

RESOLUTION 22-19

**A RESOLUTION TO AUTHORIZE THE MAYOR TO SIGN A PROPOSAL WITH THE
CORRADINO GROUP FOR DESIGN SERVICES FOR THE PORT ROYAL ROAD AND
BUCKNER LANE INTERSECTION**

WHEREAS, the City of Spring Hill has identified the need for a qualified consultant to provide design and modification services for the traffic signal and intersection design for the Port Royal Road and Buckner Lane intersection; and

WHEREAS, The Corradino Group is currently under contract for on-call traffic engineering services and have submitted a cost proposal in the amount of \$166,745.08; and

WHEREAS, the current proposal includes services for general project management, data collection, ROW/utility plans, final/construction plans, bidding assistance, survey, geotechnical investigation, and direct expenses; and

WHEREAS, staff recommends approval of a design contingency of \$33,254.92 for a total approved cost of \$200,000; and

WHEREAS, payment for the services will be expensed from the Impact Fees Fund.

NOW, THEREFORE BE IT RESOLVED, the City of Spring Hill Board of Mayor and Aldermen:

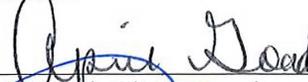
1. Approve the Professional Services Agreement with The Corradino Group for design services for the Port Royal Road and Buckner Lane intersection in the amount of \$166,745.08, Exhibit A attached hereto.
2. Approve a design contingency in the amount of \$33,254.92 for a total cost approval of \$200,000.
3. Authorize the Mayor to execute the Design Services Agreement, attached hereto.
4. Authorize the Planning Commission to require any future development on the southwest corner of the intersection (Parcel 060027 00101) dedicate rights-of-way and/or easements needed for the proposed concept design, as shown in Exhibit B, and future expansion.

Passed and Adopted by the Board of Mayor and Aldermen of the City of Spring Hill, Tennessee on the 7th day of February, 2022.



Jim Hagaman, Mayor

ATTEST:



April Goad, City Recorder

LEGAL FORM APPROVED:



Patrick Carter, City Attorney



REQUEST: Approval of Resolution 22-19

SUBMITTED BY: Missy Stahl, CIP Manager
Tyler Scroggins, Public Works Director

DATE: February 7, 2022

RE: To authorize the Mayor to sign a professional services agreement with The Corradino Group for the re-design of the intersection of Port Royal Road and Buckner Lane

ATTACHMENTS: PSA

PURPOSE:

The purpose of this resolution is to authorize the Mayor to sign a professional services agreement with The Corradino Group for traffic signal and intersection re-design and modifications for the intersection of Port Royal Road and Buckner Lane.

BACKGROUND:

The Corradino Group is under contract with the City for on-call traffic engineering services. Staff requested a cost proposal for modifications to the intersection of Port Royal Road and Buckner Lane in an effort to minimize the congestion during peak hours. The Corradino Group has submitted a concept drawing that will flatten out the curve as well as add turn lanes where needed. The proposal includes costs for general project management, data collection, ROW/utility plans, final/construction plans, bidding assistance, survey, geotechnical investigation, and direct expenses. Any additional costs will be submitted in the form of an amendment for approval by the Board of Mayor and Aldermen.

The total cost of the proposal is \$166,745.08. Staff recommends approval of a design contingency in the amount of \$33,254.92 for a total approved cost of \$200,000.

FINANCIAL IMPACT:

Funding for the design services will be added to the FY 22 budget on the next budget amendment, expensed from the Impact Fees Fund and utilizing fund balance.

STAFF RECOMMENDATION:

Staff recommends approval of Resolution 22-19 to authorize the Mayor to sign a professional services agreement with The Corradino Group for intersection improvements.

**PROFESSIONAL SERVICES AGREEMENT BETWEEN
CITY OF SPRING HILL, TENNESSEE
AND THE CORRADINO GROUP, INC.**

THIS AGREEMENT is made this the ____ day of _____, 2022, by and between **CITY OF SPRING HILL, TENNESSEE** (hereinafter "City"), and **THE CORRADINO GROUP, INC.** in Brentwood, TN (hereinafter "Consultant").

WITNESSETH:

WHEREAS, the City has determined to enter into an agreement with a consulting firm that affirms itself to have extensive experience in providing professional services in transportation design; and

WHEREAS, the City submits that it has the authority to contract with Consultant to provide professional services for the work desired by the City; and

WHEREAS, by entering into this Agreement, Consultant affirms that it has extensive experience in transportation planning, design, and construction engineering and inspection for the City of Spring Hill providing such services in a professional manner in accordance with the terms and conditions of this Agreement as well as the standard of care practiced by other consultants and professionals performing similar services within the industry.

NOW, THEREFORE, in consideration of the premises and recitals hereinabove set forth, which are incorporated herein by reference, and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, and the mutual covenants contained herein, the City and Consultant agree as follows:

ARTICLE 1 - SCOPE OF SERVICES TO BE RENDERED BY CONSULTANT

1. Consultant shall perform all necessary professional services in a satisfactory and proper manner, consistent with the City's requirements for the Project and by reference made a part hereof, including, but not be limited to, the following:

a. See Attached Exhibit A (Scope of Services)

2. All documents prepared by Consultant that form a part of the services rendered hereunder shall, upon completion of the exhibits, calculations, draft reports, presentation material, etc. will become the property of the City. Such documents shall not be used by either party on any other project, except as reference materials.

3. The City will furnish all information, data, reports and maps as are existing and identified by Consultant as necessary for carrying out the work that are available to the City without cost to Consultant.

ARTICLE 2 – CITY’S RESPONSIBILITIES

The City will provide to Consultant all criteria and full information as to the Project’s requirements, and shall furnish the following:

1. Provide Consultant with all known available information that is pertinent to the Project.
2. Meet with Consultant for ongoing discussions to assist in directing the consultant.
3. Give thorough consideration to all reports, exhibits or technical memorandums and other documents presented by Consultant and inform Consultant of all decisions within a reasonable time so as not to delay the work of Consultant (i.e. furnish approval or instructions for change).
4. Promptly schedule all required special meetings, serve all public and private notices, receive and act upon all protests.
5. Designate, in writing, a single person to act as Consultant point of contact with the City. The contact person for the City of Spring Hill will be Ms. Missy Stahl.
6. Give prompt written notice to Consultant when it is known that either the Project criteria or conditions have changed, or there is reason to believe Consultant work is deficient in intent or technical content.

ARTICLE 3 - TERM

1. The services of the Consultant shall be undertaken and completed by within 36 weeks from receipt of Notice to Proceed unless otherwise agreed upon by the City.

ARTICLE 4 - FEES

1. In consideration of the performance of services rendered under this Contract, Consultant shall be compensated for services performed in accordance with Article 1, not to exceed \$166,745.08 (One Hundred Sixty-six Thousand Seven Hundred Forty-five dollars and eight cents). Reimbursable expenses shall not exceed \$4,000.00 (Four Thousand dollars) unless otherwise authorized in writing by the City. Reimbursable expenses shall be invoiced by the Consultant at direct expense to the City.
2. Invoices shall be submitted by Consultant to the City in monthly statements for services rendered, if any. The statements shall be based on percent completion of the lump sum amount, and incurred expenses. Each individual invoice shall be due and payable thirty (30) days after receipt.

3. If the City disputes any portion of Consultant invoices, the undisputed portion will be paid by the City, and Consultant will be notified in writing within ten (10) days of receipt of the exceptions taken to such invoice. The City and Consultant will attempt to resolve any payment dispute within sixty (60) days, and both parties agree that no action for collection thereon shall be filed within this time period.

4. If the City delays the Project for more than six months (6) beyond the designated date when work is scheduled to begin, which is more particularly defined as the date this Agreement is executed, then the lump sum as designated in Sub-Paragraph 1 of this Section shall be increased by three percent (3%) per year. The intent of this language is that the increase shall be cumulative, as a delay would cause Consultant to have to revisit the plans created in accordance with the designated start date as defined herein.

ARTICLE 5 – NOTICE

All notices, certificates or other communications hereunder shall be deemed sufficiently given and shall be deemed given when delivered by hand-delivery or mailed by first class, postage prepaid, registered or certified mail and addressed as follows:

If to Consultant: Attn: _____

If to City: Attn: Pam Caskie
Title: City Administrator
199 Town Center Parkway
Spring Hill, TN 37174

Copy to: Patrick M. Carter, Esq.
City Attorney
P.O. Box 1431
Columbia, TN 38402-1431

ARTICLE 6 - TERMINATION

1. This Agreement may be terminated by either party upon thirty (30) days' written notice should the other party fail substantially to perform in accordance with the terms outlined herein through no fault of the party initiating the termination.

2. This Agreement may be terminated by Consultant in the event that the City permanently abandons the Project.

3. In the event of termination by either party, Consultant shall be compensated for all services performed prior to the termination date.

ARTICLE 7 - DISPUTE RESOLUTION AND GOVERNING LAW

1. The City and Consultant shall attempt to resolve conflicts or disputes under this Agreement in a fair and reasonable manner and agree that if an informal resolution cannot be achieved, the parties shall submit the matter to a mutually agreed upon mediator in an attempt to resolve the dispute through the mediation process. Such mediation process shall be initiated by a request in writing by either party.

2. The mediation provision can be waived by the mutual consent of the parties or by either party if such party's right would be irrevocably prejudiced by a delay in initiating a legal proceeding.

3. Governing Law, Venue and Jurisdiction: This Agreement shall be governed by and construed in accordance with the laws of the State of Tennessee. The venue and jurisdiction for any dispute arising pursuant to this Agreement shall be in the Circuit Court for Maury County, Tennessee.

ARTICLE 8 - BREACH

1. The term "breach of agreement" specifically includes, but is not limited to, failure to comply with any applicable federal, state or local laws or regulations.

