

**CITY OF FAYETTEVILLE
WORK AUTHORIZATION
FOR
PROFESSIONAL SERVICES
BY
GRADIENT, PLLC**

In accordance with the General Services Agreement (Agreement) (Exhibit C) dated April 1, 2022 between the CITY OF FAYETTEVILLE (hereinafter called OWNER) and GRADIENT, PLLC (hereinafter called CONSULTANT), OWNER hereby authorizes CONSULTANT to proceed and CONSULTANT agrees to perform in accordance with the terms of the Agreement and this Work Authorization, the following services for the following Project:

I. PROJECT

This Work Authorization is for professional services related to:

Bones Creek Watershed Study

This contract authorizes the Scope of Work shown in Exhibit A, which is hereby attached and incorporated herein by reference. This will be for the hours per task shown in the spreadsheet included as Exhibit B in the not to exceed the total amount shown below.

Funding Mechanism: **Stormwater Enterprise Fund**

Division/Department Representing the City: **Stormwater/Public Services**

II. AGREEMENT & SCOPE OF SERVICE

The terms of the Agreement, attached as Exhibit C, is hereby incorporated by reference as if written herein and the parties confirm that its terms are a part of this Work Authorization.

The Scope of Services to be provided by CONSULTANT, in connection with this Authorization is as follows:

- See Exhibit A for full scope and Exhibit B for hours and costs.

The CONSULTANT shall request written confirmation and or execute an additional Work Authorization describing any scope change before performing any work beyond the scope specified in this Work Authorization. The confirmation shall identify any change in compensation and/or delay in completion which the scope changes entails and must be approved by the City Manager or his designee.

III. RESPONSIBILITIES

The responsibilities of the OWNER and CONSULTANT, in addition to those provided in the Agreement which are specific to this Project, are as follows:

- Owner
 - Owner, through the PgM, will provide Program data related to the watershed including, but not limited to: Watershed delineation, priority subbasin designation, past and current capital improvement projects, City of Fayetteville legacy infrastructure, historical flood complaints, traffic camera flood data, Watershed InfoWorks ICM results, Citywide hydrologic data, applicable FEMA hydraulic models and other information as described in Exhibit A.
 - Owner will provide prompt review and decisions regarding all submittals
- Consultant
 - As described in Exhibit A

IV. COMPENSATION

OWNER shall compensate CONSULTANT for providing the services set forth herein in accordance with the terms of the Agreement.

In the absence of a lump sum fee agreement, it is understood and agreed that:

1. CONSULTANT will perform under this Agreement on a best effort, not-to-exceed ceiling price basis and will notify OWNER when the ceiling price will be exceeded.
2. The not to exceed compensation (including travel) for this Work Authorization is \$574,623.00. This is not a guaranteed maximum amount but CONSULTANT shall not continue performing work in excess of this amount without further specific authorization. OWNER will be billed only for actual time worked and identified expenses.

Payment shall be made in accordance with the terms of the above referenced Agreement.

V. SCHEDULE

All work under this Work Authorization shall begin upon receipt of fully executed Work Authorization which shall be considered a Notice To Proceed (NTP). CONSULTANT will provide deliverables within nine (9) months of the NTP. A more detailed schedule will be provided prior to issuance of the NTP.

VI. MISCELLANEOUS

1. The terms in this Work Authorization shall have the same meaning as provided in the Agreement.
2. As mandated by N.C. Gen. Stat. § 147-86.59(a), CONSULTANT certifies that it is not listed on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C. Gen. Stat. § 147-86.58. CONSULTANT further certifies that, in accordance with N.C. Gen. Stat. § 147-86-59(b), it shall not utilize any subcontractor found on the State Treasurer's Final Divestment List. CONSULTANT certifies that the signatory to this Work Authorization is authorized by CONSULTANT to make the foregoing statement.
3. E-Verify- CONSULTANT acknowledges that "E-Verify" is the federal E-Verify program operated by the U.S. Department of Homeland Security and other federal agencies which is used to verify the work authorization of newly hired employees pursuant to federal law and in accordance with Article 2, Chapter 64 of the North Carolina General Statutes. CONSULTANT further acknowledges that all employers, as defined by Article 2, Chapter 64 of the North Carolina General Statutes, must use E-Verify and after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with N.C. Gen. Stat. § 64-26(a). CONSULTANT pledges, attests and warrants through execution of this contract that CONSULTANT complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes and further pledges, attests and warrants that any subcontractors currently employed by or subsequently hired by CONSULTANT shall comply with any and all E-Verify requirements. Failure to comply with the above requirements shall be considered a breach of this Work Authorization.
4. Force Majeure- Neither party shall be deemed to be in default of its obligations hereunder if and *so long as* it is prevented from performing such obligations by an act of war, hostile foreign actions, adverse governmental actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.

5. Morality Clause- If, in the sole opinion of the City of Fayetteville, at any time CONSULTANT or any of its owner(s) or employee(s) or agent(s) (collectively referenced as an “Actor”) engages in any one or more actions that bring disrepute, contempt, scandal, or public ridicule to the Actor or subject the Actor to prosecution or offend the community or public morals or decency or denigrate individuals or groups in the community served by the City of Fayetteville or are scandalous or inconsistent with community standards or good citizenship or may adversely affect the City of Fayetteville’s finances, public standing, image, or reputation or are embarrassing or offensive to the City of Fayetteville or may reflect unfavorably on the City of Fayetteville or are derogatory or offensive to one or more employee(s) or customer(s) of the City of Fayetteville, the City of Fayetteville may immediately upon written notice to CONSULTANT terminate this Agreement, in addition to any other rights and remedies that the City of Fayetteville may have hereunder or at law or in equity.
6. Venue and Forum Selection- The Parties expressly agree that if litigation is brought in connection with this contract and (1) the litigation proceeds in the Courts of the State of North Carolina, the parties agree that the appropriate venue shall be in Cumberland County (Twelfth Judicial District of North Carolina); or (2) the litigation proceeds in a federal court, the parties agree that the appropriate venue shall be the United States District Court for the Eastern District of North Carolina
7. Termination for Cause- In the event of substantial failure by CONSULTANT to perform in accordance with the terms of this contract, City of Fayetteville shall have the right to terminate CONSULTANT upon ten calendar (10) days written notice in which event CONSULTANT shall have neither the obligation nor the right to perform further services under this contract nor shall the City of Fayetteville be obligated to make any further payment for work that has not been performed.
8. Termination for Convenience- Upon thirty (30) calendar days’ written notice to CONSULTANT, the City of Fayetteville may, without cause and without prejudice to any other right or remedy legally available to the City of Fayetteville, terminate this Contract. Upon such notice, CONSULTANT shall have neither the obligation nor the right to perform services under this contract nor shall the City of Fayetteville be obligated to make any further payment for work that has not been performed in accordance with the terms stated herein. In such case of termination, CONSULTANT shall be paid for the completed and accepted work executed in accordance with this Contract prior to the written notice of termination. Additionally, upon mutual agreement, CONSULTANT may be paid for any completed and accepted work which takes place in order to achieve a specifically identified item in the scope of services or a milestone of the Contract, between the written notice of termination and the

effective date of termination. Unless otherwise stated or agreed upon, the effective date of termination shall automatically occur 30 days' after the written notice is sent by the City of Fayetteville.

