CITY OF HIGH POINT
AGENDA ITEM

Title: Contract Award for Design Services – Triangle Lake Road Improvements, Phase 1

From: Mark McDonald, Transportation Director

Meeting Date: Monday May 4, 2020

Advertising Date: NA

Public Hearing: No

Advertised By: NA

Attachments: Project Scope of Work and Fee Estimate, Area Map

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PURPOSE:

Consideration of a contract with Kimley-Horn and Associates, Inc. ("KHA") for professional planning, engineering and design services associated with the proposed roadway improvements on Triangle Lake Road, from True Lane to approximately 500 feet west of Central Avenue.

BACKGROUND:

The project focuses on an unimproved 1.2-mile segment of Triangle Lake Road and will tie into previously widened sections on either end. This portion is a two-lane, ribbon paved roadway, without turn lanes, curb and gutter, sidewalks, and other amenities. Shoulders are narrow, steep, and unpaved, providing very little recovery area for vehicles that may run off the pavement. The road alignment itself presents both vertical and horizontal challenges, creating visibility issues at intersections and driveways.

Triangle Lake Road averages about 4,000 vehicles per day. The corridor's crash history is consistent with an active substandard roadway. There is regular pedestrian activity, and area residents frequently use High Point Transit's E. Green route. Ridership numbers for this route are consistently above the system's daily average.

