SE-240
SMALL PROFESSIONAL SERVICES CONTRACT FOR CONSTRUCTION PROJECTS

AGENCY: SC Office of Resilience

PROJECT NAME: City of Beaufort - Charles/Craven St and Port Republic/Carteret St Drainage Improvement Projects

PROJECT NUMBER: D30-N033-MJ

A/E NAME: McCormick Taylor, Inc.

ADDRESS: 1441 Main St Suite 30
Columbia, SC 29201

In consideration of the mutual covenants and obligations set forth herein, the Agency and A/E (hereinafter jointly referred to as the "parties") agree to the following:

A. CONTRACT DOCUMENTS

1. Documents forming a part of this contract are, in order of precedence:
   a. This Contract, SE-240.
   b. A/E Proposal describing services to be provided for this project, the associated hourly billing rates for the A/E and the A/E consultants, and the projected Reimbursable items.
   c. Supplemental Conditions, attached if applicable.
   d. The following other documents:

2. The contract is the entire and integrated agreement between the parties and supersedes prior negotiations, representations, or agreements, whether written or oral.
3. The Agency's Budget for the Cost of the Work: $7,527,351.00

   The Cost of the Work shall be the total cost to the Agency to construct all elements of the Project designed or specified by the A/E and shall include Contractors' general conditions costs, overhead and profit. The Cost of the Work also includes the reasonable value of labor, materials, and equipment, donated to, or otherwise furnished by, the Agency. The Cost of the Work does not include the compensation of the A/E, the costs of the land, rights-of-way, financing, contingencies for changes in the Work, or other costs that are the responsibility of the Agency.

B. REPRESENTATIVES

1. Agency's Representatives

Agency designates the individual listed below as its Representative, which individual shall have the authority to bind the Agency with respect to all matters regarding the Contract and requiring the Agency's approval or authorization:

NAME: Eric Fosmire
TITLE: Chief of Staff & General Counsel
ADDRESS: 632 Rosewood Dr, Columbia SC 29201
TELEPHONE: (803)822-9580 **EMAIL:** Eric.Fosmire@cor.sc.gov

The term "Agency" means the Agency or the Agency's Representative.

2. A/E's Representatives

A/E designates the individual listed below as its A/E's Representative, which individual shall have the authority to bind the A/E with respect to all matters regarding the Contract and requiring the A/E's approval or authorization:

NAME: Patrick Guise
TITLE: Chief Visionary Officer, Co-Owner
ADDRESS: 1818 Market Street, 16th Floor, Philadelphia, PA 19103
TELEPHONE: (215) 592-4200 **EMAIL:** pjguise@mccormicktaylor.com

The term "A/E" means the A/E or the A/E's Representative.

3. Neither the Agency nor the A/E shall change their representatives without ten days written notice to the other party.

C. A/E RESPONSIBLITIES

1. The A/E shall provide professional services as set forth in this Contract consistent with the professional skill and care ordinarily provided by A/E's practicing in the same or similar locality region under the same or similar circumstances.
2. The A/E represents that its' team is properly licensed in the jurisdiction where the Project is located to provide the services required.

D. INSURANCE

1. The A/E shall procure and maintain in effect during the term of this Contract the insurance coverages described below, which insurance shall be placed with insurance companies authorized to do business in the State of South Carolina and rated A minus VII or better by the current edition of Best's Key Rating Guide or otherwise approved by the Agency.
   a. Professional Liability Insurance with limits of not less than $1,000,000 per claim and in the aggregate. A/E shall maintain this coverage in effect during the term of this Contract and for five (5) years after the date of completion of services provided under this Contract. A/E shall give prompt written notice to Agency of all claims made against this policy during the period in which this policy is required to be maintained.
   b. Worker's Compensation Insurance as required by the State of South Carolina with statutory limits.
   c. Employers' Liability Insurance with limit of no less than $1,000,000 per accident.
   d. Automobile Liability Insurance: Insurance Services Offices (ISO) Form CA 00 01 covering Code 1 (any auto), or if A/E has no owned automobiles, Code 8 (hired) and Code 9 (non-owned), with limits not less than $1,000,000 per accident for bodily injury and property damage.
   e. Commercial General Liability Insurance (CGL): ISO Form CG 00 01 12 07 covering CGL on an "occurrence" basis for bodily injury and property damage, including products-completed operations, personal injury, and advertising injury, with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to the project or the general aggregate limit shall be twice the required occurrence limit. This Contract shall be considered to be an "insured contract" as defined in the policy.
2. The A/E agrees to require Consultants to comply with the insurance provisions required of A/E pursuant to this Contract unless A/E and Agency mutually agree to modify these requirements for Consultants whose work is of relatively small scope. The A/E agrees that it will contractually obligate its Consultants to advise A/E promptly of any changes or lapses of the requisite insurance coverages and A/E agrees to promptly advise Agency of any such notices A/E receives from its Consultants. The A/E agrees that it will contractually obligate its Consultants to indemnify and hold harmless the Agency to the same extent that the A/E is required to do so as provided in this Contract.
3. The A/E shall provide certificates of insurance to the Agency that evidence compliance with the requirements in this Section.
4. Additional Insured Obligations
   a. To the fullest extent permitted by law, the A/E shall cause the primary and excess or umbrella polices for Commercial General Liability and Automobile Liability to include the Agency, its officers, officials, employees, and volunteers, as additional insureds for claims caused in whole or in part by the A/E's negligent acts or omissions. The additional insured coverage shall be primary and non-contributory to any of the Agency's insurance policies and shall apply to both ongoing and completed operations.
   b. Prior to performing services, and thereafter upon replacement of each required policy of insurance, the A/E shall provide to the Agency a written endorsement to the A/E's General Liability Insurance policy that (i) names the Agency, its officers, officials, employees, and volunteers, as additional insureds, and (ii) states that coverage shall not be cancelled, except with notice to the Agency.
   c. Information concerning reduction of coverage on account of revised limits or claims paid under the General Aggregate, or both, shall be furnished by the A/E with reasonable promptness.

E. INDEMNIFICATION

1. Without limitation and notwithstanding any provision in this Contract, the A/E shall indemnify and hold harmless the Indemnitees for and against claims, damages, losses and expenses (including attorneys' fees) asserted by a third party against an Indemnitee arising out of or resulting from negligent acts or omissions of the A/E, a consultant, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss or expense is caused in part by a party indemnified hereunder, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself). The A/E shall not be required to indemnify an Indemnitee to the extent the Indemnitee's damages result from the Agency's own negligence.

2. Such obligation shall not be construed to negate, abridge, or reduce any other rights, including any other obligations of indemnity, which would otherwise exist as to a party or person described in this Section As used in this paragraph, "Indemnitees" means the State (including its instrumentalities, agencies, departments, boards, and political subdivisions), the contractor, the subcontractors at all tiers, and the officers, agents and employees of all the forgoing.

F. A/E SERVICES

1. The A/E shall be fully responsible for coordinating all services under this Contract regardless of whether performed by its own employees or by consultants hired by A/E to perform a portion of its' services.
2. The A/E shall be responsible to Agency for the services furnished to A/E by any Consultant to the same extent as if A/E had furnished the service itself. A/E also agrees to coordinate and resolve any inconsistencies in its work and the work of its Consultants. All of A/E's contracts with Consultants shall be in writing, signed by both parties, and shall include the following provision: "The Agency is intended to be a third-party beneficiary of this Contract."
3. In the performance of its duties under this Contract, the A/E shall comply with the requirements of Chapter 5 of the Manual for Planning and Execution of State Permanent Improvement Projects (the "Manual").
4. The A/E shall prepare and distribute conference memoranda, meeting minutes, summaries of telephone conversations, documentation of site visits and inspection reports as required by the Agency to maintain a comprehensive record of the Project. The State Project Number and Name shall be shown on all documents.
5. Any reference in the Contract Documents to the A/E taking action or rendering a decision with a "reasonable time" or "reasonable promptness" is understood to mean no more than ten (10) days, unless otherwise specified in the Contract Documents or otherwise agreed to by the parties.
6. Construction Documents
   a. The A/E shall submit to the Agency and OSE for review and approval, properly completed documents in the number and form requested, additional documentation required by the Design Documents Transmittal Form and an estimate of the Cost of the Work with each submittal. The A/E shall advise the Agency of any adjustments to the estimate of the Cost of the Work and request the OSE and Agency's approval.
   b. Based on the Agency's approval of design documents, OSE's comments, if any, and on the Agency's authorization of any adjustments in the Project requirements and the budget for the Cost of the Work, the A/E shall prepare Construction Documents for the Agency's approval. The Construction Documents shall consist of Drawings and Specifications setting forth in detail the quality levels and performance criteria of materials and systems and other requirements for the construction of the Work.
   c. The Agency and OSE review and approval of each submittal and all documents or other matters required herein shall not relieve the A/E of their professional duty of care in the preparation of the Instruments of Service for compliance with the requirements of applicable statutes, regulations, codes, the Manual, or for design deficiencies, omission, or errors.
7. Construction Phase Services
   a. The A/E shall provide administration of the Contract between the Agency and the Contractor as set forth in the General Conditions of the Contract for Construction.
   b. The A/E shall advise and consult with the Agency during the Construction Phase Services. The A/E shall be responsible for the A/E's negligent acts or omissions, but shall not have control over or charge of, and shall not be responsible for, acts or omissions of the Contractor or of any other persons or entities performing portions of the Work.
   c. The A/E's responsibility to provide Construction Phase Services commences with the award of the Contract for Construction and terminates twenty-one (21) days after the A/E issues the final Certificate for Payment.
   d. The A/E shall visit the site at intervals appropriate to the stage of construction to determine, in general, if the Work is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. The A/E shall not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The A/E shall submit a written report to the Agency, and promptly report to the Agency (1) deviations from the Contract Documents, (2) deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies in the Work.
   e. The A/E has the authority to reject Work that does not conform to the Contract Documents. Whenever the A/E considers it necessary or advisable, the A/E shall have the authority to require inspection or testing of the Work in accordance with the provisions of the Contract Documents, whether the Work is fabricated, installed or completed.
8. Contractor Certificates for Payment
   a. The A/E shall review and certify the amounts due the Contractor and shall issue certificates in such amounts. The A/E's certification for payment shall constitute a representation to the Agency, based on the A/E's evaluation of the Work and on the data comprising the Contractor's Application for Payment, that, to the best of the A/E's knowledge, information and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified.

b. The issuance of a Certificate for Payment shall not be a representation that the A/E has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work, (2) reviewed construction means, methods, techniques, sequences or procedures, (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Agency to substantiate the Contractor's right to payment, or (4) ascertained how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

9. Contractor Submittals

a. The A/E's action in reviewing submittals shall be taken in accordance with the approved submittal schedule or, in the absence of an approved submittal schedule, with reasonable promptness.

b. The A/E shall review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

c. The A/E shall review and respond to requests for information about the Contract Documents. The A/E's response to such requests shall be made in writing with reasonable promptness. If appropriate, the A/E shall prepare and issue supplemental Drawings and Specifications in response to the requests for information.

10. Changes in the Work

a. The A/E may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time.

b. The A/E shall prepare Change Orders and Construction Change Directives, with supporting technical data and cost documentation supplied by the Contractor, for the Agency's approval and execution in accordance with the Contract Documents.

11. Project Completion

a. As required by the project, the A/E shall:

i. conduct inspections to determine the date or dates of Substantial Completion and the date of final completion;

ii. issue Certificates of Substantial Completion;

iii. forward to the Agency, for the Agency's review and records, written warranties and related documents required by the Contract Documents and received from the Contractor; and,

iv. issue a final Certificate for Payment based upon a final inspection indicating that, to the best of the A/E's knowledge, information, and belief, the Work complies with the requirements of the Contract Documents.

b. The A/E and the A/E's consultants and engineers shall conduct one Substantial Completion Inspection and one Final Completion Inspection. If additional inspections are required, payment to the A/E may be adjusted.

c. When Substantial Completion has been achieved, the A/E shall inform the Agency about the balance of the Contract Sum remaining to be paid the Contractor, including the amount to be retained from the Contract Sum, if any, for final completion or correction of the Work.

12. Additional Services

a. The A/E may provide Additional Services after execution of this Contract without invalidating the Contract. Except for services required due to the fault of the A/E, any Additional Services provided shall entitle the A/E to compensation pursuant to negotiations and an appropriate adjustment in the A/E's schedule.

b. The A/E shall not proceed to provide Additional Services until the A/E receives the Agency's written authorization.

G. AGENCY'S RESPONSIBILITIES

1. The Agency shall establish the Agency's budget for the Project, including (1) the budget for the Cost of the Work; (2) the Agency's other costs; and, (3) reasonable contingencies related to these costs. The Agency shall update the Agency's budget for the Project as necessary throughout the duration of the Project until final completion. If the Agency significantly increases or decreases the Agency's budget for the Cost of the Work, the Agency shall notify the A/E of such change and of any corresponding changes in the Project's scope and quality.

2. The Agency shall review the A/E's documents and the estimate of Cost of the Work and shall submit its written approval to the A/E and OSE, if required.

3. The Agency shall provide prompt written notice to the A/E if the Agency becomes aware of any fault or defect in the Project, including errors, omissions or inconsistencies in the A/E's Instruments of Service.

4. The Agency shall include the A/E in all communications with the Contractor that relate to or affect the A/E's services or professional responsibilities. Communications by and with the A/E's consultants shall be through the A/E.

H. COST OF THE WORK

1. The Agency's budget for the Cost of the Work may be adjusted throughout the Project. It is recognized, that neither the A/E nor the Agency has control over the cost of labor, materials, or equipment; the Contractor's methods of determining bid prices; or competitive bidding, market, or negotiating conditions. Accordingly, the A/E cannot and does not warrant or represent that bids or negotiated prices will not vary from the Agency's budget for the Cost of the Work, or from any estimate of the Cost of the Work, or evaluation, prepared or agreed to by the A/E.
2. If at any time the A/E's estimate of the Cost of the Work exceeds the Agency's budget for the Cost of the Work, the A/E shall, at no additional cost, make appropriate recommendations to the Agency to adjust the Project's size, quality, or budget for the Cost of the Work, and the Agency shall cooperate with the A/E in making such adjustments.
3. If the Agency's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services is exceeded by the lowest bona fide bid, the Agency may:
   a. if and as permitted by applicable law, give written approval of an increase in the budget for the Cost of the Work and award the contract within the revised budget;
   b. cancel the invitation for bids and reissue it, without change in the Project program, scope, or quality, not less than ninety (90) days after the date bids were opened;
   c. cancel the invitation for bids and terminate this Contract in accordance with Section K;
   d. cancel the invitation for bids; in consultation with the A/E, revise the Project program, scope, or quality as required to reduce the Cost of the Work and reissue the invitation for bids with Construction Documents so revised; or,
   e. negotiate a contract with the lowest responsive and responsible bidder pursuant to S.C. Code Ann. § 11-35-3020(d).
4. If the Agency chooses to proceed under Section H.3.a or H.3.b, the A/E shall not receive additional compensation for the increase in budget or delay in rebidding.
5. If the lowest bona fide bid exceeds the Agency's budget for the Cost of the Work by more than ten (10) percent and Agency chooses to proceed under Section H.3.d, the A/E shall modify the Construction Documents as necessary to comply with the Agency's budget for the Cost of the Work at the conclusion of the Construction Documents Phase Services, or as adjusted. If the Agency requires the A/E to modify the Construction Documents because the lowest bona fide bid exceeds the Agency's budget for the Cost of the Work due to market conditions the A/E could not reasonably anticipate, the Agency shall compensate the A/E for the modifications as an Additional Service; otherwise the A/E's services for modifying the Construction Documents shall be without additional compensation and the A/E shall be responsible for all its costs associated with the redesign and rebidding of the Project, including the reproduction of revised documents and fees for any new or revised permits based on the revised plans. In any event, the A/E's modification of the Construction Documents shall be the limit of the A/E's responsibility under this Section.
6. If the lowest bona fide bid exceeds the Agency's budget for the Cost of the Work by less than ten (10) percent, and the Agency chooses to proceed under Section H.3.e, the A/E shall, without additional charge to the Agency, assist in negotiations to reduce the bid to an amount within the Agency's budget for the Cost of the Work, but not more than 10% below the Agency's budget for the Cost of the Work. In such case, the A/E shall not be entitled to additional compensation for any effort or additional work necessary to bring the contract within the Agency's budget for the Cost of the Work.

I. INSTRUMENTS OF SERVICE

1. The A/E and the A/E's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and shall retain all common law, statutory and other reserved rights, including copyrights. Submission or distribution of Instruments of Service to meet official regulatory requirements or for similar purposes in connection with the Project is not to be construed as publication in derogation of the reserved rights of the A/E and the A/E's consultants.
2. The A/E grants to the Agency a perpetual, irrevocable, non-exclusive license to use and authorize others to use, at any time and in any manner, the A/E's Instruments of Service for purposes including, but not limited to, of constructing, using, maintaining, altering and adding to the structures which are the subject of the Instruments of Service at the general location of the site of Project, and for any other use required by law. The A/E shall obtain and provide to the Agency licenses from the A/E's consultants that have terms identical to those that obligate the A/E to the Agency as expressed above in this Section.
3. In the event the Agency uses the Instruments of Service without retaining the authors of the Instruments of Service, the Agency releases the A/E and A/E's consultant(s) from all claims and causes of action arising from such uses. The Agency, to the extent permitted by law, further agrees to waive any claims against the A/E and its consultants for all costs and expenses, including the cost of defense, related to claims and causes of action asserted by any third person or entity to the extent such costs and expenses arise from the Agency's use of the Instruments of Service under this Section. The terms of this Section shall not apply if the Agency rightfully terminates this Contract for cause.

