

County Request No. 501

REQUEST FOR LEGAL SERVICES

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All legal opinions and approvals rendered are based only on the documentation and information stated below or attached to this form and, thus, it is important that all relevant facts and information be provided at the time of review. Please advise the District Attorney's Office of new or additional information, as it may cause the opinion to change. In all cases, the opinions of the District Attorney's Office are not binding on the County, its officers or employees and may be followed or disregarded in the discretion of the elected official.

Date of Request: 06/26/2024 Department: Engineering

State the nature of the legal request: _____

Form and Legality

RECEIVED

JUN 26 2024

CIVIL DIVISION
DISTRICT ATTORNEY

[Signature]
County Officer or Department Director

Reply of District Attorney's Office: _____

[Signature]

Date of Reply

6/26/24

[Signature]
Assistant District Attorney

AGREEMENT FOR SERVICES

This agreement made between CEC Corporation, 4555 W. Memorial Road, Oklahoma City, OK 73142, hereinafter referred to as "Consultant" and the **Board of County Commissioners** of Oklahoma County, hereinafter referred to as "County".

DESCRIPTION OF PROJECT

Oklahoma County Bridge

29-BR- 2024

0.25 Miles East of NW 178th St and Council Rd

SCOPE OF SERVICES

The Consultant Services to be provided are described in Attachment "A"

SECTION 1

CONSULTANT CHARGES

The total amount of the contract shall not exceed **Two Hundred Twenty Thousand Three Hundred Thirty-Four Dollars and Zero Cents (\$220,334.00)** for Scope of Services as described in attachment "A". Should the Consultant determine services are needed that will exceed that total amount, the Consultant shall notify the County by Amendment to this Agreement for acceptance by the County prior to performing work that would exceed this amount.

THE CONSULTANT AGREES

1. To comply with all federal, state, and local laws, regulations and ordinances applicable to the work, procure all necessary licenses and permits, and file any documents required for the approval of governmental authorities having jurisdiction over the Project.
2. To be available for such conferences as the County may deem necessary in connection with the work, and the County shall have the right to inspect plans at all reasonable times at an acceptable office or offices located 4555 W. Memorial Road, Oklahoma City, OK 73142.
3. To assume responsibility, to indemnify, and save harmless the County or other agency or other government from all claims and liability arising from the work performed, by the Consultant and its negligent acts or the negligent acts of its agents, employees, subcontractors, and/or independent consultants retained pursuant to this agreement.
4. To bind Consultant's firm including principals, officers, employees, agents, subcontractors, independent contractors and/or independent contractors retained pursuant to this agreement, to the same statutes, rules, and regulations as the County insofar as conflict of interest is concerned. Retention of records for three years after the final payment (paragraph 6).

5. That prior to beginning the work the Consultant's and its subcontractors shall obtain and furnish current copies (certificates) to the County of
 - A. Worker's Compensation Insurance in accordance with the laws of the State of Oklahoma.
 - B. Professional Liability Insurance. The insurance policy coverage must be in an amount of sufficient to satisfy any claims arising under The Oklahoma Governmental Tort Claims Act, 51 O.S. Sec. 151, et seq. The insurance policy must contain provisions that the County be notified if the insurance carrier intends to cancel or not renew the policy.
 - C. Errors & Omission of insurance against claims of inadequate work product or negligent actions.This insurance (A, B and C) shall be maintained in full force and effect during the life of the contract.
6. To maintain all books, documents, papers, accounting records and other evidence pertaining to cost incurred and to make such materials available at their perspective offices at all reasonable times, during the contract period for three years from the date of final payment under the contract, for inspection by the County and copies thereof shall be furnished if requested.
7. Any written report or document generated by the Consultant, his agents, employees, subcontractors, and/or independent contractors retained pursuant to this agreement, in connection with this project shall become the property of the County without any right of the Consultant, his, agents, employees, subcontractors, independent contractors and/or independent contractors retained pursuant to this agreement, to restrict said use in any manner by the County.

SECTION 2

THE COUNTY AGREES

1. The pay total fee not exceeds **Two Hundred Twenty Thousand Three Hundred Thirty-Four Dollars and Zero Cents (\$220,334.00)** which includes all services provided by Consultant, his subcontractors and/or independent consultants retained pursuant to this agreement, as funds are available and work is authorized by the County Engineer.

