

SCOPE OF SERVICES

Client: City of Greensboro Department of Transportation

Project Name: Gate City Boulevard Utility Line Relocation Feasibility Study, Conceptual Streetscape, and Pedestrian Crossing Study

Gannett Fleming has been requested by the City of Greensboro Department of Transportation (Client) to study the following three items:

- The feasibility of relocating utility lines along Gate City Boulevard from South Chapman Street to South Eugene Street in Greensboro, NC, approximately 1.8 miles.
- A conceptual streetscape design along Gate City Boulevard from South Chapman Street to South Eugene Street in Greensboro, NC, approximately 1.8 miles.
- A pedestrian crossing study along Gate City Boulevard from South Chapman Street to South Eugene Street in Greensboro, NC, approximately 1.8 miles.

Utility Line Relocation

Aerial utility lines (power and communication) are currently installed laterally and transversely along Gate City Blvd. The southern side of Gate City Boulevard contains the primary transmission line, secondary lines and communication lines. The northern side of Gate City Boulevard contains the transverse connections and communication lines. As an aesthetic measure, it is desirable to remove the utility poles from Gate City Boulevard and relocate the aerial utilities. It should be noted that not all utility poles are candidates for removal and/or relocation.

The following are several options which may be considered for the utility line relocation:

1. South side of NSR/NCRR railroad alignment.
2. North side of NSR/NCRR railroad alignment (along Oakland Avenue).
3. South of Gate City Boulevard along city/residential streets.

The project corridor along with the NSR/NCRR railroad alignment is illustrated in Attachment A.1-A.4. Attachment B illustrates the street view of Gate City Boulevard.

- Opinion of Probable Construction Cost
 - Utility Line Relocation

Conceptual Streetscape Design

- Conceptual streetscape design may include, but is not limited to;
 - Removal of aerial utility poles and relocation of aerial utility lines;
 - Pavement markings for bike lanes (dedicated or shared), pedestrian crossings (ladder stripe or stamped concrete), lane lines, and other pavement markings for resurfacing project;
 - Planting of trees and shrubs where desirable. Intersection site distance should be considered;

- Conceptual fence design in the UNCG tunnel area to better direct pedestrians to delineated crosswalks and/or potential grade separations;
- Conceptual traffic signal designs (black powder coated steel poles/mast arms) along Gate City Boulevard at:
 - S. Chapman Street
 - S. Aycock Street
 - Glenwood Avenue
 - Tate Street
 - Silver Ave
 - S. Eugene Street
- Installation of LED street lights and ornamental lights to match those along Gate City Boulevard near Greensboro Coliseum
- Missing sidewalk sections or sidewalk sections to be reconstructed
- Opinion of Probable Construction Cost
 - Conceptual Streetscape

Pedestrian Crossing Study

- Pedestrian Crossing Corridor Study
 - Topographic survey will be performed for the Pedestrian Crossing Study Area adjacent to the existing tunnel and proposed pedestrian crossing
- Pedestrian and traffic volume counts will be performed at the following eight (8) intersections with Gate City Blvd:
 - S. Chapman St
 - Warren St
 - S. Aycock St
 - Glenwood Ave
 - Highland Ave
 - Tate St
 - Silver Ave
 - S. Eugene St
 - Alternatives to be evaluated at the Glenwood Ave intersection include:
 - At-Grade Crossing
 - Tunnel
 - Pedestrian Bridge
 - Additional Alternative
 - Road diet to enhance pedestrian features and reduce traffic speed
- Opinion of Probable Construction Cost
 - Pedestrian Crossing

The scope of services for these project goals are listed below;

Task A – Project Management/Administration/Execution Plan/Setup

Gannett Fleming will develop a project execution plan which will include project setup/mobilization, Client communications methods, and a monthly progress report template. Gannett Fleming will also setup the appropriate system to maintain the project and accounting files. Gannett Fleming will develop monthly progress reports which will be submitted to the Client with the invoice. Gannett Fleming will keep the Client informed of the progress throughout the duration of the project via telephone and/or email communications.

