

**AGREEMENT BETWEEN OWNER
AND
(ENGINEERING FIRM)
FOR PROFESSIONAL SERVICES**

THIS AGREEMENT is made as of this 6th day of September, 2016, between the City of Hickory ("OWNER"), with principal offices at 76 North Center Street, Hickory, NC, 28601 and Amec Foster Wheeler Environment and Infrastructure, Inc.), ("ENGINEER"), with principal offices at 4021 Stirrup Creek Drive, Suite 100, Durham, NC 27703 for services in connection with the project known as the City of Hickory Citywalk Project ("Project");

WHEREAS, OWNER desires to engage ENGINEER to provide professional engineering, consulting and related services ("Services") in connection with the Project; and

WHEREAS, ENGINEER desires to render these Services as described in SECTION I, Scope of Services.

NOW, THEREFORE, OWNER and ENGINEER in consideration of the mutual covenants contained herein, agree as follows:

SECTION I. SCOPE OF SERVICES

ENGINEER will provide Services for the Project, which consist of the Scope of Services as outlined on the attached Exhibit A.

SECTION II. TERMS AND CONDITIONS OF ENGINEERING SERVICES

The Terms and Conditions which are attached hereto in Exhibit B, are incorporated into this Agreement by this reference as if fully set forth herein.

SECTION III. RESPONSIBILITIES OF OWNER

The OWNER shall provide the information set forth in paragraph 6 of the attached Terms and Conditions for Professional Services.

SECTION IV. COMPENSATION

Compensation for ENGINEER'S services under this Agreement shall be as follows:

Subtotal LUMP SUM Not-to-Exceed amount is nine hundred ninety seven thousand nine hundred seventy one dollars (\$997,971.00).

Subtotal UNIT PRICE Not-to-Exceed Budget amount is forty seven thousand one hundred eighty dollars (\$47,180.00).

Subtotal CONTINGENCY Not-to-Exceed Budget amount is fifty thousand dollars (\$50,000.00).

Grand Total amount for the Contract Not-to-Exceed is one million ninety five thousand one hundred fifty one dollars (\$1,095,151.00).

The amount of any sales tax, excise tax, value added tax (VAT), or gross receipts tax that may be imposed on this Agreement shall be added to the ENGINEER'S compensation as Reimbursable Expenses.

Compensation terms are defined as follows:

Lump Sum shall mean a fixed amount which shall be the total compensation agreed upon in advance for Scope of Services.

Unit Price shall mean a not-to-exceed amount which shall be compensation based on actual hours spent times bill rate approved, plus actual expenses incurred in completing the work.

Contingency shall mean a not-to-exceed amount which shall be used to cover expenses that are indeterminable as of contract execution. Contingency budget shall not be used without prior written approval by the owner.

SECTION V. PERIOD OF SERVICE

Upon receipt of written authorization to proceed, ENGINEER shall perform the services within the time period(s) described in Exhibit A unless otherwise stated in this Agreement, the rates of compensation for ENGINEER'S services have been agreed to in anticipation of the orderly and continuous progress of the project through completion. If any specified dates for the completion of ENGINEER'S services are exceeded through no fault of the ENGINEER, such as Acts of God, Delay attributed solely to Owner or unforeseeable delay related to Regulatory Agency, the time for performance of those services shall be automatically extended for a period which may be reasonably required for their completion and all rates, measures and amounts of ENGINEER'S compensation may be equitably adjusted, as agreed to in writing.

SECTION VI. SPECIAL PROVISIONS

Engineer shall be responsible for paying all fees related to regulatory or other governing authority submittal, review, permitting, etc. These fees shall be paid from the CONTINGENCY amount established in this contract once approved in writing by the owner, at the direct cost with no markup.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first written above.

City of Hickory

“OWNER”

BY:

Rudy Wright

NAME:

Rudy Wright Bradley C. Hall

TITLE:

Mayor Pro Tempore

ADDRESS:

PO Box 398
Hickory, NC 28603



Attest:

Debbie D. Miller
Debbie D. Miller
City Clerk

Amec Foster Wheeler Environment and Infrastructure, Inc.

“ENGINEER”

BY:

Harold Thurston

NAME:

Harold Thurston

TITLE:

Associate

ADDRESS:

4021 Stirrup Creek Drive,
St 100
Durham, NC 27703

Approved as to form

Annita M. Duda
City of Hickory – Legal Dept.

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

Sharon Miller
City of Hickory
Finance Officer

EXHIBIT A

SCOPE OF SERVICES

Project Approach and Scope of Work

Description of the Project

This is the approach and scope of work for professional services to design and prepare construction documents for the City Walk project in Hickory, North Carolina. The City Walk improvements include a multi-use trail of varying width, preferably 15 to 18 feet (minimally 6-10 feet wide where restrictions exist) on one or both sides of the railroad; decorative fencing; landscape planting; parking; hardscape/plazas; art/sculpture; shade structures; water features/fountains; festival spaces; lane reductions; a roadway roundabout; interpretive signage; intersection improvements and a pedestrian bridge. The City Walk is approximately 6,820 feet long (1.3 miles) and links downtown Hickory from 4th Street NW to Lenoir-Rhyne University. Project deliverables will include but not be limited to: surveying, subsurface utility engineering, ROW documentations, permit applications, budgeting and scheduling, landscape architecture and engineering construction drawings, technical specifications, bidding assistance, response to RFI's and construction record drawings. During the plan development process the team will also meet with City Staff and officials, make presentations as necessary, conduct public meetings, document all meetings and manage a SharePoint site for communication and sharing of drawings.

Typical plan contents may include but not be limited to demolition plans, erosion control plans, storm water plans, sanitary sewer plans, hardscape plans, layout plans, grading plans, landscape plans, irrigation plans, electrical/lighting plans, water supply plans, site plans including parking and paving, details including site furnishings, signage, building plans for public restrooms and pedestrian bridge plans.

Project Components

Components of the City Walk to be designed and engineered are listed below and are based on the "Inspiring Spaces" Master Plan.

City Walk

Project Components:

- 10-18 foot wide multi-use trail on both sides of the railroad
- Decorative wall/fence along the railroad
- Planting beds and shade trees both sides of railroad
- Irrigation
- 2 Hardscape plazas with specialty pavers
- Art/sculpture (one piece to be selected by the City)
- Maximizing Main Avenue on-street parking improvements (approximately 29 spaces – one side only)
- Maximizing parallel parking (approximately 26 spaces – one side only, south side of railroad)
- Trellis/Shade structure and architecturally appropriate pre-engineered public restroom
- 2 Pedestrian crossings of the railroad
- 2 Main Avenue pedestrian crosswalks
- Pedestrian/safety lighting
- Interpretive components TBD
- Wayfinding signage

Construction Budget: \$1,200,000

Project Components:

- 10-18 foot wide multi-use trail on both sides of the railroad
- Decorative wall/fence along the railroad
- Planting beds and shade trees both sides of railroad
- Irrigation
- Main Avenue parking improvements (along the railroad)
- Pedestrian improvements for railroad crossing – 2 locations
- Pedestrian crosswalk improvements at 3rd street (2 places)
- Assess the feasibility of a Pedestrian Bridge (Bridge design and renovation of the 3rd Street Railroad Bridge not included)
- Coordinate with NS to improve the aesthetic of the pedestrian underpass
- Pedestrian/safety lighting
- Interpretive components TBD
- Wayfinding signage