This project has been a priority of the Transportation Department for many years. A feasibility study completed in 2009 study revealed that road improvements would result in impacts to several natural environmental features (stream crossings and wetlands), and to meet the design criteria for improved safety and other accommodations, property impacts are very likely. Further investigation may permit adjustments that can reduce these impacts but will not fully eliminate them. The initial phase of the project will focus on re-evaluating the findings of the 2009 study, developing alternative concepts, and in-depth public engagement.

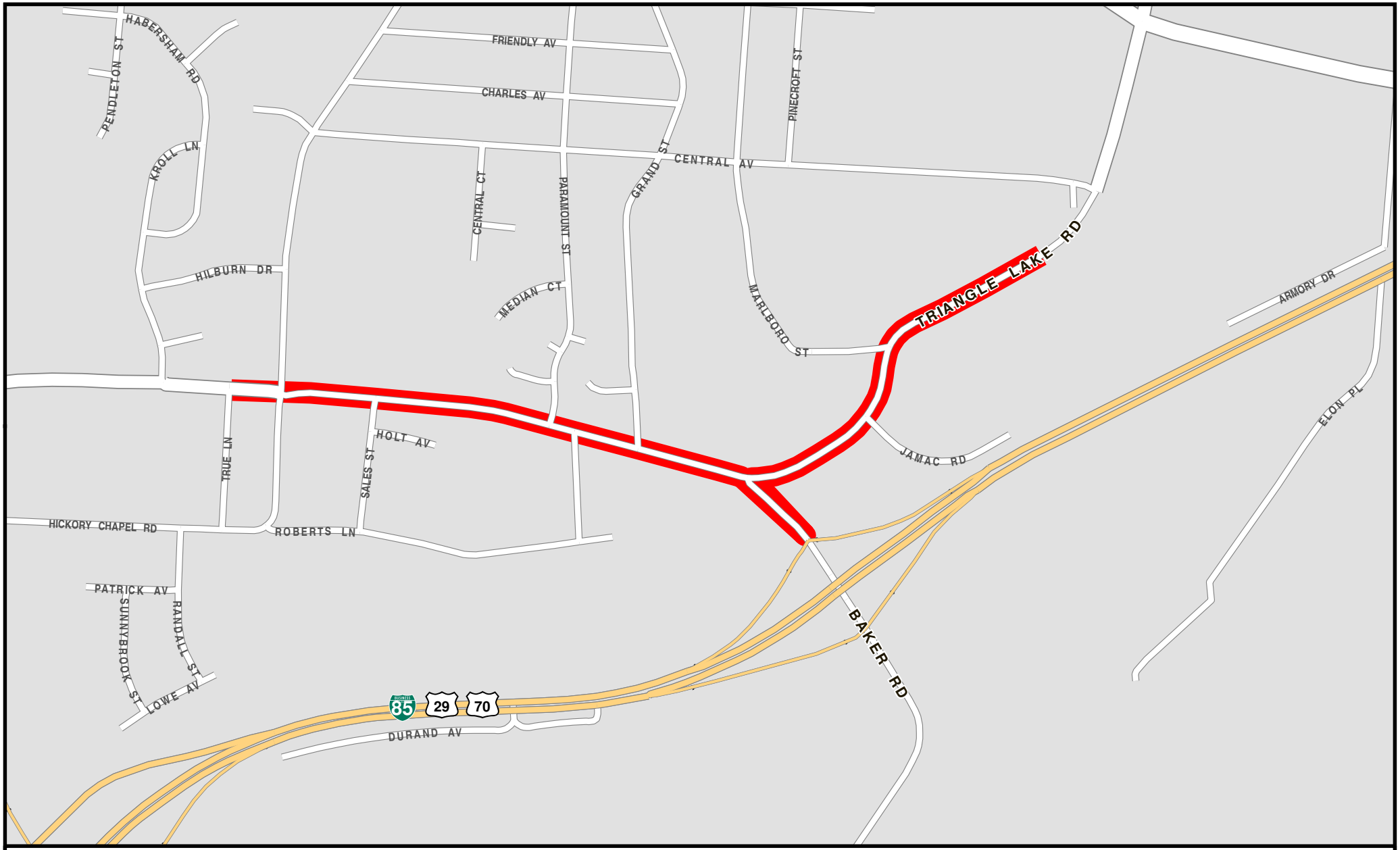
The proposed configuration would include the construction of curb and gutter to improve surface drainage, turn lanes where warranted, sidewalk on both sides and enhanced transit stops. It may be possible to widen the existing pavement to provide bicycle lanes. A realignment of the Baker Road intersection is also proposed. Additionally, utility improvements may also be deemed necessary by the project. The estimated cost of roadway and infrastructure improvements is **$12,000,000**. Funding was approved in the 2019 Transportation Bond referendum.

