

ATTACHMENT A SCOPE OF SERVICES

Article 3 of the AGREEMENT is amended and supplemented to include the following agreement of the parties. CONSULTANT shall, except as otherwise provided for herein, furnish all Engineering services, labor, equipment, and incidentals (SERVICES) as required for this AGREEMENT.

DESCRIPTION OF PROJECT

The scope of work for the FYE 2024 Urban Reconstruction Project is to improve two (2) existing neighborhood streets as a part of the City of Norman's 2021 Street Maintenance Bond Program. The two (2) streets are Oakbrook Drive from Pickard Avenue to Fairfield Drive and South Pickard Avenue from approximately 185 feet south of Lakewood Drive to West Imhoff Road.

Oakbrook Drive

Oakbrook Drive is a concrete road located between Pickard Avenue and Fairfield Drive. The road is approximately 0.20 miles in length and twenty-seven (27) feet wide. There are sixteen (16) driveway approaches. There are no sidewalks on Oakbrook Drive.

South Pickard Avenue

The design segment of South Pickard Avenue starts approximately 185 feet south of Lakewood drive and extends south to West Imhoff Road. This segment is a concrete road approximately 0.15 miles in length and twenty-eight (28) feet wide. There is sidewalk on the east side of the street. There are eleven (11) driveway approaches and one (1) street intersection. The scope also includes approximately 75 feet of Belmont Drive.

The scope of work will include topographic survey, existing property boundary research, geotechnical analysis, utility coordination, roadway design, and ADA Compliance. Design of utility relocations is not included in this scope of work.

DESIGN SERVICES

The following design services shall align with the tasks set forth in **Attachment C – Compensation**.

1. Roadway / Street

Oakbrook and South Pickard will be redesigned to a new, two (2) lane local roadways per City of Norman Standard Typical Section. All drainage is anticipated to be surface drainage with a positive flow downstream to connecting streets, however study of the use of limited storm sewer or other means to improve drainage is expected. All driveways and sidewalks shall be designed to meet the most current version of the ADA, AASHTO, and PROWAG guidelines, and City of Norman Engineering Design Criteria.

The Roadway Engineering design and plan preparation will include all elements listed below and will conform to current FHWA, ODOT, AASHTO, and City of Norman standards, including

- *An International Guide for Roadway Lighting*, American Association of State

- Highway and Transportation Officials, (latest revision).
- *A Policy on Geometric Design of Highways and Streets*, American Association of State Highway and Transportation Officials, 2011 Edition.
 - *Standard Specifications for Highway Construction, and Supplemental*, Oklahoma Department of Transportation, 2009.
 - *Highway Capacity Manual*, Transportation Research Board, 2010 Edition.
 - *Policy on Driveway Regulations for Oklahoma Highways*, Oklahoma Department of Transportation, 1996 Edition.
 - *Roadside Design Guide*, American Association of State Highway and Transportation Officials, 2011 Edition.
 - Oklahoma Administrative Code (OAC), Title 730.
 - *Drainage Design Manual*, Oklahoma Department of Transportation, 2014 Edition.
 - *Roadway Design Manual*, Oklahoma Department of Transportation, 1992 Edition.
 - *Roadway Safety and Convenience Design Guide for Oklahoma Cities*, Oklahoma Department of Transportation, 1991 Edition.
 - *Checklist for Local Government Urban Plans*, Oklahoma Department of Transportation, 2001 Edition.
 - *City of Norman, Engineering Design Criteria*, February 28, 2023
 - *City of Norman Standard Specifications and Construction Drawings* February 28, 2023

Oakbrook Drive

The proposed design is the reconstruction of the street with a new 27-foot wide, concrete roadway with integral concrete curb and gutter. Existing sidewalks will be improved to current ADA standards and all drive approaches will be designed to accommodate future sidewalks. Additional sidewalk design is not part of this scope. Roadway design shall meet City of Norman Standards and Specifications.