Task B – Coordination with NCDOT, Utility Companies

Gannett Fleming will facilitate two (2) coordination meetings with NCDOT, the various public and private utility companies and the NSR/NCRR railroad to obtain guidance, requirements, preferences, other planned improvements, etc. relative to utilities, conceptual streetscape design and/or pedestrian crossing study within the project limits as defined above.

Task C – Preliminary Utility Line Relocation Alternatives Analysis

Gannett Fleming will obtain aerial photography and GIS information in the project study area and will develop up to three (3) alternatives for the relocation of the existing utility lines currently located along Gate City Boulevard. A coordination meeting and site visit will be held with NCDOT, the City of Greensboro, and applicable utility company representatives.

Information on the existing line plans and tap locations / service locations will be required for evaluation of maintaining future connections as needed. Conductor sizing and shielding requirements for this study will be assumed to be the same as existing conditions. Communication line routing will not be evaluated as a part of this study.

Gannett Fleming will develop opinions of probable costs (including construction and right-of-way) for each utility relocation alternative. Right-of-Way cost estimates will be developed using a cost per square foot provided by others.

Gannett Fleming senior staff will conduct quality control and constructability reviews on the Preliminary Utility Line Relocation Alternatives prior to submitting to the Client.

Deliverable: Preliminary Utility Line Relocation Feasibility Study will be developed and submitted to the Client in pdf format for review, comment, and approval.

Task D – Preliminary Conceptual Streetscape Designs

Gannett Fleming will develop two (2) preliminary conceptual streetscape designs for the project corridor. The first conceptual streetscape design will incorporate low level recommendations that may include:

- Conceptual streetscape design #1;
 - Pavement markings for bike lanes, pedestrian crossings, lane lines, and other pavement markings needed for the resurfacing of Gate City Boulevard;

- Conceptual fence design in the UNCG area to better direct pedestrians to delineated crosswalks and/or potential grade separations;
- Conceptual traffic signal designs (steel poles/mast arms) along Gate City Boulevard at:
 - S. Chapman Street
 - S. Aycock Street
 - Glenwood Avenue
 - Tate Street
 - Silver Ave
 - S. Eugene Street
- Street lights (to match those along Gate City Boulevard near Greensboro Coliseum)
- Missing sidewalk sections or sidewalk sections to be reconstructed
- Street trees/shrubs
- Existing curb, gutter and typical section to remain

The second conceptual streetscape design will incorporate higher level recommendations that may include:

- Conceptual streetscape design #2;
 - The aforementioned treatments described in Conceptual streetscape design #1;
 - “Road Diet” – The potential to reduce the number of travel lanes and include curb bumpouts and on street parking;
 - A more robust aesthetic design including colored or textured concrete, planters, seating and or artwork/murals.

Gannett Fleming will prepare the preliminary conceptual designs in MicroStation format on aerial photography and GIS mapping. Typical sections will be developed to illustrate bike lanes, sidewalks, travel lanes, trees, etc.

Gannett Fleming will develop opinions of probable costs (construction) for the conceptual streetscape designs.

Gannett Fleming senior staff will conduct quality control and constructability reviews on the Preliminary Conceptual Streetscape Designs prior to submitting to the Client.

Deliverable: The Preliminary Conceptual Streetscape Designs #1 and #2 and Opinion of Probable Construction Cost will be submitted as a pdf to the Client for review, comment, and approval.

Task E – Preliminary Pedestrian Crossing Study

Gannett Fleming will perform a Pedestrian Crossing Study of Gate City Boulevard within the project limits.

Surveying

- A topographic survey will be performed for the study area adjacent to the proposed pedestrian crossing at Glenwood Ave. The study area will be defined as bounded by the existing tunnel under the rail lines on the north, and approximately 150 feet from the intersection of Gate City Blvd. and Glenwood Ave. on the east, west, and south.

- Survey to include above ground features such as buildings, curb, above ground utility features, pavement, elevations, drainage, pavement markings, traffic signals, drainage, and the amphitheater.
- Base mapping will be prepared for the proposed pedestrian crossing study area and used as the base for the pedestrian crossing study.

Pedestrian and Traffic Volume Counts

- Pedestrian (ped and bike traffic) and traffic volume counts will be performed at the following eight (8) intersections with Gate City Blvd:
 - S. Chapman St
 - Warren St
 - S. Aycock St
 - Glenwood Ave
 - Highland Ave
 - Tate St
 - Silver Ave
 - S. Eugene St

Study Alternatives

Up to three (3) alternatives will be included in the study.