BUDGET IMPACT:

KHA will provide the described professional services for a lump-sum fee of **$253,511.85**. Funding is available in the current budget, Lawson accounting code 411610–527105–411201011005–40205.

RECOMMENDATION / ACTION REQUESTED:

Kimley-Horn and Associates, Inc. is an approved on-call professional transportation planning and engineering services consultant for the City of High Point. The firm is also pre-qualified to perform these services by the North Carolina Department of Transportation. The Transportation Department requests City Council's consideration and award of a contract with Kimley-Horn for the proposed project.



TRIANGLE LAKE ROAD WIDENING

HIGH POINT
NORTH CAROLINA'S INTERNATIONAL CITY™

MAP PREPARED BY
CITY OF HIGH POINT MPO
211 S. HAMILTON STREET
HIGH POINT, NORTH CAROLINA 27260
APRIL 2020

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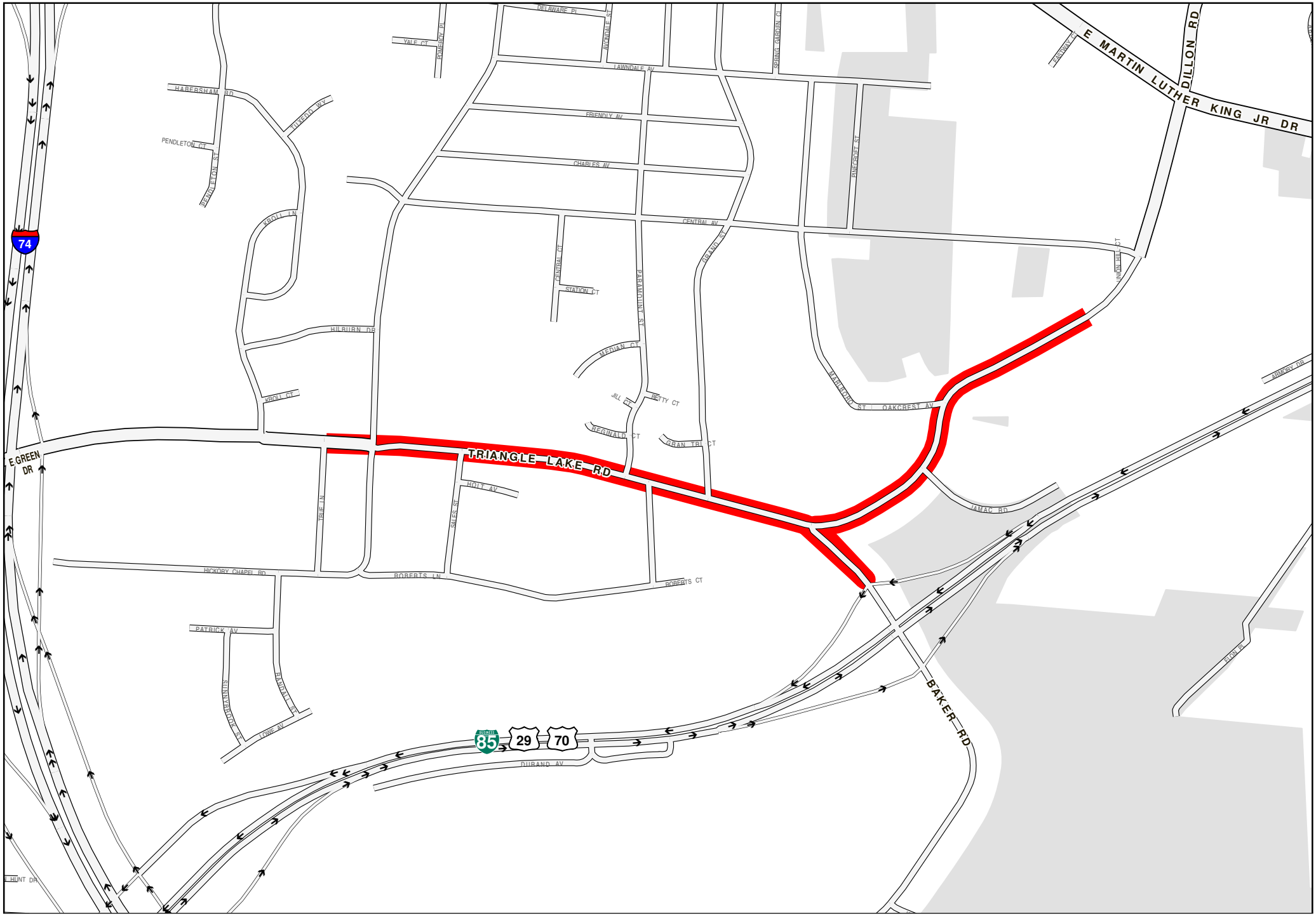

HIGH POINT
NORTH CAROLINA'S INTERNATIONAL CITY

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TRIANGLE LAKE ROAD

MAP PREPARED BY
High Point MPO
211 South Hamilton Street
High Point, North Carolina 27260

May 2019

Kimley»Horn

March 16, 2020

Mr. Mark McDonald, P.E.

City of High Point
Director of Transportation
211 S. Hamilton
2nd. Floor, Suite 210
High Point, NC 27260

RE: ***Planning and Conceptual Design services for improvements to Triangle Lake Road (SR 1321) in High Point, NC***

Dear Mr. McDonald

Kimley-Horn and Associates, Inc. (The Consultant) is pleased to submit this individual purchase order agreement (the Agreement) to the City of High Point, NC (The City) for providing Planning and Conceptual Design Services for improvements to Triangle Lake Road (SR 1321).

The Consultant understand the City would like to undertake additional planning and design efforts focused on improving existing Triangle Lake Road (SR 1321) from Hickory Chapel Road (SR 1311) to East Martin Luther King Jr. Drive (MLK Drive). Based on our understanding from feasibility study completed in 2010 and the scoping meeting held on December 3, 2019 with City staff, we have developed the following planning and conceptual design scope of services document.