9. Protest – Protest related to this procurement must be addressed to the Purchasing Manager for City of Fayetteville, 433 Hay St, Fayetteville, NC 28301 and shall be received, in writing, within 2 calendar days of bid award. Responses will be in writing by email and first-class mail not later than (7) calendar days following receipt of said protest by the Purchasing Manager.
10. To the extent permitted by law, CONSULTANT agrees to defend, indemnify, and hold harmless the City of Fayetteville and its elected officials, employees, agents, successors, and assigns, from any and all liability and claims for any injury or damage caused by any act, omission or negligence of CONSULTANT, its agents, servants, employees, contractors, licensees, or invitees. Indemnification of the City by CONSULTANT does not constitute a waiver of the City's governmental immunity in any respects under North Carolina law.
11. **CITY'S TERMS SUPERSEDE:** To the extent a conflict exists between the terms of this Agreement and the terms and conditions in any of the attachments to the Agreement, the terms of this Agreement shall govern.

[Signature page to follow]

CONSULTANT ACCEPTANCE:

GRADIENT, PLLC



BY: Gordon A. Rose

TITLE: Member/Manager

DATE: May 18, 2022

AUTHORIZATION BY:

CITY OF FAYETTEVILLE

BY: _____

TITLE: _____

DATE: _____

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

Jay Toland, Assistant City Manager/
Chief Financial Officer

EXHIBIT A

SCOPE OF WORK

EXHIBIT A
Phase I Watershed Study for *Bones Creek*
Scope of Services

PROJECT DESCRIPTION

GENERAL OVERVIEW

This scope of services is a summation of Phase I work to be performed in high priority sub-basins, as defined by the Program Manager (PgM), in the Bones Creek Watershed. It includes detailed hydrologic and hydraulic analysis for a total drainage area of approximately 2.0 square miles and total stream length of approximately 5.2 river miles. Figure 1 shows the study area indicating the streams and pipe systems that will be analyzed. All project management and modeling shall follow the most current version of the City of Fayetteville Consultant Management and Standards Manual (CMSM) to be provided by the PgM. This scope includes the following tasks:

- Task 1 – Project Management and Meetings
- Task 2 – Data Collection and Field Survey
- Task 3 – Detailed Hydrologic Analysis
- Task 4 – Detailed Hydraulic Analysis
- Task 5 – Stream Assessment
- Task 6 – Identify Concern Areas and Proposed Solutions

BASIC SERVICES: Consultant will provide the following basic services for the Study area. In the performance of these services all standards for project management, reporting and technical tasks will be in conformance with the latest addition of the CMSM. If additional effort is required as a result of the CMSM being modified after a contract is executed, the consultant shall notify the PgM of the additional services needed prior to incurring that effort.

Task 1 – Project Management and Meetings

1. **Project Management** – Consultant will prepare a Microsoft Project schedule, provide monthly reporting updates, including notification of any out-of-scope work, and coordinate with FNI as the Program Manager per the CMSM.
2. **Progress Meetings** – Consultant will conduct monthly, one-hour long, virtual progress meetings with City and PGM staff for a total of 9 meetings. Meeting notes will be provided by the Consultant within one week of the meeting. As necessary, weekly phone calls will also be held to discuss items considered critical or urgent. The monthly meetings, which include quality reviews as outlined in the CMSM, will include the major milestones listed below:
 - i. Kickoff and data collection meeting
 - ii. Discuss concern areas and recommendations for proposed solutions

Task 2 – Data Collection and Field Survey

1. **Data Collection**
 - i. The PgM will provide City Data including roads, parcels, building footprints, and land use data.
 - ii. The PgM will provide State and National Data including, topographic data, flood risk dataset, and soils data for relevant watersheds.

- iii. The PgM will provide Program data related to the watershed including, but not limited to: Watershed delineation, priority subbasin designation, past and current capital improvement projects, City of Fayetteville legacy infrastructure, historical flood complaints, traffic camera flood data, Watershed InfoWorks ICM results, Citywide hydrologic data, and applicable FEMA hydraulic models.
- iv. The PgM will provide the first Quality Checklist confirming the data sent. The Consultant will review the Quality Checklist to determine if the limits of the study are sufficient for the watershed analysis. If sections or required data appear to be missing, this will be documented and the PgM will be notified.
- v. Consultant will conduct site visits to document the limits of the study and to document initial conditions with photographs. Note: the most useful photos will be uploaded to the SharePoint site. Should the City's SharePoint site not be operational at the time of the scheduled delivery, Consultant will provide deliverables via electronic delivery method (SP site, OneDrive, FTP link, etc.). Noted discrepancies will be provided to the PgM.
- vi. Prepare base map of existing conditions including streams, road crossings, hydraulic features, drainage areas, topography, storm drain network and aerial photos.
- vii. Any additional data collected throughout the study process will be collected, processed, and delivered as indicated in relative sections of the CMSM.

2. **Field Survey** – Initial field survey for riverine and pipe systems will be collected by the PgM according to the CMSM. Upon initial model development, critical spill over locations or any additional survey requests shall be supplied by consultant to the PgM for supplementary survey collection as appropriate.

ASSUMPTIONS:

- **The consultant will perform an initial review of the survey data prior to the model build effort and will summarize any possible omissions and errors. This information will be provided to the PgM.**

3. **Moderate- and High-Hazard Road Crossing Condition Assessment** – A condition assessment of all moderate- and high-risk road crossings within the assigned watershed, provided by the PgM, will be performed by the Consultant according to the CMSM. The City's existing stormwater infrastructure file and standard video guidelines and procedures are to be used as reference.

- i. Assume that culverts over 60 inches will be walked, culverts between 24 and 60 inches will use a pole cam and anything smaller will be visually inspected externally; standard Closed Circuit Television (CCTV) procedures may be utilized after coordination with the PgM.
- ii. Provide a report that includes type, size, and high-level condition assessment rating of the pipe, as well as the embankments on either end of the culverts as detailed in the CMSM. If a structure located within a priority sub-basin rates as poor, it will be identified as a concern area and the CMT will be notified. If a structure located outside of a priority sub-basin rates poor, then the CMT will be notified, and any additional work will be scoped as part of Phase II.

ASSUMPTIONS:

- **There are no moderate or high hazard crossings in Bones Creek Watershed.**

Task 3 – Detailed Hydrologic Analysis

This phase includes the use of Infoworks ICM to further develop current hydrologic models developed by the PgM for existing conditions within the Study Area. It is anticipated that the priority sub-basins will need to be further divided into smaller subcatchments in ICM for more detailed hydraulic analysis of pipe and open channel systems. An overall review of

the HMS model is not to be included as part of this analysis. This task may include consolidated and concise revisions to the existing HEC-HMS model provided to the Consultant by the PgM.

1. Hydrologic Modeling Updates

- i. Revise existing sub-basins as appropriate for the Secondary System infrastructure being modeled for the study area.
- ii. Divide the Citywide subbasins into subcatchments as appropriate for ICM modeling
- iii. Define model input parameters for the study area that includes the following:
 - i. Review and update the land use data based on latest aerial imagery,
 - ii. Compute updated curve numbers as applicable
 - iii. Calculate times of concentration for each ICM subcatchment
- iv. Input subcatchments, model parameters, rainfall and inflow hydrographs into ICM.
- v. Document and update significant changes in HMS subbasin parameters. Thresholds for significant change that requires specific documentation is defined in the CMSM and Quality Checklist.
- vi. Modify the existing HEC-HMS subbasin parameters to reflect the significant changes and adjust the routing values where appropriate based on ICM model results.