SECTION 3

It is further mutually agreed by the County and the Consultant that:

1. A written notice will be made to the Consultant by setting out the date to begin the prosecution of the contract work.
2. It is expressly understood and agreed by and between the parties hereto that the Consultant, including his subcontractors and/or independent contractors retained pursuant to this agreement, will hold and save the County harmless from any and all claims of damage or cause of action accruing to persons by reason of any of the work performed hereunder. The Consultant will be held responsible for the accuracy of engineering details and quantities of work to be performed or be performed by his subcontractors and/or independent contractors retained

pursuant to this agreement. Frequent occurrence of irregularities in engineering details or quantities will be a basis for withholding future engineering contracts from said Consultant. The Consultant, its subcontractors and/or independent contractors retained pursuant to this agreement, shall furnish a legible copy of all computations used in developing pay quantities, neatly arranged, bound, properly identified and indexed. The Consultant will be held responsible for any mistakes or omissions in the work of the Consultant, its subcontractors and/or independent contractors retained pursuant to this agreement, which appear during the final review by the County or any other government agency.

3. For any major revision in the character of the scope of the work ordered in writing by the County, a supplemental agreement will be negotiated, prior to performing the additional work.
4. The County reserves the right to delete any portion of the contract at any time, and if such is done, the total engineering fee shall be reduced in the same ratio as the estimated cost of the work deleted varies with the estimated cost of the work as originally planned, or when appropriate, the engineering fee shall be computed for the reduced scope of work in the same manner used for determining the original contract fee, provided that if the work has been already accomplished on that portion of the contract to be deleted, the Consultant, including its subcontractors and/or independent contractors retained pursuant to this agreement, shall be paid for the deleted portion on the basis of the estimated percentage of completion of such portion.
5. The County reserves the right to terminate this contract at any time, and if this project should be abandoned, or the processing of same indefinitely postponed, or this contract terminated for any other reason, the Consultant, including its subcontractors and/or independent contractors retained pursuant to this agreement, shall be paid by the County the reasonable value for the data delivered or ready for delivery upon receipt thereof, and such determination by the County shall be conclusive and binding.
6. Any dispute concerning a question of fact in connection with the work not disposed of by the agreement between the County, the Consultant, including its subcontractors and/or independent contractors retained pursuant to this agreement, shall be referred for determination to the County Commissioner in whose district the project is located, or his duly authorized representative whose decision shall be taken to the Board of County Commissioners for further consideration and determination.
7. The County will consider a request for a reasonable extension of time, if the Consultant submits a request in writing indicating the length of extension required, along with satisfactory evidence showing that the Consultant is unable to complete this work in the time specified for reasons beyond the Consultant's control. However, the County and the Consultant may be bound by the schedule in other applicable respects.
8. The Consultant shall furnish all engineering services, labor, equipment, and incidentals as may be required to perform this contract, except as otherwise provided herein.

9. All work performed and submitted under this contract, including the Consultant including its subcontractors and/or independent contractors retained pursuant to this agreement, shall be done in a manner acceptable to the County, and all computations prepared or obtained under the terms of the contract shall be delivered to and become the property of the County and that basic noted and sketches, charts, computations, and other data prepared or obtained under such contract shall be made available upon request, to the County without restriction or limitation on their use. Consultant shall retain these documents for a minimum of three years from the date of final payment.
10. This contract is null and void unless the amount of the contract has been encumbered by the County and approved for payment by the Board of County Commissioners.
11. This agreement cannot be assigned or subcontracted by either party without written approval of either party.

TERMS OF AGREEMENT

This Agreement shall be effective upon execution by all parties and will expire on completion of the scope of work.

OWNER IS A GOVERNMENTAL ENTITY OF THE STATE OF OKLAHOMA

It is expressly understood that the County under this agreement is a body corporate and politic of the State of Oklahoma and consequently may only contract within limitations provided by Oklahoma law. Notwithstanding any other provision to the contrary hereinbefore set forth, the provisions of the Article shall control any other provisions of this agreement.

The Consultant shall not perform any services until the Consultant receives a Purchase Order from Oklahoma County showing the full amount of the obligation create pursuant to this Agreement for the Project has been encumbered within an unencumbered amount previously appropriated for such purpose within the budget of Oklahoma County for Fiscal Year 2025. For the purpose of this agreement it is understood and agreed that the full amount of the obligation created pursuant to this Agreement is no more than **Two Hundred Twenty Thousand Three Hundred Thirty-Four Dollars and Zero Cents (\$220,334.00)**. In the event that an Amendment is approved pursuant to terms of this agreement, and terms of the Amendment require payment of any sum in addition to the sum immediately aforesaid, Consultant shall not perform any services contemplated within the scope of said Amendment until Consultant receives a Purchase Order showing that the full amount previously appropriated for such purchase in the budget of the Oklahoma County's Fiscal Year within which the Amendment is appropriated.