2. One or more waivers of breach of any provision of this Agreement by any party shall not be construed as a waiver of subsequent breach of the same provision, nor shall it be considered a waiver of any other then existing or subsequent breach of a different provision.

3. The substantially prevailing party in any legal proceeding hereunder by and between the parties shall be entitled to their reasonable attorney's fees and court costs incurred in said legal proceeding.

ARTICLE 9 - MODIFICATION

This Agreement shall not be modified unless such modifications are evidenced in writing in the form of a written Amendment, which is signed by both the City and Consultant. Should any changes in the design of the Project be necessary, the City's designee shall report such change to Consultant in writing. If the City determines that any changes in work are necessary to complete the Project, then Consultant shall be allowed compensation based upon the original contract terms, including the additional work in the overall cost of the construction of the Project.

ARTICLE 10 - INDEMNITY AND HOLD HARMLESS

1. City shall agree to indemnify and hold Consultant, its officers, agents and/or employees, harmless from and against any and all lawsuits, damages and expenses, including court costs and attorneys' fees, by reason of any claim and/or liability imposed, claimed and/or threatened against the City, its officials, agents and/or employees, for damages because of bodily injury, death and/or property damages arising out of or in consequence of the performance of services under this Agreement to the extent that such bodily injuries, death and/or property damages are attributable to the negligence of the City, its agents, employees, or any other entity for which the City may be found to be legally liable. This provision shall survive the completion of all services, obligation and duties provided pursuant to the Project, or the termination of this Agreement for any reason.

2. Consultant shall agree to indemnify and hold the City, its officers, agents and/or employees, harmless from and against any and all lawsuits, damages and expenses, including court costs and attorneys' fees, by reason of any claim and/or liability imposed, claimed and/or threatened against Consultant, its officials, agents and/or employees, for damages because of bodily injury, death and/or property damages arising out of or in consequence of the performance of services under this Agreement to the extent that such bodily injuries, death and/or property damages are attributable to the negligence of Consultant, its agents, employees, or any other entity for which Consultant may be found to be legally liable. This provision shall survive the completion of all services, obligation and duties provided pursuant to the Project, or the termination of this Agreement for any reason.

ARTICLE 11 – INSURANCE

Consultant shall maintain, during the term of this Agreement, or any extension hereof, the following insurance policy, written by an insurance company authorized to do business within the State of Tennessee, and furnish City, in duplicate, Certificates of Insurance as evidence thereof:

1. Worker's Compensation: Providing coverage in compliance with the laws of the state in which any part of the work is to be performed, and Employer's Liability Coverage in the minimum amount of the statutory limit for each occurrence.

2. Comprehensive (Commercial) General Liability Insurance: Bodily injury and property damage combined single limit in the minimum amount of \$1,000,000.00 for each occurrence.

3. Automobile (Business) Liability Insurance: Bodily injury and property damage combined single limit in the minimum amount of \$1,000,000.00 for each occurrence, \$1,000,000.00 aggregate.

4. Professional Liability Insurance: Professional liability insurance covering claims arising from errors, omissions or negligent acts committed in the performance of professional services under this Agreement with limits of \$1,000,000.00.

ARTICLE 12 - SEVERABILITY

In the event any provision of this Agreement or any instrument delivered in connection herewith shall be held invalid or unenforceable by any court of competent jurisdiction, such holding shall not invalidate or render unenforceable any other provisions hereof or thereof.

ARTICLE 13 - BINDING EFFECT

This Agreement shall inure to the benefit of and shall be binding upon the parties and their respective heirs, administrators, successors and assigns.

ARTICLE 14 - INDEPENDENT CONTRACTOR RELATIONSHIP

It is specifically understood that Consultant relationship with City shall be that of independent contractor and Consultant shall in no sense be considered an agent or employee of City, nor shall Consultant be, as a result of the relationship established by this Agreement, entitled to or eligible to participate in any benefits or privileges extended or given by City to its employees, notwithstanding this Agreement.

ARTICLES 15 - HEADINGS AND EXHIBITS

The paragraph headings in this Agreement are for convenience only, and they form no part of this Agreement and shall not affect its interpretation.

ARTICLE 16 - FORCE MAJEURE

Consultant shall not be liable to City or be deemed to be in breach of this Agreement for any failure or delay in rendering performance arising out of causes beyond Consultant reasonable control and without its fault or negligence. Such causes may include, but are not limited to, acts of God or the public enemy, terrorism, significant fires, floods, earthquakes, epidemics, quarantine restrictions, strikes, freight embargoes, or Governmental Authorities approval delays which are not caused by any act or omission by Consultant and unusually severe weather. Consultant agrees to notify City of the existence and nature of any delay.

ARTICLE 17 – ENTIRE AGREEMENT

This Agreement and accompanying documents contain the entire agreement between the parties with respect to the subject matter hereof and all prior or contemporaneous written or oral agreements with respect to the subject matter hereof are superseded hereby.

IN WITNESS WHEREOF, the City has caused this Agreement to be signed by its authorized representative, and Consultant has caused this Agreement to be signed in its corporate name by its authorized representative as of the day and year first written above.

CITY OF SPRING HILL, TENNESSEE

By: 
Jim Hagaman, Mayor

THE CORRADINO GROUP, INC.

By: 

Gerald Bolden, Vice President

SCOPE OF SERVICES

Port Royal Road at Buckner Lane
Traffic Signal and Intersection Design and Modifications
Revised January 20, 2022

The following scope of work outlines the professional services to design and develop plans for traffic signal and intersection modifications at the intersection of Port Royal Road at Buckner Lane.

1. General Project Management

Project management is a continuous task that will be performed for the duration of this contract. Monitoring, coordination, scheduling, and reporting requirements of this task will be used to facilitate periodic review by the City of Spring Hill (City) to ascertain conformance with the requirements of this task.

After receipt of the notice-to-proceed, Corradino will conduct a project kick-off meeting with the City staff. This meeting will include the following topics:

- Key project staff
- Communications protocol
- Design goals and requirements
- Project schedule
- Invoicing
- Monthly progress meetings and reports
- Data and information needs

Once the project is underway, Corradino will provide monthly status reports to the City's Project Manager (PM) and conduct progress meetings with City staff, as necessary. These meetings will include a status update, anticipated next phases of work to be completed, and discussion on any critical items/issues and/or potential issues identified during project development.

Corradino anticipates having up to three (3) meetings with the City staff throughout the development of the project. These meetings will include (1) an initial design kick-off meeting, (2) Right-of-Way (ROW)/Utility Plans review meeting, and (3) Construction Plans review meeting.

Corradino will prepare the agenda for all meetings and provide all necessary materials and handouts for discussion. At the conclusion of each meeting, Corradino will prepare meeting minutes and a cumulative list of "action items" developed for assignment to the appropriate party. These items will be distributed to the attendees and other appropriate stakeholders within five (5) working days following the meeting. All deliverables included within this task will be provided in .pdf format.

The following subtask will be completed as part of Task 1:

- 1.1 Conduct Project Kickoff Meeting
- 1.2 Provide monthly status reports to the City's Project Manager (PM).
- 1.3 Conduct progress meetings with City staff, as necessary.

- 1.4 Project milestones to occur for ROW/Utility Plans and Final Construction Plans. An electronic copy of plans in .pdf format will be submitted to the City at the completion of these milestones.
- 1.5 Attend meetings at these project milestones.
- 1.6 Attend one (1) Transportation Advisory Committee (TAC) and one (1) Board of Mayor and Alderman (BOMA) meeting to provide a status update to the City.
- 1.7 Coordination with subconsultants.

2. Data Collection

The data collection phase will include a network and intersection evaluation of the traffic operations in the area, compilation of the design requirements and considerations for the intersection, field-run survey, geotechnical investigation, and compilation of utilities within the study area.

- 2.1. Review current traffic operations and existing signal timing for the intersection. This information will be used to evaluate the anticipated traffic signal operations of the intersection and identify design specifics such as signal phasing and timings and turn lane storage.
- 2.2. A geotechnical investigation will be performed within the anticipated project limits for the purpose of identifying soil conditions. Roadway cores to check the asphalt thickness along portions of the project alignment will be performed. A report of the findings will be prepared to assist with design of the project.
- 2.3. Survey the project to collect field information that will be used for the basis of designing the project. Corradino will subcontract this work to Wiser Consultants, LLC (Wiser) who will provide a TDOT standard roadway database survey in accordance with the TDOT Survey Manual, Third Edition, dated May 3, 2011. Control will be tied to the TDOT GPS coordinate system and also the survey for the intersection of Port Royal Road at Commonwealth Drive.

The survey limits will extend approximately 600 feet in each direction from the center of the intersection along Port Royal Road and approximately 600 feet from the center of intersection along Buckner Lane. The width of the survey limits will be 150 feet (approximately 75 feet either side of the centerline of the existing roadways. A stream profile for Grassy Branch will be surveyed approximately 500 feet each direction from Port Royal Road along with a floodplain cross-section that will be collected in accordance with the TDOT Survey Manual for drainage surveys.

The survey will include:

- Right-of-way and property owner information within the survey limits
- All utilities (underground and above ground) within the survey limits
- All features (sidewalks, buildings, fences, driveways, drainage structures, trees, signage, pavement markings, curb ramps, etc.) within the survey limits
- All roadway planimetric features, an existing surface digital terrain model, a right-of-way acquisition table, and a list of utility owners
- A drainage areas map is excluded

The survey file deliverables will include:

- MicroStation drawing file (.dgn)
- GEOPAK Project File (.prj)
- GEOPAK Geometry File (.gpk)
- TIN Surface File (.tin)
- Property Owner/Right-of-way Acquisition Table (.xlsm)

In addition to the TDOT standard database survey, Wisner will also prepare exhibits and legal descriptions for property tracts. Corners of any proposed easement and/or right-of-way will be staked one time only. *(The extent of this work shall be determined at a later date once a preliminary design has been developed and approved by the City which will identify these tracts to determine the scope of this work.)*

A hydrologic analysis of Grassy Branch will be performed to evaluate runoff of the area and assist with design of a hydraulic structure crossing the road.