J. CLAIMS AND DISPUTE RESOLUTION

1. Both parties shall attempt to resolve disputes through good faith negotiations.
2. All disputes, claims, or controversies relating to the Contract, that cannot be resolved through good faith negotiations between the parties shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or a federal court located in, Richland County, State of South Carolina. A/E agrees that any act by the State regarding the Contract is not a waiver of either the State's sovereign immunity or the State's immunity under the Eleventh Amendment of the United States Constitution. As used herein, the phrase, "the State" includes the Agency and the State Fiscal Accountability Authority
3. A/E consents that any papers, notices, or process necessary or proper for the initiation or continuation of any claims or controversies relating to the Contract; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on A/E by certified mail (return receipt requested) addressed to A/E at the address provided for the A/E's Representative or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed delivered three (3) business days after deposit, postage prepaid, in the United States mail.
4. The A/E and Agency waive claims against each other for listed damages arising out of or relating to this Contract.
   a. For the Agency, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) costs suffered by a third party unable to commence work, (vi) attorney's fees, (vii) any interest, except to the extent allowed by Section M.6, (viii) lost revenue and profit lost use of the property, (ix) costs resulting from lost productivity or efficiency.
   b. For the A/E, listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) any interest, except to the extent allowed by Section M.6, (vii) unamortized equipment costs; and (viii) losses incurred by the A/E's consultants for the types of damages the A/E has waived as against the Agency.
5. The A/E waives all claims against the Contractor and any of the Contractor's subcontractors (at any tier) for listed damages arising out of or relating to this Contract. The listed damages are (i) lost revenue and profit, (ii) losses resulting from injury to business or reputation, (iii) additional or escalated overhead and administration expenses, (iv) additional financing costs, (v) attorney's fees, (vi) interest, (vii) unamortized equipment costs; and (viii) losses incurred by the A/E's consultants for the types of damages the A/E has waived as against the Contractor. This mutual waiver is not applicable to amounts due or obligations under Section E (Indemnification).
6. Continuation of Work: Pending resolution of a claim or dispute, the A/E shall proceed diligently with the performance of its services under this Contract, and Agency shall continue to make payments in accordance with this Contract for all services rendered by A/E which are not the subject of the claim or dispute.

K. TERMINATION OR SUSPENSION

1. Agency Right of Suspension:
   a. The Agency may, at any time, suspend the work, in whole or in part, by written notice to the A/E with or without cause for such period of time as determined by the Agency. The A/E shall be compensated for services performed prior to notice of such suspension, except in the event of suspension due to a default of the A/E.
   b. When the Work, in whole or in part, is resumed, the remaining amount payable to the A/E may be equitably adjusted to reflect reasonable costs actually incurred by the A/E due to delay or interruption resulting from such suspension.
   c. If the suspension exceeds ninety (90) consecutive days, the A/E's fees for the remaining services and the time schedules shall be equitably adjusted.
2. Agency Right of Termination:
   a. Termination for Cause: If the A/E defaults, persistently fails or neglects to perform the services in accordance with the Contract Documents, or fails to perform a provision of the Contract, the Agency shall provide written notice of such default, failure, or neglect to the A/E. If the A/E fails to cure such default, failure, or neglect within ten (10) days from receipt of the Agency's notice, the Agency may, without prejudice to any other right or remedy the Agency may have, terminate the Contract.
   b. Termination for Convenience: The Agency may, for its convenience, terminate all or any portion of the work or terminate this Contract by ten (10) days written notice stating the effective date of the termination. Thereafter, the Agency shall pay the A/E for those services actually performed before the date of termination. No payments shall be made for services not actually performed, and no payment shall be made or due for lost profits for portions of the services not actually performed.

3. A/E Right of Termination:
   a. The A/E may terminate the contract if work is stopped through no fault of the A/E, or other persons performing work either directly or indirectly for the A/E, for a period of time exceeding sixty (60) consecutive calendar days due to a court order or other public authority having jurisdiction; or a declared National emergency which requires the work to be stopped.
   b. Agency Failure to Make Payment: Subject to the Agency's right to withhold payments pursuant to Section M, if the Agency fails to make payments to the A/E as set forth in Section M and any other applicable provisions of the Contract Documents, the A/E may, upon fourteen (14) days prior written notice to the Agency, terminate the Contract and recover from the Agency payment for all services performed, including reasonable overhead, profit and damages applicable to the services performed through the date thereof.
4. In the event of suspension or termination for convenience, upon request of Agency and payment of all fees pursuant to this Section, A/E shall promptly provide Agency with all documents completed or in progress on the date of termination, on computer tapes or disks. The Agency's rights to use the A/E's Instruments of Service in the event of a termination of this Contract are set forth in the Contract.

L. MISCELLANEOUS PROVISIONS

1. Governing Law: The Contract, any dispute, claim, or controversy relating to the Contract, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules.
2. This Contract is formed pursuant to and governed by the South Carolina Consolidated Procurement Code and is deemed to incorporate all applicable provisions thereof and the ensuing regulations.
3. Severability: If it is determined that any provision of the Contract violates any law, or is otherwise invalid or unenforceable, such determination shall not impair or otherwise affect the validity, legality, or enforceability of the remaining provision or parts of the provision of the Contract Documents, which shall remain in full force and effect as if the unenforceable provision or part were deleted. In such case the Contract shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.
4. Economic Conflict of Interest: An A/E shall not have or exercise any official responsibility regarding a public contract in which the A/E, or a business with which he is associated, has an economic interest. A person working for an A/E shall not have or exercise any official responsibility regarding a public contract in which the person, an individual with whom he is associated, or his family members have an economic interest. If an A/E is asked by any person to violate, or does violate, either of these restrictions, the A/E shall immediately communicate such information to the procurement officer. The state may rescind, and recover any amount expended as a result of, any action taken, or contract entered in violation of this provision. The terms "business with which he is associated," "economic interest," "family member," "immediate family," "individual with whom he is associated," "official responsibility" and "person" have the meanings provided in S.C. Code Ann. § 8-13-100.
5. Drug-Free Workplace: The A/E must comply with the Drug-Free Workplace Act, S.C. Code Ann. §§ 44-107-10, et seq. The A/E certifies to the Agency that A/E will provide a Drug-Free Workplace, as defined by S.C. Code Ann. §§ 44-107-20(1).
6. False Claims: According to SC Code § 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime.
7. Non-Indemnification: It is unlawful for a person charged with disbursements of state funds appropriated by the General Assembly to exceed the amounts and purposes stated in the appropriations per S.C. Code Ann. § 11-9-20. It is unlawful for an authorized public officer to enter into a contract for a purpose in which the sum is in excess of the amount appropriated for that purpose. It is unlawful for an authorized public officer to divert or appropriate the funds arising from any tax levied and collected for any one fiscal year to the payment of an indebtedness contracted or incurred for a previous year per S.C. Code Ann. § 11-1-40.
8. Assignment: The Agency and A/E, respectively, bind themselves, their agents, successors, assigns, and legal representatives to this Contract. Neither the Agency nor the A/E shall assign this Contract without the written consent of the other. S.C. Code Ann. Reg. 19-445.2180 provides as follows: "No State contract is transferable, or otherwise assignable, without the written consent of the Chief Procurement Officer, the head of a purchasing agency, or the designee of either; provided, however, that a contractor may assign monies receivable under a contract after due notice from the contractor to the State."
9. Force Majeure: In the event A/E is hindered, delayed or prevented from performing its obligations under this Contract as a result of any fire, flood, landslide, tornado or other act of God, malicious mischief, theft, strike, lockout, other labor problems, shortages of material or labor, or any other cause beyond the reasonable control of A/E, the time for completion of A/E's work shall be extended by the period of resulting delay.

10. Open Trade Representation: By signing this Contract, A/E represents that A/E is not currently engaged in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in SC Code § 11-35-5300. During the contract term, including any renewals or extensions, A/E will not engage in the boycott of a person or an entity based in or doing business with a jurisdiction with whom South Carolina can enjoy open trade, as defined in SC Code § 11-35-5300.

M. COMPENSATION

1. **Basic Services:**

   The Agency shall compensate the A/E for the services rendered as described in the Contract Documents in Section A in the amount of:

   $ 1,253,943.77

2. **Additional Services:**

   The Agency shall compensate the A/E for Additional Services rendered as described in the Contract Documents in Section A in the amount of:

   $

3. **Reimbursable Expenses:**

   For Reimbursable Expenses the compensation shall be the actual costs incurred by the A/E and the A/E's consultants. The A/E and the A/E's consultants shall be allowed a reasonable markup not to exceed 10% for administrative cost related to Reimbursable Expenses.

   The Agency shall compensate the A/E for Reimbursable Expenses described in the Contract Documents in Section A as a not-to-exceed amount of:

   $

4. When any portions of the Project are deleted or otherwise not constructed, compensation for those portions of the Project shall be payable to the extent services are performed on those portions. The A/E shall be entitled to compensation in accordance with this Contract for all services performed whether or not the Construction Phase is commenced.
5. Unless authorized in writing by the Agency prior to incurring the expense, no expense for transportation, travel, or subsistence will be reimbursable to the extent the expense exceeds the amount for which a state employee would be reimbursed under the Travel Regulations. Travel Regulations means the State Fiscal Accountability Authority's Regulations for Reimbursement for Travel and Subsistence Expenses, Disbursement Regulations pdf found at [ ]. There shall be no charge for time spent in travel.
6. Progress Payments: Payments for services shall be made monthly in proportion to services performed. The Agency shall make payments to the A/E of undisputed amounts due for services performed by the A/E within twenty-one (21) days of receipt of the A/E's invoice. The A/E shall make progress payments to the consultants within seven (7) days of the receipt by the A/E of each payment from the Agency. Payments due to the A/E and unpaid under this Contract shall bear interest only if and to the extent allowed by S.C. Code Ann. §§ 29-6-10 through 29-6-60. Amounts due to the A/E shall bear interest at the rate of one percent a month or a pro rata fraction thereof on the unpaid balance as may be due.
7. The Agency shall not withhold amounts from the A/E's compensation to impose a penalty.

AGENCY:	**A/E:**
BY: Eric A. Fosmire	**BY:**
(Signature of Representative)	*(Signature of Representative)*
PRINT NAME: Eric Fosmire	**PRINT NAME:** Patrick J. Guise
PRINT TITLE: Chief of Staff & General Counsel	**PRINT TITLE:** Chief Visionary Officer, Co-Owner
DATE: 12/7/2023	**DATE:** 11/20/23

McCORMICK TAYLOR

November13, 2023

Ms. Pam Kendrick
Environmental and Infrastructure Program Manager
South Carolina Office of Resilience
632 Rosewood Drive
Columbia, SC 29201

Re: City of Beaufort – Charles/Craven Street and Port Republic/Carteret Street Drainage Improvement Project
Price Proposal

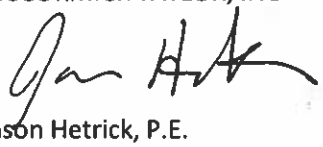
Dear Ms. Kendrick:

McCormick Taylor, Inc. appreciates the opportunity to submit a price proposal to provide professional services to complete the City of Beaufort Drainage Improvement Project. Included within this package are our scope of services and the scope of services for our sub consultants, Davis and Floyd, Three Oaks, TELICs and FME. Our design and construction schedule are included as an attachment, as well as a breakdown of our fee development, including hours and classification rates. This project will require restoration of SCDOT roadway upon completion of the drainage improvements as well as restoration of the Waterfront Park and impacted hardscapes and landscaping.

McCormick Taylor and our team will complete the provided scope of services for a lump sum fee of $1,253,943.77.

McCormick Taylor would like to thank SCOR and the City of Beaufort for the opportunity to be a part of this project and we look forward to discussing any questions you may have regarding this proposal.

Thank You,
MCCORMICK TAYLOR, INC



Jason Hetrick, P.E.
Assistant Director – Water Resources
803.978.2744

SCOPE OF SERVICES FOR
CITY OF BEAUFORT
CHARLES/CRAVEN STREET AND PORT REPUBLIC/CARTERET STREET
DRAINAGE IMPROVEMENT PROJECTS
D30-N033-MJ

PROJECT DESCRIPTION

The proposed project consists of preparing an advertisement package to improve the stormdrain systems along Charles Street from Craven Street to the harbor and along Port Republic Street from Scott Street to the Beaufort River, identified as projects 2 and 3 in Figure 1 below. Several side streets including Craven Street and North Street will be included in this project as well as intersections with Carteret Street and Bay Street. The proposed project is funded by a grant from the South Carolina Office of Resilience's (SCOR) American Rescue Plan Act (ARPA) Stormwater Infrastructure Program (ASIP). The project is comprised of approximately 3,300 linear feet of South Carolina Department of Transportation (SCDOT) roads and right-of-way and the waterfront park. Included with the project are new and enlarged stormdrain pipe, new drainage inlets and drainage structures as well as flap gates to limit tidal water intrusion into the system. Additionally, the project will include resurfacing of the roadways within the project limits and replacement of curbs, sidewalks and ADA ramps impacted as part of the drainage system installation. Stormwater Management to meet the Southern Lowcountry Regional Board (SoLoCo) requirements will be implemented within the project limits. Utilities may be required to be relocated and will be coordinated with the utility providers; utility relocation is not part of this scope of services. The project includes construction phase administration services and coordination with ongoing projects elsewhere in the peninsula but does not include daily inspections and material testing. As the project falls within SCDOT right-of-way, SCDOT design standards will be utilized. No right-of-way or easements will be acquired as part of this project.

Figure 1. Vicinity Map

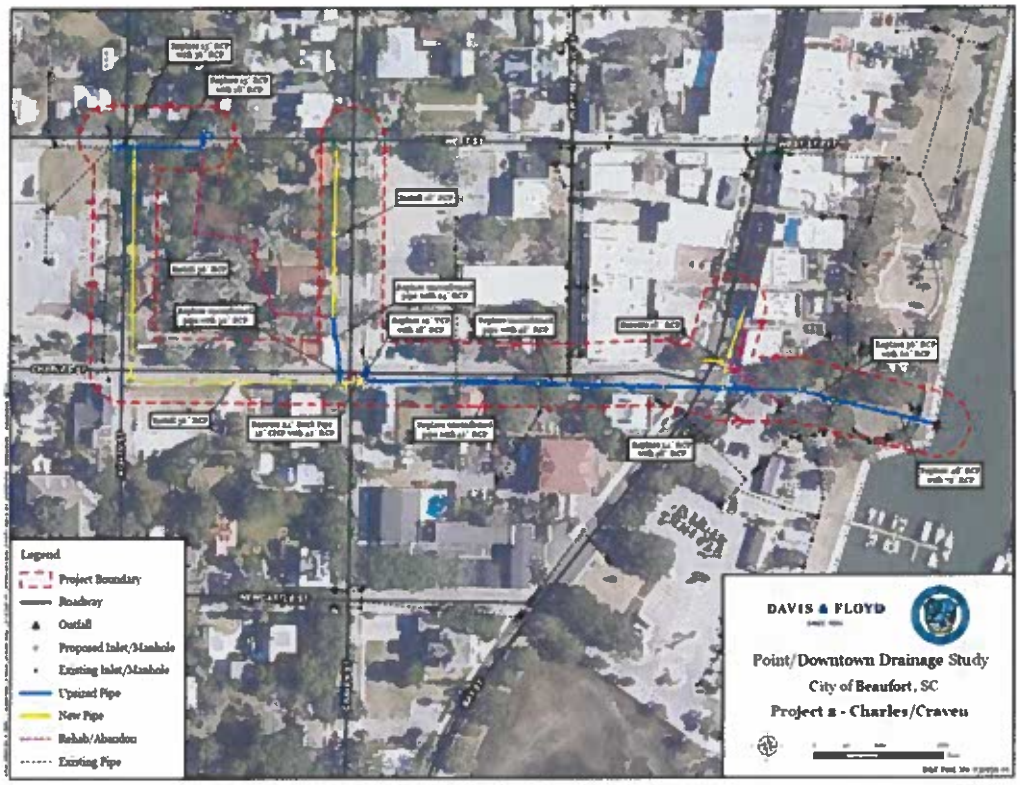


Figure 2. Charles Street Project

Figure 3. Port Republic Street Project

SUMMARY OF WORK

The following tasks represent McCormick Taylor's scope of services for the development/delivery of construction plans for the above projects. These tasks will be identified in the engineering fee estimates included within. The scope of services to be performed by McCormick Taylor's subconsultants will be identified within the scope of services, with each subconsultants' independent scope of services and fee included as an attachment. This project shall consist of the following tasks unless specified otherwise:

Task 1: Project Management/Agency Coordination (MT)
Task 2: Field Surveys (DF)
Task 3: Utility Coordination (TELICS)
Task 4: SUE (TELICS)
Task 5: Geotechnical Investigations (FME)
Task 6: Hydrology/Hydraulic Design (MT)
Task 7: Preliminary/30% Design Submittal (MT)
Task 8: 60% Design Submittal (MT)
Task 9: Public Involvement (MT/DF/TO)
Task 10: Benefit Cost Analysis (MT)
Task 11: Environmental Documentation (TO/MT)
Task 12: Permitting (TO/MT)
Task 13: Downstream Impact Analysis (MT)
Task 14: MOT/Signing And Marking (MT)
Task 15: Final Design/90% Design Submittal (MT)
Task 16: Advertisement/100% Package (MT/DF)
Task 17: Construction Phase Services (MT/DF/FME)

General services excluded from this scope of services:

- Right-of-way and easement acquisition
- Lighting and electrical design
- Utility Relocation Design
- Traffic Signal Design
- Construction Inspection and Material Testing

McCormick Taylor expects that SCOR and the City of Beaufort will complete the following tasks and/or provide the following data:

- Provide access to all reports, data, and information in possession of SCOR or the City, which may prove pertinent to the work such as existing plans, previous studies, GIS data. This information is to be supplied in electronic format whenever possible.
- Composition and placement of legal advertising for access to the property in the project area for surveys, geotechnical borings, and fields visits.
- Plans of existing roadways as available.
- Existing aerial photography as available for the project.
- All previously obtained existing survey information, including, but not limited to, survey and digital terrain model (DTM) information, plat and boundary research and documents, parcel information, right-of-way data sheets, etc.

PROJECT SCHEDULE

The project schedule is included as an attachment.

1. PROJECT MANAGEMENT

1.1. Project Management and Coordination

Project goals and objectives will be determined through coordination between McCormick Taylor (**MT**), City of Beaufort (**CITY**), and the South Carolina Office of Resilience (**SCOR**). **MT** will manage the project to conform to SCOR and the Office of State Engineer (OSE) requirements and standards. As the project is located within the South Carolina Department of Transportation (SCDOT) right-of-way, SCDOT standards for Highway Construction and Drainage, in compliance with all Federal standards, will be followed. The process will include the following:

1.1.1. **MT** will provide a Project Manager responsible for overseeing all tasks related to the contract. The **MT's** project management will include:

1.1.2. **MT** will conduct a preliminary site visit to gain greater familiarity with the project location and identify potential issues.

1.1.3. **MT** will facilitate a project kickoff meeting with the **SCOR** and **CITY** to discuss the project.

1.1.4. Under this task, **MT** will attend project meetings with **CITY's** and **SCOR's** Project Manager and other staff as necessary. **MT** will facilitate five (5) design briefings (Design Approach and Criteria, Preliminary, 60%, 90% and 100%) to discuss milestone submissions with **CITY** and **SCOR** representatives.