Please feel free to contact me directly at 919-678-4194 if you would like to discuss this project.

Sincerely,

KIMLEY-HORN AND ASSOCIATES, INC.

Matt West, P.E., AVS
Vice President

INDIVIDUAL PROJECT ORDER NUMBER No. 1

Describing a specific agreement between Kimley-Horn and Associates, Inc. (the Consultant), and The City of High Point (the Client) in accordance with the terms of the Master Agreement for Continuing Professional Services dated March 21, 2018, which is incorporated herein by reference.

Project Understanding

Based on the feasibility study completed in 2010 and the more recent scoping meeting held on December 3, 2019, the Consultant understands the City would like to secure professional engineering services for the planning and design of improvements to Triangle Lake Road. From the recent scoping meeting, it was determined a 2-phase approach to the planning and design was most appropriate. The first phase will include the development of an updated environmental analysis, traffic and crash analysis, conceptual design revisions, public involvement activities, and associated opinion of probable construction cost, utility relocation costs, and right of way acquisition costs. The goal of phase-1 is to help better understand the environmental, traffic and crash data, receive public and City input on recommendations and typical sections of improvement, and develop a clear scope of service for the final design which will be defined in phase-2 scoping.

For planning purposes, we understand the City will provide the Consultant with probable right-of-way acquisition costs and relocation costs for utilities owned by the City. The consultant will coordinate with other private utility providers to request the remaining probable relocation costs.

The following tasks are included in this phase-1 scope of services and defined in more detail in the tasks that follow.

Task 1 – Environmantal Screening
Task 2 – Hydraulics Review
Task 3 – Traffic Analysis
Task 4 – Concept Designs
Task 5 – Preliminary Constructability Evaluation
Task 6 – Public Involvement

Scope of Services

TASK 1 – ENVIRONMENTAL SCREENING

1.1 Data Collection—The Consultant will develop a project study area map (8.5" x 11") in GIS format, and will submit a PDF to the Client for review. The Consultant will initiate literature searches and telephone contacts with local, regional, state, and federal agencies to obtain available existing information in the project area. The Consultant will review previous reports, plans, and studies regarding the study area. The Consultant will obtain available GIS data from NCDOT, NCNHP, NCDEQ, and other online resources, and will order a hazardous materials report from Environmental Data Services (EDR). The Consultant will assemble the available information for use during the planning process.

1.2 Human Environment

Community Studies Screening—The Consultant will use the latest NCDOT Demographic Screening Tool to document any Environmental Justice (EJ) or Limited English Proficiency (LEP) populations that are present within the study area. A summary of these findings will be documented in the Environmental Screening Memo. The Consultant will complete a field visit to document visible community characteristics. Feedback from the community related to EJ or LEP will be included in Environmental Screening Memo.

Purpose and Need—The Consultant will prepare a project need statement, purpose statement, performance measures (if applicable), and supporting data. These statements will be completed based on coordination with the Client, data gathered as described above, and traffic analyses completed in Task 5. The purpose and need will conform to the guidelines published by the FHWA in Technical Advisory T 6640.8A (1987) and the Purpose and Need Guidelines published by NCDOT. The purpose and need information will be documented in the Environmental Screening Memo.

Alternatives Analysis—The Consultant will summarize alternatives evaluated during the project planning process. Information provided could include typical section, alignment, and avoidance and minimization measures. This summary will be documented in the Environmental Screening Memo.

Crash Data Analysis—The Consultant will submit a crash data request from the NCDOT Safety Planning Group for crashes which occurred in the past five years along the project corridor and at key intersections within the study area. The Consultant will summarize the data, compare the corridor crash rate to the critical crash rate, and provide graphics showing crash locations. This crash data analysis will be included in the Environmental Screening Memo.