CONSULTANT:
CEC Corporation
4555 West Memorial Road
Oklahoma City, OK 73142

Signed before me this 5th day of July, 2024.

Taylor Barnes

Digitally signed by Taylor Barnes
DN: cn=Taylor Barnes, o=CEC Corporation, ou=CEC Corporation, c=US
Date: 2024.07.05 15:06:06-0500

Consultant

Taylor Barnes Transportation
Practice Leader

Printed Name and Title

Amber D. Steel
Notary Public

August 19, 2027
My Comm. Expires



APPROVED:

Stacey Trumbo
Stacey Trumbo, P.E.
County Engineer

Approved as to form and legality this 21 day of June, 2024.
John Edgler
Assistant District Attorney

IN WITNESS WHEREOF, the parties have executed this agreement this ____ day of _____, 2024.

BOARD OF COUNTY COMMISSIONERS
OKLAHOMA COUNTY, OKLAHOMA

Chairman

ATTEST:

Member

Member

ATTACHMENT "A"



CEC

ENGINEERING CONTRACT FEE PROPOSAL

FOR

OKLAHOMA COUNTY

BRIDGE 29

OKLAHOMA COUNTY, OK

JUNE 25, 2024

CEC Corporation
4555 W. Memorial Rd
Oklahoma City, OK 73142
Phone: 405.753.4200 | Fax: 405.260.9524
www.connectcec.com



GENERAL SCOPE OF SERVICES

INTRODUCTION

The following scope is for design services associated with developing plans and specifications to construct a new bridge, local I.D. 29, carrying NW 178th St over Soldier Creek in Oklahoma County. The project location is approximately 0.25 miles east of the intersection of NW 178th St and Council Rd in Oklahoma City, OK. The project extents have been defined as being approximately 0.28 miles long to construct the bridge and approaches, extending east to the intersection of NW 178th St and Council Rd. The horizontal alignment will remain the same and the vertical will be adjusted to accommodate the proposed bridge. The proposed bridge will not cause a rise in the base flood elevation. The west approach is approximately 1,300' to the intersection of NW 178th St and Council Rd. The east approach is approximately 200' east of the existing bridge. NW 178th St will be closed to through traffic during construction. The design services will include SUE, roadway plans for grade, drain, surface, bridge plans, right-of-way plans, utility relocation coordination and geotechnical investigation. Additional right-of-way will be needed for the project and the plans and documents required for acquisition are included in this scope. Project management effort is anticipated to include but not be limited to communication and coordination with the CED, commissioner, county engineer, and property owners during the project development and right-of-way acquisition. The environmental studies are not included in this scope.

Task 1: Survey

- 1.1 Topographic survey will be performed at the project site after the construction of ODOT JP 34965(04), NW 178th St. over Deer Creek, is completed. Topographic survey will include the following:
 - 1.1.1 Tie to previously set control established by CEC under project number 200012.
 - 1.1.2 Provide topographic survey services to include the following existing surface features: roads, curbs, drives, sidewalks, buildings, finished floor at thresholds, signs, fences, walls decorative trees, flowerbeds, all visible drainage structures, and visible and/or marked utilities.
 - 1.1.3 Storm sewer manholes, sanitary sewer manholes, water valves and their inverts will be measured for depth (to the connection outside of survey limits).
 - 1.1.4 Cross sections at 50' maximum intervals including applicable break lines.
 - 1.1.5 Surface model with contours at 1' minimum density
 - 1.1.6 Submit an Open Roads file containing the above-mentioned items.
 - 1.1.7 Perform two-time Right-of-Way staking.
- 1.2 Subsurface Utility Engineering (SUE) – SUE QL-B in accordance with ASCE CI/ASCE 38-02 “Standard Guideline for Collection and Depiction of Existing Subsurface Utility Data” is included to provide more accurate locations of existing utilities. See CEC Survey Proposal for additional details.
 - 1.2.1 QL-B: Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality Level B data should be reproducible by surface geophysics at any point

of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.