3. ROW/Utility Plans

The traffic signal and intersection design and preparation of plans shall be developed in accordance with City of Spring Hill Standards; TDOT Design Guidelines and Standard Specifications; AASHTO Green Book; and latest edition of the MUTCD.

- 3.1 Review current projected traffic volumes for design year operational analysis and make adjustments based on proposed conditions/developments surrounding this intersection.
- 3.2 Review operational analysis for projected design year traffic conditions to determine preferred signal phasing. This analysis will assist to determine recommended minimum length of storage for turn lanes.
- 3.3 The traffic signal and roadway design modifications will consider the City of Spring Hill's Major Thoroughfare plan for improvements to Port Royal Road.
 - 3.3.1 The signal design components shall include:
 - Black powder coated mast arm signal supports
 - McCain Omni ATC EX2 NEMA controller
 - EDI SSM-16LE(ip) Enhanced NEMA MMU
 - PDC SSS86I/O load switches
 - Wavetronix radar detection
 - Sonem emergency vehicle preemption
 - LED street name signs
 - ADA accommodations (curb ramps, pedestrian signal heads, etc.)
 - 3.3.2 Roadway design and improvements shall follow the most current TDOT and AASHTO guidelines for roadway design.
 - a. Turn lanes will be designed based on recommended storage lengths developed from traffic analysis.
 - b. Stormwater drainage design will be provided for the new roadway. A drainage structure for the crossing of Grassy Branch underneath the new roadway will be designed. The drainage design will be based on the most current TDOT Drainage Design Manual and local City of Spring Hill standards.
 - c. Design shall include pedestrian improvements involving a 5-foot sidewalk and a possible 10-foot multi-use path for connectivity through the intersection and surrounding residential areas, based on Public Right-of-Way Accessibility Guidelines (PROWAG) standards and guidelines.
 - d. The typical section for Port Royal Road will be as provided by the City of Spring Hill, based upon the following: an urban curb-and-gutter roadway section, consisting of twelve-foot (12') travel lanes, having two-foot (2') curb and gutter, two-foot (2') grass strip with a five-foot (5') sidewalk on one side and a five-foot (5') grass strip with a ten foot (10') multi-use path on the other side. The typical section to

- be developed will identify travel lane widths, pavement widening, and proposed right-of-way width.
- e. Cross-sections will be developed to assist with determining slope limits for the proposed design and guidance to set proposed right-of-way.
- 3.4 Corradino shall coordinate accordingly with City of Spring Hill and affected utility agencies. Coordination and assistance with these agencies shall be provided to determine how affected utilities may need to relocate, which have been estimated to include Middle Tennessee Electric Membership (MTEMC), Spring Hill Water and Sewer, AT&T, Atmos, ComCast, and /or Charter. Corradino will meet with the utilities to discuss the proposed design and determine the extent of impact to utilities and need for relocation to assist with setting proposed right-of-way.
- 3.5 Signing and Marking will be developed for the proposed roadway and intersection.
- 3.6 A preliminary Traffic Control and Maintenance of Traffic design will be prepared for informational purposes to serve as a guideline for estimating cost and constructing the project. At such time this information will be detailed for construction.
- 3.7 Corradino will coordinate with the City to hold a public meeting/presentation to discuss the project and work to inform local and nearby businesses of the proposed improvements.
- 3.8 The following sheets are anticipated to be included in the ROW/Utility package.
- Title Sheet
 - Preliminary Typical Section and Miscellaneous Details
 - Property Map (with acquisition table and notes)
 - Present Layout
 - Proposed Roadway Layout
 - Proposed Drainage Map
 - Proposed Drainage Cross-section
 - Proposed Signal Layout
 - Preliminary Estimated Quantities (for budgeting purposes)
 - Preliminary Signing and Marking Plan
 - Preliminary Traffic Control Plan
- 3.9 Submit the ROW/Utility design package to the City for review.
- 3.10 Conduct review meeting with the City, prepare a Summary of Comments and revise plans accordingly.
- 3.11 Submit final ROW/Utility plans to the City. The plans will be submitted in an electronic (.pdf) format provided to the City and additional copies to respective utility companies.
- 3.12 Corradino will prepare a preliminary construction cost estimate based on the level of design and plans prepared in this scope of work to assist the City of Spring Hill will budgeting and scheduling purposes.
- 3.13 Assist the City with coordination of impacted utilities that may be impacted in the project area.

NOTE: An environmental evaluation or investigation of the area is not anticipated for this project.

4. Final Design / Construction Documents

Final design and development of construction plans will proceed upon the City's approval of ROW/Utility plans. This phase shall consist of the following tasks.

- 4.1 Finalize and detail remaining design elements to complete the construction plans.

- 4.2 Prepare additional plan sheets to be included in the overall plan set. These include: Index, Final Quantities, General and Special Notes, final Traffic Control, final Erosion Control.
- 4.3 Prepare signal timings.
- 4.4 Identify and detail a pavement section for the roadway.
- 4.5 Calculate final project quantities.
- 4.6 Prepare environmental permits and submit to TDEC for approval. Corradino anticipates this will consist, at a minimum, of a Notice of Intent (NOI) and Aquatic Resources Alteration Permit (ARAP). Fees for these permits will be paid by Corradino at the time of submittal and will be directly reimbursed to the City.
- 4.7 Conduct review meeting with the City, prepare a Summary of Comments and revise plans accordingly.
- 4.8 Prepare a final detailed Engineer's Opinion of Probable Cost and submit to the City upon completion of final construction plans.
- 4.9 Prepare a bid book containing project information, legal forms and documents that will allow the City to advertise the project, enter into contract with a selected contractor, and detail any technical specifications to construct the project.
- 4.10 Submit the Construction Plans design package to the City for review.

5. Bidding Assistance

- 5.1. Assist the City of Spring Hill to advertise the project for the purpose of selecting a contractor to perform the work. Publications and media for advertising will be decided by the City. Cost to advertise in these journals will be provided by the City of Spring Hill.
- 5.2. Assist the City and oversee distribution of bid documents to potential bidders.
- 5.3. Supervise a pre-bid meeting to answer any questions concerning the project. Minutes of the meeting will be distributed, and addendum issued if necessary, addressing any possible conflicts.
- 5.4. Open bids on behalf of the City, evaluate all bids, and recommend award for this contract.

6. Construction Engineering and Inspection (CEI)

CEI Services and duration will be scoped in detail upon approval of construction by the City of Spring Hill which will allow a fee proposal for this work to be developed. Corradino assumes this work will be supplemented at the time the project starts construction. Material testing is not anticipated but may be added at such time if desired by the City of Spring Hill.

The scope of work for CEI services is estimated and outlined in the following.

Corradino will serve as the City's representative and provide CEI services throughout the life of the project to effectively monitor and oversee construction of the project as defined by the plans and specifications.

Corradino will provide CEI services as outlined in the following sections. Based on discussions with the City, Corradino will provide an inspection team consisting of a Project Manager and full-time inspector for the project. Corradino will coordinate throughout the construction phase with the City's PM accordingly. The inspector will not be required to be on-site during periods when the contractor is inactive.

A. Pre-Construction Conference

Corradino will prepare for and conduct the Pre-Construction Conference; address and resolve all issues that arise at the meeting and prepare and distribute detailed minutes of the meeting. *Erosion Control* and

Utility Coordination discussion will also be discussed prior to commencing activities to discuss scheduling and operations for these specific items.

B. Project Administration

Corradino will provide project administration and coordinate with the City; monitor Contractors hours worked on the project and justify need for overtime; obtain from the contractor a list of contractor's personnel that will be responsible for any occurrence that may arise on the project for the life of the project.

C. Provide Construction Inspection Technical Support

Corradino will provide qualified personnel for inspection of the project during the construction phase to oversee the Contractor's activities.

D. Supplemental Agreements – Construction Change Orders

Through coordination with the City, if the Contractor request a change order, Corradino will review any Supplemental Agreements/Construction Changes; Negotiate prices for additional pay items with the contractor while adhering to the "Average Unit Price" listing when possible; Coordinate acceptance of prices with the City; Prepare the Supplemental Agreement/Change Order and submit to the City for final review and submittal for processing.

E. Quality Assurance, Testing for Acceptance

Corradino will assist and oversee a subconsultant to monitor and provide materials testing in the field as defined by TDOT specifications. Any certifications of material submitted by the contractor will be reviewed by Corradino for conformity to the Plans and Specifications. A Final Materials and Tests Certification will be included in the Final Records submitted to the City.

F. Progress Payments

Corradino will document and assemble accurate quantities for Monthly Progress Payments to the Contractor from actual project field records. The quantities for payment will be referenced to field records prior to submission for payment. All pay quantities will be submitted to the City for review and payment. Payments for stockpiled material may be made as defined in the Standard Specifications and approved by the Project Supervisor. The Estimate "cut-off" will be the 15th of each month.

G. Distribution of Correspondence

Corradino will maintain a copy of all correspondence between the Consultant, contractor, subcontractors, or others concerning matters related to the project. The correspondence will be submitted with the project Final Records.