South Pickard Avenue

The proposed design is the reconstruction of the street with a new 28-foot wide, concrete roadway with integral concrete curb and gutter. Existing sidewalks will be improved to current ADA standards and all drive approaches will be designed to accommodate future sidewalks. Additional sidewalk design is not part of this scope. Roadway design shall meet City of Norman Standards and Specifications.

2. Traffic

Phased traffic control will be designed to facilitate construction to allow a minimum of one-way traffic through the duration of construction and access to all residents along project corridor.

3. Survey

Topographic survey will be provided along the corridor from the centerline Oakbrook Drive and the centerline of South Pickard Avenue to 10 feet outside of right-of-way and 20 feet outside each residential driveway at the right-of-way. The survey will also include a minimum of 100 feet or through the first driveway, whichever distance is greater, in all directions at all side street and cross street intersections.

Survey control will be based on the City of Norman Control network and will include 1-foot contour intervals with spot elevations at all key locations such as drainage features, sanitary sewer manholes, etc. Survey will denote the location of all visible utilities, those

identified through OKIE 811 requests and any obtained from the City of Norman utility atlas maps. Additional items to be shown include all improvements within the scope areas such as drives, parking lots, fences, landscaping, etc.

The CONSULTANT will notate identification/ownership of all adjoining properties and their rights-of-way and/or easements along the surveyed corridor.

Landowner notifications, generation of exhibits/legal descriptions for obtaining new rights-of-way/easements, right-of-way acquisition services, and survey data sheets are not provided as part of this contract but can be added through amendment as needed.

4. Geotechnical Testing

Roadway geotechnical investigation will include six (6) borings to be drilled on alternating sides of the roadway. The borings will include three (3) along Oakbrook and three (3) along Pickard. The borings will extend 36 inches beneath the existing pavement and will consist of grab samples at depths of material changes. Dynamic Cone Penetrometer (DCP) testing will also be performed in the borings. In the laboratory, testing will include water content, Atterberg limits and full sieve analysis, which will be performed on selected recovered samples. Soil samples will be classified in accordance with AASHTO and Unified Soil Classification Systems. In addition, two (2) Standard Proctor and California Bearing Ratio (CBR) tests will be performed on representative composite bulk samples.

Pavement subgrade and section recommendations for the full-depth reconstruction will be included.

Bridge geotechnical, retaining wall geotechnical and sign/light pole foundation recommendation are not provided as part of this contract but can be added through amendment as needed.

5. Right-Of-Way (R/W)

Right-of-way is not anticipated on this project. The CONSULTANT is not expected to prepare exhibits/legal descriptions. R/W plans, R/W Staking, and acquisition assistance is not included as part of this contract but can be added through amendment.

6. Utilities

The CONSULTANT will provide utility investigations along the corridor for the Preliminary (30%) Plan and Design Analysis milestone in coordination with the CITY. The CONSULTANT will discuss the level, location, and requirements for spot or segment wide subsurface investigations at that time with the CITY. Subsurface utility Investigations are not included as part of this contract but can be added through amendment.

The CONSULTANT will provide a color-coded Utility Map according to OKIE 811 color coding along the corridor.

The CONSULTANT shall help coordinate and attend utility meetings at each milestone, as needed. Utility coordination will include communication with utility companies and the City's utility department.

Design of utility relocations is not included in this scope of work but can be added through amendment.

7. Construction

a. Bidding

Once the final opinion of probable construction cost are accepted by the OWNER, the CONSULTANT shall:

- Attend the Pre-Bid Meeting and provide information to the OWNER as appropriate to clarify, correct, or change the bidding documents; the OWNER will submit any required Addenda.
- Analyze and evaluate bids in order to make a written recommendation for award to the OWNER.

b. Construction Support

CONSULTANT shall attend a Pre-Construction Meeting and will be available throughout construction to answer questions, including formal Requests for Information (RFIs), and assist the OWNER as necessary, helping to resolve any complications or conflicts that may arise. If shop drawings are to be produced during construction, CONSULTANT will be available to assist the OWNER in review. CONSULTANT shall attend regularly scheduled monthly progress meetings as requested (up to 6 meetings).

c. Record Drawings

Record Drawings will be prepared and submitted to the OWNER based upon field documents provided by the construction administrator.