Construction Budget: \$510,000

Project Components:

- 15-18 foot wide multi-use trail on south side of Main Avenue
- Improved pedestrian crossing at railroad – 2 locations
- Decorative wall/fence along the railroad
- Seating nodes
- Planting beds and shade trees (north side only)
- Irrigation
- Main Avenue on-street parking improvements (approximately 24 spaces - one side only)
- Entry plaza at Main Avenue and 2nd Street
- Plaza with specialty pavers at seating nodes – 3 locations
- Pedestrian/Safety lighting
- Interpretive components TBD
- Wayfinding signage

Construction Budget: \$710,000

Project Components:

- 15-18 foot wide multi-use trail on south side of Main Avenue
- Decorative wall/fence along railroad
- Planting beds and shade trees both sides of railroad
- Irrigation
- Main Avenue parking improvements (approximately 46 spaces – one side only)
- Plaza with a decorative water feature at approximate mid-point
- Activity nodes
- Shade structure/arbor – one location
- Pedestrian/safety lighting
- Interpretive components TBD
- Wayfinding signage

Construction Budget: \$1,200,000

Project Components:

- 15-18 foot wide multi-use trail on south side of Main Avenue
- Sidewalk and streetscape improvements along north side of Main Avenue
- Sidewalk improvements along the south side of the railroad and east of NC 127.
- Crosswalk improvements at Main Avenue at 2nd Street and at 1st Avenue
- Decorative wall/fence along railroad
- Planting beds and shade trees along both sides of Main Avenue, on the south side of the railroad and on both sides of the overpass with NC 127.
- Irrigation
- Main Avenue parking improvements (approximately 26 spaces - one side only)
- Plaza with decorative water feature at intersection of Main Avenue and 2nd Street
- Art/"iconic" sculpture near NC 127 (Art and Sculpture TBD by the City of Hickory)
- Pedestrian/safety lighting
- Interpretive components TBD
- Wayfinding signage
- Architecturally appropriate Pre-Engineered public restroom on the City owned parcel at the NE intersection of Main Ave Way SE and NC 127
- Coordinate with NS to improve the aesthetic of the pedestrian underpass

Construction Budget: \$475,000

Project Components:

- 10-18 foot wide (or as wide as feasible) multi-use trail/sidewalk on the north side of Main Avenue
- 1st avenue crosswalk with specialty pavers
- 3rd Avenue/Main Avenue (2 places) crosswalk improvements with specialty pavers
- Improved pedestrian signals at Main Avenue and 1st Ave NE
- Improved pedestrian signals at Main Avenue and 3rd Avenue NE
- Planting beds and shade trees on north side of Main Avenue NE/8th Street NE (one side only)
- Irrigation
- Pedestrian/safety lighting
- Wayfinding signage

Construction Budget: \$550,000

Project Components:

- 15-18 foot wide multi-use trail/sidewalk on the north side of Main Avenue
- Decorative wall/fence along the railroad
- Planting beds and shade trees on north side of Main Avenue (one side only)
- Irrigation
- Crosswalk improvements with specialty pavers at 5th Avenue
- Pedestrian signalization at 5th Avenue (Vehicular signalization not included)
- Crosswalk improvements with specialty pavers at 4th Avenue NE
- Pedestrian railroad crossing at 8th street SE – link to the Hollar Mill development
- Plaza with specialty paving, landscape/trees at Hollar Mill and along pedestrian connection
- Pedestrian/safety lighting
- Interpretive components TBD
- Wayfinding signage

Construction Budget: \$750,000

Project Components:

- 15-18 foot multi-use trail/sidewalk (where feasible) on north sides of Main Avenue that links to the Lenoir-Rhyne University Sign Plaza
- 6-10 foot multi-use trail/sidewalk on the south side of Main Avenue to the intersection with Lenoir-Rhyne Boulevard

Crosswalk improvements at 7th Avenue NE and 8th Street NE
Pedestrian plazas and monumentation at the intersection of 7th Avenue NE and 8th Street NE
Planting beds and shade trees on both sides of Main Avenue, 7th Avenue NE between Main and Lenoir-Rhyne, Lenoir-Rhyne Boulevard between the Hollar Mill and 7th Avenue NE, Highland Ave. SW to 8th Street.
Irrigation
Pedestrian/safety lighting
Pedestrian crosswalk at Lenoir-Rhyne Boulevard and Highland Avenue
Interpretive components TBD
Wayfinding signage

Construction Budget: \$730,000

Amenities

Project Components:

- Outdoor dining areas
- Festival spaces
- Connections to the City Walk trail
- Informal children play areas (Children's playground not included)
- Under consideration are story telling circles
- Flag Court removed and re-adapted for another amenity
- Lawn, planting beds and shade trees
- Pedestrian and safety lighting
- Drinking fountain
- Relocated monuments/plaques/cannon
- Interpretive components TBD
- Cosmetic / material upgrades to existing stage and seating area
- Existing public restroom upgrades, to include mechanical and electrical design as needed, and including options to increase available storage space.
- Review and provide electrical service for open spaces (festivals, events, etc) and rework the existing electrical as needed.

Construction Budget: \$625,000

Project Components:

- "Iconic" pedestrian bridge over NC 127
- 15-18 foot multi-use trail on the bridge
- 15 feet of planting area on the bridge (optional alternative)
- Art and/or sculpture that may be included with the bridge
- Bridge structure and decking
- Landscape planting
- Interpretive design for the bridge
- Pedestrian/safety lighting
- LED lighting of the underpass
- Wayfinding signage

Construction Budget: \$1,300,000

Project Components:

- Intersection redesign to accommodate a roundabout
- Pedestrian improvements including crosswalks
- Landscape improvements including trees, shrubs and turf
- Irrigation
- Wayfinding signage

Sculpture/art
Specialty paving
Vehicular/pedestrian safety lighting

Construction budget: \$650,000

Project Components:

6 foot sidewalk improvement along Main avenue SE – one side only
Decorative wall/fence along railroad
Pedestrian plaza/crosswalks with specialty pavers (at 3rd Avenue)
Planting beds and shade trees
Irrigation
Pedestrian/safety lighting
Wayfinding signage

Construction Budget: \$150,000

Project Components:

6 foot sidewalk improvement along Main avenue SE – one side only
Decorative wall/fence along railroad
Pedestrian plaza/crosswalks with specialty pavers (at 3rd Avenue)
Planting beds and shade trees
Irrigation
Pedestrian/safety lighting
Wayfinding signage

Construction Budget: \$250,000

Project Components:

Landscape improvements along railroad corridor on the south side of Main Ave NE
Decorative wall/fence along railroad
Planting beds and shade trees
Irrigation

Construction Budget: \$200,000

Project Components:

6 foot sidewalk improvement along Main avenue SE – one side only
Landscape improvements along railroad corridor on the south side of Main Ave NE
Decorative wall/fence along railroad
Planting beds and shade trees
Irrigation

Construction Budget: \$370,000

Construction Budget Summary

Construction budgets for each component are summarized below from the master plan. Construction budget per segment is not intended to limit each segments' design in any way as a restriction, rather it is informational to help compile an overall project construction budget.

