessible. The visual observations will identify observable distresses and structural deficiencies.

1.3.1.1.2. Prepare a technical memorandum summarizing the observations, and providing an opinion regarding the suitability for using a portion of the existing box culvert in place.

1.3.1.2. JEO will complete a drainage evaluation to review the run-off to the culvert crossing; to evaluate the existing culvert hydraulics; to evaluate up to two (2) potential methods to drop grade and dissipate energy assuming a box culvert extension; and up to two (2) replacement options. A Drainage Evaluation Report will be prepared.

1.3.2. Organize and attend the project kick-off meeting.

1.3.2.1. Review studies completed under task 1.3.1.

1.3.2.2. Prepare concepts for the replacement / rehabilitation of the box culvert.

1.3.2.3. Prepare and submit pdf of excel spreadsheets for conceptual design opinions of probable construction cost for the concepts.

1.4. Wetland Delineation and Threatened and Endangered Species Survey:

1.4.1. Wetland Delineation fieldwork and report.

1.4.1.1. Perform field work within the project limits.

1.4.1.1.1. Preparation of Wetland/WOUS delineations using guidance of the US Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and appropriate Regional Supplemental Delineation Manual. This includes investigation and sample point collection of site hydrology, vegetation, and soil.

1.4.1.1.2. Accurate mapping of delineated wetland boundaries with post-processed sub-meter accuracy using a Trimble GeoXH hand-held GPS

1.4.2.1. Produce a wetland delineation report which may be used in the preparation of permitting documents and will include the following:

1.4.2.2. Project Site Location Summary of “desktop review”

1.4.2.3. Identification and mapping of the boundaries of all wetlands and WOUS

1.4.2.4. Calculation of wetland and WOUS acreages (nearest 0.01 acres)

1.4.2.5. Identification of the types of wetlands and WOUS present

1.4.2.6. Photographs of each site and wetland

1.4.2.7. USACE Wetland Determination Data Forms (Midwest)

1.4.2.8. Import wetland information using CAD software to create base drawings.
1.4.3 Perform threatened and endangered species habitat analysis survey within project limits. Compose memorandum summarizing the findings.

1.5. Geotechnical Soils Investigation (by our subconsultant Thiele Geotech, Inc.):
1.5.1 General: The proposed geotechnical exploration will consist of test borings to obtain geologic information and samples of the site soils, laboratory tests to determine the relevant engineering properties of the various soil strata, and a report of geotechnical engineering recommendations.

With the anticipated soil conditions, we propose to conduct a total of one test boring near the existing culvert within the roadway, for a depth of 60 feet. The borings will be sampled at intervals of 5 feet or less and a descriptive log of the test borings will be prepared.

Based on the results of the test boring, a laboratory testing program will be established to evaluate the engineering properties of the various soil strata. Laboratory testing may include moisture content and density determinations to characterize the state and uniformity of the deposits, unconfined compression tests to determine shear strength parameters, and index property tests for classification.

The report will discuss the general soil and ground water conditions underlying the site; present the relevant engineering properties of the existing soils; provide earthwork and site preparation recommendations; and recommend design criteria and parameters for culvert foundations, global stability of the existing roadway, and other earth supported improvements.

The proposed scope of services does not include an evaluation of potential contamination on or near the site. If the environmental condition of the property is a concern, an environmental site assessment can be provided as an additional service.

In addition to the geotechnical exploration report, Thiele will provide consultation with the design team and review of final plans and specifications. This will include assistance with preparation of material requirements and construction methods for any special provisions that will be recommended outside of the Omaha’s standard specifications.

1.6. Preliminary Field Work and Studies Deliverables:
   1.6.1.1. Structural Study Technical Memorandum
   1.6.1.2. Drainage Evaluation Report
   1.6.1.3. Wetland Delineation Report

2. Design Services:
2.1. Review existing data and information provided by the County.
2.2. Prepare 30 percent (Plan-In-Hand) submittal that include the following deliverables:
   2.2.1. Hard copy of plan set in 11" x 17" format including the following sections: cover sheet with vicinity map; typical sections; wetlands/aerials; culvert plan and profile; roadway plan and profile with limits of construction; cross sections; and existing right of way.
   2.2.2. Prepare and submit pdf of excel spreadsheet for 30% design level opinion of probable construction cost.
   2.2.3. Furnish public and private utilities (gas, telephone, cable television, etc.) 30 percent plans.
2.2.4. Furnish copies of the Wetland Delineation, Drainage Evaluation Report, and Geotechnical Investigation Report.

2.2.5. Plan-in-Hand. Review preliminary plans with the County and visit the project site. Document any proposed changes to the preliminary design in a Plan-in-Hand memorandum and submit to the County.