ASSUMPTIONS:

- **Up to 15 HMS subbasins consisting of up to 400 catchments**
- **7 inflow points each with 8 different rainfall hydrographs (includes 2 historic rainfall events based on data provided by the City)**
- **Adjustments to the existing HEC-HMS model will only be made after the ICM model hydraulics are completed.**
- **Adjustments to the routing parameters within the HEC-HMS model will only be made when multiple subbasin areas combined can be compared directly to the ICM model results**

2. QA Meetings

QA meetings will be held with the CMT. PgM will provide comments via the Quality Checklist prior to the first QA meeting. Consultant will lead the meeting, describing the steps taken, assumptions made and derivation from CMSM methodology. It is anticipated one (1) Hydrologic QA meeting will be required for this watershed. After the QA meetings, the Consultant will provide the Quality Checklist back to the PgM with responses.

3. Deliverables

- i. Quality Checklist
- i. Deliverables as outlined in the CMSM and Quality Checklist
- ii. Develop a report chapter summarizing the methodology and results of the hydrologic analysis and submit for review.
- iii. All GIS information used as part of the analysis, including all data supplied by the PgM, will be turned into the City in the appropriate format as specified in the CMSM. The files should be clipped to the relevant watershed.
- iv. Submit an electronic copy in pdf format of the updated report to the PgM for review.
- v. Submit electronic copies of any updated hydrologic models for review.
- vi. PgM comments will be incorporated in the final products and report.

Task 4 – Detailed Hydraulic Analysis

This phase includes the development of hydraulic models representing existing conditions geometry with existing condition discharges. An inundation map(s) showing inundation extents for the storm events identified in the CMSM will be created and concern areas along with flooded structures will be identified.

Primary systems are defined as open channel riverine locations with defined FEMA floodplains or blue lines on a USGS quad map. Secondary systems are defined as upland streets, ditches, and/or pipe systems within the assigned sub-basin.

At a minimum, all Primary Systems within assigned sub-basins will be modeled in HEC-RAS using a 1D steady state approach, and all Secondary Systems within the assigned sub-basins will be analyzed using a 2D approach within InfoWorks ICM modeling software

1. **HEC-RAS Steady State Hydraulic Modeling** – The following stream names and reaches will be studied using a 1D HEC-RAS Steady State approach.

- **Bones Creek Tributary A**– From the upstream limit of the effective FEMA model to 2,600 feet upstream (Estimated at 6,000 feet).
- **Bones Creek Tributary A1** – From 1,600 feet downstream of English Saddle Drive to City Limits (Estimated at 11,500 feet).
- **Bones Creek Tributary A2** – From the confluence with Bones Creek Tributary A2 to the City storm drainage system outfall (Estimated at 2,600 feet).
- **Bones Creek Tributary B** – From the confluence with Bones Creek to the City storm drainage system outfall (Estimated at 2,800 feet)
- **Bones Creek Tributary C** – From the confluence of Bones Creek to the City storm drainage system outfall (Estimated at 4,600 feet)

- i. Develop new HEC-RAS Steady hydraulic model or augment the latest FEMA model if applicable
- ii. Update channel and pond routings in hydrologic model.
- iii. Determine the existing condition water surface elevations for the streams within the study area for all the storm events specified in the CMSM.
- iv. Develop existing condition inundation extents for storm events listed in the CMSM within the stream study limits.
- v. Perform model validation. Rainfall hyetographs for two historic storm events will be provided by the City and required for use in validation. Three representative design storms will also be provided by the City and may also be used to inform the validation, but are not required.
- vi. Identify concern locations and flood prone areas, as defined in the CMSM, and document existing condition's structure overtopping (road crossings) and degree of potential flooding (structures).
- vii. Identify areas within the studied reach that will require additional 2D or Unsteady State modeling, as indicated by the results of the previous items.

2. **HEC-RAS Unsteady and 2D Hydraulic Modeling (NOT APPLICABLE)** – The following stream names and lengths will be studied using a HEC-RAS Unsteady and/or 2D as specified below.

➤ **There are no unsteady or 2D primary stream models**

- i. Develop new HEC-RAS Unsteady/2D model for study area or augment the latest FEMA model if applicable.
- ii. Develop boundary conditions diagram for study area.
- iii. Determine the existing condition water surface elevations for the streams within the study area for the storm events specified in the technical standards.
- iv. Develop existing conditions inundation extents for storm events listed in the CMSM within the stream study limits.

- v. Perform model validation. Rainfall hyetographs for two historic storm events will be provided by the City and required for use in validation. Three representative design storms will also be provided by the City and may also be used to inform the validation, but are not required.

3. **Secondary System 1D Modeling** – The following systems, general locations, and lengths will be studied using 1D* Dynamic Modeling as specified below.

➤ **There are no secondary system 1D models**

- i. Develop a new dynamic model for each system listed above based on recently collected infrastructure data, GIS, as-built record drawings, and LIDAR data.
- ii. Verify inlets, outlet pipes for the entire system as described above,
 - a. Ask to acquire survey data where needed to correct seemingly erroneous data.
- iii. Develop a system-specific modeling approach (inlets grouped or modeled individually, trunkline only or full storm drain network, etc.) and provide justification for the approach. PgM will review the approach before work is underway.
- iv. Where the system is surcharged and the overflow path is known and unidirectional, add links and nodes to represent the overland flow and document the source of the link geometry.
- v. All hydrograph routing will be performed within the dynamic modeling software package.
- vi. Develop flow loading diagram for system.
- vii. Determine the existing condition water surface elevations within the system study area where flow is not contained by the storm drain system for the storm events specified in the technical standards.
- viii. Develop the existing conditions 100-year flood extents within the system study limit, where flow leaves the ROW or existing easements.
- ix. Perform model validation. Rainfall hyetographs for two historic storm events will be provided by the City and required for use in validation. Three representative design storms will also be provided by the City and may also be used to inform the validation, but are not required.

* 1D modeling is preferred where initial analysis shows flows are unidirectional and contained within +/- 10 feet of the Right-of-Way.

4. **Secondary System 2D Modeling** – The following systems, general locations, and lengths will be studied using 2D* Dynamic Modeling as specified below.

- **BON_0432** — Approximately 4,400 feet of neighborhood drainage system with 16 catchments and 30 links.
- **BON_0415** — Approximately 14,700 feet of neighborhood drainage system with 64 catchments and 100 links.
- **BON_0403/0404/0426** - Approximately 25,000 feet of neighborhood drainage system with 64 catchments and 170 links.
- **BON_0434/0407** - Approximately 10,000 feet of neighborhood drainage system with 36 catchments and 75 links.
- **BON_0409/0410** - Approximately 15,000 feet of neighborhood drainage system with 50 catchments and 100 links.
- **BON_0426/0601** - Approximately 4,500 feet of neighborhood drainage system with 35 catchments and 60 links.
- **BON_0704/0705/0707** - Approximately 25,000 feet of neighborhood drainage system with 105 catchments and 240 links.

- **BON_1104** - Approximately 9,000 feet of neighborhood drainage system with 30 catchments and 60 links.