H. Inspection of Work

Corradino's inspection team will ensure completion of the following tasks:

1. Provide inspection services for conformance to Plans and Specifications for all items that are being incorporated into the project. Corradino will measure and record all quantities for payment and provide daily reports to the City. These daily reports will be provided at a minimum of weekly. The daily records will be recorded on a standard form (field book) and/or on field inspection forms.
2. Check traffic control daily, and additionally as required.
3. Notify the contractor of deficiencies or problems immediately. Document weekly (or as often as necessary) project traffic control and provide to the City.
4. Inspect daily erosion control items for conformance to the plans as well as effectiveness in the field.
5. Prepare an accurate daily diary, signed by the inspector, consisting of:
 - A record of the contractors on the project
 - Their personnel (number and classification)
 - Equipment (number and type or size)

- Location and work performed by each contractor or subcontractor
 - Orders given the contractor
 - Events of note on the project
 - Accidents on the project and any details surrounding the accident such as police report number, fatalities, causes, time, etc. Obtain a copy of the police report for the project records whenever possible.
 - Weather, amount of precipitation, temperature at morning, noon, and evening
 - Days charged, with explanation if not charged.
 - Equipment arriving or leaving the project, idle equipment.
 - Any other details that may be important later in the project life.
6. Review shop drawings and/or submittals and evaluate for compliance.

Corradino understands that the City does not expect Corradino to be on-site for the entire work day if no work is being performed.

I. Final Records

Corradino will provide a compilation of project records as well as all project documentation to the City. Corradino will make any corrections when/if notified and resubmit the records and a final estimate for the project at the appropriate time and submit all final forms (with the final records).

J. As-Built Plans

Corradino will develop as-built plans showing the location of constructed improvements. Final as-built plans (in .pdf format) and survey files (in MicroStation (.dgn) format) will be delivered to the City upon completion of the project.

7. Traffic Signal Timing Implementation and Support

At the conclusion of the construction phase, Corradino will provide traffic signal timing implementation and support services to the City staff. These tasks include:

- 7.1 Provide assistance to the City staff with verification of the traffic signal timing plans programmed into the controller by the Contractor.
- 7.2 Conduct traffic observations of the traffic signal timings during the weekday AM, Midday, and PM peak periods and during a typical weekend peak period.
- 7.3 Adjust/Fine-tune the traffic signal timings, including splits and offsets, to optimize traffic progression along the corridor while minimizing overall intersection delays.

8. Additional Services

Any work, other than the scope of services outlined herein, shall be designated "Additional Services." At such time that it is determined that these additional services are required, Corradino reserves the right to amend this proposal or execute a separate agreement that will provide such services. Services desired by the client, but not specifically outlined herein, can be provided on an hourly basis in accordance with Corradino's standard hourly rates.

9. ROW Acquisition Phase (to be determined at a later date upon approval of ROW/Utility plans, if desired)

Corradino will attempt to minimize the need for right-of-way and easements resulting from the design. However, due to location of the roadway and potential impact to existing utilities in the project area,

there may be the need for right-of-way/easement acquisition. As such, Corradino is capable of assisting the City with the following services/tasks.

- I. On behalf of the City, Corradino will contact the property owners of parcels identified to have the need for additional right-of-way or easement.
- II. Corradino will work with the City's selected consultant to perform real estate appraisals. After receipt of the appraisals, Corradino will coordinate with the City prior to coordinating with the property owners.
- III. Corradino will assist, as needed, with the City to negotiate with property owners to acquire the needed right-of-way or easement and provide documentation to the City.
- IV. Assumes the City of Spring Hill will be responsible for all legal services relating to the purchase any properties.

Corradino assumes services for right-of-way assistance will be supplemented if necessary once the project design identifies the number of properties affected and determines the level of assistance needed by the City.

The following are Project Assumptions and Items that are not included within the scope of work, but can be added or negotiated at a later date as additional services.

1. Landscaping design or improvements.
2. Relocation of Grassy Branch.
3. Survey updates due to residential, commercial or industrial development.
4. More than one (1) public coordination meetings or presentations.
5. Meetings other than those listed in Section 2.
6. Environmental studies, evaluation, mitigation, or permitting to identify wetlands, ecological plant and/or animal species, hazardous material, air/noise evaluation, or archeological sites within or near the stated project limits separate from the Environmental Site Assessment to be performed. Environmental permits will not be completed until effort to final the design and Construction Plans are developed. An environmental document will not be prepared.
7. Significant revisions or additional work due to the updating of TDOT Design Guidelines, specifications, permits, drainage manuals, or erosion control manuals.
8. Any redesign due to unknown drainage structures and/or utility impacts that may lie within the project limits which may cause construction conflicts with the proposed plan design.
9. Design of pedestrian and roadway lighting for the project limits, including placement of footings and conduit for light poles.
10. Utility design and/or plans to relocate affected utilities.
11. Labor and material necessary to advertise and/or bid the project more than one time.
12. A detailed pavement section will not be developed. Corradino will coordinate with the City to determine an acceptable pavement section.
13. Staking of right-of-way, property, and/or other design or project items.

The following will be provided or paid by the City of Spring Hill.

1. City Mapping.
2. City Contours.
3. Property access notification for Surveying and/or Geotechnical services.
4. Public meetings, meeting space, advertisement costs, and transcript and/or public comment recorder at public meetings.

5. Typical roadway pavement design.
6. Advertising the project for bidding.

Considering the information presented herewith, this proposal will be a Lump Sum contract in the amount of \$ 166,745.08. This fee includes all materials and reimbursable expenses such as copies, plan sheets, mileage, etc. This cost includes a Not-To-Exceed cost of \$4,000.00 for permit application fees that will be directly reimbursed to the City of Spring Hill. A breakdown of subconsultant fee for survey and geotechnical investigation are included in the respective fee proposal for these subconsultants.

This fee proposal does not include the items within our scope defined under *"Items that will be negotiated at a later date.*

FEE SUMMARY
PORT ROYAL ROAD / BUCKNER LANE INTERSECTION IMPROVEMENTS
 December 14, 2021

PHASE	TOTAL
1. GENERAL PROJECT MANAGEMENT	\$12,940.00
2. DATA COLLECTION	\$6,310.00
3. ROW/UTILITY PLANS	\$61,277.00
4. DEVELOP FINAL / CONSTRUCTION PLANS	\$31,542.50
5. BIDDING ASSISTANCE	\$10,897.00
6. CONSTRUCTION ENGINEERING AND INSPECTION	TBD
Direct Expenses (Not-To-Exceed for Permit Application Fees)	\$4,000.00
Subconsultant Services	
Survey (Wiser)	\$27,605.58
Geotechnical investigation (CIA)	\$12,173.00
ESTIMATED COST	\$166,745.08

MANDAY ESTIMATE
 PORT ROYAL ROAD / BUCKNER LANE INTERSECTION IMPROVEMENTS

December 14, 2021

TASK DESCRIPTION	TASK HOURS										TOTALS		
	Resource	Principal	Project Manager	Senior Design Engineer	Staff Engineer	Engineering Intern	Senior Planner	Utility Coordinator	Admin. Support				
1. GENERAL PROJECT MANAGEMENT													
i. Coordinate with City - Kickoff Mtg		6	6		4	4						20	
ii. Coordinate with Subconsultants (WISER & CIA)												4	
	Survey		4									4	
	Geotech		4									4	
iii. Miscellaneous Site Visits			2		6	6						14	
iv. TAC & BOMA Status Update (est. 1 mtg each = 2 hr/mtg)		4	4		4	4						12	
v. Plans Review Meetings (ROW/Utility; Construction = 2 hr/mtg)		4	4		4	4			8			20	
												74	
Estimated Project Management Labor Hours		14	24	0	18	10	0	0	8			74	
% of Total Hours		19%	32%	0%	24%	14%	0%	0%	11%				
				Estimated Sub-Total									\$ 12,940.00
2. DATA COLLECTION													
i. Coord Survey			1		4	4						9	
1. QC and confirm survey			1			8						9	
ii. Traffic Analysis Update and Confirmation		2			2	2	6					8	
1. Confirm traffic data & project new base/future year volumes					2	2	4					6	
2. Submit to City for review w/recommended design components		1	1									1	
iii. Coord Geotechnical Investigation			1		2	2						3	
1. Review geotech report and discuss recommendations			1		2	2						3	
Estimated Data Collection Labor Hours		3	5	0	12	14	10	0	0			44	
% of Total Hours		7%	7%	0%	16%	19%	14%	0%	0%				
				Estimated Sub-Total									\$ 6,310.00
3. ROW/UTILITY PLANS													
i. Develop layout sketch showing proposed improvements			1		4	12						17	
1. Establish preliminary alignments (horizontal & vertical)													
2. Coordinate layout with Spring Hill		1	1			2						4	
3. Revisions / address comments						4						4	
ii. Utility Coordination			1	4		4						13	
1. Meet with utilities (est. MTEMC, ATT, Atmos, SH Water)			1	4		4						13	
a. Determine add'l easement needs													
b. Add'l design elements for assisting with utility relocation													
2. Coordinate design with utilities					4	8						20	