1.3 Natural Environment

Stream and Wetland Delineation

The Consultant will conduct a detailed field investigation to determine the absence or presence of streams, wetlands, and/or open waters within the project corridor utilizing the three-parameter approach for wetland delineation as described in the Federal Manual for Identifying and Delineating Jurisdictional Wetlands. Potentially jurisdictional areas will be flagged and GPS located in the field using current US Army Corps of Engineers (USACE) protocol per the 1987 Federal Manual for Identifying and Delineating Jurisdictional Wetlands and the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Eastern Mountains and Piedmont Region (version 2.0). Data forms required for certification by the USACE and the NC Division of Water Resources (NCDWR) will be completed with the necessary data obtained during the field investigation. Any jurisdictional streams will be classified as either perennial or intermittent and will be documented per NCDWR stream classification protocol.

Preliminary Jurisdictional Determination

The Consultant anticipates that a Preliminary Jurisdictional Determination (PreJD) will be necessary to meet the Client's objectives in the study area. The Consultant will prepare a Pre-JD request package for submittal to the USACE. The Consultant will seek to obtain concurrence from the USACE and NCDWR on the delineated wetlands and/or streams in the corridor. A PreJD request package will be submitted to the USACE consisting of a letter, the required figures, and data forms. It is anticipated that one site inspection will be required with the USACE and NCDWR where The Consultant will review the final delineation in the field with the applicable agency representatives. The Consultant will perform any minor modifications to the jurisdictional lines that may be deemed necessary by the USACE or NCDWR in order to obtain concurrence.

Regulated Riparian Buffers

Based on the project's location in the Randleman Lake Watershed, streamside riparian buffer zones may be regulated by NCDWR. The Consultant will review the most recent NRCS Soil Survey for Guilford County and the USGS 1:24,000 topographic maps for the area and determine the applicability of NCDWR riparian buffer rules within the property. Data forms will be completed in the field sufficient to request formal NCDWR concurrence as to the applicability of riparian buffers rules within the project corridor. A buffer applicability determination request will be prepared and submitted to NCDWR based on the field reconnaissance. It is assumed that the NCDWR buffer field review will be held concurrently with the USACE Preliminary Jurisdictional Determination field review.

Natural Resources Technical Memo

The Consultant will collect data from various federal and state agencies to identify important environmental resources and issues within the project corridor. During the field visit, The Consultant will verify and supplement key information regarding existing environmental conditions.

The Endangered Species Act of 1973 mandates that federal agencies ensure that any actions authorized, funded, or carried out by that agency do not jeopardize the "continued existence" of federally protected species or result in the destruction or adverse modification of critical habitat. As of October 4, 2018, the US Fish and Wildlife Service (USFWS) lists bald eagle, Cape Fear shiner, Roanoke logperch, Schweinitz's sunflower, and small whorled pogonia as the five federally-protected species known to occur in Guilford County. As part of the ESM preparation,

The Consultant will conduct habitat assessments for these five federally-protected species. If suitable habitat is identified, pedestrian surveys for bald eagle, Schweinitz's sunflower, and small whorled pogonia will be conducted during the appropriate survey windows listed by USFWS. Surveys for Cape Fear shiner and Roanoke logperch will not be conducted as part of this Task.

The Consultant will prepare text documenting these findings which will be included in the Environmental Screening Memo.

1.4 Environmental Screening Memo – The Consultant understands the Client does not currently intend to pursue State or Federal funding assistance for this project. The Consultant will prepare an Environmental Screening Memo which identifies existing human and natural environment resources in the project study area and describes the anticipated impacts to these resources. The document will include an opinion of probable cost based on the conceptual designs. The document will also make recommendations regarding what technical reports, coordination, agency approvals, and environmental document or documentation would be required under NEPA or SEPA regulations and the estimated additional cost and schedule implications to the project if the Client elects to secure federal funding at some point in the future.

Task 1 Deliverables:

- Study area map
- EDR report
- Environmental Screening Memo, to include:
    - Purpose and Need Statement
    - Alternatives Analysis
    - Crash Data Analysis
    - Summary of Public Outreach
    - Existing Resources
    - Anticipated Impacts to Resources
    - Recommendations if NEPA or SEPA is required
    - Figures showing existing resources and potential impacts

TASK 2 – HYDRAULICS REVIEW

A Hydraulics Technical Memorandum was performed in March of 2009.