- i. Develop a system-specific modeling approach (inlets grouped or modeled individually, trunkline only or full storm drain network, etc.) and provide justification for the approach. PgM will review the approach before work is underway.
- ii. Consultant will conduct a desktop assessment of the field survey data collected as described under Task 2.1 above. In addition, consultant will conduct limited site visits to field check inlets and outlet pipes within the system. If discrepancies and/or errors are noted in the survey data provided, Consultant will notify the PgM of the apparent error and request updated survey data be provided. No provision has been made in this proposal for conducting additional field survey services.
- iii. Develop a new dynamic model for each system listed above based on recently collected infrastructure data, GIS, as-built record drawings, and LIDAR data.
 - a. All hydrograph routing will be performed within the dynamic modeling software package.
- iv. Where the system is surcharged and the overflow path is known and multidirectional, add 2D Zones to represent the overland flow. Final 2D Zone extents should fully encompass the highest level of flooding produced by the hydrology. 2D Zones that spread shallow flow across a known floodplain may be terminated with a boundary condition within 10 feet or 2 2D elements of the receiving stream bankline.
- v. Develop flow loading diagram for system.
- vi. Determine the existing condition water surface elevations within the system study area where flow is not contained by the storm drain system for all the storm events specified in the CMSM.
- vii. Develop existing conditions inundation extents for storm events listed in the CMSM within the system study limits.
- viii. Perform model validation. Rainfall hyetographs for two historic storm events will be provided by the City and required for use in validation. Three representative design storms will also be provided by the City and may also be used to inform the validation, but are not required.

* 2D modeling is preferred where initial analysis shows flows are multidirectional and uncontained within +/- 10 feet of the Right-of-Way.

5. Hydrologic Modeling Updates

- i. Determine the existing discharges for the study area for the storm frequencies defined in the CMSM using updated hydrologic parameters.
- ii. Compare InfoWorks ICM peak flow values to HEC-HMS values and provide comparison table for PgM review to determine if HEC-HMS model revisions are warranted.
- iii. As needed and coordinated with the PgM, update existing conditions hydrologic models in HEC-HMS for the study area based on the procedure outlined in the CMSM to reflect more detailed parameter information developed for the new analysis.

6. QA Meetings

QA meetings will be held with the CMT. PgM will provide comments via the Quality Checklist prior to the first QA meeting. Consultant will lead the meeting, describing the steps taken, assumptions made and derivation from CMSM methodology. It is anticipated two (2) QA meetings will be required for this watershed. After the QA meetings, the Consultant will provide the Quality Checklist back to the PgM with responses.

7. Deliverables

- i. The Quality Checklist
- ii. Deliverables as outlined in the CMSM and Quality Checklist
- iii. Updated HMS models, model parameter shapefiles and report sections to finalize the hydrologic analyses performed in Task 3.
- iv. Develop a report chapter summarizing the methodology and results of the hydraulic analysis that includes inundation mapping as appropriate to depict model results.
- v. Results shall be provided that include tabulated depth of flooding, WSEL, and velocity at key locations, along with any special or area specific information. This should include the ICM transportable and results geodatabases.
- vi. All GIS information updated and/or created as part of the project, including inundation extent files for storm events listed in the CMSM, will be turned into the City in the appropriate format as specified in the CMSM.
- vii. Submit an electronic copy in pdf format of the draft chapter(s) to PgM for review.
- viii. Submit electronic copies of the Primary and Secondary System hydraulic models for review.
- ix. PgM comments will be incorporated in the final report.

Task 5 - Stream Assessment

In preparation for the hydraulic analyses in high priority sub-basins on or near USGS blue line streams, the Consultant will perform a basic stream field assessment that could include rapid geomorphic assessment and reach characterization methodologies and procedures. We have identified the blue line streams that the priority basins drain to and have extended them downstream to Lake Rim (Figure 2). Total lengths for each blueline segment (3 segments) is approximately 22,800 linear feet and the portion within the high priority subbasins (4 segments) is approximately 7,200 linear feet. We assume the field work would assess the entire blueline segments identified to include downstream issues that might have negative impacts due to proposed projects.

1. Desktop Analysis

- i. Consultant will perform a desktop analysis of the channel stability and evolution based on soils, geology, topography, and landscape using literature and historical aerial photographs.
- ii. The desktop analysis will include a review of condition assessment data collected as part of Task 2. An assessment including field review and evaluation will be conducted if:
 - Significant erosion is noted
 - A reach is listed as a 303(d) stream
 - A reach is in a Water Supply watershed

2. Field Reconnaissance

- i. Consultant will investigate selected study reaches, as agreed upon with the CMT, using field reconnaissance techniques for stream geomorphic assessments. This will be achieved by walking the channel and making observations as described herein, including developing a reach-specific naming protocol and GIS map. The reach naming protocol will be coordinated with, or will utilize, naming protocols for other portions of this Scope of Services and will be specifically coordinated with the H&H modeling team.
- ii. Field observations will include a general characterization of channel morphology (pools, bars, riffles, benches) and a visual summary of the channel conditions by stream reach (photographs and GIS mapped locations based on mapping grade GPS coordinates gathered in the field). The intent of this task is to establish a basic understanding of the existing conditions of the stream reaches to assess their potential for stabilization or degradation (this initial assessment is high level and should indicate the channel's stage of succession (eg: trending stable, trending to incision or aggradation)).

- iii. Locations of current and possible bank failures including erosion and incision (slumps and knickpoints,), areas of channel aggradation and degradation, and debris dams will be documented with mapping grade GPS.
- iv. During the stream assessment the sediment sources (i.e. severely eroded banks) and discharge areas (i.e. storm drain outfalls) will be noted as well as nick points (bedrock or manmade structures) within the creek and the distance to and type of structure. Threatened infrastructure (public infrastructure, private homes, fences, etc.) will be documented. All locations will be GPS photographed.

3. Intensive Field Investigation (Special Services)

- i. Consultant will present areas that may require the use of Special Services upon approval from the CMT.
- ii. The start and stop locations of erosion areas along streambanks and the streambed that are near infrastructure should be identified and recorded.
- iii. Detailed erosion will be determined utilizing BEHI methods described in the CMSM and should be documented for modeling.
- iv. Channel dimensions will be measured with a survey rod and digital range finder to determine bank geometry.
- v. Bed material gradation will be approximated by collecting a single Wolman pebble count at a representative riffle of the study reach.
- vi. Intensive Field Investigation is not included in the fee proposal at this time.

4. QA Meetings

QA meetings will be held with the CMT. PgM will provide comments via the Quality Checklist prior to the first QA meeting. The Consultant will lead the meeting, describing the steps they took, assumptions made and the results of the assessment, focusing on high hazard erosion concern areas. It is anticipated one (1) QA meetings will be required for this watershed. After the QA meetings, the Consultant will provide the Quality Checklist back to the PgM with responses.

5. Deliverables

- i. Quality Checklist
- ii. Deliverables as outlined in the CMSM and Quality Checklist
- iii. Develop a memo summarizing the methodology and results to determine if further analysis is needed.
- iv. Field data, photos, and desktop calculations will be included in the memo and submitted as an electronic copy in pdf format for PgM review.
- v. GIS information updated and/or created as part of the project will be turned into the City in the appropriate format as specified in the CMSM.
- vi. One round of PgM comments will be incorporated in the finalized memo based on agreed upon responses.

Task 6 – Identify Concern Areas and Proposed Solutions

This phase includes the identification and documentation of flooding and erosion concern areas. A quantitative and qualitative analysis will be done for each concern area and reviewed with the City.

- 1. Identify and Document Concern Areas** – Based on the results of the detailed hydrologic and hydraulic analysis, Consultant will identify flooding and erosion concern areas as described in CMSM 2.06 and document existing condition structure overtopping (road crossings). The tables in this section will be populated for each concern area identified and a cross check will be performed.
- 2. Qualitative Analysis** – All concern areas require a qualitative analysis as outlined in the CMSM.

3. Scoring and Categorizing Concern Areas and Identifying the Need for Proposed Solutions – Concern areas will be scored, weighted, and categorized as high, medium, or low severity.