- Alternative 1- Existing at-grade crossing with enhanced pedestrian visibility features
- Alternative 2 – A new pedestrian tunnel under Gate City Blvd
 - One pedestrian tunnel will be included in the study
 - It is assumed that traffic can be detoured or limited to two lanes for a short period of time on Gate City Boulevard to allow the roadway to be excavated and a precast tunnel installed.
 - Preliminary sizing of the tunnel will be developed, to accommodate the pedestrian and bicycle traffic anticipated, and the construction sequencing documented to identify the traffic restrictions during construction.
 - The tunnel construction duration will be evaluated to ensure it could be constructed during the summer break for the university.
 - Utilities along Gate City Boulevard will be identified as these would need to be relocated ahead of time or supported through the excavation.
 - Layouts for the vertical circulation elements, the stairs and ramps, will be developed on an overall site plan which will show the surrounding buildings, roadways, curb lines, and the proposed tunnel.
 - Renderings of the new tunnel and the vertical circulation elements will be prepared to show the user perspective of the new facilities and the proximity to the newly constructed residential buildings.
 - Required grade transition may require the closure of Glenwood Ave to Gate City Blvd.
- Alternative 3 – A new pedestrian bridge over Gate City Blvd
 - One pedestrian bridge will be included in the study.
 - Layouts for the vertical circulation elements, the stairs and ramps, will be developed on an overall site plan which will show the surrounding buildings, roadways, curb lines, and the proposed bridge.

- Renderings of the new bridge and the vertical circulation elements will be prepared to show the user perspective of the new facilities and the proximity to the newly constructed residential buildings.
- Required grade transition may require the closure of Glenwood Ave to Gate City Blvd.

Gannett Fleming will develop opinions of probable costs (construction) for each of the three Alternatives included in the study.

Gannett Fleming senior staff will conduct quality control and constructability reviews on the Preliminary Pedestrian Crossing Study prior to submitting to the Client.

Gannett Fleming will coordinate the following meetings:

- One (1) meeting with UNCG to discuss their vision of preferred alternatives.
- One (1) meeting with the local bike group(s) to learn about the challenges they face with the project study area.

Deliverable: The Preliminary Pedestrian Crossing Study and Opinion of Probable Construction Cost will be submitted as a pdf to the Client for review, comment, and approval.

Task F – Progress Meeting #1

Gannett Fleming will meet with the Client to discuss the Preliminary Utility Relocation Feasibility Study, the Preliminary Conceptual Streetscape Designs, and the Preliminary Pedestrian Crossing Study. Gannett Fleming will discuss the process used to develop these documents and details contained within each.

The Client will invite the appropriate individuals/groups to participate in the progress meeting.

Based on the results of the progress meeting #1, Gannett Fleming will coordinate the first of two anticipated public meetings for the appropriate stakeholders (determined by the City of Greensboro) to present the initially preferred alternative(s)

Deliverable: Meeting summary and edits, ideas, thoughts, etc.

Task G – Final Utility Line Relocation Feasibility Study

Based on Client review comments and feedback received during the progress meeting, Gannett Fleming will revise the Utility Line Relocation Feasibility Study and include a recommended alternative.

Gannett Fleming will revise the opinions of probable costs (including construction and right-of-way) for each utility relocation alternative and the recommended alternative based on feedback received during the Client’s review and the progress meeting.

Deliverable: Final Utility Line Relocation Feasibility Study will be developed and submitted to the Client in pdf format.

Task H – Final Conceptual Streetscape Designs

Based on Client review comments and feedback during the progress meeting, Gannett Fleming will revise the Conceptual Streetscape Designs for the project corridor.

Gannett Fleming will prepare the final conceptual designs in MicroStation format on aerial photography and GIS mapping. Typical sections will be developed to illustrate bike lanes, sidewalks, travel lanes, trees, etc.

Gannett Fleming will revise the opinions of probable costs (construction) for the conceptual streetscape designs as required to address Client’s review comments.

Deliverable: The Final Conceptual Streetscape Designs and Opinion of Probable Construction Cost will be submitted as a pdf to the Client for review, comment, and approval.