2.1 Technical Memo Review - The Consultant will review the information provided in the report and update any calculations or content to conform to current standards. Based on the Hydraulic Technical Memorandum prepared by The Consultant in May 2009 and current FEMA Mapping,, there are three (3) FEMA Regulated streams. Stream No. 34 Tributary, Richland Creek Tributary 3, and Richland Creek Tributary 4 are perpendicular crossing within the project limits. A grade control letter will be performed and submitted and will include all major structures. There are also minor structures throughout the project which will be evaluated to determine if any grade adjustments need to be made. No additional preliminary hydraulic design will be performed as part of phase-1.

TASK 3 – TRAFFIC ANALYSIS

3.1 Traffic Counts – The Consultant will perform weekday 13-hour turning movement counts (including vehicles, bicycles, and pedestrians) at the following intersections:

- Triangle Lake Road at Hickory Chapel Road
- Triangle Lake Road at Paramount Street
- Triangle Lake Road at Grand Street
- Triangle Lake Road at Baker Road
- Triangle Lake Road at Oakcrest Avenue

The Consultant will also collect two 24-hour tube counts along Triangle Lake Road at the following locations:

- Between Hickory Chapel Road and Baker Road
- Between Baker Road and Central Avenue

3.2 Future Traffic Estimate – Utilizing the traffic counts, historic traffic data, and the regional travel demand model, The Consultant will develop AM and PM peak hour traffic volumes for the No Build and Build Scenarios in the Existing Year (2020) and Design Year (2045). The future traffic estimates will be submitted to the City for review; it is also assumed that the traffic estimates will be submitted to NCDOT. It is assumed that a formal traffic forecast document will not be prepared as a part of this scope of work.

3.3 Traffic Capacity Analysis – The Consultant will utilize the AM and PM peak hour traffic volumes developed as a part of Task 5.2 to perform a capacity analysis for the project. The Consultant will create a roadway network in Synchro and/or SIDRA for capacity analysis of AM and PM peak hour conditions at the following intersections:

- Triangle Lake Road at Hickory Chapel Road
- Triangle Lake Road at Paramount Street
- Triangle Lake Road at Grand Street
- Triangle Lake Road at Baker Road
- Triangle Lake Road at Oakcrest Avenue

Capacity analyses will be performed for the following scenarios:

- Existing (2020) No Build
- Future (2045) No Build
- Future (2045) Build

It is assumed that up to two (2) build alternatives will be analyzed at the intersection of Triangle Lake Road at Hickory Chapel Road. For scoping purposes, it is assumed that those build alternatives are to consist of a traffic signal installation and a roundabout installation. It is assumed that up to two (2) build alternatives will be analyzed at the intersection of Triangle Lake Road at Baker Road. For scoping purposes, it is assumed that those build alternatives are to consist of a two-way stop-controlled intersection and a traffic signal installation. Roadway laneage recommendations will be developed for the Future (2045) Build scenario using design year traffic.

3.4 Traffic Signal Warrant Analysis – Utilizing the 13-hour turning movement counts collected in Task 5.1, The Consultant will perform traffic signal warrant analyses at the following intersections to evaluate potential signal installations as a part of the project:

- Triangle Lake Road at Hickory Chapel Road

- Triangle Lake Road at Baker Road

The analyses will be completed using the volume-based Warrants 1-3 from the *2009 Manual on Uniform Traffic Control Design (MUTCD)*. The Consultant will provide findings related to the analyses to the City.

3.5 Traffic Analysis Summary Memo and Meeting – The Consultant will prepare a summary of the results of the traffic study and submit draft copies to the City for review. The Consultant will meet with City staff to review comments prior to finalizing the recommendations. Once comments are received and resolved, The Consultant will finalize the summary and submit final copies to the City.

Task 3 Deliverables:

- Future Traffic Estimate
- Traffic Analysis Summary Memo

TASK 4 – CONCEPT DESIGNS

All plans and designs will conform to City of High Point and NCDOT's standard practices for highway construction which are based on the 2018 AASHTO A Policy on Geometric Design of Highways and Streets. In addition, the Highway Design Branch "Policy and Procedure Manual for Roadway Design" and "Design Manual for Roadway Design" published January 2002, will be used as guides, including any modifications as directed by the City during the life of this Agreement. The services provided, and project deliverables are as defined in the scope of work.