MEETINGS

The CONSULTANT shall schedule milestone meetings or conference calls with the OWNER to discuss current project status, upcoming milestones, and any issues arising on the project. Brief weekly conference calls between the OWNER Project Manager and CONSULTANT Project Manager shall be conducted.

DESIGN CRITERIA

The design and plans shall conform to current (at the time of bidding) Federal, State of Oklahoma, City of Norman, and American Association of State Highway and Transportation Officials (AASHTO) policies and standards unless modified in writing at the direction of the OWNER.

DELIVERABLES

The CONSULTANT shall provide monthly project status updates that include (but are not limited to) schedule updates, action items, and the anticipated submittal date for upcoming milestones. CONSULTANT shall make available all design calculations upon request. CONSULTANT shall complete thorough quality control reviews prior to the submittal of all deliverables.

1. Design Plans – 30/90/100 Milestone Schedule

a. Plan Requirements

Plan submissions will include both hard-copy and electronic deliverables. The hard-copy submittal shall consist of one (1) 22 x 34-inches (full-size) and (4) 11 x 17-inches (half-size) plan sets printed to scale (per ODOT standards) and

delivered to the City of Norman Engineering Department.

b. Preliminary (30%) Plans

The 30% Preliminary Design Submittal should include, but is not limited to, the following:

- Title Sheet (with sheet index and standard drawings listed)
- Typical Section/Detail Sheet
- Horizontal Control Sheet
- Roadway Plan and Profile Sheets
- Opinion of Probable Construction Cost per street
- Updated Design Schedule

c. 90% Plans

The 60% Preliminary Design Submittal should include, but is not limited to, the following:

- Title Sheet (with sheet index and standard drawings listed)
- Typical Section/Detail Sheet
- Horizontal Control Sheet
- Storm Water Management Plan
- Roadway Plan and Profile Sheets
- Sign and Striping Sheets
- Demolition Sheets
- Estimate of Earthwork
- Preliminary Cross Sections
- Preliminary Construction Sequencing
- Opinion of Probable Construction Cost per street
- Updated Design Schedule

d. Plans, Specifications, and Estimate (PS&E) Submittal

The 100% Final Design Submittal should include, but is not limited to, the following:

- Title Sheet
- Typical Section/Detail Sheet
- Pay Item Lists and Notes
- Summary Sheets
- Horizontal Control Sheet
- Storm Water Management Plan
- Erosion Control Sheets
- Roadway Plan and Profile Sheets
- Signing and Striping Sheets
- Demolition Sheets
- Final Estimate of Earthwork
- Final Cross Sections
- Detail Sheets
- Sequence of Construction & Traffic Control Plans
- Final Opinion of Probable Construction Cost per street

ADDITIONAL SERVICES NOT INCLUDED

1. Environmental Mitigation Plans such as Wetlands, LUST, Hazmat, Section 404 Permitting, etc.

2. Full time construction inspection or observation
3. Construction surveying or surveying for as-built conditions
4. Proposed Right-of-Way or Preparation of Legal Descriptions and Tract Maps
5. Property Acquisition
6. Appraisals - Negotiations & Acquisitions
7. GIS mapping services or assistance with these services
8. Providing renderings, model, and mock-ups
9. Utility Relocation Design
10. Subsurface and/or potholing for utility locations
11. HEC-RAS Modeling
12. Federal, State, or Local Permits
13. Roadway and Pedestrian Lighting Design
14. Assisting OWNER in preparing for, or appearing at litigation, mediation, arbitration, dispute review boards, or other legal and/or administrative proceedings in the defense or prosecution of claims disputes with Contractor(s).
15. Design, contract modifications, studies or analysis required to comply with local, State, Federal or other regulatory agencies that become effective after the date of this agreement.
16. Plan Revisions: Plan revisions (minor alterations) are expected and therefore are included as part of our services in the base contract. Although, if plan adjustments exceed normal revisions or if a complete redesign is required then additional services shall be negotiated to meet an adjusted scope of services.