1.1.5. **MT** will perform project organization, management, scoping, and progress meetings with **SCOR's** Project Manager and **CITY**. This scope assumes twenty (20) virtual meetings. During the project design phase, these meetings will be monthly, then during construction, will be every two months as the project's construction administration progress meetings will occur more frequently. This task will include the preparation of project updates via MS Power Point Presentation and handouts for the meetings. **MT** will prepare meeting minutes and distribute within three business days.

1.1.6. **MT** will conduct and attend resource agency coordination (SCDHEC, SCDOT, BJSWA) and partnering efforts. This scope assumes four (4) meetings with resource agencies. **MT** will prepare agendas, materials, and notes for all meetings as needed.

1.1.7. Prepare monthly invoices, status reports, and schedule updates.

1.1.8. Provide weekly progress updates via email to include the following:

- Actual start/finish dates for completed activities.
- Actual start dates, expected completion dates, and physical percent complete for activities in progress.
- Projected start/finish dates for future activities
- Updates are to include the latest information on the schedule for design activities and additional information that may affect the project's schedule.

1.1.9. **MT** will attend up to ten (10) in person Project Stakeholder meetings with **CITY** Staff, **CITY** Council, adjacent and/or interested business and/or property owners.

1.1.10. **MT** will provide general project management duties as needed.

1.2 Quality of Product

1.2.1. **SCOR** requires services provided to be of the utmost quality. **SCOR** depends on **MT** to

provide quality in the plans, specifications, reports and any supporting material that is developed. **MT** will perform a thorough quality control check prior to any submittal.

Assumptions:

- *Management time for the project is assumed to be 36 months.*

Deliverables:

- *Monthly invoices and progress reports – Assume Thirty-Six (36)*
- *Updated Monthly design schedule – Assume Sixteen (18 from Notice of Award to start of construction)*
- *Weekly email progress Reports*
- *Monthly Virtual Progress Meetings*

2. FIELD SURVEYS

2.1. Surveying

Davis & Floyd (**DF**) will perform field surveys to determine accurate elevations and locations of existing facilities (e.g., utilities, roadways, bridges, culverts, and any other unnaturally occurring appurtenances) for design purposes. All existing trees within the survey boundary shall be located with DBH and species provided. All surveys shall conform to the SCDOT's "Preconstruction Survey Manual" (latest edition) and "The Standards of Practice for Land Surveying in South Carolina." These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. MT will coordinate with DF regarding the survey limits and information captured. MT will review the survey data for completeness. Please refer to Davis and Floyds price proposal for additional information.

3. UTILITY COORDINATION

3.1. General Responsibilities and Duties

3.1.1. **TELICS** will coordinate the project development with all utilities that may be affected. All utility relocations will be handled in accordance with the SCDOT "A Policy for Accommodating Utilities on Highway Rights of Way" and Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A and B. MT will coordinate with TELICS to support this task. Refer to TELICS proposal for detailed scope of services.

4. SUE

4.1. SUE Process

4.1.1. **TELICS** will oversee the completion of the subsurface utility engineering (SUE) process, with coordination and oversite from **MT**. The project is to have a SUE recommendation done as specified in Task 3 prior to moving forward with SUE as outlined in the scope below. The **MT** Project Manager will provide approval of the submitted recommendation prior to beginning SUE on this project. Refer to TELICS proposal for detailed scope of services.

5. GEOTECHNICAL INVESTIGATIONS

5.1 Exploration

F&ME Consultants (**FME**) shall perform all geotechnical field exploration, laboratory testing, subsurface data reporting, engineering analysis and design associated with this project. **FME** will provide one (1) electronic copy of the Geotechnical Subsurface Data Report, one (1) electronic copy of the Preliminary Geotechnical Report and one (1) electronic copy of the Final Geotechnical Report to **MT**. **MT** will coordinate with **FME** to identify boring locations and will review for completeness of FME's submissions. **FME** will obtain any necessary permissions related to this task. Pavement design is not part of this task, standard SCDOT pavement sections for resurfacing and utility trench patching will be utilized. Please refer to **FME's** price proposal for a detailed breakdown of services provided under this task.

6. HYDROLOGY/HYDRAULIC DESIGN

6.1. Hydrologic and Hydraulic Modeling (PCSWMM)

6.1.1. **MT** will review the previously completed PCSWMM model and report prepared by **DF** for the project areas. MT will verify and validate existing conditions and calibrate the model to reflect survey data obtained in Task 3, as well as input data, such as field verified drainage area, land uses, and precipitation data that appropriate fora detailed final design model.

6.1.2. A proposed model will be developed to evaluate the effectiveness of various stormwater facility alternatives within the sites. The effectiveness of the alternatives will be evaluated based on the 50%, 10%, 4%, 2%, and 1% chance 24-hour storm events. In addition to the typical design storms, MT will consider rain bomb (short duration, high intensity) events and anticipated climate change considerations regarding precipitation and sea level rise, drawing on the data and recommendations presented in the Strategic Statewide Resilience and Risk Reduction Plan and additional sources from Carolinas Integrated Sciences and Assessments (CISA). The final basis of design decisions will be reviewed and incorporated into the master model for confirmation of design parameters.

6.1.3. Within the stormdrain design process, a more precision based approach will be needed to appropriately specify the inlet spacing, pipe size, and various stormwater best management practices (BMP) to be proposed, refer to Task 8.2. Individual hydrologic and hydraulic models will be prepared for each corridor or BMP. For this design, the Rational Method will be used. This methodology will allow for the design of BMP control structures and pipe systems to properly detain stormwater within the sites and discharge it at the desired rate while providing the required freeboard. **MT** will also utilize the National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation data for the design of the stormwater facilities. **MT** will use this information to size outfall protection and channel stabilization.

6.1.4. Throughout the hydraulic design process, care will be taken to consider the impacts the proposed drainage system and BMPs will have on the upstream and downstream areas. **MT** will consider various tailwater conditions to ensure the proposed BMPs will not create a flooding issue farther upstream if they cannot drain effectively. Similarly, **MT** will conduct downstream analysis to determine if any downstream impacts may result from the improvements.

6.2. Roadway Drainage Design

6.2.1. All hydrologic and hydraulic designs and documents will be in compliance with the following design criteria:

- SCDOT's Requirements for Hydraulic Design Studies (latest edition)
- SCDOT Standard Drawings (latest edition)
- The Environmental Protection Agency's (EPA) National Pollution Discharge Elimination System (NPDES) as administered under general permit by the SC Department of Health and Environmental Control (SCDHEC)
- FEMA Regulations, 44CFR Chapter 1
- State Stormwater and Sediment and Erosion Control Regulations administered by DHEC, 26 S.C. Code Ann. Regs. 72-405 (Supp. 1995) et seq.; South Carolina State Water Law
- AASHTO "Highway Drainage Guidelines" (dated 2007)
- "SCDOT Stormwater Quality Design Manual" (dated December 2014)
- SCDOT Supplemental Technical Specifications

6.2.2. **MT** will utilize PCSWMM model discussed in the above task coupled with the Rational Method to develop the inlet spacing, pipe size, and various stormwater BMPs to be proposed. Individual hydrologic and hydraulic models will be prepared for each corridor or BMP. The National Oceanic and Atmospheric Administration (NOAA) Atlas 14 precipitation data will be utilized for the drainage design. **MT** will use this information to size outfall protection and channel stabilization. **MT** understands that **SCOR** has identified the 25-year storm as the design event, which is in exceedance of the **SCDOT** design storm of 10-years. **MT's** designs will strive to maintain the 25-year hydraulic gradient below the ground surface, given the tidal outfalls, and minimal elevation change, it may not be plausible to maintain non pressurized flow during the 25-year event.

6.2.3. **MT** will perform all aspects of the roadway drainage and drainage design and will follow all guidelines for roadway surface drainage and sediment and erosion control. The impacts of the existing hydrology due to the proposed project will be evaluated. Based on this evaluation, design alternatives to control flooding and manage the runoff associated with the project will be examined. Designs will be performed for storm drains, stormdrain outfalls, tidal flap gates, and energy dissipaters as necessary. An erosion and sediment control plan will be provided to aid in controlling erosion during the construction of the project.

6.2.4. To meet OCRM and Southern Lowcountry (SoLoCo) Stormwater Guidelines, green infrastructure best management practices will be designed within the project limits. These BMPs will be located within City owned parking lots and may consist of rain gardens, bioretention cells, bioswales or pervious pavements. No structural stormwater BMPs will be designed. The green infrastructure BMPs will be designed following the SoLoCo design guidelines and SCDHEC requirements.

6.2.5. **MT** will provide the roadway hydrologic services listed below:

- Establish design criteria.
- Perform field investigation(s) to:
  - Inventory the location and review the condition of the existing storm drainage appurtenances.
  - Determine the boundaries of tributary watersheds draining through the area.
  - Identify and evaluate the usability of drainage outfalls.
  - Determine preliminary location of inlets, catch basins and erosion and sediment control devices.
- Collect data.
  - Review the previously completed studies, including the "The Point and Downtown Drainage Study" and associated models and previously collected data.
  - Land use data for existing and proposed developments.
  - Determine if there is any involvement in floodways or flood hazard areas.
  - Identify flooding problems associated with the project based on historical information.
  - Identify receiving stream(s) for the project and cross check with SCDHEC's most current 303(d) list and table for water bodies with approved TMDLs.
  - Obtain plans of existing roads that will impact the project.

6.3. Engineering Services for Hydraulic/Hydrologic Design

6.3.1. Prepare the appropriate drainage basin map using existing topographic maps, information gathered from the field investigation(s) and available information from federal, state and local agencies.

6.3.2. Perform a hydrologic study of the watershed(s) affected by the project.

6.3.3. Verify the adequacy of the existing storm drainage facilities.

6.3.4. Prepare a report summarizing the findings of the hydrologic analysis and computations, including cost estimates for upgrading any undersized storm water appurtenances affected by the proposed improvements.

6.3.5. Attend DFR and any field meetings.

6.3.6. Update the drainage design as necessary to meet project, utility and right-of-way needs and incorporate it into the construction plans.

6.3.7. Identify and incorporate necessary drainage improvements into the roadway construction plans.

6.3.8. **MT** will provide Quality Control and Quality Assurance of the hydrologic and hydraulic design for completeness, correctness, accuracy and consistency with the above referenced standards.

6.4. Erosion Prevention, Sediment Control and Comprehensive Stormwater Pollution Prevention Plan

6.4.1. Prepare an erosion and sediment control plan for inclusion in the construction plans, outlining methods for minimizing the amount of erosion and sedimentation during construction and for conformance to the NPDES General Permit. The plan will be detailed on the drainage sheets prepared for the project. **MT** will prepare the NOI and the NPDES General Permit application and obtain necessary approvals from the South Carolina Department of Health and Environmental Control (SCDHEC) and the City of Beaufort. **MT** will prepare a Comprehensive Stormwater Pollution Prevention Plan (C-SWPPP) per SCDHEC checklist.

6.4.2. **MT** will identify the receiving stream(s) for this project. After this determination has been made, the stream(s) should be cross-checked with SCDHEC's most current 303(d) list (http://www.scdhec.gov/environment/water/tmdl/docs/tmdl_08- 303d.pdf) and table for water bodies with approved TMDLs (http://www.scdhec.gov/environment/water/tmdl/docs/tmdl_08s ites.pdf) to see if this receiving stream(s) has either an approved TMDL or a soon-to-be TMDL target date. If listed, **MT** shall provide the necessary best management practices to bring the project in conformance with SCDHEC requirements. This process should also be updated prior to construction.

6.4.3. **MT** will prepare and sign the Notice of Intent (NOI) as preparer and submit to **SCOR** and **CITY** for signatures, **MT** will submit to SCDHEC for approval.

6.4.4. **MT** will provide Quality Control and Quality Assurance of the erosion and sediment control plan for completeness, correctness, accuracy and consistency with the above referenced standards.

6.5. On Site Meetings

6.5.1. Representatives from **SCOR**, **CITY**, and **MT** involved in hydrologic design will attend one (1) design field review meetings of the project during the Preliminary plan development and one (1) during the 90% construction plan development. All information gathered during these field investigations will be evaluated and plans revised accordingly. **MT** will prepare a draft agenda and distribute it to designated participants for preparation and

comment prior to each meeting. **MT** will provide a summary of each field review.

6.5.2. All services described herein will be conducted with reference to SCDOT requirements and guidelines, such as "Requirements for Hydraulic Design Studies," the "Plan Preparation Guide," and the SCDOT Standard Drawings.

Assumptions:

- *The project falls within a TMDL for Fecal Coliform Impairments.*
- *The drainage plan view, details, profiles, etc. will be included in the plan production tasks.*

Deliverables:

- *Drainage Report*
- *NPDES permit application*
- *One (1) Signed and Sealed set of electronic drainage sheets PDF file will be provided for inclusion in the Final Construction Plans.*
- *One (1) electronic PDF file of the Signed and Sealed Stormwater Management Design Study/Report to include the Stormwater Pollution Prevention Plan (SWPPP) Checklist.*
- *One (1) copy and one (1) electronic PDF file of correspondence to the local municipal floodplain coordinator(s).*

7. PRELIMINARY (30%) PLANS

7.1. Preliminary (30%) Design

30% Plans and associated documents will NOT be prepared. The project will commence at 60% design.

8. 60% PLANS

8.1. 60% Design

MT will develop 60% plans as outlined below. **MT** will develop these plans in accordance with Chapter 5 of the OSE Manual for Planning and Execution of State Permanent Improvements. The hydrologic and hydraulic design and layout for the stormdrain systems are accounted for in Task 6.

8.1.1. As the project is within SCDOT right-of-way, **MT** will conform to the following SCDOT and FHWA design standards during plan development:

- The SCDOT's Standard Specifications for Highway Design Construction (Latest Edition)
- The SCDOT's Roadway Design Reference Material for MT Prepared Plans
- The SCDOT's Standard Drawings for Road Construction (Latest Edition)
- Standard Provisions of the SCDOT
- The SCDOT's Roadway Design Manual (Latest Edition)
- AASHTO "A Policy on Geometric Design of Highways and Streets" (2011 Edition) and other applicable AASHTO Standards such as Bike and Pedestrian Manual (Latest Edition)
- 2003 The Manual of Uniform Traffic Control Devices (MUTCD), 2009 Edition
- SCDOT Hydrologic and Hydraulic Design Manual
- Other Applicable SCDOT and FHWA design material

8.2. 60% Plans

8.1.1. Upon notice to proceed, 60% plans will be developed. The plan sheets will depict property lines within and immediately adjacent to the project, property ownership, improvements on property, control of access, existing and proposed right-of-way, existing utilities, construction limits, and erosion control items that affect right-of-way requirements. Existing easements, both permanent and temporary will be shown. All plans shall be in accordance with the SCDOT Roadway Design Manual.

8.1.2. MT will establish an alignment and profile in sufficient detail and in the appropriate format, in order to clearly illustrate significant design features of the project.

8.1.3. The preliminary plans are to include:

- Structure type, size and centerline location (if necessary)
- Typical sections
- Geometric controls (horizontal and vertical)
- Reference points
- Preliminary cross-sections per SCDOT standards (if required)
- Detailed plan layout
- Hardscape plans, indicating proposed sidewalks and crosswalk improvements including general dimensions and material selections
- Development of preliminary storm drainage plan and type, size, invert elevation and location of major storm drainage features including outfall ditches, sediment basins and roadway ditches
- Type, size, and location of major above ground utility facilities
- Limits of existing right-of-way and adjacent properties
- Limits and configuration of proposed right-of-way
- Property lines, property parcel number, and ownership
- Preliminary cost estimate
- Others as per SCDOT Standards

8.1.4. Property strip map sheets will depict all parcels of property adjacent to roadway within project limits and will be assigned a parcel number, the property owner identified (name and tax map reference number). Right-of-way acquisition is not anticipated for this project. Reduced scale property parcel drawings will be used as appropriate.

8.1.5. Cross-sections, at 50 feet in curves and 100 feet in tangent sections, at a scale of 1-inch equals 5 feet, showing the existing ground line, proposed template, pavement depth, curb and gutter and sidewalks will be provided only where the existing road cross-section will be modified. In areas where the existing road section will remain the same, no cross-sections will be provided.

8.1.6. **MT** will provide Quality Control and Quality Assurance of the right-of-way plans for completeness, correctness, accuracy and consistency with the above referenced standards.

8.1.7. **MT** will address and respond up to one (1) rounds of **SCOR** and **CITY** Support Comments for the 60% Plan set.

8.1.8. **MT** will develop an opinion of probable construction costs based on the 60% plans.

8.1.9. **Representatives** from **SCOR**, **CITY**, and **MT** will perform one (1) Design Field Review (DFR) meeting during preliminary plan development. All information gathered during field investigations will be evaluated and the plans revised accordingly. **MT** will provide a summary of each field review. After the DFR has been completed **MT** will review comments made in the field and during the meeting and apply them to the plans.

Deliverables:

- *One (1) electronic pdf set of 60% plans, and (1) one electronic copy of all MicroStation files upon request.*
- *60% Design Report containing all computations and design methodologies.*
- *One (1) electronic pdf copy of preliminary quantities and cost estimate*
- *Briefing Meeting, in person*

9. PUBLIC INVOLVEMENT

9.1. Public Involvement Support

MT shall be responsible for developing a public involvement plan and coordinating public involvement activities associated with the project. **MT** shall be responsible for facilitating the three (3) public meetings with support from **DF** and Three Oaks (**TO**). Additionally, **MT** will conduct up to Ten (10) one on one meetings with adjacent property owners/residents.

9.2. Public Involvement Plan

MT will develop a public involvement plan to effectively involve the public in the project's decision-making process. The Public Involvement Plan will consist of a formal written plan that will go into greater detail regarding the schedule and timing of various public involvement strategies. The PIP will be presented to SCOR and the City within one week of the kickoff meeting.

Assumptions:

- *Three Public Meetings: Meetings will be held shortly after the milestone submissions of Preliminary, 60% and 100% (after award of construction contract)*
- *Online Meeting, the option to host an online version of the meeting will be included for each meeting.*
- *Flyers - **MT** will distribute flyers in local businesses and establishments open to the public, printing costs will be reimbursed by **SCOR**.*
- *Yard Signs - **MT** will place the yard signs within the project limits, printing cost will be reimbursed by **SCOR**.*
- *Mailers - Printing and mailing expenses will be reimbursed by SCOR.*
- *Website/Social Media - **MT** will coordinate with **CITY** and **SCOR** staff for use of either or both of **SCOR's** or **CITY's** website and social media. **MT** will provide routine updates to the account manager.*
- *Newspaper Paid Ads - All expenses will be reimbursed by **SCOR**, **MT** will draft and provide the ads to the publisher.*
- *Meeting space will be held at a **CITY** owned facility and will be at no cost to the project team. Chairs and tables will be provided at no cost to the project team. In the event rentals are required, a supplement will be submitted to **SCOR**.*
- **MT** will place or distribute advertisements/notices of public meetings and hearings, including the Eminent Domain Letter.