Task 2: Roadway Design and Plans

- 2.1 Prepare construction plans for asphalt roadway bridge approaches with an anticipated total length of approximately 0.28 miles. Plans will be governed by the Oklahoma Department of Transportation 2019 Standard Specifications for Highway Construction and the State of Oklahoma County Highway System Design Guidelines Manual, 2022.
- 2.2 Priority will be given to minimizing the right-of-way requirements. The roadway section has been scoped as 2-12' asphalt lanes with 6' shoulders. The design ADT is estimated at approximately 4,905 vehicles per day.
- 2.3 Define the extents of any additional right-of-way required and identify the relocation of any necessary utilities.
- 2.4 Design up to 3 driveways and associated side drains.
- 2.5 Provide evaluation and design the roadway drainage system. All cross drains shall be RCB, RCP, or polypropylene and all side drains shall be metal or polypropylene. End treatments on all pipes shall be concrete.
- 2.6 Prepare preliminary design plans for Plan-in-Hand field review inspections.
- 2.7 Prepare final design plans for Plan-in-Hand field review inspections.
- 2.8 Prepare construction cost estimates.
- 2.9 Incorporate environmental mitigation measures as required in environmental clearance documents.
- 2.10 Perform quality assurance/quality control review and make necessary corrections.
- 2.11 Prepare final set of construction plans.
- 2.12 Provide ODOT with the design documents and construction plan drawings necessary to support the ODOT's environmental clearance work.
- 2.13 Prepare advanced warning signage and itemized temporary traffic control plans and quantities to detour traffic during construction and permanent signing and striping quantities.
- 2.14 Prepare Construction Plans which may include, but are not limited to:
 - 2.14.1 Title Sheet
 - 2.14.2 Typical Sections
 - 2.14.3 General Construction Notes
 - 2.14.4 Summary of Pay Quantities and Notes
 - 2.14.5 Summary Sheets
 - 2.14.6 Driveway and Street Return Schedule
 - 2.14.7 Summary of Drainage Structures
 - 2.14.8 Storm Water Management Plan
 - 2.14.9 Erosion Control Plans
 - 2.14.10 Plan and Profile Sheets
 - 2.14.11 Cross Sections every 50' and at drives and cross drains.

Task 3: Bridge Design and Plans

- 3.1 Bridge plans will be prepared for Bridge 29. The anticipated design will be a triple-span P.C. beam bridge utilizing the ODOT 2019 state bridge standards. The new bridge will be constructed along the current alignment.
- 3.2 The bridge will allow a clear roadway width of 40'-0" and will be sized as necessary to meet the hydraulic requirements.
- 3.3 The bridge will be built on a straight bearing and striped for 2-12' lanes and 6' minimum shoulders over the bridge.
- 3.4 The CONSULTANT will:
 - 3.4.1 Conduct hydraulic design to set bridge size and roadway grades.
 - 3.4.2 Prepare preliminary bridge plans and cost estimates.
 - 3.4.3 Attend preliminary plan field review meeting.
 - 3.4.4 Prepare updated cost estimates.
 - 3.4.5 Attend final plan field review meeting.
 - 3.4.6 Finalize bridge plans, quantities and cost estimates.
- 3.5 Submit application for the COE permit to ODOT Local Government.
- 3.6 Design and detail all necessary erosion control for the channel.
- 3.7 Prepare construction plans, which may include but are not limited to:
 - 3.7.1 General Notes and Summary of Pay Quantities
 - 3.7.2 Substructure Staking Sheet
 - 3.7.3 General Plan and Elevation Sheet
 - 3.7.4 Rip Rap Detail Sheet(s)
 - 3.7.5 Miscellaneous Detail Sheet(s)
 - 3.7.6 Perform quality assurance/quality control reviews, make necessary corrections, and submit final plans.

Task 4: Right-of-Way

This task involves the preliminary development of right-of-way plans for necessary acquisitions required by the project.

- 4.1 Research and establish current property boundary lines from existing information available from the Oklahoma County Assessor. Easement verification will be completed with “Deed Plotter Software.”
- 4.2 Provide legal boundary description for the affected temporary and permanent right-of-way acquisition areas.
- 4.3 Provide assistance to the county’s acquisition agent during the process of acquiring the right-of-way.
- 4.4 Create set of right-of-way plans and easements to be submitted and approved by ODOT Right-of-Way Division. Right-of-way plans will be created from the proposed P&P sheets and does not include mapping or plot plans.

Task 5: Utility Relocation Assistance

This task involves coordination with utility owners whose facilities exist within limits of proposed construction.