City Walk Segment 1: \$1,200,000
City Walk Segment 2: \$510,000

City Walk Segment 3:	\$710,000
City Walk Segment 4:	\$1,200,000
City Walk Segment 5:	\$1,775,000 (includes \$1,300,000 for a 180 foot Ped Bridge)
City Walk Segment 6:	\$550,000
City Walk Segment 7:	\$750,000
City Walk Segment 8:	\$730,000
3 Public Restrooms:	\$600,000
Construction Contingency:	\$805,500

Subtotal: \$8,827,500

Main Ave	
Union Square:	\$625,000
2nd Ave. Realignment:	\$650,000
Main Ave SE Improvement (1 st -3 rd Ave):	\$150,000
Main Ave SE Improvement (3 rd -5 th Ave):	\$250,000
Main Ave NE Improvement (1 st -3 rd Ave):	\$200,000
Main Ave NE Improvement (3 rd -5 th Ave):	\$370,000
Construction Contingency:	\$224,500

Subtotal: \$2,490,000

Project Budget Total: \$11,297,000

Project Management

Through all phases, project management will make use of the following tools:

➤ **Project Workplan and Project Calendar**

The team will develop a detailed Workplan and project schedule with input from the City.

Following completion of the Project Workplan, a detailed Project Calendar will be prepared and updated as necessary. City Staff will distribute schedule updates to the Bond Commission. The Calendar will identify minor and major milestones, milestone review time, all meeting dates and will be issued to all team members.

➤ **Regularly Scheduled Teleconference Meetings**

Regularly scheduled, weekly teleconference meetings will be held under the leadership of the Project Manager to monitor progress and coordination among disciplines. Meeting agendas will be issued in advance of each call. A summary of each teleconference will be distributed in the week following the call. The City's representatives will be included on these calls.

Monthly management meetings held to review the overall progress of the project. We encourage the participation of City Staff in these meetings, which will serve as a forum for problem resolution. Agendas and a record of each meeting will be provided by the Amec Foster Wheeler project manager.

➤ **Project Information Management**

Amec Foster Wheeler will upload reports and files to the City's SharePoint site. Meeting agendas, meeting minutes, Technical memorandum, drawing submittals (including 30/40/60/80/90% and 100% bid set) will be electronically uploaded to the SharePoint site in PDF format

Stakeholder Engagement and Management

The following will be performed as part of our stakeholder engagement and management plan:

➤ **Design/Planning Refinement Phase:**

To facilitate the design/planning refinement phase, Amec Foster Wheeler will meet with City Staff and representatives of the Bond Commission to discuss outstanding issues and opportunities related to refinement of the City Walk master plan. It is anticipated this will be a day long workshop that will involve meeting with City Staff in the morning and Bond Commission members in the afternoon. A design development presentation with City Council at a public meeting will follow the Design Phase Workshop.

➤ **Post-Submittal Meetings:**

Amec Foster Wheeler will conduct post 30%, 60% and 90% submittal meetings with City Staff to obtain and discuss comments and opinions on the submittal.

➤ **Design Review and Approval Process:**

Upon completing the 30% and 60% approval process with the City and incorporation of all approved changes, the Bond Commission will have the opportunity to review the designs and provide their comments. Comments will be obtained at two Bond Commission meetings coordinated by City Staff and moderated by Amec Foster Wheeler (referred to respectively as 40% and 80% plan stages).

The City will perform all notifications necessary for these meetings.

Technical Approach

The scope of services presented below includes all the necessary work to produce design and construction documents for the City Walk. Our project approach includes development of technical memorandum following completion of each major task as identified in the process.

Task 1.0: Data Collection/Research

1.1 Program and Plan Review

- We will participate in a day long design phase workshop with City Staff and Bond Commission members to review and discuss in detail program/scope requirements for the City Walk, construction budget and phasing.
- A list of standards required to be followed (NCDOT, Norfolk Southern and City ordinances/guidelines) shall be discussed and clearly outlined.
- Any existing plans will be discussed and reviewed including the Inspiring Spaces Master Plan
- The schedule of tasks, deliverables and key meetings will be developed and reviewed. The completion date for construction documents, which includes the construction drawings and specifications shall be determined. The schedule of interim submittals and meetings will be developed but will be subject to change based on City review and input.
- Amec Foster Wheeler will begin coordination with Norfolk Southern Railroad for crossings, landscape and trail improvements, ROW and encroachments.

1.2 City Walk Inventory and Analysis

- We will walk the corridor with City Staff to become familiar with any changes in the existing site conditions that may influence the design of the City Walk.
- We will discuss applicable design issues with local utilities, with NCDOT and other appropriate agencies such as Norfolk Southern and Duke Energy.

1.3 Boundary Survey

➤ **Property & Deed Research:**

Amec Foster Wheeler will conduct research at the Catawba County Courthouse and/or online to establish the tax identification number, property owner's name and current deed book and page number for each property within the survey limits. Additional research will be performed to uncover

any major easements and recorded rights-of-way. Existing deeds, plats and easements search is limited to a Grantor/Grantee search from the date of the current deed, forward to the executed date of the contract.

✧ **Horizontal & Vertical Control:**

Amec Foster Wheeler will perform research to obtain monument descriptions; coordinate values and field recover existing State Geodetic and NGS monuments that are closest to the project limits. Using this information a horizontal and vertical control network will be established along the project limits.

The horizontal control traverse will be referenced and adjusted to the NAD 83/2011 datum. Project coordinates will be localized around one control point set near one end of the project. Horizontal control traverses shall conform to standard set for third order class I surveys (1:10,000). Horizontal control points will be monumented for each city block by placing 36 inch rebar with aluminum caps or as outlined in local survey standards and regulations.

Vertical control bench loops shall be established along the project corridor and benchmarks shall be established within each block/City Walk segment not to exceed 1,000 foot intervals. Temporary benchmarks shall be placed outside of the construction limits shall be used when possible. Benchmarks will have third order closure accuracy and will be based on NVGD 1988.

✧ **Boundary Ties and Property Mapping:**

Amec Foster Wheeler will perform field surveys to delineate existing property lines, right-of-way and easements within the project limits. Existing property lines will be mapped based on existing property monumentation and recorded deeds and plats. The property surveys do not constitute a boundary survey of each parcel, but instead are intended to provide sufficient information for the preparation of right-of-way and easement and property acquisition plats.

1.4 Topographic Survey

✧ **Digital Terrain Model:**

Horizontal and vertical data points will be collected throughout the project corridor to create a triangular irregular network (TIN) for the purpose of defining the existing topography and grades.

Vertical control bench loops shall be established along the project corridor and benchmarks shall be established within each block/City Walk segment not to exceed 1,000 foot intervals. Temporary benchmarks shall be placed outside of the construction limits shall be used when possible. Benchmarks will have third order closure accuracy of 0.05' $\sqrt{\text{miles}}$ (English) or 12 mm $\sqrt{\text{km}}$ (Metric) and will be based on NVGD 1988.