4. QA Meetings

QA meetings will be held with the CMT. PgM will provide comments via the Quality Checklist prior to the first QA meeting. The Consultant will lead the meeting, describing the steps they took, assumptions made and the results of the assessment, focusing on high hazard erosion concern areas. It is anticipated two (2) meetings will be required for this watershed. After the QA meetings, the Consultant will provide the Quality Checklist back to the PgM with responses.

5. Deliverables

- i. Quality Checklist
- ii. Deliverables as outlined in the CMSM and Quality Checklist (including report section, GIS information, tables, and exhibits)
- iii. Concern Area Workbook in excel format
- iv. Submit an electronic copy in pdf format of the draft chapter(s) to CMT for review.
- v. CMT comments will be incorporated in the final report.

ASSUMPTIONS:

- **Thirty (30) concern areas will be identified and scored and a qualitative analysis performed**
- **Four (4) stream concern areas will be identified**

SPECIAL SERVICES: During the above-described tasks, additional tasks, assistance, or other needs may be identified. Should additional needs be identified which fit the general description of Watershed Studies identified herein, the City may authorize use of Special Services and/or negotiate additional Work Authorizations to complete those tasks. Specific tasks may include, but not be limited to:

- 2D RAS modeling
- Additional secondary system 2D areas requiring modeling in excess of the assumptions included
- Public outreach or public outreach planning
- Items related to the risk register
- Phase II activities (if Phase II has started but the contract is not yet executed)
- Stream Assessment Intensive Field Investigation

EXHIBIT B

FEE ESTIMATE

Exhibit B - Gradient Fee Estimate: Bones Creek

Task and Description	Gradient	HDR	Woolpert	Project Total
Task 1: Project Management				
1. Project Management	\$ 8,325.00	\$ 11,520.00	\$ -	\$ 19,845.00
2. Meetings	\$ 11,240.00	\$ 11,955.00	\$ -	\$ 23,195.00
Task 2: Data Collection and Field Survey				
1. Data Collection	\$ 6,620.00	\$ 5,765.00	\$ -	\$ 12,385.00
2. Field Survey	\$ 3,290.00	\$ 3,160.00	\$ -	\$ 6,450.00
3. Road crossing condition assessment	\$ -	\$ -	\$ -	\$ -
Task 3: Detailed Hydrologic Analysis				
1. Hydrologic Model Updates	\$ -	\$ 65,560.00	\$ -	\$ 65,560.00
2. QA Meeting	\$ 1,050.00	\$ 1,950.00	\$ -	\$ 3,000.00
3. Deliverables	\$ 2,410.00	\$ 15,730.00	\$ -	\$ 18,140.00
Task 4: Detailed Hydraulic Analysis				
1. HEC-RAS Steady State Hydraulic Modeling	\$ 660.00	\$ 55,850.00	\$ -	\$ 56,510.00
2. HEC-RAS Unsteady and 2D Hydraulic Modeling	\$ -	\$ -	\$ -	\$ -
3. Secondary System 1D Modeling	\$ -	\$ -	\$ -	\$ -
4. Secondary System 2D Modeling	\$ 5,830.00	\$ 148,520.00	\$ -	\$ 154,350.00
5 Hydrologic Modeling Updates	\$ -	\$ 8,780.00	\$ -	\$ 8,780.00
6. QA Meeting	\$ 1,050.00	\$ 3,900.00	\$ -	\$ 4,950.00
7. Deliverables	\$ 3,980.00	\$ 33,875.00	\$ -	\$ 37,855.00
Task 5: Field Assessment				
1. Desktop Analysis	\$ 1,400.00	\$ -	\$ 11,106.00	\$ 12,506.00
2. Field Reconnaissance	\$ 5,180.00	\$ -	\$ 20,346.00	\$ 25,526.00
3. Intensive Field Investigation (Special Services)	\$ -	\$ -	\$ -	\$ -
4. QA Meeting	\$ 885.00	\$ 560.00	\$ 1,650.00	\$ 3,095.00
5. Deliverables	\$ 2,100.00	\$ -	\$ 11,146.00	\$ 13,246.00
Task 6: Identify Concern Areas				
1. Identify Concern Areas and the Need for Flood Risk Reduction	\$ 2,100.00	\$ 5,200.00	\$ -	\$ 7,300.00
2. Qualitative Analysis	\$ 700.00	\$ 6,320.00	\$ -	\$ 7,020.00
3. Scoring, Categorizing, Identifying need for solution	\$ -	\$ 11,800.00	\$ -	\$ 11,800.00
4. QA Meeting	\$ 1,050.00	\$ 3,900.00	\$ -	\$ 4,950.00
5. Deliverables	\$ 3,590.00	\$ 16,520.00	\$ -	\$ 20,110.00
Expenses	\$ 750.00	\$ 1,000.00	\$ 4,000.00	\$ 5,750.00
Base Total	\$ 62,210.00	\$ 411,865.00	\$ 48,248.00	\$ 522,323.00
Contingency: Special Services (10%)				\$ 52,300.00
Project Total				\$ 574,623.00

Potential Special Services

<i>Task 1.C. Public Involvement</i>		
<i>Task 2.A.2. Review Reports and As-Builts</i>		
<i>HMS Model Update and Deliverables</i>		
<i>Task 5: Intensive Field Assessment</i>		

EXHIBIT C

GENERAL SERVICES AGREEMENT

GENERAL SERVICES AGREEMENT FOR CONSULTING SERVICES BETWEEN

**CITY OF FAYETTEVILLE
FAYETTEVILLE, NORTH CAROLINA**

AND

GRADIENT, PLLC

APRIL 1, 2022

**STATE OF NORTH CAROLINA
COUNTY OF CUMBERLAND**

**GENERAL SERVICES AGREEMENT
FOR CONSULTING SERVICES**

THIS AGREEMENT, effective the day of April 1, 2022 by and between **THE CITY OF FAYETTEVILLE, NORTH CAROLINA** (hereinafter referred to as **CITY**), with principal business offices at Fayetteville, North Carolina, and **GRADIENT, PLLC** (hereinafter referred to as **CONSULTANT**), a corporation with principal business offices at 230 Donaldson Street, Suite 500A, Fayetteville, NC 28301.

WITNESSETH:

WHEREAS, CITY, is engaged in the operation and maintenance of facilities and services which from time to time require revision, renovation and extension of existing facilities, and the construction of new facilities and other related projects; and

WHEREAS, the professional services of engineers, architects, surveyors and others will from time to time in the future be needed by the **CITY** in the renovation of existing facilities, and in the construction of new facilities and other related projects; and

WHEREAS, pursuant to N.C.G.S. 143-64.31 it is the public policy of this State that municipalities announce all requirements for architectural, engineering and surveying services, to select firms qualified on the basis of demonstrated competence and qualification and to negotiate contracts for services at a fair and reasonable fee with the best qualified firm; and

WHEREAS, CONSULTANT provides professional consulting services of the nature required by the **CITY** and employs trained and experienced engineering, technical and/or other personnel possessing adequate knowledge, skills and experience to provide professional services to the **CITY**; and

WHEREAS, the **CITY** proposes to announce to various competing firms its need for professional consulting services in the future by requesting Proposals and the subsequent acceptance of proposals and the issuance of written authorizations to proceed, which together with this Agreement shall constitute a contract between the **CITY** and the **CONSULTANT**; and

WHEREAS, the parties contemplate that the services of **CONSULTANT** will be performed in various stages in accordance with separate authorizations to be issued by **CITY**, and the parties desire to set forth the basic terms of their agreement in this General Services Agreement rather than in separate authorizations to be issued by **CITY**.