Task I – Final Pedestrian Crossing Study

Based on Client review comments and feedback received during the progress meeting, Gannett Fleming will revise the Pedestrian Crossing Study and include a recommended alternative.

Gannett Fleming will revise the opinions of probable costs (including construction and right-of-way) for each crossing alternative and the recommended alternative based on feedback received during the Client’s review and the progress meeting.

Deliverable: Final Pedestrian Crossing Study will be developed and submitted to the Client in pdf format.

Task J – Progress Meeting #2/Next Steps

Gannett Fleming will meet with the Client to discuss the project progress to date and discuss the next steps needed to advance the project.

Based on the results of the progress meeting #2, Gannett Fleming will coordinate the second of two anticipated public meetings for the appropriate stakeholders (determined by the City of Greensboro) to present the preferred alternative.

Deliverable: Meeting summary, action items, next steps for project implementation.

EXCLUSIONS

The following services are not included in the scope of services:

- Final Utility Plans
- Final Streetscape Designs
- Final Pedestrian Tunnel / Pedestrian Bridge Designs
- Corridor location Surveys (other than the Pedestrian Crossing Study Area)
- Right-of-way Appraisal and/or Acquisition services

M/WBE INVOLVEMENT

- JC Waller & Associates, PC to provide surveying services at the location of the proposed pedestrian bridge, tunnel or at grade solution. M/WBE involvement is anticipated to be 4.8%.
- Wendy Miller, Landscape Architecture, PLLC to provide public involvement coordination, conceptual streetscape design consultation and renderings as the design progresses. The public involvement will include, but not be limited to, all coordination and outreach aspects of the public meetings, outreach to UNCG as well as the pedestrian and bike community and dissemination of the information gathered at various polling opportunities. M/WBE involvement is anticipated to be 4.6%.
- BBFoster Consulting, PC to provide data collection, including vehicle, pedestrian and bicycle counts during the AM, Midday and PM peak periods for the pedestrian crossing study. In addition, BBFoster will provide and facilitate utility coordination with NCDOT, City of Greensboro, private and public utility companies and NSR/NCRR railroad for the utility line relocation, conceptual streetscape design and the pedestrian crossing study with above, under or at grade alternatives. M/WBE involvement is anticipated to be 3.8%.

CLIENT PROVIDED SERVICES

The Client will provide the following services associated with the project:

- Assumed square foot cost for right-of-way cost estimates.
- Existing utility line plans and service tap locations / routes.
- Review Comments within 15-30 days.

FEE & SCHEDULE

SCHEDULE

Gannett Fleming will begin work immediately upon receipt of a fully executed Agreement for Consulting Engineering Services. The following is the project schedule assumes a notice to proceed date of January 1, 2019.

Task No.	Task	Due Date
A	Project Management/Administration/Execution Plan/Setup	1/1/19
B	Coordination with NCDOT, Utility Companies	1/28/19
C	Preliminary Utility Line Relocation Alternatives Analysis	3/28/19
D	Preliminary Streetscape Design	3/28/19
E	Preliminary Pedestrian Crossing Study	3/28/19
	Client Review	3/28/19
F	Progress Meeting #1	5/15/19
G	Final Utility Line Relocation Feasibility Study	6/1/19
H	Final Streetscape Designs	6/1/19
I	Final Pedestrian Crossing Study	6/1/19
	Client Review	6/15/19
J	Progress Meeting #2/Next Steps	7/1/19

FEE

Gannett Fleming and its subconsultants will undertake and be compensated for the professional services as outlined in the Scope of Services for lump sum fee (including direct expenses) of \$ **280,000.00**. The following summarizes the lump sum fee for the individual deliverable items.

Utility Line Relocation Alternatives Analysis	\$ 75,600.00
Streetscape Design	\$ 53,300.00
Pedestrian Crossing Study	\$ 114,200.00
Surveying (JC Waller & Associates)	\$ 13,400.00
Utility Coord., & Traffic Data Collect. (BBFoster Consulting, PC)	\$ 10,500.00
Public Involvement & Land. Arch. (Wendy Miller and/ or R R)	<u>\$ 13,000.00</u>
Total	\$ 280,000.00