Deliverables:

- *Electronic version public involvement plan*
- *Three Public meetings with an Online Meeting option*
- *Display Boards (Quantity: 4 – 24"x36" boards per meeting)*
- *Website/Social Media content to **SCOR** and **CITY**, updated routinely.*
- *Three sets of Newspaper Paid Ads*

9.3. Meetings

MT will coordinate the date and location of the three meetings with **SCOR** and **CITY** personnel and will prepare the newspaper ad for the Public Notice. **MT** will not provide security guards from local law enforcement agencies or private security firms for public meetings. **SCOR** or **CITY** may provide security guards at their own expense.

9.4. Meeting Materials

MT will prepare the related Public Information Meeting materials, (deliverables would include displays, handouts, comment forms, and sign-in sheets). The information contained in handouts

will be consistent with the information contained within the environmental document. **MT** will provide draft copies of all materials to be used in public meetings or hearings to **SCOR** and **CITY** for review a minimum of 10 business days prior to printing.

Assumptions:
- *# of Public Information Meetings – 3*
- *# of MT attendees per meeting – 3*
- *# of displays per meeting/hearing – 4*
- *# of handouts per meeting/hearing – 100 copies*
- *#of comment form per meeting/hearing – 10 copies (also available online)*
- *# of sign-in forms per meeting/hearing – 6*

Deliverables:
- *Electronic versions of displays, handouts, comment forms, and sign-in forms.*
- *Hard copies of displays, handouts, comment forms, and sign-in forms.*

9.5. Meeting Responses

MT shall prepare responses to each comment received as a result of a public information meeting for **SCOR** and **CITY** to review and distribute.

Assumptions:
- *# of Public Information Meetings – 3*
- *# of comments received per meeting – 50*
- *No Flyers will be provided*
- *No Yard Signs will be provided*
- *No Mailers will be provided*

9.6. Private Meetings

MT will facilitate up to ten (10) one on one private meetings with adjacent property owners or residents. **MT** will prepare necessary documents to support the meeting and responses to comments received as a result of these meetings for **SCOR** and **CITY** to review and distribute.

Assumptions:
- *# of One-on-One Public Information Meetings – 10*

10. BENEFIT COST ANALYSIS

10.1. BCA

MT will conduct a Benefit Cost Analysis (BCA) using the latest FEMA BCA Toolkit based on the design. This analysis will update the previously completed BCA that was included in the Peninsula Master Plan. It is understood that a BCA of 1 is not required as part of this grant funding. The BCA will be developed for the 60% design and 100% design.

Deliverables:

- *60% BCA Summary Document and Computations*
- *100% BCA Summary Document and Computations*
- *Inclusion of findings within final Project Report*

11. ENVIRONMENTAL DOCUMENTATION

11.1. NEPA-Level Review

TO with support from **MT** will provide the National Environmental Policy Act (NEPA) level environmental review as part of the project development and decision-making process. **TO's** price proposal can be found in the attachments. **MT** staff will coordinate with **TO** staff to provide the required project documents to support the NEPA environmental review and will provide a QC of **TO's** deliverables prior to submitting to **SCOR**. Please refer to **TO's** scope for a detailed breakdown of this task's scope of services and deliverables.

Assumptions:

- *There is no federal review or approval of the ERR required.*
- *No formal Section 7 consultation is required.*
- *No cultural resources surveys or additional studies are required.*
- *No Phase 1 or 2 Environmental Site Assessments will be conducted. As work is expected to remain within the SCDOT right-of-way, hazardous materials or underground storage tanks are not expected. In the event a Phase 1 or 2 assessment is required, a supplement will be submitted.*
- *It is assumed that non tidal wetlands or Waters of the U.S. are NOT present within the proposed work area.*
- *The project falls within a TMDL and within proximity of shellfish beds.*
- *The project is not expected to impact FEMA regulated floodplains and will result in a finding of No-Impact; or No-Rise ("based on the hydraulic analysis of the pre-construction and post-construction discharges, the planned drainage improvements will have no significant impact on either flood elevations or flood widths.")*

Deliverables:

- *Refer to **TO's** price proposal.*
- ***MT** QA/QC Review of **TO's** ERR*

12. PERMITTING

12.1. Permitting Packages

MT will prepare and submit permit packages to the agencies for review and issuance of required permits. Upstream of the outfalls, it is not anticipated to encounter non tidal wetlands or Waters of the United States. However, tidal wetlands and tidal waters are located at the outfalls and will experience minor impacts due to the construction of larger pipes and the tide gates. It is anticipated that the following permits will be required:

12.2. USACE Jurisdictional Determination

MT shall make a determination of the site, environmental and/or navigational permits expected to be required for this project.

MT will delineate wetlands utilizing the three-parameter approach (hydric soils, hydrophytic vegetation and wetland hydrology) set forth in the 1987 USACE Wetland Delineation Manual. The **MT** will also implement the appropriate regional supplement while delineating waters of the US.

MT will provide an assessment and documentation of site conditions as to the presence and/or absence of wetland areas. The jurisdictional determination corridor will be within the limits of the project. **MT** will prepare and submit a Request for Jurisdictional Determination (JD) package to the United States Army Corps of Engineers (USACE) Charleston District. The JD Request package will include the project site location figures (County Map, USGS Topography Map, and NRCS Soil Survey Map), and an aerial photography figure depicting the surveyed jurisdictional boundaries of waters of the U.S. including tidally influenced waters and any freshwater wetlands. Other items to be prepared and submitted with the JD Request package will include representative photographs of each wetland area or wetland types delineated within the project study area and wetland determination data forms of each wetland area and the adjacent upland. **MT** will provide any additional information requested by USACE necessary to secure the Jurisdictional Determination (JD) or approximation letter from the USACE and include a copy of the JD or approximation letter with the permit application (by reference at a minimum) and/or, if applicable, in the environmental document.

Identification and marking of any upland/wetland boundaries with sequentially numbered flags. Additionally, using sub-meter GPS and/or survey data, **MT** will plot the wetland boundaries on both a surveyed map (in a manner consistent with SCDOT's Road Design custom line style for wetlands and other waters of the U.S.), and a Digital Ortho Quad or other acceptable aerial photography. If a Clean Water Act (CWA) Section 404/401 permit is required, **MT** will include a separate biological assessment report regarding the project effects on any South Carolina State recognized rare, threatened, or endangered species.

MT will schedule a pre-application onsite meeting with the USACE Charleston District, SCDHEC, SCDNR, and USFWS to review the proposed project, discuss any particular regulatory concerns, and establish a timetable for acquisition of the permit. **MT** will make a determination of the aquatic significance of the stream and confirm these findings with resource and regulatory agency personnel.

12.3. City of Beaufort Grading/Building Permit

MT will follow the **CITY's** grading/building permit process.

12.4. SCDOT Encroachment Permit

Coordination with SCDOT will be required for work completed along SCDOT-owned roadways, which include all the roads within the project limits. Encroachment permits will be prepared and

submitted. It is anticipated that separate encroachment permits will be required for each street and/or block impacted. Due to the impacts to SCDOT roads, a pre-design meeting will be held with District 6 representatives to discuss the project and intended design approach.

12.5. SCDHEC OCRM CZC

Due to the projects being within Beaufort County, a Coastal Zone Consistency (CZC) review will be obtained through SCDHEC OCRM. Tidal wetlands and the critical line will be flagged, mapped and a verification from SCDHEC OCRM will be obtained. Impacts to tidal waters and wetlands are expected due to improved outfall work, though will be maintained below the 0.10-acre threshold of the General Permit. Prenotification will be made to SCDHEC to engage expedited review.

12.6. SCDHEC NOI and C-SWPPP

Due to the area of disturbance, a Notice of Intent (NOI) and Comprehensive Stormwater Pollution Prevention Plan (C-SWPPP) will be developed and submitted to the City and SCDHEC for approval. While the City is not a Municipal Separate Storm Sewer System (MS4) permittee, they require an internal review and approval of these documents in addition to the standard SCDHEC review and approval. Prenotification will be made to SCDHEC to engage expedited review.

12.7. SCDHEC Critical Area Permit and General Permit

The proposed outfalls of the improved drainage system will be within tidal waters and/or tidal wetlands. A permit through SCDHEC will be required. Impacts will be attempted to be reduced so that a General Permit will be applicable, which will satisfy both Section 401 and 404 permitting requirements. Prenotification will be made to SCDHEC to engage expedited review.

12.8. USACE Nationwide Permit

The proposed outfalls of the improved drainage system will be within tidal waters and/or tidal wetlands. A permit through USACE will be required. Impacts will be attempted to be reduced so that a Nationwide Permit will be applicable.

12.9. FEMA No-Impact Certification

The majority of the project areas are located outside the 100-year zone AE. It is anticipated that a no-impact to the 100-year water surface elevation can be achieved. The project will follow the City's Flood Ordinance. A No-Impact certification will be prepared and submitted to the City's Floodplain Manager.

Assumptions:

- *Impacts within the project site will include tidal wetland fill/clearing impacts, tidal stream fill, or stream bank armor. The SCDHEC General Permit or Nationwide Permit will be utilized to authorize impacts. For the SCDHEC General Permit the total tidal wetland impacts will be less than 0.10 acres. Total stream impacts will be less than 300 feet in length.*
- *One (1) on-site meeting with the SCDHEC and USACE Districts to review the site will be required during the jurisdiction determination process.*
- *Three (3) conference call meetings with the regulatory agencies will be required during the permitting process.*
- *One (1) on-site meeting with the regulatory agencies will be required during the permitting process.*
- *Water quality requirements will be based on the SoLoCo Guidelines and SCDHEC OCRM requirements.*
- *Mitigation is not anticipated for this project, in the event mitigation is required, a supplement will be prepared.*

Deliverables:

- *Jurisdiction determination package for submission to USACE (digital)*
- *JD Approval Letter from USACE*
- *GIS or MicroStation File of Delineation (NAD83 SC State Plane, Intnl Ft)*
- *A Section 404/401 permit application for submission to the USACE (digital)*
- *GP Approval Letter From USACE*
- *GIS or MicroStation File of Final Permit Drawings (NAD83 SC State Plane, Intnl Ft)*
- *City of Beaufort Grading/Building/Zoning Permit*
- *SCDOT Encroachment Permit*
- *SCDHEC OCRM Critical Line Verification*
- *SCDHEC OCRM Coastal Zone Consistency Approval*
- *SCDHEC NOI and C-SWPPP*
- *SCDHEC/USACE General Permit*
- *FEMA No Impact Certification*
- *Any Additional Requested Information*

13. DOWNSTREAM IMPACT ANALYSIS

13.1. Downstream Analysis

The downstream analysis (10% rule) requires the engineer to consider the project's downstream effects in terms of volume and peak runoff. **MT** will utilize the revised PCSWMM model for this process. The downstream limit will consider the receiving water body and downstream analysis point until the project site is 10% of the overall watershed.

For this project, stormwater will discharge to the Beaufort River, a very large tidal water body, the downstream impact analysis will occur at the point of discharge. MT does not expect any downstream impacts given the size of the receiving water body.

13.2. Downstream Sea Level Rise Analysis

MT, utilizing the PCSWMM model, will analyze the impacts sea level rise and king tides may have on the proposed drainage systems' performance. Varying tailwater conditions and elevations will be considered based on the state of the industry knowledge during the analysis phase of the project. The intent of this analysis will be to consider how rising water surface elevations at the tide gate or backflow valve will impact the drainage systems' performance and associated flooding that may result in within the project limits. The results of this analysis will be used to guide the development of the final drainage design.

Deliverables:

- *One (1) electronic pdf copy of Downstream Impact Analysis Report*
- *Inclusion of findings within final Project Report*

14. MOT/SIGNING AND MARKING

14.1. Maintenance of Traffic (MOT) Design

14.1.1. **Preliminary MOT Plans: MT** will prepare preliminary plans for the maintenance of vehicular and pedestrian traffic during construction. Standard SCDOT traffic control standard drawings and details will be incorporated into the plans by reference only. Preliminary plans will include identification of vehicular and detour routes for roadways/sidewalks that are anticipated to require closure to complete construction activities. Detour plans will indicate the area of closure and related signing to identify the desired detour route. **MT** will not complete traffic analyses to determine impacts of the vehicular detour implementation.

14.1.2. **MOT Plans.** Plans shall conform to SCDOT's Highway Design Manual and FHWA Manual on Uniform Traffic Control Devices, latest editions; SCDOT Standard Specifications (2007); Rule on Work Zone Safety and Mobility (October 1, 2007); SCDOT Standard Drawings; SCDOT Work Zone Traffic Control Procedures and Guidelines; and any applicable SCDOT supplemental specifications. The latest edition of each design manual or guide will be used if these are not the most current. MOT plans will accommodate both vehicular and pedestrian traffic throughout the project corridor.

14.1.3. **Final MOT Plans: MT** will include comments from the preliminary MOT meeting held with **SCOR**, **CITY**, and SCDOT to further develop the final MOT plans. Any additional quantities will be included in the Final Construction Plans.

14.1.4. **Meetings: MT** will hold two (2) in-person meetings with **SCOR**, **CITY**, and SCDOT design staff to review the MOT scheme on the draft MOT plans and final maintenance of traffic plans.

14.1.5. **Agency Coordination: MT** will coordinate with the local transit authority, Palmetto Breeze Transit. This coordination includes one (1) on-site meeting to discuss the proposed location of the improvements and how that will affect the transit loop and what requirements will be available during construction and MOT.

14.2. Signing and Pavement Marking Plans

14.2.1. As the roadway typical section will not be changed, detailed pavement marking and signing plans will not be developed. Within the advertisement package, notice will be provided instructing that the Contractor shall inventory and document all existing signing and pavement markings in the study and replace in-kind any signing and pavement markings impacted by project activities. **MT** will not determine detailed signing and pavement marking quantities, however, a lump sum item for signing and pavement markings will be included in the final construction estimate based on the linear feet of roadway impacted.

14.2.2. **MT** will not prepare plans for traffic signals, streetlights, or parking meters that may be impacted by construction activities.

15. FINAL (90%) DESIGN PLANS

15.1. Final (90%) Design

MT will develop final design plans as outlined below. **MT** will develop 90% plans in accordance with Chapter 5 of the OSE Manual for Planning and Execution of State Permanent Improvements. The hydrologic and hydraulic design and layout for the stormdrain systems are accounted for in Task 6

15.1. Final Roadway Construction Plans

15.2.1. **MT** will further develop the approved 60% Plans into Final (90%) design plans consisting of:

- Title sheet showing a location map, project layout, and index of drawings.
- Existing right-of-way, tabulation of drainage structures and pipes.
- A summary sheet of all estimated bid quantities, and reference data sheet(s) with pertinent survey data.
- Details, including applicable SCDOT standards, general construction notes, and additional clarifying construction details.
- A general inclusion sheet of clarifying or explanatory notes.
- Plan/profile sheets, at a scale of 1 inch equals 20 feet horizontal, and 1 inch equals 5 feet vertical, showing existing conditions, existing utilities (from field survey or information received from utility owners), survey baseline, proposed centerline, edges of pavement, curb and gutter, medians, sidewalks, driveways, construction limits, drainage, right-of- way, control of access, and easements. Proposed horizontal and vertical geometry will also be shown.
- Cross-sections(only where the existing road cross-section will be changed), at 50 feet in curves and 100 feet in tangent sections, at a scale of 1 inch equals 5 feet, showing the existing ground line, proposed template, pavement depth, curb and gutter, sidewalks, and cut and fill earthwork volumes.
- Maintenance of Traffic and Maintenance of Pedestrian Plans. The Manual on Uniform Traffic Control Devices, latest edition, and SCDOT details will be incorporated into the plans. **MT** will include pavement marking and signing quantities in the final construction cost estimate.

15.2.1. **MT** will prepare a project manual following OSE guidelines including OSE standard documents, specifications, special provisions, details, and other items necessary for project letting.

15.2.2. **MT** will prepare a 90% engineer's estimate. This cost estimate will reflect the Base Bid along with each associated Bid Alternative if required.

15.2.3. **MT** will provide Quality Control and Quality Assurance of the Final Plans for completeness, correctness, accuracy and consistency with the above referenced standards before submitting to **SCOR** and **CITY** for review.

15.2.4. **MT** will address and respond up to one (1) rounds of **SCOR** and **CITY** comments for the 90% Submission.

15.2.5. Representatives from the **SCOR**, **CITY**, and **MT** will perform one (1) field reconnaissance meeting during the final construction plan development. All information gathered during these field investigations will be evaluated and plans revised accordingly.

Deliverables:

- *Two (2) hard copies of the full-size set of 90% plans and one set of electronic pdf files. Prior to submittal for review, all plans will be thoroughly reviewed by MT for completeness, correctness, accuracy, and consistency with the above referenced standards.*
- *One (1) electronic copy of all MicroStation files.*
- *One (1) electronic pdf copy of the 90% engineer's cost estimate. Utility relocation costs and construction duration estimate shall be included.*
- *One (1) electronic pdf copy and one Microsoft Word copy of the project manual.*
- *One (1) electronic copy of the 90% Report including methodologies, design, and quantity calculations.*

16. ADVERTISEMENT (100%) PACKAGE

16.1. Advertisement (100%) Design

MT will develop the Advertisement Package as outlined below. **MT** will develop the Advertisement Package in accordance with Chapter 5 of the OSE Manual for Planning and Execution of State Permanent Improvements. The hydrologic and hydraulic design and layout for the stormdrain systems are accounted for in Task 6

16.2. Advertisement Package

16.2.1. **MT** will further develop the approved 90% Plans into the Advertisement Package consisting of:

- Title sheet showing a location map, project layout, and index of drawings.
- Existing right-of-way, tabulation of drainage structures and pipes.
- A summary sheet of all estimated bid quantities, and reference data sheet(s) with pertinent survey data.
- Details, including applicable SCDOT standards, general construction notes, and additional clarifying construction details.
- A general inclusion sheet of clarifying or explanatory notes.
- Plan/profile sheets, at a scale of 1 inch equals 20 feet horizontal, and 1 inch equals 5 feet vertical, showing existing conditions, existing utilities (from field survey or information received from utility owners), survey baseline, proposed centerline, edges of pavement, curb and gutter, medians, sidewalks, driveways, construction limits, drainage, right-of- way, control of access, and easements. Proposed horizontal and vertical geometry will also be shown.
- Cross-sections (only where the existing road cross-section will be changed), at 50 feet in curves and 100' in tangent sections, at a scale of 1 inch equals 5 feet, showing the existing ground line, proposed template, pavement depth, curb and gutter, sidewalks, and cut and fill earthwork volumes.
- Maintenance of Traffic and Maintenance of Pedestrian Plans. The Manual on Uniform Traffic Control Devices, latest edition, and SCDOT details will be incorporated into the plans. **MT** will include pavement marking and signing quantities in the final construction cost estimate.