MANDAY ESTIMATE
 PORT ROYAL ROAD / BUCKNER LANE INTERSECTION IMPROVEMENTS

December 14, 2021

TASK DESCRIPTION	TASK HOURS										Estimated Sub-Total		
	Resource	Principal	Project Manager	Senior Design Engineer	Staff Engineer	Engineering Intern	Senior Planner	Utility Coordinator	Admin. Support				
1. Prepare & print plans			2			10						12	
2. Internal QA/QC		4	12	8		16						36	
3. Engineers Probable Construction Cost			4			2						6	
4. Address City comments		2	2	2		8						12	
Estimated Final Plans Labor Hours		6	28	30	17	174	0	0	0	0		255	
% of Total Hours		2%	11%	12%	7%	68%	0%	0%	0%	0%			
				Estimated Sub-Total									\$ 31,542.50
5. BIDDING ASSISTANCE													
1. Prepare Specifications				1	6							6	
2. Prepare Contract Documents				1	6							6	
3. Prepare Copies & Material						8						6	
4. Prepare and Attend Pre-Bid Meeting		2	2		4							2	
5. Misc. Coordination			2	4								6	
6. Issue & Coordinate Addendums			1									8	
7. Attend Bid Opening		2	2									2	
8. Review Bids			2			4						4	
9. Bid Meetings with City		2	2									2	
Estimated Total Bidding Hours		6	11	6	16	12	0	0	0	0		32	
% of Total Hours		7%	13%	7%	19%	14%	0%	0%	0%	0%		39%	
				Estimated Sub-Total									\$ 10,897.00
TOTALS													
												6	
												13	
												6	
												6	
												14	
												8	
												6	
												9	
												2	
												10	
												2	

Port Royal @ Buckner Lane– Survey Scope of Work

1. Provide field survey services for approximately 1,400 feet along Port Royal Road, from just north of Lovell Lane to just west of Walden Creek Trace, per TDOT standards and guidelines for surveys. This will include approximately 825 feet along Buckner Lane, from Port Royal to just east of Paradise Drive.
 - a. Width of coverage shall be 150-feet; 75-feet each side of the existing roadway centerline.
 - b. Services include location of adjacent properties sufficient to prepare right-of-way exhibits (although exhibits will not be developed at this time).
 - c. Collection of all topographic features including drainage and utilities.
 - i. Approximately 700' feet of the existing stream crossing Port Royal, west of Buckner Lane, will be surveyed. A stream profile shall be developed along with a minimum of three cross-sections which should extend a sufficient distance outside the top bank and/or flood boundary to allow for hydrologic modeling.
 - d. Control will be tied to TDOT GPS coordinate system.
 - e. Existing roadway profiles showing utilities will be generated.
 - f. Deliverable material shall consist of the most current Microstation and Geopak version in .dgn, .tin, and .gpk format.

TENNESSEE DEPARTMENT OF TRANSPORTATION
MANDAY ESTIMATE AND FEE PROPOSAL

For Survey Only

Port Royal Rd

at Buckner Lane

Maury & Williamson County

General Comments:

Wiser Consultants, LLC

Justin C. Rains, RLS

1620 Gateway Blvd., Ste. 201, Murfreesboro, TN 37129

615-278-1500

<fax>

jcrains@wiserconsultants.com

Prepared By:

J. Rains

Date prepared:

11/24/2021

Revised

Project No.:



Version 2.27

SURVEY LABOR DIRECT EXPENSES

SURVEY DIRECT LABOR COST

PROJECT DESCRIPTION:
 ROUTE: Port Royal Rd
 DESCRIPTION: at Buckner Lane
 COUNTY: Maury & Williamson
 CONSULTANT: Wisner Consultants, LLC
 TOTAL LENGTH(miles): 0.45

Prepared By: J. Rains
 Date Prepared: 11/24/2021



	Abbrv.	Personnel Classification	8 - Hr Man-Days	10 - Hr Man-Days	Approved Hours	Rate Per Hr	Direct Labor	* Premium
1	PM	PROJECT MANAGER	6.6		8.0	\$ 38.62	\$ 2,039.14	
2	O	OFFICE CADD TECH.	4.5		8.0	\$ 36.23	\$ 1,304.28	
3	P	PARTY CHIEF	12.1	9.2	10.0	\$ 27.34	\$ 2,515.28	\$ 251.53
4	I	INSTR. MAN	10.9	8.3	10.0	\$ 25.00	\$ 2,075.00	\$ 207.50
5	R	RODMAN	10.9	8.3	10.0	\$ 20.04	\$ 1,663.32	\$ 166.33
6	R	RODMAN	0.0	0.0	10.0	\$ 15.00	\$ -	\$ -
7	F	FLAGGER	0.0	0.0	10.0	\$ 12.00	\$ -	\$ -
8	F	LIDAR TECH	0.0	0.0	10.0	\$ 33.00	\$ -	\$ -
		TOTALS	45.0	25.8			\$ 9,597.02	\$ 625.36
		TOTALS (Combined 8 & 10 Hour Days)		36.9				

Average Direct Labor Cost Per (Combined 8 - Hour & 10 - Hour) Man-Day	\$ 260.08
Modified 8 - Hour Labor Cost Per Man-Day	\$ 221.38

* Premium Labor is only eligible if the survey crew works greater than a 40 hour work week.

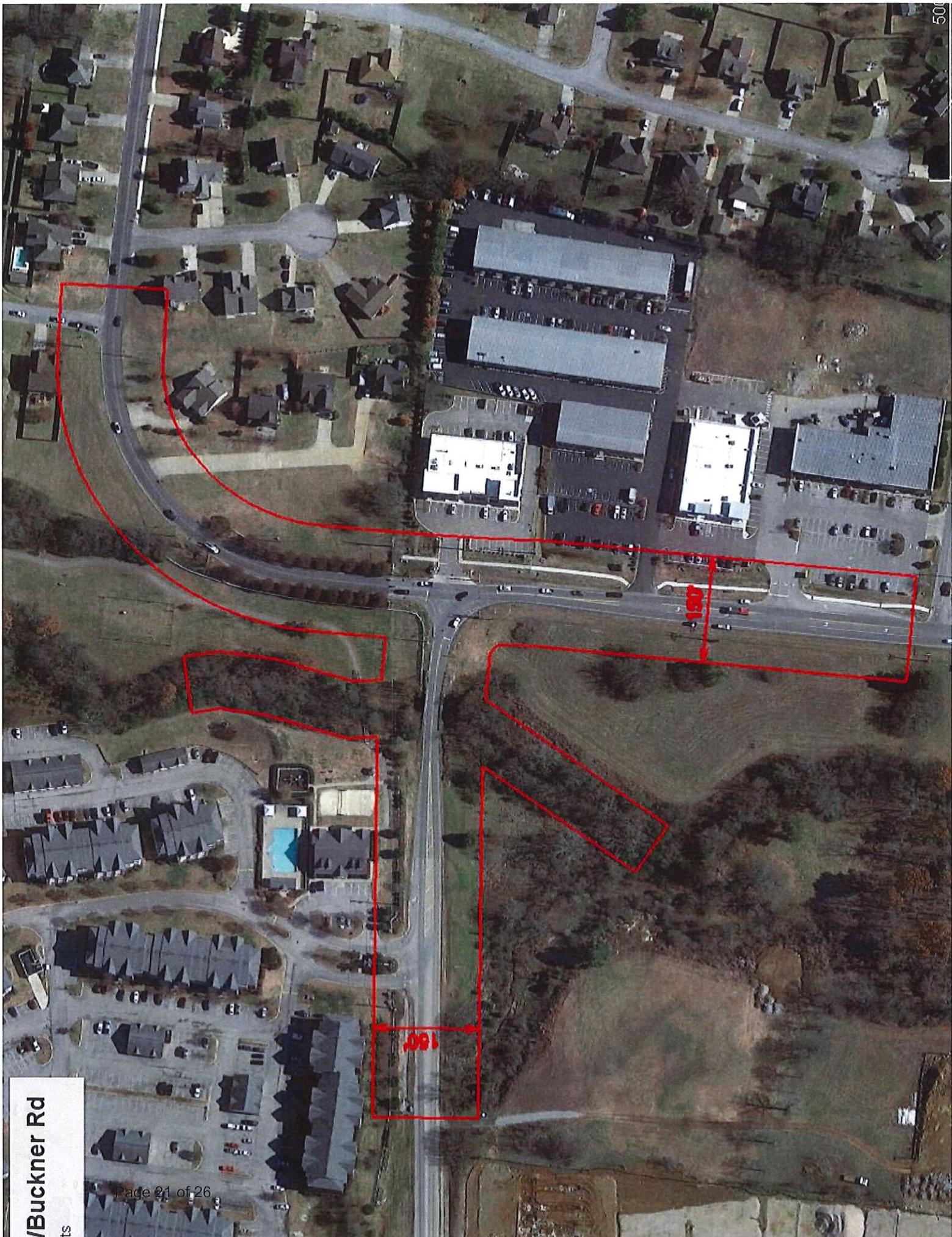
Version 2.27

SURVEY DIRECT EXPENSES																													
PROJECT DESCRIPTION: ROUTE: Port Royal Rd DESCRIPTION: at Buckner Lane COUNTY: Maury & Williamson CONSULTANT: Wisser Consultants, LLC TOTAL LENGTH(miles): 0.45																													
				Prepared By: J. Rains Date Prepared: 11/24/2021 Project No.: 0																									
																													
				Item Subtotal	Item Total Cost																								
Reproduction Costs																													
				Subtotal	\$ -																								
Travel																													
Survey Crew Travel Calculations																													
From: <u>Murfreesboro, TN</u>																													
To: <u>Spring Hill, TN</u>																													
<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>Number of Trips</th> <th>No. of Miles/No. of People</th> <th>* RATE</th> <th></th> </tr> </thead> <tbody> <tr> <td>2.00 Man-Days</td> <td>X 0.00 People X</td> <td>\$ 55.00 Per Day</td> <td>\$ -</td> </tr> <tr> <td>8.00 Man-Days</td> <td>X 0.00 People X</td> <td>\$ 41.25 Per Day</td> <td>\$ -</td> </tr> <tr> <td>10.00 Man-Days</td> <td>X 80.00 Miles X</td> <td>\$ 0.47 Per Mile</td> <td>= \$ 376.00</td> </tr> <tr> <td>8.00 Nights</td> <td>X 0.00 People X</td> <td>\$ 96.00 Per Person</td> <td>\$ -</td> </tr> <tr> <td colspan="3"></td> <td style="text-align: right;">Subtotal</td> </tr> </tbody> </table>						Number of Trips	No. of Miles/No. of People	* RATE		2.00 Man-Days	X 0.00 People X	\$ 55.00 Per Day	\$ -	8.00 Man-Days	X 0.00 People X	\$ 41.25 Per Day	\$ -	10.00 Man-Days	X 80.00 Miles X	\$ 0.47 Per Mile	= \$ 376.00	8.00 Nights	X 0.00 People X	\$ 96.00 Per Person	\$ -				Subtotal
Number of Trips	No. of Miles/No. of People	* RATE																											
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			Subtotal																										
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Number of Trips	No. of Miles/No. of People	* RATE																											
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0.00 Man-Days	X 0.00 People X	\$ 0.00 Per Day	\$ -																										
2.00 Round Trips	X 80.00 Miles X	\$ 0.47 Per Mile	= \$ 75.20																										
0.00 Nights	X 0.00 People X	\$ 0.00 Per Person	\$ -																										
			Subtotal																										
Subtotal \$ 75.20																													
Other Expenses																													
				Subtotal	\$ 2,125.00																								
TOTAL DIRECT EXPENSES																													
					\$ 2,576.20																								

* Rate must agree with most current State of Tennessee travel regulations.
 First and last day of travel must be at the 75% Per Diem Rate.