NOW THEREFORE, IN CONSIDERATION of the premises and the mutual covenants herein contained, the parties hereto do hereby contract and agree as follows:

ARTICLE 1 - REQUEST FOR PROPOSAL-SUBMITTAL OF PROPOSAL. As the need for consulting services arise, **CITY** will request a Proposal for said services from **CONSULTANT** which shall describe the scope of work, program, estimated schedule and **CITY'S** requirements.

If **CONSULTANT** has the qualified personnel to meet **CITY'S** requirements to perform the consulting services requested by the **CITY**, **CONSULTANT** will submit to **CITY** within the time specified a written Proposal describing the necessary engineering, technical and/or other services, guidance, opinions and advice to be provided. The Proposal shall set forth in general terms **CONSULTANT'S** recommendations to carry out the work. **CONSULTANT** shall list the background and experience of **CONSULTANT'S** personnel to be assigned to the project. Said Proposal shall contain a fee schedule setting forth fees for services of the various categories of personnel to be assigned to **CITY'S** project.

ARTICLE 1.1 - ACCEPTANCE OF PROPOSAL. **CITY** and **CONSULTANT** contemplate certain discussions, negotiations and possible changes to the Proposal submitted by **CONSULTANT**. Upon a meeting of the minds, **CONSULTANT** shall submit the final Proposal which shall set forth the agreement of the parties. If said Proposal is acceptable, the **CITY** shall accept same in writing. **CONSULTANT'S** fee schedule shall remain in effect during the term of this Agreement, unless modified by the parties in writing. **CITY** shall provide **CONSULTANT** with a specific written Authorization to Proceed for each Proposal accepted by **CITY**.

ARTICLE 2 - TERM OF AGREEMENT. The term of this General Services Agreement for Consulting Services shall be for three (3) years from the date it is effective. The Agreement may be extended thereafter by mutual written agreement of the parties.

ARTICLE 2.1 - ASSIGNMENT. It is the intent of this Agreement to secure the personal services of the **CONSULTANT** and failure of the **CONSULTANT** for any reason to make the personal services available to the **CITY** for the purposes described in this Agreement shall be cause for termination of this Agreement. The **CONSULTANT** shall not assign, sublet, or transfer any rights under or interest in (including, but without limitation, monies that may become due or monies that are due) this Agreement without the written consent of **CITY**. Nothing contained in this paragraph shall prevent **CONSULTANT** from employing such independent consultants, associates, and sub-contractors as it may deem appropriate to assist **CONSULTANT** in the performance of services rendered.

ARTICLE 3 - COMPENSATION. **CONSULTANT** shall submit to **CITY** monthly invoices for services performed during that month, computed on the basis of the Proposal accepted by **CITY**. **CITY** agrees to pay **CONSULTANT'S** monthly invoice within thirty (30) days after said invoice is received by the **CITY**. Adjustments to an invoice for billing errors may extend the time for payment. For clarity, compensation to **CONSULTANT** shall be based upon Task and/or Work Authorizations that are provided to and agreed upon by the **CITY**. The Signing of this General Services Agreement does not bind or obligate the **CITY** to pay **CONSULTANT** any compensation.

ARTICLE 3.1 - VERIFICATION OF INVOICES. **CITY** has the right to require the **CONSULTANT** to produce for inspection all **CONSULTANT'S** time records, salaries of personnel and charges for direct expenses for which cost-plus compensation is provided. **CONSULTANT** agrees to provide **CITY** with said records on a timely basis and cooperate with **CITY** to verify the accuracy of all invoices.

ARTICLE 3.2 - COSTS AND EXPENSES. **CONSULTANT** will invoice **CITY** for all travel and living expenses of its employees assigned to a project which said expenses shall be at actual cost, unless said costs or expenses are specifically set forth and included in a fixed price contract. Accommodations for **CONSULTANT'S** employees shall be arranged by **CONSULTANT**. Living expenses for **CONSULTANT'S** employees shall be the usual and customary expenses for accommodations to which **CONSULTANT'S** employees are accustomed, and which are prevailing in Cumberland County, North Carolina.

ARTICLE 3.3 - NON APPROPRIATION. Notwithstanding any other provisions of this Agreement, the parties agree that payments due hereunder from the **CITY** are from appropriations

and monies from the City Council and any other governmental entities. In the event sufficient appropriations or monies are not made available to the CITY to pay the terms of this agreement for any fiscal year, this Agreement shall terminate immediately without further obligation of the CITY.

ARTICLE 4 - PROFESSIONAL STANDARDS AND DUTIES OF CONSULTANT.

CONSULTANT shall be held to the same standard and shall exercise the same degree of care, skill and judgment in the performance of services for **CITY** as is ordinarily provided by a similar professional under the same or similar circumstances at the time in Cumberland County, North Carolina.

ARTICLE 4.1 - CONSULTANT NOT RESPONSIBLE FOR CONSTRUCTION MEANS OR SAFETY. A **CONSULTANT** for general construction projects shall not be responsible for any general contractor's or other project participant's failure to fulfill their contractual responsibilities to the **CITY**, nor shall **CONSULTANT** be responsible for construction means, methods, techniques, sequences, or procedures. Neither shall **CONSULTANT** be responsible for a project safety program or safety precautions unless **CONSULTANT'S** Proposal sets forth a safety program which is accepted by **CITY** and becomes a part of the agreement between the parties.

ARTICLE 4.2 - CONSULTANT AS CONSTRUCTION MANAGER. In the event the **CITY** contracts with the **CONSULTANT** to provide Construction Management Services, the **CONSULTANT** shall be responsible for determining that each construction contractor provides work to the quality level specified and in accordance with the plans and specifications. In no event shall **CONSULTANT** be responsible for any contractor's, subcontractor's, vendor's, or other project participant's failure to comply with federal, state or local laws, ordinances, regulations, rules, codes, orders, criteria, or standards unless it has contracted with the **CITY** to do so.

ARTICLE 5 - ESTIMATES OF COST AND TIME. Although **CONSULTANT** has no control over the cost of labor, materials, equipment or services furnished by others, or over contractor's, sub-contractor's, or vendor's methods of determining prices, or over competitive bidding or market conditions, nevertheless **CONSULTANT'S** cost estimates and time estimates shall be made on the basis of current labor and material prices and the **CONSULTANT'S** experience and qualifications, and **CONSULTANT'S** estimates shall represent its best judgment as an experienced and qualified professional familiar with electric, water and sewer utility projects, or other projects for which **CONSULTANT** is employed. Although **CONSULTANT** has no control over the resources provided by contractors to meet contract schedules, nevertheless **CONSULTANT'S** estimates or forecast of schedules shall be made on the basis of its experience and qualifications and shall represent **CONSULTANT'S** best judgment as an experienced and qualified professional familiar with electric, water and sewer utility projects, or other projects for which **CONSULTANT** is employed. **CONSULTANT** does not guarantee that project costs and schedules will not vary from the estimates and schedules given to **CITY**.

ARTICLE 6.0 - LIABILITY, INDEMNIFICATION AND INSURANCE.

6.1 - GENERAL. The **CITY** and **CONSULTANT** have considered the risks and potential liability that may exist during the performance of services by **CONSULTANT**, and have agreed to allocate such liabilities in accordance with this Article. During the performance of services under this Agreement, **CONSULTANT** shall purchase and maintain insurance coverage as hereinafter set forth, without lapse or changes contrary to the requirements of this section. Words and phrases used in this Article shall be interpreted in accordance with customary insurance industry usage and practice.