16.2.2. **MT** will prepare special provisions, special details, and other necessary bid items outside the normal SCDOT or OSE specifications for project letting.

16.2.3. **MT** will prepare a final construction estimate. This cost estimate will reflect the Base Bid along with each associated Bid Alternative (up to three) if required.

16.2.4. **MT** will provide Quality Control and Quality Assurance of the Final Plans for completeness, correctness, accuracy and consistency with the above referenced standards before submitting to **SCOR** and **CITY** for review.

16.2.5. **MT** will address and respond up to two (2) rounds of **SCOR** and **CITY** comments for the Advertisement Package.

16.2.6. **Signed** and sealed Construction Plans shall be provided to **SCOR**.

16.2.7. MT will provide the bid package to requested bidders digitally

16.2.8. MT will attend the pre-bid conference

16.2.9. MT will answer questions and help develop/issue addenda as needed

Deliverables:

- *Five (5) full size set of signed and sealed plans and one set of electronic pdf files of Advertisement Package. Prior to submittal to **SCOR**, all plans will be thoroughly reviewed by **MT** for completeness, correctness, and accuracy and consistency with the above referenced standards.*
- *One (1) electronic copy of all MicroStation files.*
- *One (1) electronic pdf copy of the final engineer's cost estimate. Utility relocation costs and construction duration estimate shall be included.*
- *One (1) electronic pdf copy and one Microsoft Word copy of the Construction Specifications and Special Provisions.*
- *One (1) electronic copy of construction quantity calculation*
- *One (1) electronic copy of the Final Design Report including methodologies and design calculations.*

17. CONSTRUCTION PHASE SERVICES

DF will assist **MT** in providing construction phase services. For the basis of this proposal, it is assumed that the construction duration will not exceed 18 months. In the event the construction duration exceeds 18 months, a supplement may be required. MT will provide the items detailed below.

17.1. **MT** will attend a Pre-Construction Conference and respond to questions by the Contractor pertinent to **MT**'s design.

17.2. MT will review and approve of shop drawings. Shop drawings will be reviewed for compliance with the intent of plans, specifications, and contract provisions. Shop drawing reviews of subcontract work will be performed on an advisory basis. MT will provide a letter of recommendation and/or comments as appropriate.

17.3. Design activities resulting from requests by the contractor or a change in existing field conditions that are not considered an errors or omissions.

17.4. Interpretations of plans, specifications and contract provisions.

17.5. Plan preparation resulting from the above-mentioned design activities.

17.6. Attendance at field review meetings deemed necessary by the SCOR, up to 6 meetings.

17.7. Construction Utility Coordination Meeting: MT will attend the Construction Utility Coordination meeting.

17.8. Respond to Request(s): MT shall respond to request(s) made via email, telephone, written, etc. by the SCOR, CB, SCDOT, utility companies and/or the Contractor.

17.9. Record Drawings: **MT** will revise the asbuilt surveys provided by the Contractor and prepare the record drawing package to be submitted to SCOR and the Town.

17.10. Other duties as deemed necessary during construction of the project.

18. EXCEPTIONS/EXCLUSIONS

- *Services requested by SCOR that are not included in one of the items above will be classified as out of scope services. MT may provide such additional services to support the project on a time and expense basis in accordance with MTF's standard rate and reimbursable expense schedule. Additional services may include, but are not limited to:*
- *This proposal was prepared under the assumption that the roadways will be restored to previous geometric layout and typical cross section which includes roadway resurfacing and limited replacement of curbs, sidewalks, and ADA ramps that are impacted due to the installation of the drainage structures and pipes. Corridor wide replacement of sidewalks, curbs, and ADA ramps are not included within this scope of services.*
- *Drainage improvements are limited to the project outline depicted in Figures 2 and 3 and will not include areas outside of this boundary. If additional improvements are desired outside these limits, a supplement will be required.*
- *Utility relocation design is not included in this proposal and may be performed through a supplement.*
- *In the event street light poles are impacted, direction will be provided to the contractor to temporarily remove and replace the light poles, no design or replacement with new fixtures will be provided.*
- *Additional street lighting design is not included in this scope of services.*
- *Utility house connections will be impacted, individual designs for these connections will not be provided beyond providing typical detail to guide the contractor in relocating the connection.*
- *Roadway signage and pavement markings will be restored to pre-construction layout, additional markings and signage design is not included with this scope of services.*
- *Traffic studies or analysis are not provided within this scope of services.*
- *As this project is a drainage improvement project, the scope of services does not include retrofitting the roads within the project limits up to current SCDOT roadway design requirements. Only the drainage system will be designed to meet current design requirements. The roadway will be restored to pre-construction state.*
- *McCormick Taylor shall not be held liable for the Contractors means and methods selected to construct the project.*
- *Pre and Post Construction property condition surveys and vibration monitoring*
- *MT will utilize flowable fill within all pipe trenches as required by SCDOT and to limit vibration resulting from compaction.*
- *Review and analysis of contractor's claims for significant differing subsurface and physical conditions.*
- *Construction staking*
- *Meetings with local, State, or Federal agencies to discuss project-related issues; assistance with response to permit requirements that become effective subsequent to the date of agreement for this scope of work.*
- *Appearances at public hearings or before special boards, not related to public relations support included in this Scope.*
- *Preparation for litigation, arbitration, or other legal or administrative proceedings, or appearances in court or at arbitration sessions in connection with construction incidents.*
- *Phase 1 or 2 Environmental assessment report and/or environmental impact statements*
- *Cultural resources or archaeological consultation, study, and/or reporting for the site of construction resulting from artifacts found at the site of construction during construction activities.*
- *Construction Inspection and associated activities beyond what is included in Task 17.*
- *Laboratory and field testing required during construction and of any special reports or studies on materials and equipment.*
- *Observing factor tests and/or field testing of equipment that fails to pass the initial test.*
- *Assisting in Davis Bacon and American Steel Verification during construction*
- *Assistance in financially related transactions for the project.*
- *Where field conditions differ above and beyond those included in the Construction Contract Documents, preparing documentation including sketches of construction work for approval by SCOR, to supplement the drawings and specifications as may be required; and providing redesign if required.*
- *Services making revisions to drawings and specifications made necessary by the acceptance of substitutions proposed by the contractor; and services after the award of each contract for evaluating*

and determining the acceptability of substitutions proposed by the contractor.

- *Services resulting from significant delays, changes, or price increases caused directly or indirectly by shortages of materials, labor, equipment, or energy.*
- *Additional or extended services during construction made necessary by (1) work damaged by fire or other cause during construction, (2) a significant amount of defective or neglected work by the contractor, (3) acceleration of the progress schedule involving service beyond normal working hours, (4) default by contractor, and (5) failure of the contractor complete the work within the contract times.*
- *Special services in connection with partial utilization of any part of the project by the City or others prior to substantial completion which requires the project to work additional hours or requires the employment of additional onsite personnel.*
- *Evaluation claims submitted by the contractor or others in connection with the work.*
- *Verification of or supporting documentation for grant compliance during construction*
- *Duration of construction oversite and administration is limited to 18 months.*

SUMMARY OF SCOPE

Davis & Floyd (D|F) will support McCormick Taylor (MT) with the City of Beaufort Charles/Craven St. and Port Republic/Carteret St. Drainage Improvement Project (Project) for the South Carolina Office of Resilience (SCOR) through survey services, hydraulic and hydrologic consultation and review, landscape architecture support and design, and construction coordination.

MT is providing services to SCOR to support the City of Beaufort (City) in its goal of designing and constructing upgrades to the stormwater drainage systems that serve both the Charles/Craven and Port Republic/Carteret project areas. D|F's tasks and deliverables in support of MT are listed below:

TASK A – *PROJECT MANAGEMENT*

A.1. Project Management and Coordination (of D|F Services):

a. Scheduling and schedule maintenance

b. Progress monitoring

c. Project records

d. Coordination and liaison with MT and City (as defined below)

A.2. Meetings:

a. Attendance at Project kick-off meeting

b. Monthly liaison and progress meetings

TASK B – *SURVEYING*

B.1. D|F will perform topographic survey to support design and construction of drainage improvements within the project area, as identified in Exhibit A :

1. Charles / Craven
2. Port Republic / Carteret
3. City Parking Lots

Field survey will be collected relative to or transformed to the following coordinate systems/datums:

a. The horizontal, or x-y, coordinate system of all field survey performed as a part of this project will be tied to the North American Datum of 1983 (NAD83) South Carolina State Plane Coordinate System, with the international foot as the unit of measurement (SC83IF).

b. The vertical, or z, coordinate system of all field survey performed as a part of this project will be tied to the North American Vertical Datum of 1988 (NAVD88)

TASK C – *HYDRAULIC AND HYDROLOGIC (H&H) SUPPORT*

C.1. D|F will coordinate with MT Hydraulic and Hydrologic design parameters to include the following to promote consistency between concurrent City Drainage Improvement Projects where possible / applicable:

1. Rainfall / Design Frequency
2. Tidal Boundary Conditions / Sea Level Rise

C.2. H&H Modeling QC Review

D|F will perform a review of MT's H&H Modeling and prepare and provide recommendations for consideration. Following MT's acceptance / rejection of recommendations, D|F will perform a follow-up review of revisions made. This task includes up to two (2) virtual meetings with MT to discuss recommendations and final modeling results.

TASK D – *LANDSCAPE ARCHITECTURE*

D.1. D|F will provide landscape architecture services to include:

a. Renderings to support MT's design development, permitting, and public engagement. Such renderings are expected to include:

1. Typical replaced / improved Street Section(s)- up to 8
2. Stormwater BMP(s) in City Parking Lots (ex. Typical bioswale or bioretention feature(s))

b. Design services for the planting plan and details to support restoration of park grounds impacted during construction. MT will provide D|F with anticipated construction impacts of park grounds to support this task.

1. D|F will provide up to 10 hours of limited RFI / Submittal support to address Bidder and / or Contractor questions related to landscaping plans and details prepared by D|F.

D.2. Public Engagement Support

a. D|F will provide MT with support of public engagement services required for the Project assumed to be provided on or around MT's 30% and 90% design deliverables. Such services are anticipated to include:

1. The production of presentation exhibits including up to two (2)conceptual planting plans, two (2) colored renderings, and two (2) 3d perspectives.

TASK D EXCEPTIONS: Services requested by MT that are not included in one of the items above will be classified as out of scope services. D|F may, upon authorization by MT, provide such additional services to

support the project on a time and expense basis in accordance with D|F's standard rate and reimbursable expense schedule. Additional services may include, but are not limited to:

a. Hardscape design as a part of demolition and/or deconstruction of streetscape features or park features including (but not limited to): swings, arbors, fencing, bollards, walkways and paved surfaces, etc...

b. The layout and sizing of pipes and features related to irrigation systems. Performance specifications shall be provided with planting plans.

TASK E – *ASSISTING IN THE FACILITATION OF TWO IN PERSON PUBLIC MEETINGS. DESIGN CONSTRUCTABILITY REVIEW*

D|F will, at or around the 30% and 90% design delivery milestones and upon MT provision of the associated design submittal, perform a constructability review of MT design drawings. As part of this task, D|F will provide comments, questions, and / or recommendations related to constructability on the reviewed drawing sheets. D|F will be available for up to one (1) review meeting to discuss review comments for each of the 30% and 90% milestone reviews.

TASK F – *CONSTRUCTION COORDINAITON*

D|F will provide construction coordination with the MT team and Contractor. Specific tasks/services to be provided include the following:

F.1. Project Administration:

a. Attendance at MT-led pre-construction public engagement session.

b. Engagement with the Contractor, and MT:

1. Attendance of pre-construction meeting.

2. Attendance of monthly progress meetings as needed.

3. Attendance of weekly coordination meetings as needed.

c. Liaison with the City PM

F.2. Construction Observation and Contract Administration:

a. Site observation and liaison with MT and to include:

1. Conduct Weekly onsite observations of the general progress of the work in support of determining if the work is generally proceeding in accordance with the construction contract documents.

2. Provide consultation to MT regarding observed deficiencies in the Contractor's work and recommend whether the work should be corrected or rejected, or should be uncovered for observation, requires special testing, inspection, or approval.

3. Observe pertinent site conditions when the Contractor maintains that differing subsurface and physical conditions have been encountered, and document actual site conditions.

b. Contract Administration:

1. Review and coordination with MT on RFIs

2. Review and coordination with MT on Submittals

3. Review and Coordination with MT on shop drawings

4. Review of pay applications for conformance to the contract documents

5. ~~Monthly review of contractor certified payroll for conformance to Davis Bacon wages~~

TASK F EXCEPTIONS: Services requested by MT that are not included in one of the items above will be classified as out of scope services. D|F may, upon authorization by MT, provide such additional services to support the project on a time and expense basis in accordance with D|F's standard rate and reimbursable expense schedule. Additional services may include, but are not limited to:

a. Review and analysis of contractor's claims for differing subsurface and physical conditions.

b. Construction staking

c. Meetings with local, State, or Federal agencies to discuss project-related issues; assistance with response to permit requirements that become effective subsequent to the date of agreement for this scope of work.

d. Appearances at public hearings or before special boards, not related to public relations support included in this Scope.

e. Supplemental engineering work necessary to meet the requirements of regulatory or funding agencies.

f. Special consultants or independent professional associates requested or authorized by MT.

g. Preparation for litigation, arbitration, or other legal or administrative proceedings, or appearances in court or at arbitration sessions in connection with MT design, change orders or construction incidents.

h. Environmental assessment report and/or environmental impact statement as requested by MT or regulatory agencies.

i. Cultural resources or archaeological consultation, study, and/or reporting for the site of construction requested by MT or regulatory agency or resulting from artifacts found at the site of construction during construction activities.

j. Laboratory and field testing required during construction and of any special reports or studies on materials and equipment requested by MT.

k. Observing factor tests and/or field testing of equipment that fails to pass the initial test.

l. Assistance in financially related transactions for the project.

m. Special reports requested by MT concerning facilities operation and personnel matters during the operation startup period.

n. Where field conditions differ above and beyond those included in the Construction Contract Documents, preparing documentation including sketches of construction work for approval by MT, to supplement the drawings and specifications as may be required; and providing redesign if required.

o. Services supporting MT making revisions to drawings and specifications made necessary by the acceptance of substitutions proposed by the contractor; and services after the award of each contract for evaluating and determining the acceptability of substitutions proposed by the contractor.

p. Services resulting from significant delays, changes, or price increases caused directly or indirectly by shortages of materials, labor, equipment, or energy.

q. Additional or extended services during construction made necessary by (1) work damaged by fire or other cause during construction, (2) a significant amount of defective or neglected work by the contractor, (3) acceleration of the progress schedule involving service beyond normal working hours, (4) default by contractor, and (5) failure of the contractor complete the work within the contract times.

r. Special services in connection with partial utilization of any part of the project by the City or others prior to substantial completion which requires the project to work additional hours or requires the employment of additional onsite personnel.

s. Evaluation claims submitted by the contractor or others in connection with the work.

t. Verification of or supporting documentation for grant compliance during construction

(End of Engineer's Scope of Services)

Three Oaks Engineering, Inc.
1022 State Street, Building 2
Cayce, SC 29033

Scope of Work

City of Beaufort – Charles/Craven St and Port Republic/Carteret St
Drainage Improvement Projects (D30-N033-MJ)
September 20, 2023 (rev November 5, 2023)

The City of Beaufort is proposing upgrades to the major stormwater trunklines that serve the Charles/Craven and Port Republic/Carteret areas. Both areas are in natural depressions along critical transportation routes and the business district in downtown Beaufort. Due to limited drainage capacity and influence from rising high tides, the areas quickly flood during heavy rain events. The proposed project is funded by a grant from the SC Office of Resilience's (SCOR) American Rescue Plan Act (ARPA)Stormwater Infrastructure Program (ASIP). Although ARPA-funded projects are exempt from federal National Environmental Policy Act (NEPA) requirements, SCOR is requiring ASIP projects to undergo a "NEPA level environmental review" as part of the project development and decision-making process.

Three Oaks Engineering, Inc. (Three Oaks) is pleased to submit this scope of work for services related to the preparation of the environmental review for the proposed projects.

Objective: Three Oaks will prepare environmental documentation for SCOR

Work Tasks: Three Oaks will provide the following tasks:

Task 1 Site Visit and Data Collection
Three Oaks will gather and provide relevant environmental data for the project area, including information available from existing sources, such as National Wetland Inventory data, FEMA floodplain information, threatened and endangered species, cultural and historic resources, land use, and property information. We will also conduct a site visit to map resources on the ground, flag the critical area boundary, and verify the lack of other jurisdictional features in the project study area. Photographs of the project area and any sensitive environmental features will be taken. Three Oaks will document the existing conditions in mapping and text.

Task 2 Stakeholder/Agency Coordination
Three Oaks will prepare a start of study notification and project mapping (project vicinity map, project site map, etc.) for distribution to regulatory agencies and other stakeholders, as appropriate.

Three Oaks will complete a draft South Carolina State Historic Preservation Office (SC-HPO) Project Review Form (http://shpo.sc.gov/programs/revcomp/Documents/106Form.pdf) and submit via email. It is anticipated that SC-HPO will not require above-ground architectural historic resource surveys or archaeological surveys, thereby completing coordination under Section 106 of the National Historic Preservation Act. *If surveys are required, they will be contracted under a separate agreement.*

Task 3 Preparation of Environmental Review
Three Oaks will analyze data and results from the field reconnaissance and agency coordination and prepare an Environmental Review Record (ERR) for the projects. The ERR will contain information such that it would fulfill the requirements of NEPA and provide sufficient level of detail to support other permitting decisions. The ERR will include:

- Description of the Proposed Project
- Statement of Purpose and Need
- Alternatives to the Proposed Action
- Existing Conditions and Trends
- Environmental Impacts and Regulatory Considerations
- Mitigation Measures (as necessary)
- List of Sources, Agencies, and Persons Contacted
- Source Documentation for Environmental Record

One electronic copy of the draft ERR and supporting materials will be provided to SCOR for review. Review comments will be incorporated into the final ERR and submitted to SCOR for their files.

In preparing the ERR, Three Oaks will coordinate with the design team for project information and alternatives. Three Oaks will participate in team meetings/status calls as needed (up to 6 hours).