- 5.1 Confirm existing utility owners and obtain contact information.
- 5.2 Conduct field meetings with all utility owners to discuss necessary relocations including scheduling, proper corridor location, sending meeting minutes and follow-up correspondence.
- 5.3 Provide profiles and cross sections to better clarify project details not shown in roadway plans when required.
- 5.4 Ensure utility owners prepare and submit preliminary relocation plans in a timely manner; review relocation plans and request revisions if applicable; send final copies of plans to ODOT field division for review and approval.
- 5.5 Upon approval of relocation plans, send work orders requesting owners to proceed with proposed utility relocations.
- 5.6 Conduct pre-work site meetings for utilities that are considered high liability.
- 5.7 Verify utility relocation is completed according to proposed utility plan.
- 5.8 Review and communicate reimbursable claims with county for approval and forward to ODOT for processing.

Task 6: Geotechnical Investigation

The sub-consultant will furnish all required or necessary geotechnical field and laboratory testing in accordance with ODOT’s ‘Geotechnical Specification for Road Design’ and ‘Specifications for the Geotechnical Investigation of Bridges and Related Structures’. This item will include appropriate investigations for roadway features and bridge foundations.

The Geotechnical Scope of Work will include:

- 6.1 Geotechnical Investigation for the new bridge.
- 6.2 Approach pavement recommendations.

See Appendix for detailed geotechnical scope and fee information.

Task 7: Bridge Hydraulics

The scope of bridge hydraulic analysis provided by the sub-consultant includes the following:

Bridge hydraulics will be calculated using HEC-RAS. At a minimum all hydraulic designs will involve the following tasks:

- 7.1 Hydrology – FEMA has published discharges for this location which will be used for this study. Those discharges were reviewed for the modeling study for the Deer Creek bridge over 178th Street and determined to be acceptable. It is anticipated that these discharges will continue to be used, but they will be reviewed to verify that they are still appropriate.
- 7.2 Existing Conditions Modeling – hydraulic models of the existing bridge and roadway embankment based on site survey data will be prepared. The model developed for the Deer Creek study will be used, updated as needed to incorporate field survey or any changed conditions. This model is a multiple opening model which includes Soldier Creek, Deer Creek, and Walnut Creek.
- 7.3 Natural (No-Bridge) Modeling – due to the significant floodplain alteration and the multiple opening, it is not likely that a realistic natural model can be developed. Further, those results are not a factor in compliance with FEMA or county design standards compliance. Therefore, a natural conditions model will not be developed.
- 7.4 Site Inspection – field visit to finalize hydraulic modeling parameters.
- 7.5 Proposed Conditions Modeling – Hydraulic modeling completed to identify the size of proposed structure needed to comply with county road and FEMA criteria. A multiple span bridge is anticipated and the scope includes scour calculations for the one percent annual exceedance probability event (100-year) and the 0.2 percent annual exceedance probability event (500-year). Note that, if the proposed structure does not meet the Zone AE zero rise restriction, a CLOMR application must be submitted to FEMA for review.

Sub-consultant will submit a preliminary hydraulic report and a final report (if needed) incorporating any review comments.

Preparation of FEMA CLOMR applications is not included in this scope and if they are needed it will be addressed by a separate agreement.

Following is a summary of the estimated engineering costs as detailed in the preceding.

PROPOSED ENGINEERING CONTRACT FEE SUMMARY

Bridge 29

Engineering Design and Production Fee Summary	
Task 1: Survey	\$ 20,460.00
Task 2, 3, 4, 5: Roadway, Bridge, R/W, Utility	\$ 151,682.00
Task 6: Geotechnical Investigation*	\$ 43,642.00
Task 7: Bridge Hydraulics	\$ 4,550.00

Total Proposed Fee	\$ 220,334.00
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*Includes 3% administrative fee.

(See Appendix A for detailed calculations of survey, engineering, and geotechnical costs.)

“Design Fee” as referenced in the table below refers to the fee for tasks 2-5. Services will be billed on a lump-sum basis according to the schedule below (services may be billed monthly, but billing will correspond to the milestones).

Milestone	Amount	
Completion of Survey Topo	\$9,300.00	
Completion of SUE QL-B	\$5,760.00	
Completion of R/W Staking	\$5,400.00	(\$2,700 per staking)
Bridge Hydraulics	\$4,550.00	
Plan-in-Hand Plans	\$45,504.60	(up to 30% Design Fee)
R/W Plans	\$45,504.60	(up to 30% Design Fee)
Preliminary (90%) Construction Plans	\$45,504.60	(up to 30% Design Fee)
Final PS&E	\$15,168.20	(up to 10% Design Fee)
Completion of Geotechnical Investigation	\$43,642.00	

We sincerely appreciate the opportunity to submit this engineering contract fee proposal. If the terms are agreeable, please sign and return a scanned copy/hard copy to me via email or at the address listed on the cover page. If you have any questions or need additional information, please call Lauren Romano at 405.753.4626.