✧ **Planimetric Mapping:**

Field surveys will be performed to locate and map planimetric information within the project limits (see Fig. 1 City Walk Survey Limits at end of scope document). Planimetric location will include the following items:

- Driveway location and type (concrete, gravel, asphalt, etc.)
- Medians, curb and gutter, parking and sidewalks
- Width of roadway pavement, edge of pavement and lane widths
- Building location and type
- Limits of wooded areas, limits of vegetation and trees 4 inches caliper and larger
- Signs to include road signs, business signs and billboards
- Fences location and type
- Sanitary Sewer System - location, size, type and elevation of inverts and tops
- Storm Sewer System - location size, type and elevations or inverts and top.
- Water Lines – location of above ground appurtenances such as valves, meters and hydrants. Does not include underground location (See SUE Mapping)
- Gas Lines – location of above ground appurtenances such as valves, meters and vents Does not include underground location (See SUE Mapping)

Telephone – location of above ground appurtenances such as poles, pedestals and manhole access covers. Does not include underground location (See SUE Mapping)
Power – of above ground appurtenances such as poles, pedestals and manhole access covers. Does not include underground location (See SUE: Map underground utilities)
Cable TV – location of above ground appurtenances such as poles and pedestals. Does not include underground location (See SUE: Map underground utilities)
Existing contour elevations in 1 foot intervals
Other Improvements as outlined by Client or local survey standards

1.5 SUE Investigation

Quality Level B

• **Designate underground utilities:**

Amec Foster Wheeler will designate and mark underground utilities within the proposed work area delineated. Amec Foster Wheeler will employ geophysical prospecting techniques to determine the existence and horizontal position of underground utilities. The utilities will be marked on the ground using a universally recognized system of paint markings at 50 foot intervals along the utility and at all bends in the line. All utilities that can be identified shall be designated to the limits of the project. Non-metallic lines cannot be located using standard pipe and cable locating equipment. Amec Foster Wheeler will attempt to locate these lines using any available utility records and indirect methods such as ground penetrating radar (GPR). GPR technology complements standard electromagnetic techniques in the field, allowing Amec Foster Wheeler the ability to detect all material types both metallic and non-metallic, including plastics, concrete, ceramics, asphalt composites and more.

• **Survey utility marks**

Amec Foster Wheeler will locate the subsurface utility marks placed in previous task horizontally, using conventional surveying techniques.

• **Map underground utilities**

Amec Foster Wheeler will then map the location of the subsurface utilities in order to allow for integration of the mapping into the existing planimetric data. Amec Foster Wheeler will map the utilities in AutoCAD environment according to the project requirements.

Quality Level A (vacuum excavation) – Survey Only

• Amec Foster Wheeler will include allowance to field survey up to 20 Quality Level A Utility Test Holes, for accurate horizontal and vertical location of underground utilities in conflict with the proposed improvements. The City will be responsible for vacuum excavation, traffic control, patching and pavement repair where needed. This information will be used to determine options for avoidance or potential redesign to remove the conflict, and test hole data will be reported on standard NCDOT Utility test hole forms.

1.6 ROW Document Preparation

• Amec Foster Wheeler will prepare right-of-way and easement plats for the purpose of obtaining new right-of-way and easements along the project survey limits. All plats will be prepared in accordance with State Statute or local mapping requirements. Client will be responsible for obtaining property owner signatures if required.

• Prior to recordation of right-of-way and easement acquisition plats, Amec Foster Wheeler shall place monuments at all breaks in the new right-of-way, at the intersection of existing property lines with the new right-of-way and with drainage easements. Right-of-way and permanent easement points will be monumented as required by State Statute or as outlined in local survey standards and requirements.

* **Mapping Requirements**

The following items will be submitted at the completion of the survey:

- Finished survey will be provided at scale and size as directed by the client
- Finished products will include a signed and sealed map
- Digital file in AutoCAD or MicroStation format

▷ **Assumptions**

Amec Foster Wheeler assumes the following:

- The Client will provide any pertinent boundary information in their possession
- The Client will gain and/or allow access for any work to be performed

Task 2.0: Environmental Documentation

2.1 Environmental Studies/Documentation

- ▷ It is our understanding that Federal funding for this project may be forthcoming. The use of federal funds triggers the necessity of a level of environmental due diligence. Therefore, Amec Foster Wheeler will prepare a National Environmental Policy Act (NEPA) Programmatic Categorical Exclusion (PCE).
- ▷ Additional environmental reporting that will be performed will be a Phase I Environmental Site Assessment (ESA) of the entire corridor. The purpose of the Phase I ESA will be to determine if there are recognized environmental conditions (RECs) associated with the corridor that may have a negative impact to onsite workers during construction of the City Walk and to be used for the PCE. The Phase I ESA will be performed in general accordance with ASTM International (ASTM) Standard E 1527-13 and the United States Environmental Agency (EPA) and All Appropriate Inquiries (AAI) Rules.

2.2 Special Studies

- ▷ Our staff will review existing traffic studies (if any), including concept design plans for the roundabout, to determine the feasibility of planned improvements and pedestrian safety improvements along the corridor.
- ▷ Our staff will facilitate meetings and discussions with NCDOT to review recommendations and discuss issues related to NCDOT owned facilities in the corridor.
- ▷ Our staff will facilitate meetings and discussions with Norfolk Southern Railroad to review recommendations and discuss issues at the conclusion of the Master Plan Refinement phase.
- ▷ Amec Foster Wheeler will complete a geotechnical evaluation of the proposed bridge abutment sites at NC127 and at two anticipated retaining wall sites. A report on these evaluations will include boring logs, figures showing boring locations and an evaluation of the subsurface conditions as they relate to the construction of the pedestrian bridge over Hwy 127 and potential retaining wall designs. This report will be submitted to the City and used in the structural design of the pedestrian bridge.

Task 3.0: Master Plan Analysis

- ▷ Using the survey and database of information, the Amec Foster Wheeler team will prepare an analysis that focuses on a comparison of the Inspiring Spaces Master Plan with existing survey conditions. The project team will analyze topography and drainage, bridges and culverts, intersections and access points, as well as utility easements. All of the above will be analyzed along the length of the City Walk and a limited surrounding area. All of the site analysis information will be overlaid onto survey drawings to identify areas of concern.

- The project team will coordinate a meeting with City Staff to refine project needs (see stakeholder engagement and management). A minimum of 2 alternative plans will be developed that refine the existing master plan. These alternate plans will be reviewed and revised following critical input. Preparation of a minimum of two schematic plans (using scaled based maps and sketches) for targeted portions of the City Walk will be developed based on an analysis of the existing master plan.
- One identified focus of the design alternative evaluation will be on the City Walk segment east of NC 127.
- A second focus of evaluation will be in the design of the “iconic” pedestrian bridge over NC127. The Amec Foster Wheeler team will explore a maximum of 5 design alternatives including refinement of the 2 alternatives presented in the Inspiring Spaces Master Plan. The bridge alternatives analysis will include renderings, constructability assessments, and cost estimates. The City and Bond Commission will select a preferred alternative prior to moving onto the 30% Design Phase Drawings.
- Conceptual “sketch” plans will be presented as color rendered plans, elevations and free-hand drawings illustrating refined design concepts addressing materials, scale, and the relationship of the City Walk to adjacent roadways and the railroad. Preparation of a maximum of two conceptual plans for each component of the City Walk will be developed based on the established master plan program – “Life Well Crafted”. The alternative plans will be submitted to the City and Bond commission for review and comment.
- A refined master plan will be developed by the Amec Foster Wheeler team for the City Walk that illustrates, with scaled plans and sketches, the refined concepts and recommendations resulting from an analysis of the alternative plans. This step in the process will involve development, refinement and fine tuning of the preferred alternative master plan concepts. This master plan will include diagrams and renderings that depict the location of vehicular and pedestrian facilities, linkages as appropriate, locations for interpretive signage, sculpture and recommendations for any landscape planting.
- The Amec Foster Wheeler team will host a planning phase workshop with the City and Bond Commission. It is anticipated that this will be a day long workshop that will include meetings with City Staff in the morning and City Staff and Bond Commission members in the afternoon.
- The Amec Foster Wheeler team will modify the preferred alternatives based on input from the City Staff and the Bond Commission. The refined Master Plan drawings, meeting minutes, and other supporting documentation will be assembled into a technical memorandum reflecting the cumulative effort of the refined master planning process.