Assumptions:
- There is no federal review or approval of the ERR required.
- No formal Section 7 consultation is required.
- No cultural resources surveys or additional studies are required.

Compensation

Compensation is based upon our understanding of the project and our experience on projects similar in scope. Compensation to Three Oaks for the proposed scope of work outlined above will be a lump sum fee as follows:

Task	Fees
Task 1. Site Visit & Data Collection	$5,520.30
Task 2. Stakeholder/Agency Coordination	$3,120.00
Task 3. Preparation of Environmental Review	$8,810.00
TOTAL	$17,450.30

TASK 5 – GEOTECHNICAL EXPLORATION AND ENGINEERING SERVICES

General

The **CONSULTANT** shall provide final geotechnical exploration for drainage improvements. The exploration will be done by mechanical drill rig approximately along the alignment for new stormwater lines and appurtenances. The exploration will also include double ring infiltrometer tests for stormwater BMP's/LID's. The final boring locations may be off-set from the storm water pipe alignment due to existing utility conflicts and to try to minimize the impact to traffic. A report will be prepared that will outline the necessary information to provide guidance to the contractor on pipe trench foundation improvements, soil parameters for temporary shoring, general recommendations for dewatering, infiltration at stormwater BMP's, full depth pavement section, and overlay pavement section.

Field Exploration (General) – 5.1.1

Prior to beginning the subsurface field exploration, the **CONSULTANT** will notify the **CITY** at least seven (7) days in advance so the **CITY** can coordinate with the SCDOT, City staff, and property owners. The **CONSULTANT** shall comply with all SCDOT lane closure restrictions.

Boring locations will be located along or adjacent to the proposed alignment of new stormwater lines. Boring locations in the final exploration are expected to occur inside SCDOT and/or **CITY** Right-of-Way. Borings and double ring infiltrometer tests will not occur on private property.

Clearance of utilities will be the responsibility of the **CONSULTANT**. A request for utility marking will be made to the Statewide Utility One-call Service (SC811) at least three (3) -days prior to field work. The **CONSULTANT** will mark utilities that are not marked by SC811 as part of Task 4. Information obtained in Task 4 will be shared with geotechnical staff prior to field exploration work.

Proposed boring locations will be determined by the **CONSULTANT**. The **CONSULTANT** will provide copies of the proposed subsurface exploration plan to the **CITY** prior to initiation of field work for review and acceptance. The subsurface exploration plan will include, as a minimum, the following:

- Description of the soil or rock stratification anticipated
- Description of the proposed testing types
- Depth of tests
- Location of tests

SCDOT Encroachment Permit – **CONSULTANT** will submit for SCDOT encroachment permit. **CONSULTANT** shall comply with all lane closure restrictions if needed to access the site.

Borings – The boring locations will be located along the proposed project alignment.

Final Field Exploration – 5.1.2

Subsurface Exploration – A soil test boring or double ring test will be performed at identified locations. The following is a summary of the quantity and depth.
•Seven (7) borings to fifteen (15) feet below the pavement/ground surface for drainage lines.
•Two (2) borings to ten (10) feet below the pavement in parking lots.
•Two (2) double ring infiltrometer tests at a depth of three (3) feet below the pavement surface in parking lots.
•Three (3) composite bulk samples will be obtained from auger cuttings.

Other Testing Items – 5.1.3

Traffic control is anticipated for safe access and to meet SCDOT requirements. Three (3) days of lane closures are expected.

At the completion of field work, test locations will be measured for latitude and longitude, elevation, and station by **CONSULTANT** with survey grade GPS equipment.

Field Engineering – **CONSULTANT** will provide oversight of operations by a field engineer technician and/or field geologist. Field personnel will consist of one (1) field services supervisor and/or one (1) geologist per drill rig. Soil Classification will be in accordance with USCS (ASTM D-2487). The Field Services Supervisor will have a minimum of three (3) years of experience in supervision of field equipment and field personnel and will coordinate field activities including clearance of underground utilities through South Carolina 811.

Laboratory Testing – **CONSULTANT** will be AASHTO certified in the anticipated laboratory testing outlined below and/or any additional testing that may be required. See Chapter 5 of the SCDOT GDM for AASHTO and ASTM designations. The laboratory testing on selected samples will evaluate the types of soils encountered, confirm visual classifications, and estimate engineering properties for use in design. Laboratory testing for the exploration is estimated to include the following: Twenty (20) natural moisture content tests, twenty (20) grain size distribution with wash no. 200 sieve, and twenty (20) moisture-plasticity relationship determinations (Atterberg Limits). In addition, the bulk samples will be tested for Standard Proctor and 3-point California Bearing Ratio's (CBR's).

Geotechnical Engineering Report – 5.2

The Final Geotechnical Engineering Report will be conducted in accordance with the procedures outlined in the SDCDOT GDM. The report will discuss pipe trench foundation improvements, soil parameters for temporary shoring, general recommendations for dewatering, available infiltration rate at stormwater BMP's, full depth pavement section, and overlay pavement section.

SCDOT COMMENTS AND RESPONSES – 5.3

CONSULTANT will review comments provided by the SCDOT on the geotechnical report and for geotechnical components of the project. **CONSULTANT** will respond to the comments and iterate with the SCDOT until each geotechnical comment has been resolved to the SCDOT's satisfaction.

Assumptions:

1. *Assumes City of Beaufort is communicating with the SCDOT and that the SCDOT will be motivated to review the encroachment permit application submitted. If the SCDOT is non-responsive, then the City will be prepared to communicate urgency to the SCDOT.*
2. *Existing sidewalk on the project is grade supported and design recommendations are not required for sidewalk repair.*
3. *Field work will occur on public property of the SCDOT or the City of Beaufort. CONSULTANT is not responsible for obtaining permission to access private property.*
4. *Subgrade soils will be free of contamination. FME is not required to drum spoils.*
5. *Slope stability or settlement calculations for embankments and retaining walls are not needed and are not included.*
6. *Seismic design is not required by the GDM and is not included.*
7. *Pavement design for sidewalk is not included.*
8. *Pavement design for parking lots is not included.*
9. *Traffic data will be obtained from SCDOT publicly available information and/or traffic data from Beaufort County.*
10. *The 2022 SCDOT Geotechnical Design Manual will guide the geotechnical exploration.*
11. *Pavement section design will be according to the 2008 SCDOT Pavement Design Guidelines.*

Deliverables:

1. *Final geotechnical report with pavement design memo incorporated in the report.*

TELICS

TELICS Utility Coordination Scope – D30-N033-MJ – City of Beaufort:

- Identify, Research and Contact All utility owners through the project corridor.
- Identify Utility level of impacts through the corridor.
- Coordinate and Run All Utility Meetings and Distribute Minutes. (Including Weekly/Monthly, Kick Off, Pre-Construction and During Construction)
- Obtain Documentation from Utilities Claiming Prior Rights and Confirm.
- PUE Requests and Assist.
- SUE Requests and Assist.
- Submit Utilities' Markups for Review.
- Full Plan Reviews to Minimize and Avoid Utility Impacts. (Roadway, Drainage)
- Assist Engineer for All Areas for Clarity of Utility Impacts, Schedule, and Relocation.
- URA Packages Assist.
- Utility Encroachment Packages Assist.
- Assist Utility Owners with UEPD.
- UBO Plans (Preliminary through Final)
- Special Provisions
- Attend RDFI and CFI Meetings.
- Attend PLFI (if held) for Assistance.
- All Submittals/ Deliverables Will Be in The Electronic Format Currently Required By SCDOT

TELICS Utility Coord. Deliverables – D30-N033-MJ – City of Beaufort:

- Utility Meeting Coordination
- Utility Meetings Minutes
- Utility Relocation Schedule
- UBO (p)
- UBO (f)
- Special Provisions
- Utility Packages

TELICS Utility Coord. Exclusions – D30-N033-MJ – City of Beaufort:

- WET Utility Design Not Included.
- Preparation of Permit Drawings Not Included.
- Scope of Service Doesn't Include Work to Get Utilities Moved.

TELICS

TELICS SUE ESTIMATE			
TYPE	UNIT COST	Quantity*	TOTAL
LEVEL A SUE	$ 3,783.33	18	$ 68,100
LEVEL B SUE	$ 1.55	6500	$ 10,043
LEVEL C SUE	$ 1.38	20000	$ 27,551
LEVEL D SUE	$ 3.38	8000	$ 27,000
GRAVITY MANHOLES	$ 1,115.79	12	$ 13,389
AERIAL POLES	$ 562.50	15	$ 8,438
TOTAL FEE			$ 154,521

* If during the course of the SUE Investigation, additional quantities are discovered to be needed for capture, a supplement may be required.

** House connections will be captured when possible but may not be locatable

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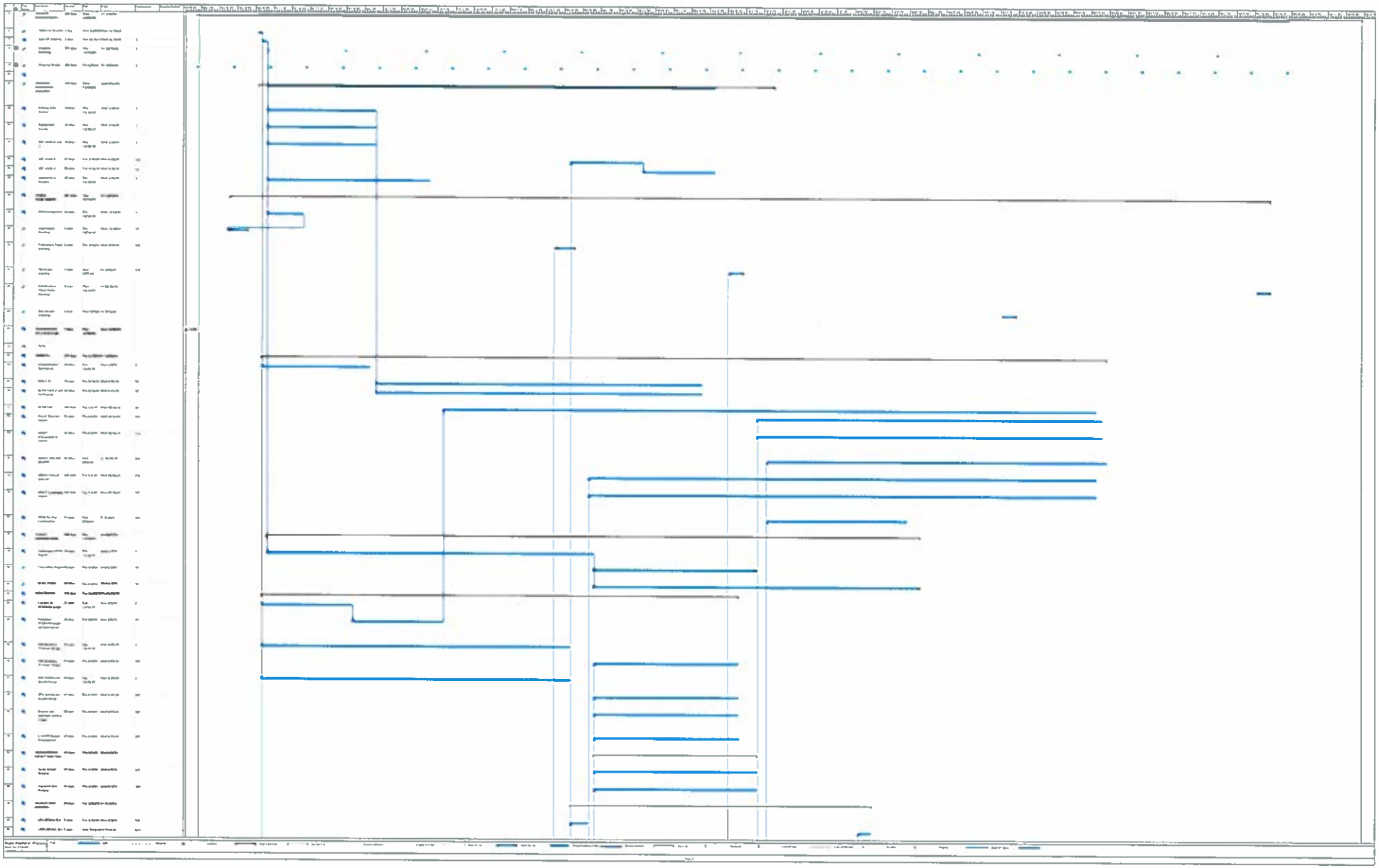