6.2 - INDEMNITY AND PROFESSIONAL LIABILITY. To the extent permitted by law, **CONSULTANT** agrees to defend, indemnify and hold harmless the **CITY** and its elected officials, employees, agents, successors, and assigns, from any and all liability and claims for any injury or damage caused by any negligent or tortious act, omission or negligence of **CONSULTANT**, its agents, servants,

employees, contractors, licensees, or invitees. Indemnification of the **CITY** by **CONSULTANT** does not constitute a waiver of the **CITY'S** governmental immunity in any respects under North Carolina law. **CONSULTANT** agrees to purchase and maintain professional liability insurance (errors and omissions insurance) in the amount of \$1,000,000 coverage for each claim, with a general aggregate of \$2,000,000. Said insurance coverage shall be underwritten by an insurance company authorized to do business in the State of North Carolina by the North Carolina Department of Insurance, with an A.M. Best rating of not less than A-VII.

6.3- LIABILITY INSURANCE. **CONSULTANT** agrees to indemnify and hold the **CITY**, its servants, agents and employees, harmless from and against all liabilities, claims, demands, suits, losses, damages, costs and expenses (including attorney's fees) for third party bodily injury to or death of any person, or damage to or destruction of any third party property, to the extent caused by the negligence of the **CONSULTANT**, Consultant's employees, and Consultant's subcontractors, for whom **CONSULTANT** is legally responsible during the performance of services under this Agreement. **CONSULTANT** shall purchase and maintain at all times during performance of services under this Agreement Commercial General Liability Insurance with combined single limits of \$1,000,000.00 coverage for each occurrence with a general aggregate of \$2,000,000.00, designating the **CITY** as an additional insured and which said insurance provides **CONSULTANT** with insurance for contractual liability which **CONSULTANT** has assumed pursuant to the terms of this Article 6.

6.4- OTHER INSURANCE. In addition to professional liability insurance and commercial general liability insurance set forth above, **CONSULTANT** further agrees to purchase and maintain at all times during the performance of services under this Agreement insurance coverage as follows:

- (a) Worker's Compensation Insurance as provided by North Carolina law which said policy shall also afford coverage to **CONSULTANT** for employer's liability.
- (b) Automobile liability insurance with \$1,000,000.00 combined single limit for each accident covering bodily injury and property damage.
- (c) The CGL policy required above shall include independent contractor liability coverage.
- (d) The CGL policy required above shall provide **CONSULTANT** with products and completed operations insurance, said coverage to be written on an occurrence basis, with coverage extended for such a period of time that suits can be filed before the running of the statute of limitations on any claim for injury to person or property due to negligence of **CONSULTANT** in the design of any building designed by the **CONSULTANT** under the terms of this Agreement.

ARTICLE 7 - INDEPENDENT CONTRACTOR. **CONSULTANT** is an independent contractor and shall undertake performance of the services pursuant to the terms of this Agreement as an independent contractor. **CONSULTANT** shall be wholly responsible for the methods, means and techniques of performance. **CITY** shall have no right to supervise methods and techniques of performance employed by **CONSULTANT**, but **CITY** shall have the right to observe such performance.

ARTICLE 8 - COMPLIANCE WITH LAWS. **CONSULTANT** agrees that in performing services pursuant to this Agreement to comply with all applicable regulatory requirements including federal, state and local laws, rules, regulations, orders, codes, criteria, and standards. **CONSULTANT** shall be responsible for procuring all permits, certificates, and licenses necessary to allow **CONSULTANT** to perform services under this Agreement. **CONSULTANT** shall not be responsible for procuring permits required for the construction of any building, unless such responsibility is specifically agreed to by **CONSULTANT**.

ARTICLE 9 - CITY'S RESPONSIBILITIES. CITY will furnish to CONSULTANT all of CITY'S requirements for the project, including, but not limited to, scope of work, program, time constraints, schedule milestones, financial constraints, design objectives and design constraints, which are available to the CITY or which the CITY can reasonably obtain to furnish to CONSULTANT to enable CONSULTANT to make a Proposal to CITY. Additionally, the CITY shall also be responsible for the following:

- (1) Make final decisions utilizing information supplied by CONSULTANT.
- (2) Designate personnel to represent CITY in matters involving the relationship between CITY, CONSULTANT and third parties.
- (3) Provide such accounting, independent cost estimating, and insurance counseling services as may be required by the project.
- (4) Provide such legal services as CITY may require or CONSULTANT may reasonably request with regard to legal issues pertaining to the project, including those which may be raised by contractors, subcontractors, vendors or other project participants.
- (5) Enter into contracts for the purchase, construction, or other services with contractors, subcontractors, and vendors.
- (6) Provide financing for the project and make all payments in accordance with the terms of the contract.

ARTICLE 10 - OWNERSHIP OF DOCUMENTS. All documents, including drawings and specifications prepared by CONSULTANT pursuant to this AGREEMENT, are instruments of service in respect of the Project. They are not intended or represented to be suitable for reuse by CITY or others on extensions of the Project or on any other project. Any reuse without written verification or adaption by CONSULTANT for the specific purpose intended will be at CITY'S sole risk and without liability to CONSULTANT. Any such verification or adaptation will entitle CONSULTANT to further compensation at rates to be agreed upon by CITY and CONSULTANT.

ARTICLE 11 - TERMINATION OF CONTRACT FOR CAUSE. In the event of substantial failure by CONSULTANT to perform in accordance with the terms of this contract, CITY shall have the right to terminate CONSULTANAT upon ten calendar (10) days written notice in which event CONSULTANT shall have neither the obligation nor the right to perform further services under this contract nor shall the CITY be obligated to make any further payment for work that has not been performed.

ARTICLE 12 - TERMINATION OF CONTRACT FOR CONVENIENCE. Upon thirty (30) calendar days' written notice to CONSULTANT, CITY may, without cause and without prejudice to any other right or remedy legally available to the CITY, terminate this Contract. Upon such notice, CONSULTANT shall have neither the obligation nor the right to perform services under this contract nor shall the CITY be obligated to make any further payment for work that has not been performed in accordance with the terms stated herein. In such case of termination, CONSULTANT shall be paid for the completed and accepted work executed in accordance with this Contract prior to the written notice of termination. Additionally, upon mutual agreement, CONSULTANT may be paid for any completed and accepted work which takes place in order to achieve a specifically identified item in the scope of services or a milestone of the Contract, between the written notice of termination and the effective date of termination. Unless otherwise stated or agreed upon, the effective date of termination shall automatically occur 30 days after the written notice is sent by the CITY.

ARTICLE 13 - NONDISCLOSURE OF PROPRIETARY INFORMATION. CONSULTANT shall consider all information provided by CITY and all drawings, reports,

studies, calculations, plans, specifications, and other documents resulting from the **CONSULTANT'S** performance of the **SERVICES** to be proprietary, unless such information is available from public sources. **CONSULTANT** shall not publish or disclose proprietary information for any purposes other than the performance of the **SERVICES** without the prior written authorization of **CITY**. **CONSULTANT** shall not make any written or verbal statement to any press or news media concerning the Project without the written authorization of **CITY**.

ARTICLE 14 - NOTICE. Any formal notice, demand, or request required by or made in connection with this agreement shall be deemed properly made if delivered in writing or deposited in the United States mail, postage prepaid, to the address specified below.