Task 4.0: 30% Design Phase Drawings

4.1 Purpose

Amec Foster Wheeler will prepare 30% design phase drawings based on the refined Master Plan drawings and match/adjust concepts to survey conditions.

4.2 30% Design Phase Drawings

The 30% Design Phase drawings will be prepared utilizing AutoCAD software. The 30% design drawings will detail sufficient information to submit to probable affected utility companies and to

assess potential right-of-way issues. The 30% design drawings (drawn at 20 scale) will encompass/include the following tasks:

- Horizontal trail/sidewalk and parking alignment including wall locations, sidewalks, driveways, handicap access, vehicle parking areas, pedestrian bridge, landscape planting and street furnishings
- Construction limits identified
- Anticipated drainage concepts to identify catch basins, bio-swales, proposed storm drain locations, detention areas
- Utility plan coordination including up to 4 meetings to coordinate with potential affected utilities
- Electrical/lighting location plans
- Irrigation- discipline coordination with civil, mechanical and landscape architecture
- Tree and landscape planting locations
- Interpretive components;
- Site furnishings presentation boards documenting options for benches, trash receptacles, arbors, walls, fences, fountains, bike racks, drinking fountains, etc.
- Conceptual, order of magnitude cost estimates will be prepared for each City Walk segment for review by the City
- An itemized order of magnitude cost estimate will be developed including estimates for Right-of-Way (ROW) and utility relocation
- Coordination with Norfolk Southern Railroad for crossings, landscape and trail improvements, ROW and encroachments
- Storm drainage plans
- Plans for the roundabout proposed at 2nd Ave NE intersection with Main Ave NE
- Layout plan for the Pedestrian Bridge over NC 127
- Architecturally appropriate Pre-engineered public restrooms (2 locations) and plans to upgrade the current Union Square restroom including mechanical and electrical design as needed.

4.3 Review/Approval

The 30% design phase drawings will be issued to the City for review, comment, and approval. Amec Foster Wheeler will meet with City Staff to receive input into the 30% plans. Upon agreement of comments and incorporation, the revised plans (40% drawings) will be made available to the Bond Commission for review. Comments on the 40% plans will be reviewed at a meeting coordinated by City Staff, and moderated by Amec Foster Wheeler.

5.0 60% Construction Plans

5.1 Purpose

The City Walk 60% Construction Plans will advance the 40% design drawings and add specific detail and refinement. The plans will be prepared utilizing AutoCAD software.

5.2 60% Drawings

The design drawings will include the following components:

- Horizontal trail/sidewalk alignment
- Construction limits identified
- Drainage/Grading/Hydro/Profiles/Hydro Analysis
- Anticipated erosion control design prepared
- Construction staging outlined
- Trail/sidewalk locations, driveways, handicap access, vehicle parking areas identified
- Wayfinding/signage and location
- Wall locations
- Street furniture such as litter receptacles and benches identified and located
- Continued coordination with Norfolk Southern Railroad and NCDOT for crossings, landscape and trail improvements, ROW and encroachments
- Utility plan and profile coordination with utility companies including their mark-ups for final plans
- Electrical lighting plans including coordination with Duke Energy if necessary

- Initial ROW Plans including existing and proposed right-of-way lines, property lines, owner names, area calculations and proposed easements
- Trees to be protected and proposed tree planting identified and located
- Irrigation sprinkler layout
- Site amenities such as fountains and sculpture detailed and located
- Initial pedestrian bridge plans
- Evaluation of landscape planting proximity to utilities, roadway and railroad clear zones
- Assessment of maintenance needs for landscape planting
- Determine the extent of sidewalk, driveway, curb and gutter and wheelchair replacement or improvements to establish consistent pedestrian facilities in the corridor
- Plans for the roundabout proposed at 2nd Ave NE intersection with Main Ave NE
- Concept traffic control plans
- In addition, Amec Foster Wheeler will prepare for and conduct a Value Engineering workshop. This workshop will be managed by Amec Foster Wheeler Value Engineering staff and include participation of City Staff.
- Architecturally appropriate Pre-engineered public restrooms (2 locations) and plans to upgrade the current Union Square restroom including mechanical and electrical design as needed.

The design will be accomplished in compliance with all applicable guidelines such as the AASHTO Green Book and NCDOT Standard Specifications and Details.

5.3 Review/Approval

The 60% Construction plans will be issued to the City for review, comment, and approval. Amec Foster Wheeler will meet with City Staff to receive input into the 60% Construction plans. Upon agreement of comments and completion, the revised plans (80% drawings) will be made available to the Bond Commission for review. Comments on the 80% Construction plans will be heard at a meeting coordinated by City Staff, and moderated by Amec Foster Wheeler and Bond Commission members. Once approved, a notice to proceed to develop final construction documents shall be signed by the City and issued to Amec Foster Wheeler.

Figure 5.3 Construction Flowchart (80% 100%)

6.1 Document Preparation

- Based on approval of 80% design plans our team will prepare 90% and 100% construction plans for the established first phase based on funding.
- The construction plans will include:
 - Demolition plans
 - Hardscape plans (includes trail/sidewalk, street furniture and transit stop improvements)
 - Grading plans
 - Construction limits identified
 - Erosion control/BMP plans (hydrology study included)
 - Signage and marking plans
 - Interpretive plans
 - Utility plans and profile (water, sanitary sewer, storm water)
 - Conduit plan/lighting plans
 - Irrigation plans with mainline routing, sleeve installation, and calculations
 - Landscape plans with trees to be protected and proposed tree planting identified and located
 - Detail plans for arbors, shade structures, fencing, walls, fountains, monuments,
 - Pedestrian bridge plans
 - Traffic control plans
 - Newly established rights-of-way limits
 - Proposed contour grading
 - Additional details as needed
 - Architecturally appropriate Pre-engineered public restrooms (2 locations) and plans to upgrade the current Union Square restroom including mechanical and electrical design as needed.

- A project manual will be prepared and will include but not be limited to the following: Bidding requirements will be drafted per City requirements and coordinated with the NCDOT and Federal standards; contract requirements as coordinated with the City; general requirements as coordinated with the City; and technical specifications.