FEE PROPOSAL

FEE PROPOSAL					
ROUTE:	Port Royal Rd	Project No.:	0		
DESCRIPTION:	at Buckner Lane	PIN No.:	0		
COUNTY:	Maury & Williamson				
CONSULTANT:	Wiser Consultants, LLC				
Prepared By:	J. Rains				
Date Prepared:	11/24/2021				
<p>COMPLETE SURVEY SHEETS FIRST IF SURVEY IS INCLUDED IN THE CONTRACT. PROCEED WITH FEE PROPOSAL IF SURVEY IS NOT INCLUDED.</p> <p>This sheet performs fee proposal calculations for each phase of the project and total project. Net Fee is computed by Net Fee Calculator Enter the appropriate overhead rate & fill in shaded boxes that apply for each phase.</p>					
				Version 2.27	
Data For Fee Calculations					
Overhead Rate =		122.09% **			
** (State Project Maximum overhead rate = 145%)					
** (Federal Project Maximum overhead rate per External Audit Report)					
Design Direct Labor =	\$	-			
Survey Direct Labor =	\$	9,597.02			
Total Direct Labor =	\$	9,597.02			
Net Fee (Refer to "Net Fee Calculator")		14.50%			
<input type="checkbox"/>		(Place X in adjacent box to remove instructions prior to printing.)			
SURVEYS					
			COST FOR	COST FOR	SAVINGS FO
			10 - Hr Days	8-HR DAY	10 - Hr Days
1 Direct Labor	=	\$	9,597.02	\$ 9,917.42	\$ 320.40
2 Overhead	(Overhead Rate = 1.2209)	=	\$ 11,717.00	\$ 12,108.17	\$ 391.17
(Overhead rate X direct labor)					
3 Subtotal 1 + 2	=	\$	21,314.02	\$ 22,025.59	\$ 711.57
4 Net Fee = 14.5%	(Rounded to nearest \$10.)	=	\$ 3,090.00	\$ 3,379.36	\$ 289.36
(Direct labor + Overhead) X 0.NF					
5 Subtotal 3 + 4	=	\$	24,404.02	\$ 25,404.95	\$ 1,000.93
6 Direct Expense	=	\$	2,576.20	\$ 2,689.00	\$ 112.80
7 Premium Labor	=	\$	625.36	\$ -	\$ (625.36)
(Premium Labor is only eligible if the survey crew works greater than a 40 hour work week.)					
8 Total Survey	=	\$	27,605.58	\$ 28,093.95	\$ 488.37
(Total 5 + 6 + 7)					



/Buckner Rd
its

December 13, 2021

Mr. Mike Biggs, PE
Transportation Engineer Manager
The Corradino Group
7000 Executive Center Drive, Suite 2-250
Brentwood, Tennessee 37027

**Re: Proposal for Geotechnical Exploration Services
Port Royal Road at Buckner Lane Intersection
Spring Hill, Williamson County, Tennessee
CIA Proposal No. 2021-129P**

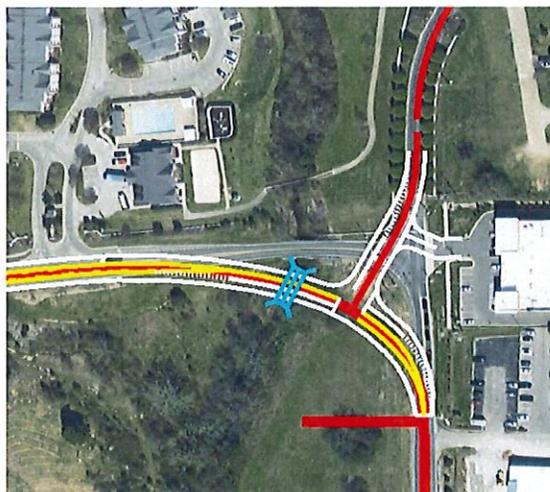
Dear Mr. Biggs:

CIA, LLC is pleased to submit this proposal to provide geotechnical exploration services for the referenced project. This proposal is based on project information provided to us and presents our scope of services, fee, and schedule information.

PROJECT AND BACKGROUND INFORMATION

Initial project information was provided to us by The Corradino Group via an email transmission on December 2, 2021. We were requested to provide a geotechnical scope that would be adequate for design of the proposed intersection improvement.

Based on the provided information, we understand that the current intersection at Port Royal Road and Buckner Lane will be modified such that the current intersection will be moved slightly southwest. The existing roadways are each two-lane section, approximately 11' lanes, with less than two-foot shoulders. Although the provided information did not include details of the new road section design, it is assumed the improved sections of roadway will include some widening of the road along with providing shoulders. A new box culvert will be required at Port Royal Road over Grassy Branch located just west of the current intersection. The image below was provide to us.



SCOPE OF SERVICES

The goals of this exploration are to generally characterize site geologic conditions, determine lithology, evaluate soil and rock foundation conditions at the retaining wall location(s), and develop earthwork and foundation recommendations for the proposed construction. The assessment of environmental concerns is beyond the scope of the geotechnical exploration.

After review of the preliminary plan provided by Corradino, CIA plans to advance up to 6 borings which include the proposed box culvert location. All borings will be extended to auger refusal. The overburden at each drilled location will be drive-sampled in general accordance with ASTM D 1586 "Penetration Test and Split-Barrel Sampling of Soils." At select locations, we may attempt to obtain relatively undisturbed samples with thin-walled (Shelby) tubes. We plan to advance one boring up to 10 feet into the underlying rock by means of coring with the intent to extend through weathered rock intervals near the soil-rock interface documenting any irregularities in the coring process such as but not limited to loss in water circulation, rod drops, or other discontinuities in order to identify a competent foundation bearing elevation. Upon completion of boring advancement, each boring will be checked for the presence of groundwater and will then be subsequently backfilled with auger cuttings.

The estimated drilling quantities are presented in the attached cost estimate summary. CIA will monitor the exploration and adjust the exploration program to address any specific needs dictated by the subsurface conditions encountered. We will communicate the observed subsurface conditions to the design team and coordinate any adjustments to the exploration program and associated impacts to the budget and schedule for completion of the geotechnical exploration. No additional work that will require an increase in the budget for the geotechnical exploration will be initiated without prior approval.

Following completion of the field exploration, laboratory testing will be assigned to selected samples to assess the engineering characteristics of the overburden and bedrock. Laboratory index testing will be conducted to determine the natural moisture content, Atterberg limits, and grain size distribution of select soil samples recovered from the drilling operations. Additionally, select rock or soil specimens may be subjected to unconfined compressive strength testing to provide shear strength data to support design efforts. A portion of the strength testing performed on bedrock specimens may include the determination of stress-strain characteristics. Other tests may be required depending upon the subsurface conditions encountered.

No drilling activities will take place without proper coordination with current property owners. CIA will contact the Tennessee One Call System (811), the state-wide utility clearance coordinator for the State of Tennessee, to have the underground utilities marked prior to mobilization of the drilling equipment. The boring locations may be offset from the proposed locations to facilitate access and avoid marked utilities. CIA is not responsible for repair of utilities that are not properly identified by others at the time of our exploration.

A geotechnical report will be issued for the geotechnical exploration, outlining the scope of work performed as well as the results of the exploration and lab testing program. The report will address geotechnical aspects of the roadway design and the box culvert. The geotechnical report will present our findings and will address, at a minimum, the following:

- General information regarding the site and subsurface conditions, including soil stratigraphy and bedrock occurrences, as well as groundwater measurements.

- Results of laboratory tests performed on selected samples.
- General comments regarding geology and geologic hazards, such as karst conditions.
- Recommendations for site preparation, including criteria for stripping, excavation, reuse of on-site materials as structural fill, undercutting of suitable materials and subgrade remedial treatments, and criteria for compacted fill.
- Recommendations for box culvert foundation design and construction.
- Recommendations for embankment design and construction (if applicable).
- Recommendations for temporary and permanent groundwater control, if needed.