TO CITY: **CITY OF FAYETTEVILLE**
ATTENTION: DOUGLAS J. HEWETT
CITY MANAGER
433 HAY STREET
FAYETTEVILLE, NORTH CAROLINA 28301

TO CONSULTANT: **GRADIENT, PLLC**
ATTENTION: GORDON A. ROSE, PE
MEMBER/MANAGER
230 DONALDSON STREET, SUITE 500A
FAYETTEVILLE, NC 28301

Nothing contained in this Article shall be construed to restrict the transmission of routine communication between representatives of **CONSULTANT** and **CITY**.

ARTICLE 15 – FORCE MAJEURE. Neither party shall be deemed to be in default of its obligations hereunder if and *so long as* it is prevented from performing such obligations by an act of war, hostile foreign actions, adverse governmental actions, nuclear explosion, earthquake, hurricane, tornado, or other catastrophic natural event or act of God.

ARTICLE 16 - GOVERNING LAW. This Agreement shall be governed by the laws of the State of North Carolina.

ARTICLE 17 - MISCELLANEOUS.

17.1 NONWAIVER FOR BREACH. No breach or non-performance of any term of this Agreement shall be deemed to be waived by either party unless said breach or non-performance is waived in writing and signed by the parties. No waiver of any breach or non-performance under this Agreement shall be deemed to constitute a waiver of any subsequent breach or non-performance and for any such breach or non-performance each party shall be relegated to such remedies as provided by law.

17.2 PRECEDENCE. In the event of any conflict or discrepancy between the terms of this Agreement and the specific written authorization to proceed pursuant to this Agreement, then the written authorization to proceed shall be given precedence over this Agreement in resolving such conflicts or discrepancies. If any conflict or discrepancy is discovered by either party hereto, then the written authorization to proceed, or this Agreement, shall be modified or amended, as necessary.

17.3 SEVERABILITY. The invalidity, illegality, or un-enforceability of any portion or provision of this Agreement shall in no way affect the validity, legality and/or enforceability of any other portion or provision of this Agreement. Any invalid, illegal or unenforceable provision of

this Agreement shall be deemed severed from this Agreement, and the balance of the Agreement shall be construed and enforced the same as if the Agreement had not contained any portion or provision which was invalid, illegal or unenforceable. Provided, however, this section 17.3 shall not prevent this entire Agreement from being void in the event any portion or provision of this Agreement which is of the essence of this Agreement shall be deemed void as provided by law or as determined by a court of competent jurisdiction.

ARTICLE 18 - INTEGRATED AGREEMENT. The CITY'S request for Proposal, the CONSULTANT'S written Proposal, the CITY'S authorization to proceed and this General Services Agreement for Consulting Services shall be integrated into and shall become the integrated agreement between the parties. CONSULTANT and CITY agree that all prior negotiations, representations, proposals, letters, agreements, understandings, or other communications between them, whether written or oral, are hereby merged into the Agreement and that the Agreement supersedes all such prior negotiations, contracts and/or agreements. This Agreement shall not be modified unless such modifications are evidenced in writing, signed by both CONSULTANT and CITY.

ARTICLE 19 - BENEFITS LIMITED TO PARTIES. Nothing herein shall be construed to give any right or benefits hereunder to anyone other than CITY and CONSULTANT.

19.1 LIMITATIONS. CONSULTANT'S total liability to CITY under each authorization shall not exceed the total compensation paid under the authorization, or \$1,000,000, whichever is greater; any portion of liability determined to be consequential damages under this per authorization limit, shall not exceed the compensation paid under the authorization. In no event shall CONSULTANT'S total liability in the aggregate, for all services under this agreement, exceed \$4,000,000. limits set forth in this agreement shall apply notwithstanding any and all causes whatsoever including, but not limited to negligence (of any degree), errors, omissions, warranty, indemnity, strict liability or breach of contract, provided, however, that the foregoing limitation shall not apply to any indemnity obligations of consultant with respect to third party personal injury and death or damage to third party property.

ARTICLE 20 – VENUE AND FORUM SELECTION. The Parties expressly agree that if litigation is brought in connection with this contract and (1) the litigation proceeds in the Courts of the State of North Carolina, the parties agree that the appropriate venue shall be in Cumberland County (Twelfth Judicial District of North Carolina); or (2) the litigation proceeds in a federal court, the parties agree that the appropriate venue shall be the United States District Court for the Eastern District of North Carolina.

ARTICLE 21 - E-VERIFY. CONSULTANT acknowledges that "E-Verify" is the federal E-Verify program operated by the US Department of Homeland Security and other federal agencies which is used to verify the work authorization of newly hired employees pursuant to federal law and in accordance with Article 2, Chapter 64 of the North Carolina General Statutes. CONSULTANT further acknowledges that all employers, as defined by Article 2, Chapter 64 of the North Carolina General Statutes, must use E-Verify and after hiring an employee to work in the United States, shall verify the work authorization of the employee through E-Verify in accordance with NCGS §64-26(a). CONSULTANT pledges, attests and warrants through execution of this contract that CONSULTANT complies with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes and further pledges, attests and warrants that any subcontractors currently employed by or subsequently hired by CONSULTANT shall comply with any and all E-Verify requirements. Failure to comply with the above requirements shall be considered a breach of this contract.

ARTICLE 22 – MORALITY CLAUSE. If, in the sole opinion of the CITY, at any time CONSULTANT or any of its owner(s) or employee(s) or agent(s) (collectively referenced as an “Actor”) engages in any one or more actions that bring disrepute, contempt, scandal, or public ridicule to the Actor or subject the Actor to prosecution or offend the community or public morals or decency or denigrate individuals or groups in the community served by the CITY or are scandalous or inconsistent with community standards or good citizenship or may adversely affect the CITY’S finances, public standing, image, or reputation or are embarrassing or offensive to the CITY or may reflect unfavorably on the CITY or are derogatory or offensive to one or more employee(s) or customer(s) of the CITY, the CITY may immediately upon written notice to CONSULTANT terminate this Contract, in addition to any other rights and remedies that the CITY may have hereunder or at law or in equity.

ARTICLE 23 – PROTEST. Protest related to this procurement must be addressed to the Purchasing Manager for City of Fayetteville, 433 Hay St, Fayetteville, NC 28301 and shall be received, in writing, within 2 calendar days of bid award. Responses will be in writing by email and first-class mail not later than (7) calendar days following receipt of said protest by the Purchasing Manager.

ARTICLE 24 - IRAN DIVESTMENT ACT CERTIFICATION. As mandated by N.C.G.S. 147-86.59(a), CONSULTANT hereby certifies that it is not listed on the Final Divestment List created by the North Carolina State Treasurer pursuant to N.C.G.S. 147-86.58. CONSULTANT further certifies that in accordance with N.C.G.S. 147-86.59(b) that it shall not utilize any subcontractor found on the State Treasurer’s Final Divestment List. CONSULTANT certifies that the signatory to this General Services Agreement is authorized by the CONSULTANT to make the foregoing statement.

IN WITNESS WHEREOF, the parties have executed this Agreement by their duly authorized representatives effective the day and year first above written.

**CITY OF FAYETTEVILLE,
NORTH CAROLINA**

CITY OF FAYETTEVILLE

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

DATE: 4/22/2022

BY: Douglas J. Hewett
Douglas J. Hewett, ICMA-CM
City Manager

[Signature]
Chief Financial Officer

ATTEST:

Pamela J. Meguire
CITY CLERK



DATE: 3/31/22

BY: Gordon A. Rose
Gordon A. Rose, PE

TITLE: Member/Manager