6.2 Plan Review/Permitting

- The construction plans will be issued for review, comment, and approval by the City, NCDOT, NCDEQ and affected utilities at 90% completion.
- Construction documents will be sent to the affected utility companies, as identified during the 60% design. The 90% plan review will be scheduled and held with the City and utility companies if desired and necessary.
- Comments resulting from the plan reviews will be addressed and final documents will be prepared for permitting. The 90% completion set will be revised based on comments and resubmitted for approval as 100% plans.
- Encroachment permit documentation (for Norfolk Southern Railroad and NCDOT) will be prepared and submitted with information provided from the City.
- Using the approved 100% plans our team will submit for encroachment approval and land disturbance permits.
- Revisions will be made to the plans based on comments received from the City. Copies of the final plan package and bids documents will be provided to the City and uploaded to the SharePoint site.

7.0 Interpretive Planning

7.1 Interpretive Planning

➤ City Staff and Stakeholder Interviews

Perform interviews as needed of key individuals with the purpose of gathering information and understanding about the findings regarding the potential storylines of the City of Hickory and special histories that differentiate it as a community

At a minimum of one meeting will be performed to obtain historical information and details from previous stakeholder meetings and interviews with City Staff and selected Stakeholders

Agenda questions to be supplied in advance to target the discussions

Recordings and Transcription: Valuable project archives

Deliverables: Recordings and Transcriptions in the form of “.mov” and Word files

7.2 Interpretive Program

➤ Analysis and Synthesis

Review information materials provided by the City and craft an Interpretive Vision Statement

Establish categories of interest and visitor groups and experience goals for each category

Collate the elements (above) into a structure of themes and sub-themes

Create a Site Map of location of interpretive features, along with trail signage, and wayfinding signs

Define the “Hickory Style” using inspiration previously shown in the Inspiring Spaces Master Plan, but refined and defined to specifically address the style. Use of storyboards, concept drawings, and other to demonstrate.

Deliverables: A Report of the Interpretive Mission Statement, Visitor Goals Statement, and Themes and Sub-themes, Site Map, and Hickory Style in the form of Word and PDF files

7.3 30% Design of Interpretive Plans and Signage

➤ Strategies for Interpretive Means and Methods

Review site surveys

Create an overlay site map of interpretive features, trail signage and wayfinding signs

Make recommendations for interpretive approaches based on theme, location, and audience

Show options and approaches to the style and methods of interpretation; physical, interactive, sensory, with various media explored at sites along the trail and bridges.

This will include addressing art, sculpture, murals, walls, and monuments that might occur in the spaces

Create a graphic style for trail and wayfinding signage that includes typography, color, texture, material use, symbols or icons. Design to consider City of Hickory design standards

Deliverables: A Presentation of Concept Storyboards. (The deliverables will be an InDesign and PDF file)

7.4 60% Design of Interpretive Plans and Signage

✦ Draft Design Documents

Coordinate with the landscape architectural design team to seamlessly integrate in with the interpretive program

Produce scaled design documents in elevation and plan views show design intent for each of the interpretive components per site.

Produce initial content outlines with drafts of interpretive text and images for each component containing content

Provide color samples, materials samples or prototypes of interpretive features

Deliverables: 11" x 17" Color sheets and material samples presentation (The deliverables will be an InDesign and PDF file)

7.5 90% Design Documents of Interpretive Plans and Signage

Produce Design documents for the interpretive structures

Produce 90% Draft layouts for the interpretive features containing content

Produce 90% Draft layouts for the trail signage and wayfinding signs

Deliverables: 11" x 17" Color sheets (The deliverables will be an InDesign and PDF file)

7.6 100% Bid Documents of Interpretive Plans and Signage

Produce 100% Design documents for the interpretive structures

Produce 100% Design documents for the interpretive features containing content

Produce 100% Design documents for the trail signage and wayfinding signs

Documents will be scaled elevations with plan or detail views as needed to show intent for the design, color, materials, size, placement in the site, and any special features or specifications

Deliverables: Full size bid document sheets, high res digital production files. (The deliverables will be an InDesign and PDF file)

Task 1.6: Develop Construction Phasing Plan

- ✦ Each submittal during design (30%, 60%,90%) and construction document preparation will include an estimate of probable cost, including base bid and alternates and a construction phasing plan for maintenance of traffic, pedestrians and access.
- ✦ The estimate will be directly correlated to a Summary of Quantities.
- ✦ Following input from the City, a final project phasing plan at 100% based on funding budgets will be delineated on the design plans.

Task 1.7: Letter Assistance

- ✦ Attend and assist in the pre-bid meeting including answering questions regarding the contract documents.
- ✦ Issue addendum during bidding, as necessary.
- ✦ Analyze bids and provide conclusions to the City.

Task 1.8: Construction Management

- ✦ Team shall field and answer request for information (RFI) technical and design interpretation questions throughout construction.
- ✦ Record Drawing preparation.
- ✦ All construction documents will be submitted in electronic form in a format suitable for use by the City.

- Site visits as necessary (up to 24 visits for an individual).

Exceptions and Assumptions:

- The City will coordinate “permission to enter” letters for surveying outside of the ROW.
- The City will advertise all public meetings in compliance with the public hearing notification procedures they normally use in announcing and conducting public hearings.
- No traffic forecast or capacity analysis study is anticipated.

Figure 1. City Walk Survey Limits
(Red Hatch = areas of City Walk Master Plan not included.)



Schedule

Milestone Schedule (Assumes receipt of a Contract Notice to Proceed by September 7, 2016)

Task 1: Data Collection/Base Plan

- 1.1 Program and Plan review
- 1.2 City Walk inventory and analysis
- 1.3 Boundary Survey
- 1.4 Topographic Survey
- 1.5 SUE Investigation
- 1.6 ROW Document preparation

April 2017 Completion

- August 2016
- August 2016
- September 2016
- October 2016
- March 2017
- June 2017

Task 2: Environmental documents

- 2.1 Environmental Studies/Documentation
- 2.2 Special Studies

March 2017 Completion

- March 2017
- October 2017

Task 3: Master Plan Analysis

- City Staff Review/Approval

September 2016 Completion

- October 2016

Task 4: 30% Design Phase Drawings

- Review and Approval
- Bond Commission Meeting

January 2017 Completion

- January 2017
- January 2017

Task 5: 60% Construction Plans

- Review and approval
- VE Workshop
- Bond Commission Meeting

June 2017 Completion

- June 2017
- June 2017
- June 2017

Task 6: Construction plans

- 90% Document Preparation
- 100% Document Preparation
- Plan Review/Permitting (allow 6 weeks)

October 2017 Completion

- September 2017
- October 2017
- October 2017

Task 7: Interpretive Plan and Signage

October 2017 Completion

Task 8: Phasing Plan and Cost Estimates

- 30% OPC
- 60% OPC
- 90% OPC

September 2017 Completion

- January 2017
- June 2017
- September 2017

Task 9: Letting Assistance

- Bidding/Negotiation

November 2017

Task 10: Construction Observation 18 months

- Construction Phase

Begin February 2018

Note: The schedule is subject to revision at the kick-off meeting. In addition, the schedule is subject to change based on factors beyond the control of Amec Foster Wheeler such as prolonged regulatory and agency reviews. The approved project schedule will be created in Microsoft Project software (or equivalent) after the project kick-off meeting.