4.1 Alternative Designs - Following environmental analysis, traffic analysis, and review with the Client, two alternative roadway typical sections of improvement will be developed to a concept horizontal and vertical level. From this design, general construction limits of impact will be plotted and evaluated. Following review and incorporation of comments from the City, these designs will serve as the basis for the development of the public involvement display maps. We anticipate one alternative to have a single roundabout at Hickory Chapel Road and the Second to have a total of three roundabout at locations to be later determined.

Conceptual level opinions of probable cost will be developed for each alternative and will included the following:

- Project construction cost (Roadway, Signals, Structures, Etc.)
- Anticipated utility relocation (public and private)
- Preliminary areas of proposed right-of-way and easement
- Environmental permitting costs based on preliminary areas of impact
- Potential construction inspection and administration.

Opinions of probable cost will be updated following public involvement. Changes will be made to reflect public comments which are determined to be incorporated into the proposed design. A final opinion of probable cost will be included with the final project delivery to the Client.

4.2 Public Involvement Maps – Concept mapping will have full color designs superimposed on aerial photography with associated typical sections. The public meeting map(s) will incorporate the changes requested by the City based on comments received to that point. The Consultant will prepare the public meeting map to conform to the State's latest standard practices for highway construction.

TASK 5 – PRELIMINARY CONSTRUCTABILITY EVALUATION

5.1 Preliminary Traffic Management Concepts - Concepts will be developed at culvert crossing locations to determine general construction sequencing and need for temporary widening and/or temporary culvert extensions which may impact construction limits and project costs. A brief narrative of proposed construction phasing along with associated typical sections will be developed and submitted to the City for review and comment prior to the public meeting. Once the preliminary phasing is generally approved by the City, the Consultant will incorporate these additional construction costs into the overall project opinion of probable construction cost.

TASK 6 – PUBLIC INVOLVEMENT

6.1 Mailing List and Notification —The Consultant will prepare a direct mailing list in Excel with an accompanying GIS map in PDF format for non-resident owners. The consultant will identify USPS EDDM routes for mailers to resident owners and tenants.

The Consultant will prepare a postcard (direct mail and EDDM versions) prior to the first public meeting to announce the upcoming public meeting and provide a project overview. A PDF copy of the postcard will be submitted to the Client for review. The Consultant will develop a door-hanger version of the postcard and submit an electronic version to the Client for review. Spanish translation is anticipated to be appropriate for this project, based on Census data, thus the postcards will be bilingual. A visual graphic will be prepared to be included on the EDDM version of the postcard.

Following review and approval by the Client, the Consultant will be responsible for printing and mailing the postcards (up to 500 direct and up to 3000 EDDM postcards are included in this scope) and printing and distributing the door hangers (up to 200 door hangers are included in this scope).

The Consultant will provide the Client with up to two graphics to be used for social media notifications regarding the public meeting. The Client will be responsible for any public notices to be placed in local media.

6.2 Local Officials Informational Meeting (LOIM)—A LOIM will be held prior to the public meeting and attended by three staff from the Consultant. The purpose of this meeting is to inform Council and staff prior to the public meeting. The Consultant will prepare a PowerPoint presentation for this meeting. The Consultant will provide an electronic copy of the presentation to the Client for review. The Consultant will coordinate with the Client to prepare the invitation list. The Consultant will distribute the invite via email to those on the invite list approved by the Client.

Maps and handout materials that were prepared for the public meeting will be used during the LOIM, and the Engineer will prepare a sign-in sheet, and meeting summary. The Consultant will provide the Client with an electronic draft of the meeting summary and make one round of revisions. The Consultant will distribute an electronic copy of the meeting summary to all of the local officials on the invite list and attendee list.