Submitted for approval by:

CEC CORPORATION

Taylor Barnes Digitally signed by Taylor Barnes
DN: cn=Taylor Barnes, o=CEC Corporation, ou=CEC Corporation, cn=Taylor Barnes
Date: 2024.06.25 08:12:25-0500

Taylor Barnes, P.E.
Vice President

Date: 6-26-2024

Notes:

1. The fee presented is based on current hourly rates and is valid if contracted within 90 days from the date listed on the cover sheet.
2. CEC reserves the right to revisit the proposal scope and fee should the project be placed on hold for more than 90 days.

Bridge 29
Oklahoma County
6/25/2024
Page 7 of 8

APPENDIX A

CEC SURVEY PROPOSAL

GENERAL SCOPE OF SERVICES

NW 178th over Soldier Creek – Oklahoma County

SCOPE OF TOPOGRAPHIC SURVEY (see Exhibit “A” for limits)

- Tie to previously set control established by CEC under project number 200012.
- Provide topographic survey services to include the following existing surface features: roads, curbs, drives, sidewalks, buildings, finished floor at thresholds, signs, fences, walls, decorative trees, flowerbeds, all visible drainage structures, and visible and/or marked utilities.
- Storm sewer manholes, sanitary sewer manholes, water valves and their inverts will be measured for depth (to the connection outside of survey limits).
- Cross-sections at 50' maximum intervals including applicable break lines.
- Surface model with contours at 1' minimum density.
- Submit an ORD file containing the above-described items.
- Perform two-time Right-of-Way staking.

SCOPE OF SUE WORK:

SUE will perform Quality Level B Subsurface Utility Engineering (SUE) services (including subordinate Levels C and D) in accordance with ASCE CI/ASCE 38-22 “Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data”.

1. **Work Area.** SUE will provide services within the area indicated in Exhibit A (see page 4).
2. **Test Holes – Level A**
 - 2.1. SUE anticipates digging two (2) test holes as requested by CLIENT. Exact test hole locations will be determined by CEC in the field, based on approximate location requests submitted by CLIENT and QL-B indications for target utilities.
 - 2.2. SUE shall be compensated for test holes excavated, even if target utilities are not encountered. **Test hole cross sections will be approximately 24” x 24”. If exploratory trenching beyond these dimensions becomes necessary, this service will be provided at a rate of \$3,800 per day after approval by CLIENT.**
 - 2.3. SUE assumes a natural ground surface at the location of all test holes. No coring, saw cutting, jack hammering, or any form of pavement removal is included.
3. **Designating – Level B**
 - 3.1. CEC will designate tonable subsurface utilities, using geophysical prospecting equipment and mark with paint and pin flags. Utilities will be identified on flags.
 - 3.2. No sanitary or storm sewer manhole rodding or measure downs are included herein.
4. **Surface Features – Level C.** Utility surface features (such as water valves, telephone pedestals, etc.) will be documented and surveyed. Overhead utilities are typically excluded; however, CEC will survey power poles on the south side of 178th St.

CEC SURVEY PROPOSAL

5. **Records Research – Level D.** Available Records will be provided to SUE by CLIENT. SUE will perform additional record research as needed to successfully complete the project. Utility research, including researching the existing easements on the property for lines placed within them will be included.
6. **Survey**
 - 6.1. Any utility designating work (paint marks, pin flags, and all above ground utility appurtenances) and locating work (iron rod with cap or “x-cut”) will be surveyed and tied to the project survey control by SUE. Survey methods will meet or exceed the Minimum Standards for Land Surveying as set forth by the Oklahoma State Board of Licensure for Professional Engineers and Land Surveyors.
 - 6.2. CEC shall tie SUE survey to existing project control from adjacent previous project.
7. **SUE Deliverables / CAD**
 - 7.1. The designating work (paint marks, pin flags, and all above ground utility appurtenances) and test hole locations will be overlaid onto the base map / seed file prepared by SUE and/or others; final base map to be submitted to CLIENT as a .dgn file.
 - 7.2. If desired by CLIENT, CEC can develop 11x17 .pdf plan sheets depicting the composite drawing of all utilities designated on the project.
8. **Traffic Control.** No traffic control is anticipated for this site and is not included in this proposal.