Amec Foster Wheeler Environment & Infrastructure, Inc.
 Consulting Services Cost Estimate

Project: City of Hickory, City Walk Project Date: August 18, 2016

Task No	Description	Prin Engr	Prin LA Engr CA Prin	PM	Sr Engr Sr. PLUS Interp	Sr Engr	Proj. Engr	Staff Engr	Jr Engr	M-d LA	Staff LA	Staff LA	Sr CADD	CADD	Admin	Jr Scientists	Tech Surv Crew	Total Hours	Value
	Hourly Rates	\$175	\$260	\$145	\$125	\$100	\$90	\$60	\$70	\$117	\$54	\$73	\$95	\$33	\$65	\$75	\$150		

SUBTOTAL ANTICIPATED LUMP SUM NOT-TO-EXCEED BUDGET (from prior page) \$ 997,971

UNIT PRICE BUDGET

Task No	Description	Prin Engr	Prin LA Engr CA Prin	PM	Sr Engr Sr. PLUS Interp	Sr Engr	Proj. Engr	Staff Engr	Jr Engr	M-d LA	Staff LA	Staff LA	Sr CADD	CADD	Admin	Jr Scientists	Tech Surv Crew	Total Hours	Value
01	Contingency Budget																		
02	Value Engineering (V.E.) & 20% Contingency																		
03	Permitting and Regulatory																		
04	Site Investigation																		

SUBTOTAL UNIT PRICE NOT-TO-EXCEED BUDGET \$ 47,180

SUBTOTAL CONTINGENCY NOT-TO-EXCEED BUDGET \$ 50,000

GRAND TOTAL NOT TO EXCEED BUDGET (Lump Sum + Unit Price + Contingency) \$ 1,095,151

EXHIBIT B

TERMS AND CONDITIONS

Terms and Conditions for Professional Services

1. STANDARD OF PERFORMANCE

The standard of care for all professional engineering, consulting and related services performed or furnished by ENGINEER and its employees under this Agreement will be the care and skill ordinarily used by members of ENGINEER's profession. ENGINEER makes no warranties, express or implied, under this Agreement or otherwise, in connection with ENGINEER's services.

2. INSURANCE/INDEMNITY

ENGINEER agrees to procure and maintain, at its expense, Workers' Compensation insurance as required by statute; Employer's Liability of \$250,000; Automobile Liability insurance of \$1,000,000 combined single limit for bodily injury and property damage covering all vehicles, including hired vehicles, owned and non-owned vehicles; Commercial General Liability insurance of \$1,000,000 combined single limit for personal injury and property damage; and Professional Liability insurance of \$3,000,000 per claim for protection against claims arising out of the performance of services under this Agreement caused by negligent acts, errors, or omissions for which ENGINEER is legally liable. OWNER shall be made an additional insured on Commercial General and Automobile Liability insurance policies and certificates of insurance will be furnished to the OWNER. ENGINEER agrees to indemnify OWNER for claims to the extent caused by ENGINEER's negligent acts, errors or omissions. However, neither Party to this Agreement shall be liable to the other Party for any special, incidental, indirect, or consequential damages arising out of, resulting from, or in any way related to the Project or the Agreement from any cause or causes, including but not limited to any such damages caused by the negligence, errors or omissions, strict liability or breach of contract.

3. OPINIONS OF PROBABLE COST (COST ESTIMATES)

Any opinions of probable project cost or probable construction cost provided by ENGINEER are made on the basis of information available to ENGINEER and on the basis of ENGINEER's experience and qualifications, and represents its judgment as an experienced and qualified professional engineer. However, since ENGINEER has no control over the cost of labor, materials, equipment or services furnished by others, or over the contractor(s) methods of determining prices, or over competitive bidding or market conditions, ENGINEER does not guarantee that proposals, bids or actual project or construction cost will not vary from opinions of probable cost ENGINEER prepares.

4. CONSTRUCTION PROCEDURES

ENGINEER's observation or monitoring portions of the work performed under construction contracts shall not relieve the contractor from its responsibility for performing work in accordance with applicable contract documents. ENGINEER shall not control or have charge of, and shall not be responsible for, construction means, methods, techniques, sequences, procedures of construction, health or safety programs or precautions connected with the work and shall not manage, supervise, control or have charge of construction. ENGINEER shall not be responsible for the acts or omissions of the contractor or other parties on the project. ENGINEER shall be entitled to review all construction contract documents and to require that no provisions extend the duties or liabilities of ENGINEER beyond those set forth in this Agreement.

5. CONTROLLING LAW

This Agreement is to be governed by the state of NC. Jurisdiction and Venue shall lie with the courts of Catawba County, NC.

6. SERVICES AND INFORMATION

OWNER will provide all criteria and information pertaining to OWNER's requirements for the project, including design objectives and constraints, space, capacity and performance requirements, flexibility and expandability, and any budgetary limitations. OWNER will also provide copies of any OWNER-furnished Standard Details, Standard Specifications, or Standard Bidding Documents which are to be incorporated into the project.

In performing professional engineering and related services hereunder, it is understood by OWNER that ENGINEER is not engaged in rendering any type of legal, insurance or accounting services, opinions or advice. Further, it is the OWNER's sole responsibility to obtain the advice of an attorney, insurance counselor or accountant to protect the OWNER's legal and financial interests. To that end, the OWNER agrees that OWNER or the OWNER's representative will examine all studies, reports, sketches, drawings, specifications, proposals and other documents, opinions or advice prepared or provided by ENGINEER, and will obtain the advice of an attorney, insurance counselor or other consultant as the OWNER deems necessary to protect the OWNER's interests before OWNER takes action or forebears to take action based upon or relying upon the services provided by ENGINEER.

7. SUCCESSORS AND ASSIGNS

OWNER and ENGINEER, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the covenants of this Agreement. Neither OWNER nor ENGINEER will assign, sublet, or transfer any interest in this Agreement or claims arising therefrom without the written consent of the other.

8. RE-USE OF DOCUMENTS

Upon payment of all amounts rightfully owed by Owner to the Engineer for services rendered with respect to the Services provided under this Agreement, all plans, drawings, specifications, elements of design, models, reports, submissions, mock-ups and other documents and materials that are produced by the Engineer as part of its performance of such Services hereunder (hereinafter the "Design Documents"), with the exception of those documents that constitute standard details, specifications, and/or other data and/or materials that are regularly used by the Engineer and/or the professional design industry in the normal course of business, shall be deemed to be the property of Owner. Any reuse or modification of such documents for purposes other than those intended by the Engineer shall be at the Owner's sole risk and without liability to the Engineer.

9. TERMINATION OF AGREEMENT

OWNER or ENGINEER may terminate the Agreement, in whole or in part, by giving ten (10) days written notice to the other party. Where the method of payment is "lump sum," or cost reimbursement, the final invoice will include all services and expenses associated with the project up to the effective date of

termination. An equitable adjustment shall also be made to provide for termination settlement costs ENGINEER incurs as a result of commitments that had become firm before termination.

10. SEVERABILITY

If any provision of this agreement is held invalid or unenforceable, the remaining provisions shall be valid and binding upon the parties. One or more waivers by either party of any provision, term or condition shall not be construed by the other party as a waiver of any subsequent breach of the same provision, term or condition.

11. INVOICES

ENGINEER will submit monthly invoices for services rendered and OWNER will make payments within 30 days in response to ENGINEER's invoices.