DESIGN SCHEDULE
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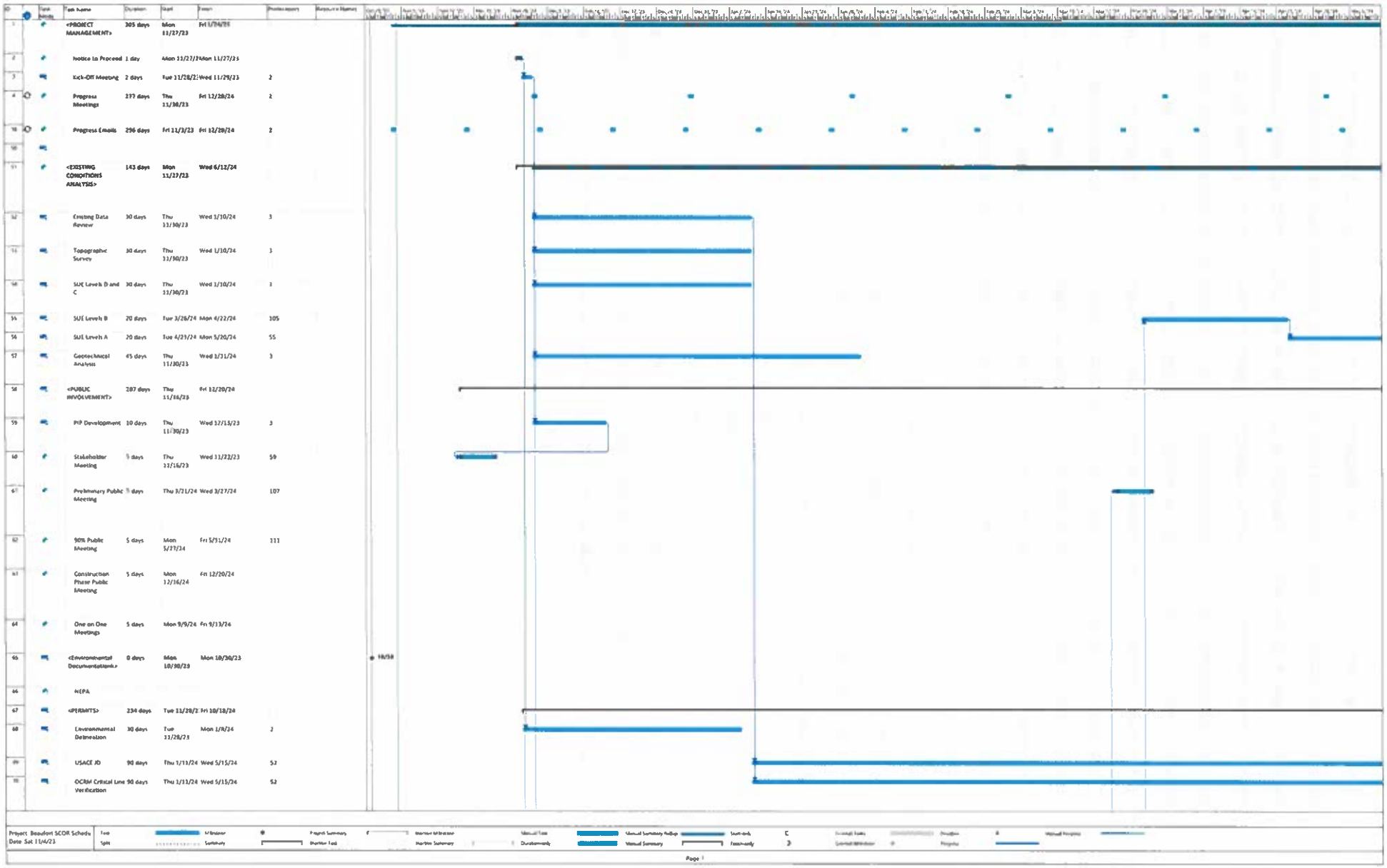
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10 Progress Emails 296 days Fri 11/3/23 Fri 12/20/24 2
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14 SUE Level B and C 30 days Thu 11/30/23 Wed 1/10/24 3
15 SUE Level B 70 days Tue 3/26/24 Mon 6/22/24 105
16 SUE Level A 20 days Tue 4/23/24 Mon 5/20/24 55
17 Geotechnical Analysis 45 days Thu 11/30/23 Wed 1/31/24 3
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20 Stakeholder Meeting 1 days Thu 11/16/23 Wed 11/22/23 59
21 Preliminary Public Meeting 1 days Thu 3/21/24 Wed 3/27/24 107
22 90% Public Meeting 5 days Mon 5/27/24 Fri 5/31/24 111
23 Construction Phase Public Meeting 5 days Mon 12/16/24 Fri 12/20/24
24 One on One Meetings 5 days Mon 9/9/24 Fri 9/13/24
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26 NEPA
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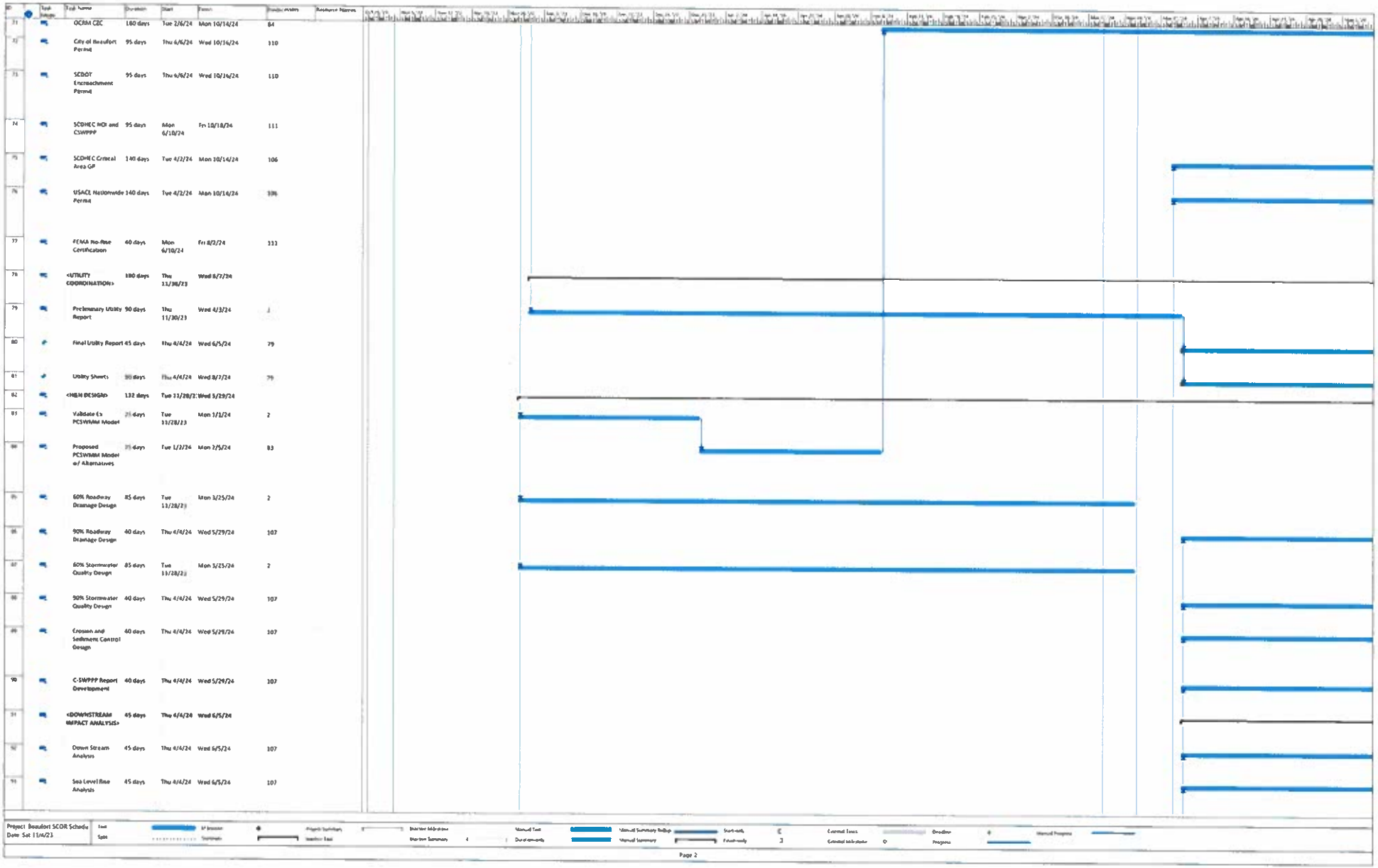
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81 Utility Sheets 90 days Thu 4/4/24 Wed 8/7/24 79
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85 60% Roadway Drainage Design 85 days Tue 11/28/23 Mon 3/25/24 2
86 90% Roadway Drainage Design 40 days Thu 4/4/24 Wed 5/29/24 107
87 60% Stormwater Quality Design 85 days Tue 11/28/23 Mon 3/25/24 2
88 90% Stormwater Quality Design 40 days Thu 4/4/24 Wed 5/29/24 107
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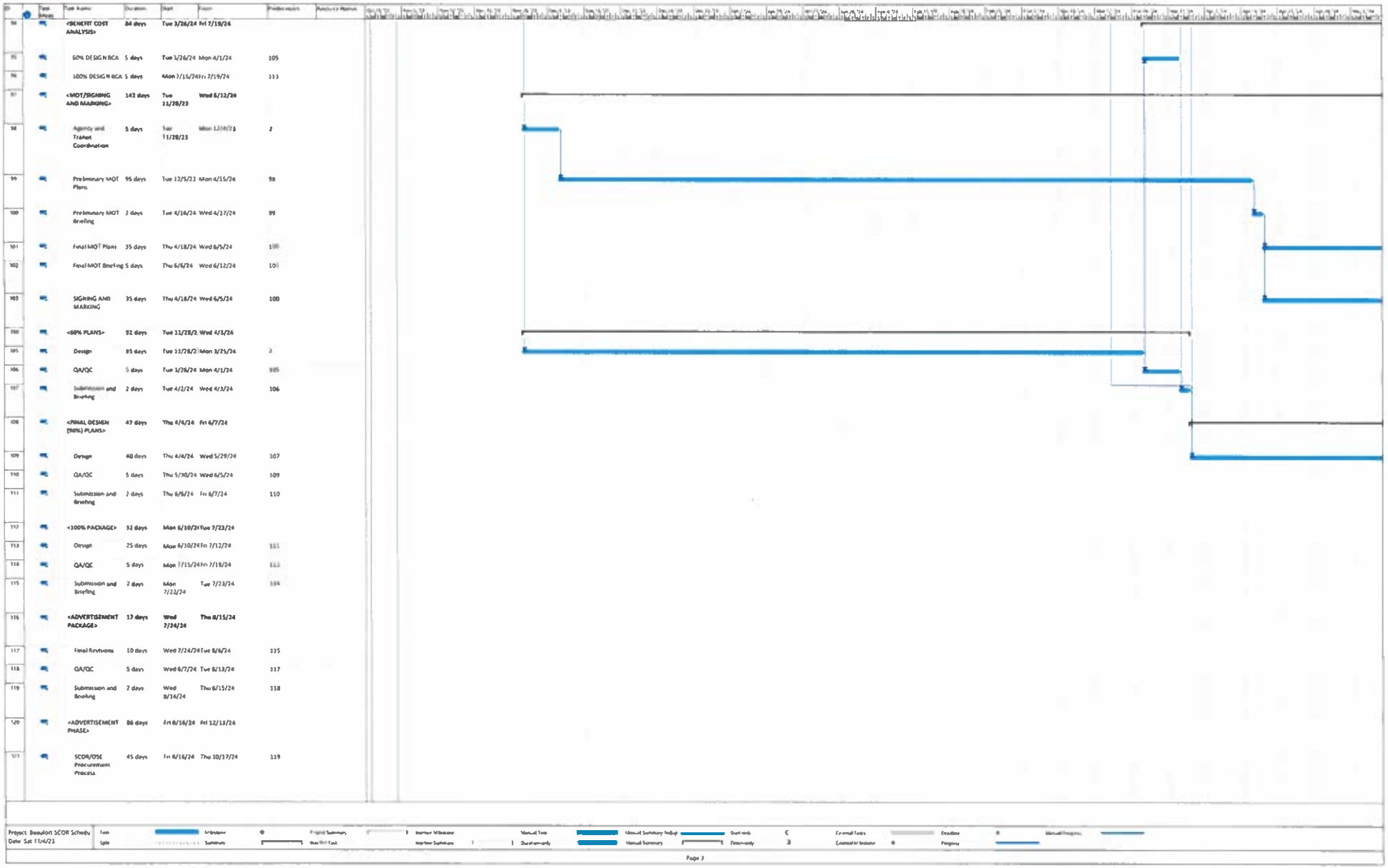
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104 Preliminary MOT Briefing 2 days Tue 4/16/24 Wed 4/17/24 99
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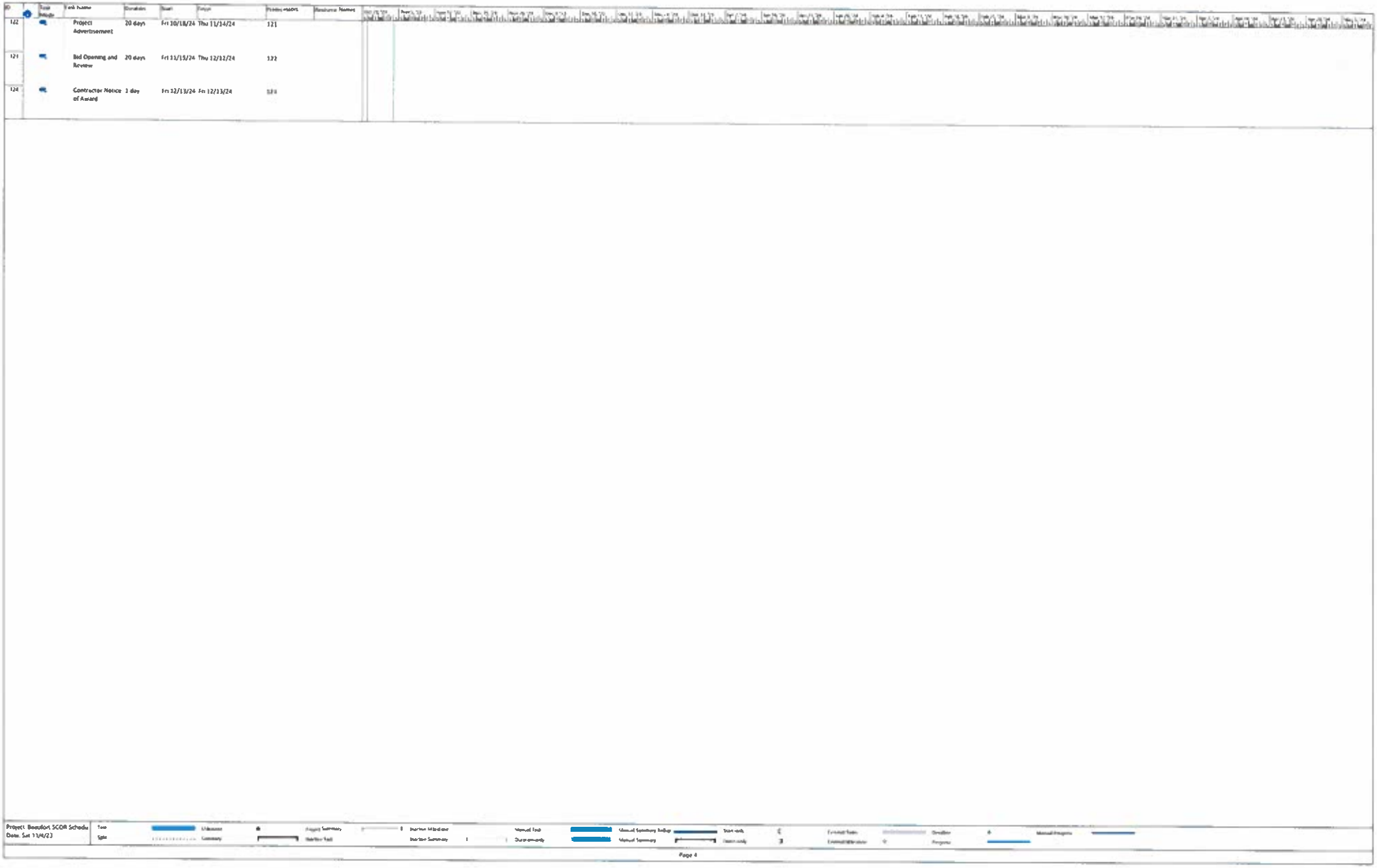
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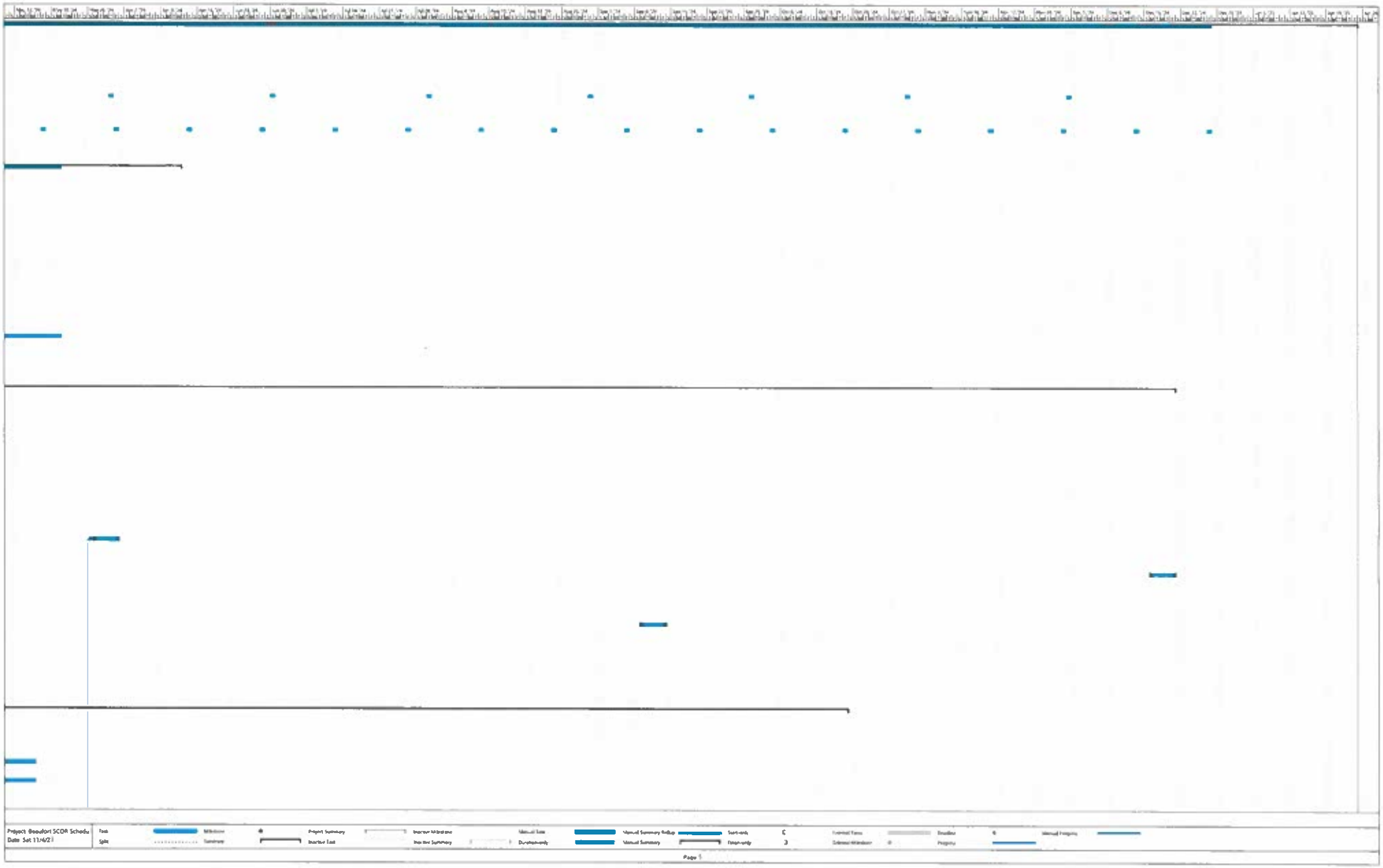
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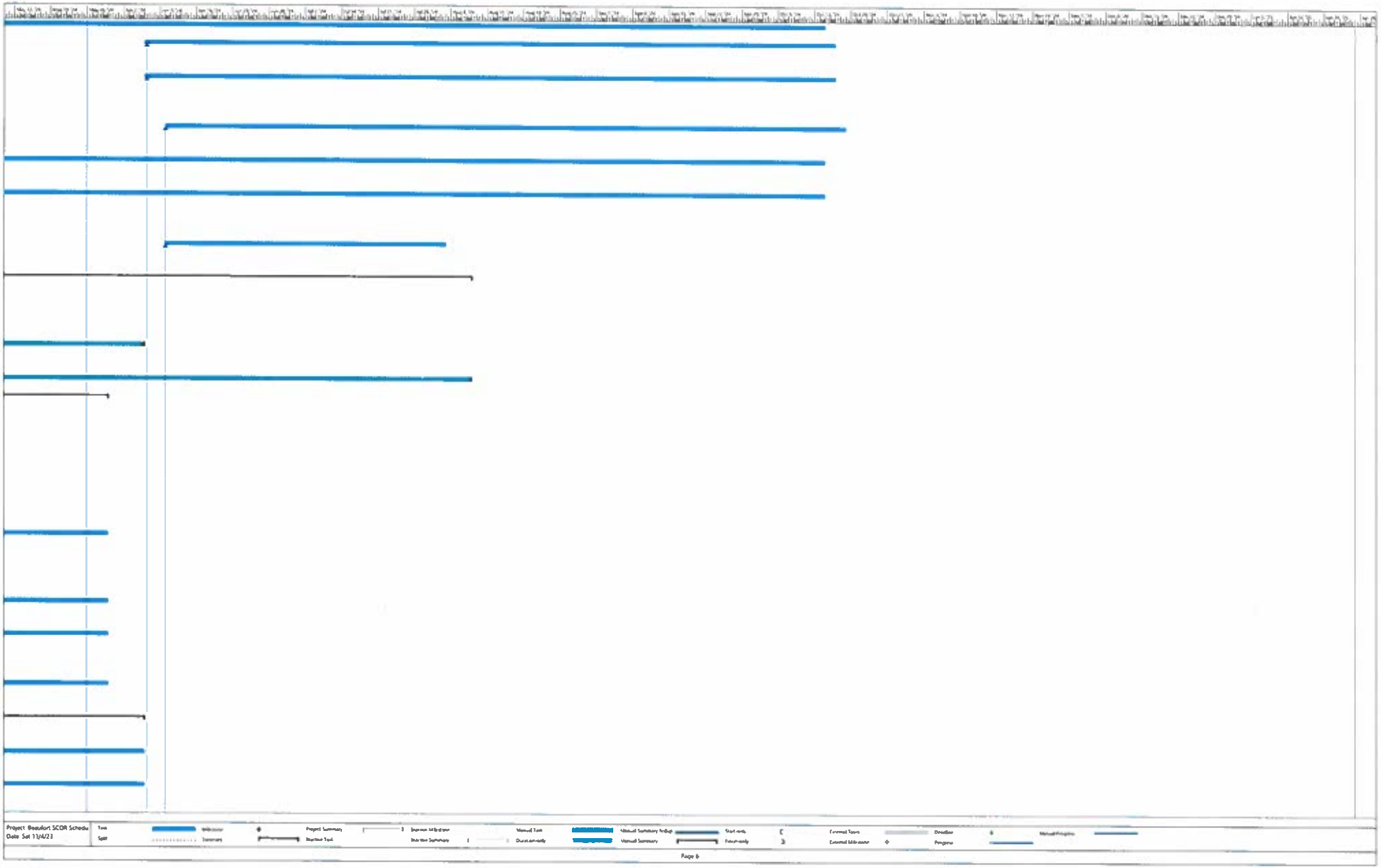
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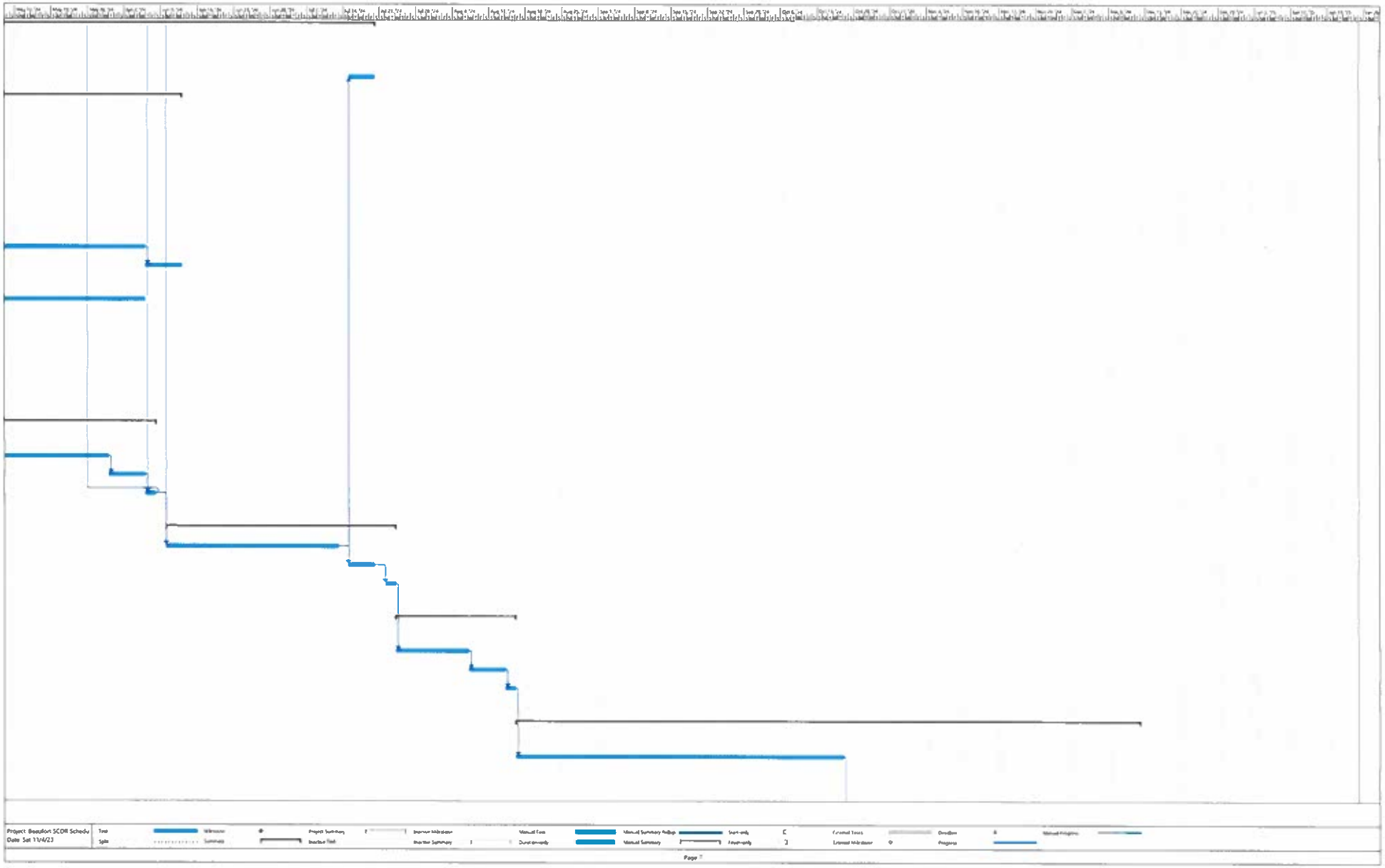