2.3. Preparation of 60% submittal that include the following deliverables:

2.3.1. Hard copy of the plan set in 11" x 17" format including the following sections: cover sheet with vicinity map; typical sections; summary of quantities; wetlands/aerials; horizontal alignment & orientation; general information; culvert plan and profile; construction & removals; roadway plan and profile with limits of construction; traffic control plan for road closure; detour map and signage plan for detour; structural special plan sheets; right of way sheets; and cross sections.

2.3.2. Prepare and submit pdf of excel spreadsheet for 60% design level opinion of probable construction cost.

2.4. Preparation of 90%/Final submittal that includes the following deliverables. (NOTE: 90% plans will be signed and sealed. Final plans will include any revised signed and sealed sheets pursuant to County’s review comments)

2.4.1. Hard copy of the plan set in 11” x 17” format including the following sections: cover sheet with vicinity map; typical sections; summary of quantities; wetlands/aerials; horizontal alignment & orientation; general information; culvert plan and profile; construction & removals; erosion and sediment control; roadway plan and profile sheets; traffic control plan for road closure; detour map and signage plan for detour; structural special plan sheets; right of way sheets; and cross sections.

2.4.2. Prepare special provisions and bid documents. County will provide JEO boilerplate bid documents.

2.4.3. Prepare and submit pdf of excel spreadsheet for final opinion of probable construction cost.

2.4.4. Prepare legal descriptions and easements of tracts to be acquired for right-of-way and easements (assume 2 tracts).

2.5. Provide the County with final deliverable of electronic data files, including:

2.5.1. Signed and stamped plan set in PDF format.

2.5.2. Signed and stamped special provisions and bid documents.

2.5.3. Base drawings in AutoCAD DWG format of survey, design features, boundary survey, proposed right of way, and cross sections.

2.6. Project progress meeting with County (assume 2 progress meetings).

2.7. Respond to contractor’s questions during bid letting.

2.8. Review of shop drawings.

3. Permitting Assistance:

3.1. Assist the County with obtaining the following permits:

3.1.1. Assumed area of land disturbance is less than 1 acre. Therefore, the following permit is not required:

3.1.1.1. National Pollution Discharge Elimination System Construction Storm Water Notice of Intent form.

3.1.2. Prepare Section 404 Pre-Construction Notification package. Package will be submitted by the County.
3.1.2.1. Assume that this project will be authorized by a Section 404 Nationwide Permit. Additional services will be required if the project requires a Section 404 Individual Permit.

3.1.2.2. Task does not include services required for compensatory mitigation that may be required by the United States Army Corp of Engineers, including but not limited to design, construction of compensatory mitigation, and monitoring of compensatory mitigation.

3.1.2.3. The Pre-Construction Notification package will be composed of the following items:

3.1.2.3.1. Wetland Delineation Report
3.1.2.3.2. Engineering Form 4345
3.1.2.3.3. Project description and methods of dredging or excavating, disposal site, sediment control, and waste disposal.
3.1.2.3.4. Project site location and impact maps.
3.1.2.3.5. Project photographs
3.1.2.3.6. Project site location and mapping of proposed impacts

3.1.3. Permitting Assistance Deliverables
3.1.3.1. Section 404 Nationwide Pre-Construction Notification Package.

4. Services Not Included:
4.1. Documentation of historic properties and cultural resources.
4.2. Traffic studies, traffic counts, and traffic signal warrant analysis.
4.3. Traffic signal design.
4.4. Lighting design.
4.5. Noise study.
4.6. District creation.
4.7. Structural design and plan production for retaining wall(s) and bridge(s). These services could be provided by supplemental agreement if needed.
4.8. Land acquisition appraisals and land acquisition negotiation services.
4.9. Construction permit(s) (except for limited assistance with obtaining permits listed in task 3).
4.11. Bidding letting and contractor negotiation.
4.12. Post bid letting services including, but not limited to construction administration, construction observation, construction staking, materials testing, and responses to requests for information. These services could be provided by supplemental agreement if needed.
4.13. USACE Individual Permit activities or approval - this scope assumes all project activities can be permitted under nationwide or general permits and without multiple revisions or submittals.
4.14. Wetland mitigation design, construction, monitoring, or seeding of temporary impact areas
4.15. Any compensatory wetland mitigation requirements by USACE
4.16. Other biological surveys or compliance with other agency requests
4.17. Delineation of wetlands or other WOUS outside of identified project or environmental review area

5. County to Provide
5.1. Section corner locations and ties (if not available on the County Website).
5.2. Timely reviews of plans and or requests for information.