6.3 Public Meeting—One three-hour open-house public meeting will be held and attended by four staff from the Consultant. This is anticipated to be a hands-on workshop, and the Consultant will develop and facilitate several activities with the community during the meeting. The Consultant will provide one

Spanish language interpreter for the meetings based on the presence of Spanish speaking populations indicated in Census data. The Consultant will prepare a sign-in sheet for each of the public meetings.

The Consultant will prepare a handout (one 11 x 17" color page double sided) and comment sheet (one 8.5 x 11" color page double sided) and will submit an electronic copy of the handout to the Client for review. Following review, the Consultant will make one round of revisions and print the handout for the public meeting (up to 200 copies per public meeting are included in this scope).

The Consultant will prepare three foam display boards (36" x 48" each) with additional background information, such as adjacent projects, traffic data, existing resources, or visualizations as described in Task 7.5. The Consultant will provide electronic copies of the boards to the Client for review. Following review and approval of the boards by the Client, the Consultant will conduct one round of revisions, print, and mount the boards for the public meeting.

Preparation of the public meeting maps is included under Task 1.

The Consultant will prepare a public meeting summary with comment responses. A draft public meeting summary electronic version will be provided to the Client during a post-public meeting comment review meeting which will be held at the Client's office and attended by three staff from the Consultant to review and respond to public comments. The Consultant will make one round of revisions to the comment summary and provide a final electronic copy of the summary to the Client. A summary of the public outreach will be included in the Environmental Screening Memo.

6.4 Stakeholder Meeting—It is anticipated the Consultant will conduct up to four stakeholder meetings (3 Consultant attendees at each) in addition to the previously described LOIM and Public Meeting. The Consultant will coordinate with the Client to determine the appropriate time during the project process to schedule these meetings on an as needed basis.These meetings may be with the City Council, businesses, neighborhoods, or other interested groups. Previously prepared mapping will be used, and handouts will be updated as needed for each meeting. The Consultant will summarize discussions at the meeting.

6.5 Visualizations—The Consultant will prepare up to six graphical typical sections or before and after photo renderings for the public meeting.

6.6 Website—The Consultant will provide materials to the City to post on their website. A separate project website or online feedback tools are not included in this scope

Additional Services

Any services not specifically provided for in the above scope will be performed at hourly rates consistent with those included in the Master Agreement for On-Call Professional Services or will be included with the contract documents for phase-2 of design, as described above.

Information Provided By Client

We shall be entitled to rely on the completeness and accuracy of all information provided by the Client or the Client's consultants or representatives. The Client shall provide all information requested by Kimley-Horn during the project, including but not limited to the following:

- Final topographic, property, and DTM surveys.
- Additional stream surveys as necessary to tie realigned channels
- Probable right-of-way and easement acquisition costs for budgeting purposes
- Probable City owned utility relocation costs for budgeting purposes

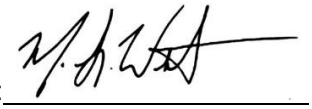
Fee and Expenses

Kimley-Horn will perform the services in Tasks 1 – 6 for the total lump sum fee below. Individual task amounts are informational only. All permitting, application, and similar project fees will be paid directly by the Client.

Task 1	Environmental Screening	$ 50,557.05
Task 2	Hydraulics Review	$ 12,961.79
Task 3	Traffic Analysis	$ 15,804.76
Task 4	Concept Designs	$ 61,124.47
Task 5	Preliminary Constructability Evaluation	$ 15,211.33
Task 6	Public Involvement	$ 87,727.90
Direct Expenses		$ 10,124.55
Total Lump Sum Fee		$ 253,511.85

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Invoices will be emailed to tabatha.jarrante@highpointnc.gov, with copy to mark.mcdonald@highpointnc.gov. Please include PO number issued after contract approval and execution on all invoices and other correspondence. Payment will be due within 25 days of your receipt of the invoice and should include the invoice number and Kimley-Horn project number.

ACCEPTED:

CLIENT	KIMLEY-HORN AND ASSOCIATES, INC.
BY:_____	BY: 
TITLE:_____	TITLE: Vice President
DATE:_____	DATE: 3-16-2020