Additional comments/conditions upon which this proposal is based are as follows:

- We anticipate that the proposed exploration will be conducted within public right of way and City of Spring Hill property. If access to private property is required, we will make reasonable efforts to gain voluntary permissions for entry from private property owners, where appropriate. The Corradino Group will be notified, as necessary, of any properties where such entry might be denied.
- We will measure from existing landmarks to establish the boring locations during field exploration. Determination of the exact boring locations and ground surface elevations is beyond this scope of services. This proposal does not include provisions for surveying efforts to establish the boring locations.
- Water for drilling purposes will be obtained from adjacent ponds, creeks, or rivers, if required.
- Traffic control will be provided by the City of Spring Hill. CIA will coordinate activities with Corradino or The City of Spring Hill as applicable. A CIA professional will be dedicated to the field work on a full-time basis to coordinate safety procedures and drilling efforts.
- The subsurface exploration will be planned and conducted in accordance with the Tennessee Department of Environment and Conservation General Permit for Surveying and Geotechnical Exploration. As such, installation and monitoring of erosion protection/siltation control measures by both subcontracted and CIA personnel may be required as part of the drilling program.
- The unit prices submitted in this proposal were derived based on the anticipated scope of work assuming the subsurface exploration program would be performed in the 2022 calendar year.
- We will retain the soil samples for 60 calendar days following the submittal of the geotechnical engineering report. After this time, the soil samples may be discarded unless directed otherwise.

FEE ESTIMATE

It is our understanding that the geotechnical work will be contracted under a unit price contract. Based on our understanding of the project, our estimated fees are outlined below. A detailed cost estimate is attached.

1.00 Drilling Services	\$4,400.00
2.00 Laboratory Services	\$1,113.00
3.00 Engineering Services	\$6,660.00
Total Not-to-Exceed Costs	\$12,173.00

We will discuss with you any expected modifications in scope of services and fee if necessary.

Closing

We appreciate the opportunity to support the design efforts for this project and look forward to working with you in the future. If you have any questions, please feel free to contact our office.

Sincerely,

CIA, CIVIL INFRASTRUCTURE ASSOCIATES, LLC



Matt Bullard, PE
Vice President
Director of Geotechnical Services

Attachment:
Cost Estimate

**Geotechnical Exploration and Engineering Professional Services
Port Royal Road at Buckner Lane Intersection
Spring Hill, Williamson County, Tennessee
The Corradino Group**



**COST ESTIMATE
12/13/2021**

1.0 DRILLING SERVICES

	Qty.		Rate	Cost
1.1 Equipment Mobilization	1	\$ 750.00	each	\$ 750.00
1.2 On-site Project Professional	12	\$ 125.00	per hour	\$ 1,500.00
1.3 Soil Auger Drilling	90	\$ 14.00	per vertical foot	\$ 1,260.00
1.4 Rock Core Set-up	1	\$ 100.00	each	\$ 100.00
1.5 Rock Coring	10	\$ 42.00	per vertical foot	\$ 420.00
1.6 Water Hauling	1	\$ 250.00	per day	\$ 250.00
1.7 Shelby Tubes	2	\$ 60.00	each	\$ 120.00
SUBTOTAL				\$ 4,400.00

2.0 LABORATORY TESTING SERVICES

	Qty.		Rate	Cost
2.1 Natural Moisture Content	12	\$ 9.00	each	\$ 108.00
2.2 Sieve Particle Size Analysis (ASTM D 422)	2	\$ 80.00	each	\$ 160.00
2.3 Atterberg Limits (ASTM D 4318)	4	\$ 55.00	each	\$ 220.00
2.4 Unconfined Compression Test (Rock)	1	\$ 125.00	each	\$ 125.00
2.5 Unconfined Compression Test (Soil)	0	\$ 100.00	each	\$ -
2.6 Standard Proctor	1	\$ 200.00	each	\$ 200.00
2.7 California Bearing Ratio	1	\$ 300.00	each	\$ 300.00
SUBTOTAL				\$ 1,113.00

3.0 ENGINEERING SERVICES

	Qty.		Rate	Cost
3.1 Project Initiation, Coordination, and Utility Locates				
3.1.1 Project Professional	2	\$ 125.00	per hour	\$ 250.00
3.1.2 Senior Project Manager	1	\$ 190.00	per hour	\$ 190.00
3.2 Engineering Evaluations, Report Development, Retaining Wall Calculations				
3.2.1 Project Professional	28	\$ 125.00	per hour	\$ 3,500.00
3.2.2 Senior Project Manager	12	\$ 190.00	per hour	\$ 2,280.00
3.2.3. Principal Geotechnical Engineer	2	\$ 220.00	per hour	\$ 440.00
SUBTOTAL				\$ 6,660.00

	ESTIMATED TOTAL COST	\$ 12,173.00
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A quote for your consideration

Based on your business needs, we put the following quote together to help with your purchase decision. Below is a detailed summary of the quote we've created to help you with your purchase decision.

To proceed with this quote, you may respond to this email, order online through your **Premier page**, or, if you do not have Premier, use this **Quote to Order**.

Quote No.	3000111215041.2	Sales Rep	Fred Mack
Total	\$4,622.90	Phone	(800) 456-3355, 6180795
Customer #	108624582	Email	Fred_Mack@Dell.com
Quoted On	Feb. 07, 2022	Billing To	ACCOUNTS PAYABLE
Expires by	Mar. 09, 2022		CITY OF SPRING HILL
Contract Name	Dell NASPO Computer		199 TOWN CTR PARKWAY
	Equipment PA - TN		SPRING HILL, TN 37174-2460
Contract Code	C000000013087		
Customer Agreement #	49580 / MNWNC-108		
Deal ID	22375975		

Message from your Sales Rep

Please contact your Dell sales representative if you have any questions or when you're ready to place an order. Thank you for shopping with Dell!

Regards,
Fred Mack

Shipping Group

Shipping To	Shipping Method
JOHN PEWITT CITY OF SPRING HILL CITY OF SPRING HILL 199 TOWN CTR PKWY SPRING HILL, TN 37174-2460 (931) 486-2252	Standard Ground

Product	Unit Price	Quantity	Subtotal
Dell Latitude 5520	\$2,105.06	2	\$4,210.12
VisionTek VT4000 USB Dual 4K Docking Station	\$206.39	2	\$412.78

Subtotal:	\$4,622.90
Shipping:	\$0.00
Environmental Fee:	\$0.00
Non-Taxable Amount:	\$4,622.90
Taxable Amount:	\$0.00
Estimated Tax:	\$0.00
<hr/>	
Total:	\$4,622.90

Shipping Group Details

Shipping To

JOHN PEWITT
CITY OF SPRING HILL
CITY OF SPRING HILL
199 TOWN CTR PKWY
SPRING HILL, TN 37174-2460
(931) 486-2252

Shipping Method

Standard Ground

		Quantity	Subtotal	
Dell Latitude 5520				
Estimated delivery if purchased today: Mar. 24, 2022 Contract # C000000013087 Customer Agreement # 49580 / MNWNC-108		\$2,105.06	2	
			\$4,210.12	
Description	SKU	Unit Price	Quantity	Subtotal
Dell Latitude 5520 BTX Base	210-AXVQ	-	2	-
11th Generation Intel Core i7-1185G7 (4 Core, 12M cache, base 3.0GHz, up to 4.8GHz, vPro)	379-BEHI	-	2	-
Windows 10 Pro (Includes Windows 11 Pro License) English, French, Spanish	619-AQMP	-	2	-
Microsoft Office Professional 2021	630-ABJQ	-	2	-
Assembly base	338-BXRY	-	2	-
I7-1185G7 Vpro, Intel Iris Xe Graphics Capable, Thunderbolt	338-BXSI	-	2	-
vPro Manageability	631-ACTD	-	2	-
16GB,1x16GB, DDR4 Non-ECC	370-AFVP	-	2	-
No Additional Hard Drive	401-AADF	-	2	-
M.2 512GB PCIe NVMe Class 35 Solid State Drive	400-BKVF	-	2	-
LCD back cover for Latitude 5520 WLAN/WWAN	320-BECT	-	2	-
HD + IR Camera Bezel with Mic	325-BDZE	-	2	-
15.6" FHD (1920x1080) Non-Touch, Anti-Glare, 250nits	391-BFPM	-	2	-
Palmrest NFC, Fingerprint Reader, Contacted & Contactless SmartCard Reader, Thunderbolt 4	346-BGVT	-	2	-
Single Pointing Backlit English US Keyboard with numeric keypad	583-BHBG	-	2	-
Wireless Intel AX201 WLAN Driver	555-BGGN	-	2	-
Intel Wi-Fi 6 AX201 2x2 .11ax 160MHz + Bluetooth 5.2	555-BGGT	-	2	-
No Mobile Broadband Card	556-BBCD	-	2	-
4 Cell 63Whr ExpressCharge™ Capable Battery	451-BCSW	-	2	-
E4 65W Type-C EPEAT Adapter	492-BCXP	-	2	-
No Anti-Virus Software	650-AAAM	-	2	-
OS-Windows Media Not Included	620-AALW	-	2	-
E4 Power Cord 1M for US	537-BBBL	-	2	-
Quick Start Guide	340-CTXV	-	2	-
US Order	332-1286	-	2	-
SERI Guide (ENG/FR/Multi)	340-AGIK	-	2	-
Fixed Hardware Configuration	998-FGEL	-	2	-