ENGINEER will retain receipts for reimbursable expenses in general accordance with Internal Revenue Service rules pertaining to the support of expenditures for income tax purposes. Receipts will be available for inspection by OWNER's auditors upon request.

If OWNER disputes any items in ENGINEER's invoice for any reason, including the lack of supporting documentation, OWNER may temporarily delete the disputed item and pay the remaining amount of the invoice. OWNER will promptly notify ENGINEER of the dispute and request clarification and/or correction. After any dispute has been settled, ENGINEER will include the disputed item on a subsequent, regularly scheduled invoice, or on a special invoice for the disputed item only.

OWNER recognizes that late payment of invoices results in extra expenses for ENGINEER. ENGINEER retains the right to assess OWNER interest at the rate of one percent (1%) per month, but not to exceed the maximum rate allowed by law, on invoices which are not paid within thirty (30) days from the date of receipt by OWNER. In the event undisputed portions of ENGINEER's invoices are not paid when due, ENGINEER also reserves the right, after ten (10) days prior written notice, to suspend the performance of its services under this Agreement until all past due amounts have been paid in full.

12. CHANGES

The parties agree that no change or modification to this Agreement, or any attachments hereto, shall have any force or effect unless the change is reduced to writing, dated, and made part of this Agreement. The execution of the change shall be authorized and signed in the same manner as this Agreement. Adjustments in the period of services and in compensation shall be in accordance with applicable paragraphs and sections of this Agreement. Any proposed fees by ENGINEER are estimates to perform the services required to complete the project as ENGINEER understands it to be defined. For those projects involving conceptual or process development services, activities often are not fully definable in the initial planning. In any event, as the project progresses, the facts developed may dictate a change in the services to be performed, which may alter the scope. ENGINEER will inform OWNER of such situations so that changes in scope and adjustments to the time of performance and compensation can be made as required. If such change, additional services, or suspension of services results in an increase or decrease in the cost of or time required for performance of the services, an equitable adjustment may be made, and the Agreement modified accordingly.

13. CONTROLLING AGREEMENT

These Terms and Conditions shall take precedence over any inconsistent or contradictory provisions contained in any proposal, contract, purchase order, requisition, notice-to-proceed, or like document.

14. EQUAL EMPLOYMENT AND NONDISCRIMINATION

In connection with the services under this Agreement, ENGINEER agrees to comply with the applicable provisions of federal and state Equal Employment Opportunity for individuals based on color, religion, sex, or national origin, or disabled veteran, recently separated veteran, other protected veteran and armed forces service medal veteran status, disabilities under provisions of executive order 11246, and other employment, statutes and regulations, as stated in Title 41 Part 60 of the Code of Federal Regulations § 60-1.4 (a-f), § 60-300.5 (a-e), § 60-741 (a-e).

ENGINEER shall comply with NC's e-verify program.

15. HAZARDOUS MATERIALS

OWNER represents to ENGINEER that, to the best of its knowledge, no hazardous materials are present at the project site. However, in the event hazardous materials are known to be present, OWNER represents that to the best of its knowledge it has disclosed to ENGINEER the existence of all such hazardous materials, including but not limited to asbestos, PCB's, petroleum, hazardous waste, or radioactive material located at or near the project site, including type, quantity and location of such hazardous materials. It is acknowledged by both parties that ENGINEER's scope of services do not include services related in any way to hazardous materials. In the event ENGINEER or any other party encounters undisclosed hazardous materials, ENGINEER shall have the obligation to notify OWNER and, to the extent required by law or regulation, the appropriate governmental officials, and ENGINEER may, at its option and without liability for delay, consequential or any other damages to OWNER, suspend performance of services on that portion of the project affected by hazardous materials until OWNER: (i) retains appropriate specialist consultant(s) or contractor(s) to identify and, as appropriate, abate, remediate, or remove the hazardous materials; and (ii) warrants that the project site is in full compliance with all applicable laws and regulations. OWNER acknowledges that ENGINEER is performing professional services for OWNER and that ENGINEER is not and shall not be required to become an "arranger," "operator," "generator," or "transporter" of hazardous materials, as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1990 (CERCLA), which are or may be encountered at or near the project site in connection with ENGINEER's services under this Agreement. If ENGINEER's services hereunder cannot be performed because of the existence of hazardous materials, ENGINEER shall be entitled to terminate this Agreement for cause on 30 days written notice. To the fullest extent permitted by law, OWNER shall indemnify and hold harmless ENGINEER, its officers, directors, partners, employees, and subconsultants from and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals, and all court or arbitration or other dispute resolution costs) caused by, arising out of or resulting from hazardous materials, provided that (i) any such cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or injury to or destruction of tangible property (other than completed Work), including the loss of use resulting therefrom, and (ii) nothing in this paragraph shall obligate OWNER to indemnify any individual

or entity from and against the consequences of that individual's or entity's sole negligence or willful misconduct.

16. EXECUTION

This Agreement, including the exhibits and schedules made part hereof, constitute the entire Agreement between ENGINEER and OWNER, supersedes and controls over all prior written or oral understandings. This Agreement may be amended, supplemented or modified only by a written instrument duly executed by the parties.

17. ALLOCATION OF RISK

OWNER and ENGINEER have evaluated the risks and rewards associated with this project, including ENGINEER'S fee relative to the risks assumed, and agree to allocate certain of the risks, so, to the fullest extent permitted by law, the total aggregate liability of Engineer (and its related corporations, subconsultants, and employees) to OWNER and third parties granted reliance is limited to its fee, for any and all injuries, damages, claims, losses, or expenses (including attorney and expert fees) arising out of ENGINEER's services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity, or other recovery. This limitation shall not apply to the extent the damage is paid under Engineer's commercial general liability insurance policy.

18. LITIGATION SUPPORT

In the event ENGINEER is required to respond to a subpoena, government inquiry or other legal process related to the services in connection with a legal or dispute resolution proceeding to which ENGINEER is not a party or negligent in the performance of services rendered, OWNER shall reimburse ENGINEER for reasonable costs in responding and compensate ENGINEER at its then standard rates for reasonable time incurred in gathering information and documents and attending depositions, hearings, and trial.

19. UTILITY LOCATION

If underground sampling/testing is to be performed, a local utility locating service shall be contacted to make arrangements for all utilities to determine the location of underground utilities. In addition, OWNER shall notify ENGINEER of the presence and location of any underground utilities located on the OWNER's property which are not the responsibility of private/public utilities. ENGINEER shall take reasonable precautions to avoid damaging underground utilities that are properly marked.

20. PROFESSIONAL LICENSURE

All work shall be sealed by a properly licensed design professional in North Carolina doing business in the state of North Carolina. These shall include but not be limited to: Engineer, Landscape Architect, Surveyor, Architect, Geologist, etc.

21. IRAN DIVESTMENT ACT

By executing this Agreement/Contract, Contractor hereby certifies that Contractor is not listed on the Iran Final Divestment List ("List") created by the State Treasurer pursuant to N.C.G.S. 147-86.58, Iran Divestment Act ("Act"). In compliance with the Act's requirement and N.C.G.S. § 147-86.59, Contractor shall not utilize in the performance of this agreement/contract any subcontractor that is identified on the List. The List can be found on the State Treasurer's website at the address www.nctreasurer.com/Iran and should be updated at least every 180 days.