DELIVERABLES

- ORD file of all above items
- Survey Control and Topographic Survey Certifications

Items *EXCLUDED from the Scope of Work*

- Any services not explicitly described above

PROJECT SCHEDULE

Following receipt of our Notice to Proceed, CEC Survey will coordinate a submittal timeline with the appropriate CEC design project manager.

ADDITIONAL SERVICES

If there should be a change in project scope that leads to additional work or additional services are requested by CLIENT, we will negotiate a fee to provide the changes or additional services prior to commencing work.

NOTES

- Any services not included in the scope will be an additional charge utilizing the most current approved hourly rates.
- The CEC Geospatial team may use LiDAR technology to supplement conventional topographic survey methods when deemed appropriate and/or necessary.

CEC SURVEY PROPOSAL

- On occasion, the CEC survey schedule may be affected by inclement weather, equipment malfunction(s), and/or unforeseen events. If a submittal delay is expected, CEC Survey will contact the appropriate project manager and coordinate a new submittal timeline.

PROPOSED SURVEYING CONTRACT FEE SUMMARY

Survey Services

• Topographic Survey & Control	\$ 9,300.00
• Subsurface Utility Engineering (SUE)	\$ 5,760.00
• Right-of-Way Staking (two-time)	\$ 5,400.00

TOTAL Survey Fee (Lump) \$ 20,460.00

COMPENSATION FOR SERVICES

- The work provided in the proposed scope shall be performed on a lump sum basis with amounts not to be exceeded for each task.
- If this Agreement is terminated, CEC shall be paid for services performed to the effective date of termination.

Submitted for approval by:



Sam McGee

Date: 6.24.24

Accepted by:

Signature

Date: _____

CEC SURVEY PROPOSAL

Exhibit "A" LOCATION MAP



SURVEY LIMITS





April 30, 2024

PROJECT SCOPE & FEE

Reference: NW 178th Bridge

CEC // Infrastructure Solutions

Mr. Brett Cowan, P.E.

4555 West Memorial Road

Oklahoma City, OK 73142

via email: brett.cowan@connectcec.com

Re: Proposed Triple-Span Bridge & Approaches

NW 178th St at Soldier Creek

Oklahoma County, Oklahoma

Project Information

We understand a new triple-span bridge will replace the existing bridge. The new bridge is expected to be constructed on the same alignment. New embankments are expected to be less than 10 feet. Abutments are expected to be supported on driven pile foundations while interior bents will be supported on drilled shafts. Bridge approaches will be constructed using asphaltic cement concrete. Based on our experience at NW 178th and Deer Creek, bedrock is estimated to be approximately 75 feet below the existing surface.

Scope of Services

The following scope of services is based on "State of Oklahoma County Highway System Design Guideline Manual 2022":

- Four soil test borings will be advanced to depths of 20 feet into rock. Borings will be advanced as near as practical to the locations of the proposed abutment and interior bent lines.
- Samples of the overburden soils within the bridge borings will be obtained using the split-barrel sampling procedure (SPT).
- Once encountered, bedrock will be evaluated using a Texas Cone Penetrometer (TCP) at 5-foot intervals to depths of 20 feet into rock. Following selected TCP tests, SPT tests will be conducted to obtain bedrock samples for visual classification. If no recovery is obtained, these tests will be abandoned.
- The moisture content of each sample will be evaluated. Selected samples will be classified according to the Unified Soil Classification System (USCS). Samples not classified in the laboratory will have classifications estimated by an experienced geotechnical engineer. One sample from each bridge boring will be evaluated for soluble sulfate content.
- Groundwater level observations will be made prior to injecting drilling fluid into the boreholes. Borings will be plugged per OWRB requirements immediately after final groundwater measurements are obtained.
- The existing pavement will be cored at two locations, one within the approach of each end of the existing bridge. Selected samples will be obtained immediately below the existing pavement and at depths up to 3 feet. Samples will be evaluated for moisture content, classified per AASHTO and evaluated for soluble sulfate content.

Following the completion of subsurface exploration, the geotechnical engineer will prepare a report summarizing the drilling methods and the test results, and will provide recommendations for earthwork, the design and construction of driven pile and drilled shaft foundations, and the design of bridge approach pavements. We expect to submit our report four to six weeks after completion of field work. Verbal recommendations can be provided as results are obtained. A fee estimate based on 2024 ODOT unit rates is included on the following page.