SupportAssist	525-BBCL	-	2	-
Dell(TM) Digital Delivery Cirrus Client	640-BBLW	-	2	-
Dell Client System Update (Updates latest Dell Recommended BIOS, Drivers, Firmware and Apps)	658-BBMR	-	2	-
Waves Maxx Audio	658-BBRB	-	2	-
Dell Power Manager	658-BDVK	-	2	-
Dell SupportAssist OS Recovery Tool	658-BEOK	-	2	-
Dell Optimizer	658-BEQP	-	2	-
Windows PKID Label	658-BFDQ	-	2	-
Packaging BTS 65W adapter + TGL CPU	340-CTZQ	-	2	-
11th Gen Intel Core i7 vPro label	340-CTSW	-	2	-
No Mouse	570-AADK	-	2	-
No Resource USB Media	430-XXYG	-	2	-
ENERGY STAR Qualified	387-BBPI	-	2	-
BTS/BTP Smart Selection Shipment (VS)	800-BBQH	-	2	-
EAN label	389-BKKL	-	2	-
No Removable CD/DVD Drive	429-AATO	-	2	-
5520 Laptop Bottom Door Integrated Graphics	321-BGBG	-	2	-
No AutoPilot	340-CKSZ	-	2	-
EPEAT 2018 Registered (Gold)	379-BDZB	-	2	-
Dell Limited Hardware Warranty Extended Year(s)	975-3461	-	2	-
Dell Limited Hardware Warranty	997-8317	-	2	-
ProSupport Plus: Next Business Day Onsite, 1 Year	997-8366	-	2	-
Thank you for choosing Dell ProSupport Plus. For tech support, visit www.dell.com/contactdell or call 1-866-516-3115	997-8367	-	2	-
ProSupport Plus: Keep Your Hard Drive, 4 Years	997-8388	-	2	-
ProSupport Plus: Next Business Day Onsite, 3 Year Extended	997-8389	-	2	-
ProSupport Plus: Accidental Damage Service, 4 Years	997-8390	-	2	-
ProSupport Plus: 7x24 Technical Support, 4 Years	997-8391	-	2	-
Client ProSupport Plus Asset Label without Company Name	365-0896	-	2	-
CFI,Information,VAL,CHASSISDEF,Factory Install	377-8262	-	2	-

		Quantity	Subtotal
VisionTek VT4000 USB Dual 4K Docking Station	\$206.39	2	\$412.78

Estimated delivery if purchased today:
Feb. 16, 2022
Contract # C000000013087
Customer Agreement # 49580 / MNWNC-108

Description	SKU	Unit Price	Quantity	Subtotal
VisionTek VT4000 USB Dual 4K Docking Station	A9877012	-	2	-

Subtotal:	\$4,622.90
Shipping:	\$0.00
Environmental Fee:	\$0.00
Estimated Tax:	\$0.00
Total:	\$4,622.90

Important Notes

Terms of Sale

This Quote will, if Customer issues a purchase order for the quoted items that is accepted by Supplier, constitute a contract between the entity issuing this Quote ("Supplier") and the entity to whom this Quote was issued ("Customer"). Unless otherwise stated herein, pricing is valid for thirty days from the date of this Quote. All product, pricing and other information is based on the latest information available and is subject to change. Supplier reserves the right to cancel this Quote and Customer purchase orders arising from pricing errors. Taxes and/or freight charges listed on this Quote are only estimates. The final amounts shall be stated on the relevant invoice. Additional freight charges will be applied if Customer requests expedited shipping. Please indicate any tax exemption status on your purchase order and send your tax exemption certificate to Tax_Department@dell.com or ARSalesTax@emc.com, as applicable.

Governing Terms: This Quote is subject to: (a) a separate written agreement between Customer or Customer's affiliate and Supplier or a Supplier's affiliate to the extent that it expressly applies to the products and/or services in this Quote or, to the extent there is no such agreement, to the applicable set of Dell's Terms of Sale (available at www.dell.com/terms or www.dell.com/oemterms), or for cloud/as-a-Service offerings, the applicable cloud terms of service (identified on the Offer Specific Terms referenced below); and (b) the terms referenced herein (collectively, the "Governing Terms"). Different Governing Terms may apply to different products and services on this Quote. The Governing Terms apply to the exclusion of all terms and conditions incorporated in or referred to in any documentation submitted by Customer to Supplier.

Supplier Software Licenses and Services Descriptions: Customer's use of any Supplier software is subject to the license terms accompanying the software, or in the absence of accompanying terms, the applicable terms posted on www.Dell.com/eula. Descriptions and terms for Supplier-branded standard services are stated at www.dell.com/servicecontracts/global or for certain infrastructure products at www.dellemc.com/en-us/customer-services/product-warranty-and-service-descriptions.htm.

Offer-Specific, Third Party and Program Specific Terms: Customer's use of third-party software is subject to the license terms that accompany the software. Certain Supplier-branded and third-party products and services listed on this Quote are subject to additional, specific terms stated on www.dell.com/offeringspecificterms ("Offer Specific Terms").

In case of Resale only: Should Customer procure any products or services for resale, whether on standalone basis or as part of a solution, Customer shall include the applicable software license terms, services terms, and/or offer-specific terms in a written agreement with the end-user and provide written evidence of doing so upon receipt of request from Supplier.

In case of Financing only: If Customer intends to enter into a financing arrangement ("Financing Agreement") for the products and/or services on this Quote with Dell Financial Services LLC or other funding source pre-approved by Supplier ("FS"), Customer may issue its purchase order to Supplier or to FS. If issued to FS, Supplier will fulfill and invoice FS upon confirmation that: (a) FS intends to enter into a Financing Agreement with Customer for this order; and (b) FS agrees to procure these items from Supplier. Notwithstanding the Financing Agreement, Customer's use (and Customer's resale of and the end-user's use) of these items in the order is subject to the applicable governing agreement between Customer and Supplier, except that title shall transfer from Supplier to FS instead of to Customer. If FS notifies Supplier after shipment that Customer is no longer pursuing a Financing Agreement for these items, or if Customer fails to enter into such Financing Agreement within 120 days after shipment by Supplier, Customer shall promptly pay the Supplier invoice amounts directly to Supplier.

Customer represents that this transaction does not involve: (a) use of U.S. Government funds; (b) use by or resale to the U.S. Government; or (c) maintenance and support of the product(s) listed in this document within classified spaces. Customer further represents that this transaction does not require Supplier's compliance with any statute, regulation or information technology standard applicable to a U.S. Government procurement.

For certain products shipped to end users in California, a State Environmental Fee will be applied to Customer's invoice. Supplier encourages customers to dispose of electronic equipment properly.

Electronically linked terms and descriptions are available in hard copy upon request.

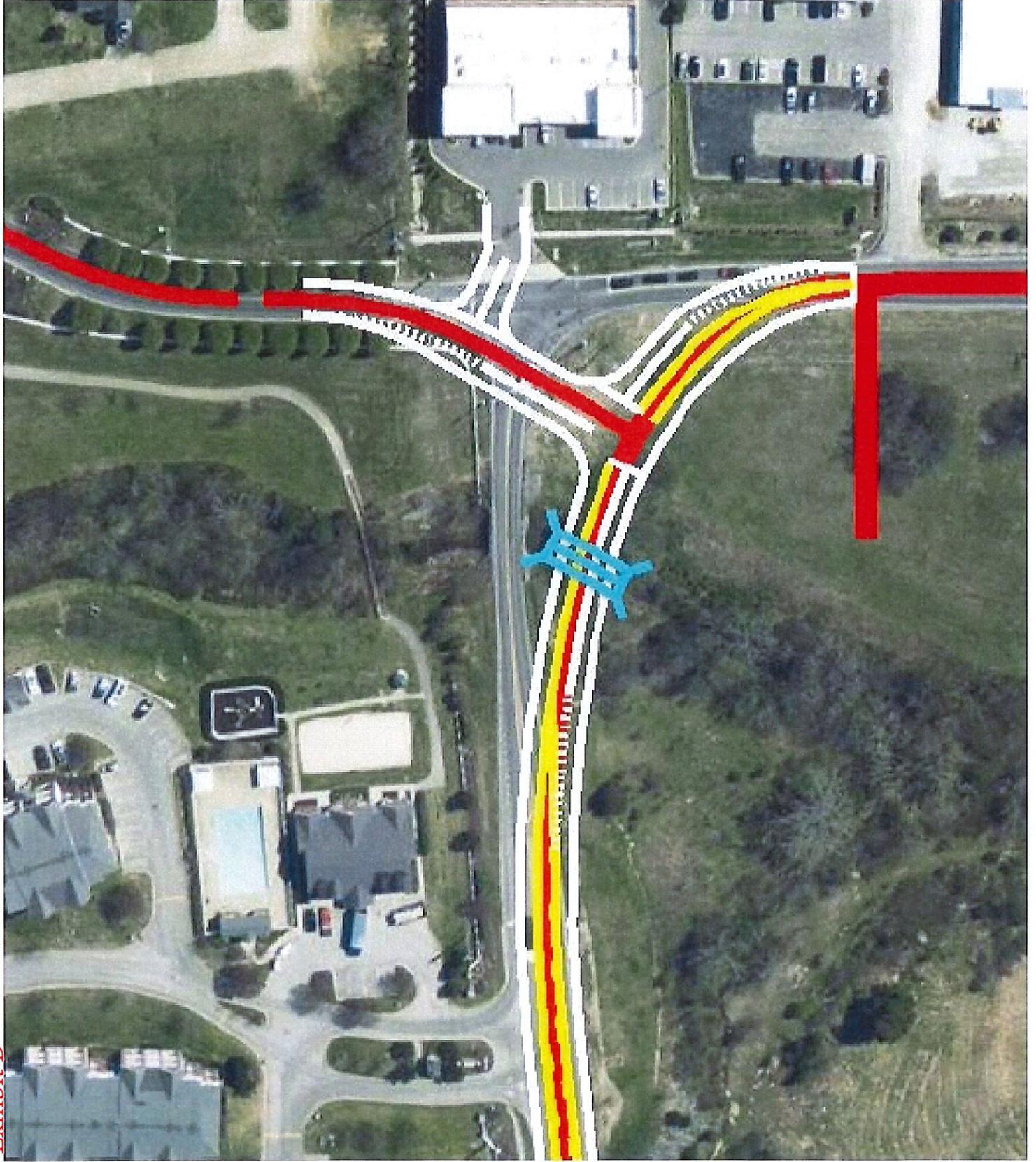


Exhibit B