Respectfully,

Mark H. Hinderliter, P.E. – President

HINDERLITER GEOTECHNICAL ENGINEERING

Oklahoma Certificate of Authorization 5528 PE

Expires 6-30-2025



PROJECT SCOPE & FEE
Reference: NW 178th Bridge

ODOT Geotechnical Fee Schedule 2024									
Charge Item					UNIT	UNIT COST	NO. OF UNITS	COST	
1	Soil Classification (Gradation and Limits)		T88, T89, T90			each test	\$160.00	38	\$6,080.00
2	Moisture Content		T265			each test	\$12.00	70	\$840.00
7	Soluble Sulfate Test		OHD L-49			each test	\$70.00	6	\$420.00
14	Moisture-Density Test		A.	AASHTO T-99	Method A	each test	\$180.00	2	\$360.00
20	Resilient Modulus		T307			each test	\$675.00	4	\$2,700.00
21	Geotechnical Drilling (Soil & Rock)	A.	Soil Drilling (augers)			feet	\$27.00	300	\$8,100.00
		B.	Shale, Sandstone, Siltstone, Gypsum and Anhydrite Bedrock (rock bit drilling)			feet	\$38.00	80	\$3,040.00
		H.	Shoulder, In-Place and Subgrade Soil Survey			feet	\$40.00	6	\$240.00
22	Standard Penetration Test		ASTM D1586 / D1586M			each test	\$32.00	72	\$2,304.00
23	Texas Cone Penetration (TCP) Test					each test	\$40.00	20	\$800.00
35	Borehole Plugging (OWRB Spec 785:35 - 11-2)		A.	Bentonite		feet	\$8.50	40	\$340.00
37	Dozer Working Time					hour	\$250.00	8	\$2,000.00
38	Traffic Control					NPTO	\$500.00	4	\$2,000.00
40	Mobilization of Equipment	A.	Truck-Mounted Drill under 26,000# (per vehicle)			miles	\$6.00	144	\$864.00
		D.	Vehicle Hauling Dozer, Trackhoe or ATV Drill (CDL Driver)(per vehicle)			miles	\$8.00	36	\$288.00
		E.	Support Truck w/ Trailer (water tank, pvmt coring, FWD, GPR)(per vehicle)			miles	\$6.50	144	\$936.00
41	Pavement Coring, Evaluation and Non-Destructive Testing		A.	Asphalt Coring (0 to 12 inches)		each core	\$95.00	2	\$190.00
42	Survey for Geotechnical Borings		A.	Level & Rod (performed by on-site field personnel)		per hour	\$250.00	2	\$500.00
45	Mobilization of Field Engineer and/or Geologist	A.	Preliminary Site Reconnaissance, etc.			miles	\$3.50	36	\$126.00
		B.	Field Coordination & Borehole Logging			miles	\$3.50	144	\$504.00
35	Engineering	A.	Field Work Planning / Desk Reconnaissance			per hour	\$195.00	2	\$390.00
		B.	Preliminary Site Reconnaissance			per hour	\$100.00	4	\$400.00
		E.	Field Coordination			per hour	\$195.00	2	\$390.00
		F.	Borehole Logging			per hour	\$100.00	32	\$3,200.00
		K.	End Bearing & Friction Pile Analysis			per hour	\$195.00	4	\$780.00
		L.	End Bearing & Friction Drilled Shaft Analysis			per hour	\$195.00	4	\$780.00
		Q.	Pavement Design			per hour	\$195.00	2	\$390.00
		R.	Report Preparation			per hour	\$195.00	24	\$4,680.00
							TOTAL		\$43,642.00

Bill To OK CO ENGINEERING 320 ROBERT S KERR ROOM 201 OKLAHOMA CITY, OK 73102	Requisition 12501258-00 FY 2025 Acct No: UNDEFINED ACCOUNT. Review: Buyer: 6065enerimoo Status: Created
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Page 1

Vendor CEC CORPORATION 4555 W MEMORIAL ROAD OKLAHOMA CITY, OK 73142-2013 Tel#405-753-4200 Fax 405-384-4589	Ship To OK CO ENGINEERING 320 ROBERT S KERR ROOM 201 OKLAHOMA CITY, OK 73102
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Deliver To
 OK CO ENGINEERING
 320 ROBERT S KERR
 ROOM 201
 OKLAHOMA CITY, OK 73102

Date Ordered	Vendor Number	Date Required	Ship Via	Terms	Department
07/19/24	000038				Engineer

LN Description / Account	Qty	Unit Price	Net Price
Requisition Link			
Requisition Total			0.00

***** General Ledger Summary Section *****

Account	Amount Remaining Budget
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Authorized By: _____ Date: _____
Signature