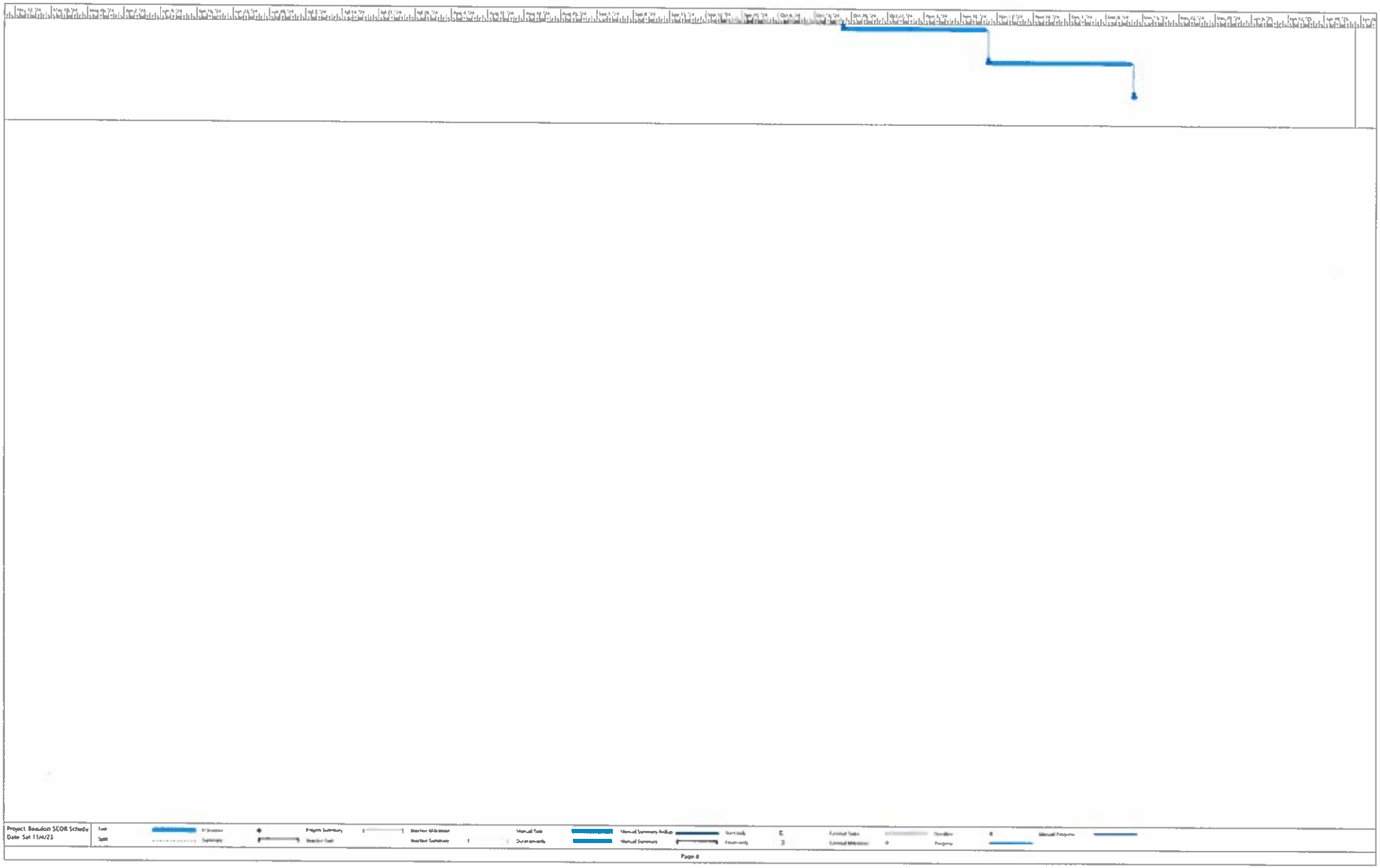
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PRICE PROPOSAL

McCORMICK TAYLOR

Proposal Summary

Charles/Craven Street and Port Republic/Carteret Street Drainage Improvements Projects

Job No. TBD

Lump Sum Total		$ 544,200.00	(a)
Direct Costs Other Than Payroll		$ 10,630.00	(b)
Direct Costs of Services and Work Performed by Others:			
Davis and Floyd	$445,410.00		
Three Oaks	$17,450.00		
F&ME	$39,929.00		
TELLICS UC	$196,324.77		
		$ 699,113.77	(c)
Subtotal (a)+(b)+(c)		$ 1,253,943.77	(d)
Total Cost		$ 1,253,943.77	(f)

Total Estimated Man-Hours:	McCormick Taylor, Inc.	3,311
	Subs:	
	Davis and Floyd	2,869
	Three Oaks	122
	F&ME	108
	TELLICS UC	640
	Total	7,050

Engineer's Name: McCormick Taylor, Inc.
1441 Main Street
Suite 875
Columbia, SC 29201

Fed. I. D. No.: 23-1683759

Contact Person: Jason Hetrick
Assistant Director Water Resources
803.978.2744

Prepared By: Jason Hetrick

McCORMICK TAYLOR

Name: Charles/Craven Street and Port Republic/Carteret Street Drainage Improvements Projects

Job #: TBD

Date: November 13, 2023

By: Jason Hetrick

TASK	Director	Project Manager	Deputy Project Manager	Senior WR Engineer	WR Designer III	WR Designer II	WR Designer I	Senior Traffic Engineer	Senior Structure Engineer	Traffic Engineer II	Senior RWY Engineer	Roadway Designer I	Environmental Scientist	CADD/GIS III	Communications/ Graphics Professional II	Total Hours	Total Dollars	Total Task Dollars	Total Task Hours
	Hours																		
	$ 341.34	$ 266.36	$ 213.42	$ 181.17	$ 142.75	$ 143.16	$ 112.48	$ 330.37	$ 218.94	$ 140.43	$ 227.14	$ 118.68	$ 98.84	$ 124.23	$ 187.34				
	Brooks, Chris	Hetrick, Jason	Cormany, Jennif	Schmitz, Heidi Ismail, Hassan	Ellis, Kathryn	Tyson, Caitlin	Harbkerman, R Balkus, Amanda	Seamewaju, Matt	Bertold, Aaron	Cohen, Joshua	Bernardo, Ray	Johnson, James	Seta, Kimberly						
TASK 1 PROJECT MANAGEMENT (Duration of Project)																			
1.1.2 Preliminary Site Visit		8	8										8			24	4,760.00		
1.1.3 Facilitate Kickoff Meeting		4	4													8	2,000.00		
1.1.4 Design Briefings to be held during monthly progress meetings (5)		6	10	5												21	4,700.00		
1.1.5 Progress Meetings (20)		20	20													40	9,600.00		
1.1.6 Resource Agency Meetings (4)		16	20													36	8,560.00		
1.1.7 Project Management Duties		40	50													90	21,300.00		
1.1.8 Weekly Email Updates			80													80	12,960.00		
1.1.9 Project Stake Holder Meetings (10)		20	20													40	9,600.00		
1.2 QA/QC		40	40													80	19,200.00		
TASK 2 FIELD SURVEYS																		$ 1,400.00	8
2.1 Coordinate and Review D&F Survey			2											6		8	1,400.00		
TASK 3 UTILITY COORDINATION																		$ 9,000.00	46
3.1 Coordinate with TELICS		2	8													10	2,300.00		
3.2 Early Utility Coordination Coordinate and Review			8											4		12	2,460.00		
3.3 Preliminary Utility Report Review and Coordination			8											4		12	2,460.00		
3.4 Final Utility Report Review and Coordination			8											4		12	2,460.00		
TASK 4 SUE																		$ 11,960.00	62
4.1 Coordinate with TELICS		2	8													10	2,300.00		
4.2.2/3 Review Type C & D SUE Data			1	8										4		13	2,380.00		
4.2.1 Review Type B SUE Data			1	8										4		13	2,380.00		
4.2.6_a Develop Type A Test Hole Location Request			1	8										4		13	2,380.00		
4.2.6_b Review Type A SUE Data			1	8										4		13	2,380.00		
TASK 5 GEOTECHNICAL INVESTIGATIONS																		$ 2,500.00	13
5.1 Coordinate and Review FME Survey		1	4	4										4		13	2,500.00		
TASK 6 HYDROLOGIC AND HYDRAULIC DESIGN																		$ 123,200.00	667
6.1.1 Existing Model Validation		1	4	12	20	40								16		87	13,400.00		
6.1.2_e Proposed Model Validation		1	4	16	20	40								10		91	14,200.00		
6.1.2_b Future Conditions Model Validation		1	4	16	20	40								4		85	13,200.00		
6.2.2_a 30% Roadway Drainage Design		1	8	20		40	80							8		157	21,680.00		
6.2.2_b 60% Roadway Drainage Design		1	8	20		40	80							8		157	21,680.00		
6.2.2_c 90% Roadway Drainage Design		1	8	20		40	40							8		117	17,100.00		
6.2.4 Water Quality Design		1	4	12	40		40							8		105	14,800.00		
6.4 Erosion and Sediment Control and C-SWPPP Development				8			24						16	10		58	7,360.00		
TASK 7 PRELIMINARY (30%) PLANS - Removed from Project																		$ -	-
7.2 Design Criteria Report																			
7.3 Plan Set Development																			
7.3 30% Report																			
7.3 Engineers Estimate																			
7.3.5 Preliminary Design Field Review																			
TASK 8 60% PLANS																		$ 58,900.00	369
8.2 Plan Set Development		1	8	16		30	40		32		20	80		80		307	47,800.00		
8.2 60% Report		1	2	8		16								8		35	6,700.00		
8.2 Engineers Estimate		1	2	8		8	8									27	4,200.00		
TASK 9 PUBLIC INVOLVEMENT																		$ 24,500.00	118
9.2 Public Involvement Plan		2	6													8	1,900.00		
9.3 Preliminary (30%) Public Meeting		4	6												20	30	6,100.00		
9.3 60% Public Meeting		4	6												20	30	6,100.00		
9.3 100% Public Meeting		4	6												20	30	6,100.00		
9.6 One on One Meetings (10)			20													20	4,300.00		
TASK 10 BENEFIT COST ANALYSIS																		$ 7,600.00	48
10.1 Benefit Cost Analysis			8		40											48	7,600.00		
TASK 11 ENVIRONMENTAL DOCUMENTATION																		$ 1,700.00	8
11.1 Coordinate and Review Three Oaks Environmental Documents			8													8	1,700.00		
TASK 12 PERMITTING																		$ 25,600.00	182
12.1 OVERALL PERMITTING COORDINATION			8													8	1,700.00		
12.2 ENV Delineation and Jurisdictional Determination					8								8	8		24	3,200.00		
12.3 City of Beaufort Grading/Building Permit			4										8	8		20	2,900.00		
12.4 SCDOT Encroachement Permit			4										8	8		20	2,900.00		
12.5 SCDHEC OCRM CZC			4										8	8		20	2,900.00		
12.6 SCDHEC NOI and C-SWPPP			4										16	8		28	3,700.00		
12.7 SCDHEC Critical Area Permit and General Permit			4										16	8		28	3,700.00		
12.8 USACE Nationwide Permit			4										16	8		28	3,700.00		
12.9 FEMA No-Impact Certification				2		4										6	900.00		
TASK 13 DOWNSTREAM IMPACT ANALYSIS																		$ 6,000.00	36
13.1 Downstream Analysis				4			8									12	1,700.00		
13.2 Sea Level Rise Analysis				8			16									24	3,300.00		
TASK 14 MOT/SIGNING AND MARKING																		$ 22,300.00	136
14.1.1 Preliminary MOT Plans		1						8		60						69	10,500.00		
14.1.3 Final MOT Plans		1						4		20						25	4,000.00		

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		Hours																		
		$ 191.14	$ 244.58	$ 212.46	$ 181.17	$ 142.78	$ 142.18	$ 112.66	$ 220.37	$ 218.96	$ 142.78	$ 227.14	$ 116.86	$ 98.08	$ 184.23	$ 107.84				
		Brooks, Chris	Hetrick, Jason	Cormany, Jennifer	Schmitz, Heidi Ismail, Hassan	Ellis, Kathryn	Tyson, Caitlin	Heikkerunen, R Belkus, Amanda	Sosnowski, Matt	Bertoldi, Aaron	Cohen, Joshua	Bernardo, Ray	Johnson, James	Sitts, Kimberly						
14.1.4	SCDUCITY/SCDOT Coordination Meeting		1						4		6						11	2,000.00		
14.1.5	Agency Coordination		1						12		6						19	3,900.00		
14.2	Signing and Pavement Marking Plans		1						4		6						11	2,000.00		
																	-	-		
	TASK 15 FINAL (90%) DESIGN PLANS																-	-	$ 58,600.00	401
15.2.1	Plan Set Development		1	4	8			40		8		20	60		80		241	36,200.00		
15.2.1	90% Report		1	2	10	10		10									33	6,100.00		
15.2.2	Engineers Estimate		1	2	4		8	8									23	3,500.00		
15.2.1	Project Manual		2	8		40								40			90	11,900.00		
15.2.5	Final Plans DFR		2	6	6												14	2,900.00		
																	-	-		
	TASK 16 ADVERTISEMENT (100%) DESIGN PLANS																-	-	$ 53,400.00	369
16.2.1	Plan Set Development		1	4	8			40		8		20	60		80		219	32,400.00		
16.2.1	100% Report		1	2	10	10		10									33	6,100.00		
16.2.3	Engineers Estimate		1	2	4		10	10									27	4,400.00		
16.2.2	Project Manual		2	8		40								40			90	11,900.00		
																	-	-		
	TASK 17 CONSTRUCTION PHASE SERVICES																-	-	$ 49,100.00	260
17.1	Attend Pre-Construction Conference		2	6													8	1,900.00		
17.2	Shop Drawing Review and Approval			8		40											48	7,500.00		
17.3	Design Activities due to Unforeseen Conditions		2	12	16												42	7,900.00		
17.4	Interpretation of Project Documents		2	12	16										12		30	5,900.00		
17.6	Attendance at field review meetings			16	36												52	10,900.00		
17.7	Construction Utility Coordination Meeting		2	8													10	2,300.00		
17.8	Respond to Contractor Requests/RFIS		1	8	16	16											41	7,200.00		
17.9	Misc. Construction Phase Duties		1	8	10	10											29	5,300.00		
																	-	-		
																	-	-		
																	-	-		
TOTAL		-	238	542	355	314	312	458	32	46	98	60	220	184	420	60	3,311	$ 544,200.00	$ 544,200.00	3,311

DAVIS & FLOYD

PLAN | DESIGN | ENGINEER

Charles, Craven, Port Republic

Davis & Floyd, Inc - Fee Estimate - Rev1 - 10/31/2023

		ENGINEER I	ENGINEER VI	EGINEER VII	ENGINEER VIII	SURVEYOR I	SURVEYOR II	CREW CHIEF 1	LANDSCAPE ARCHITECT II	LAND PLANNER II	RESIDENT CONSTRUCTION MANAGER III	INSPECTOR III	Total Hours	Total Dollars
	TASK	$140.00	$260.00	$285.00	$300.00	$134.00	$150.00	$95.00	$135.00	$92.00	$200.00	$135.00		
	Task A: Project Management													**$52,740.00**
A.1	Scheduling and Schedule Maintenance (8 mo. Design, 18 mo. Construction)		36										36	$9,360.00
A.2	Progress Monitoring		36										36	$9,360.00
A.3	Project Records		36										36	$9,360.00
A.4	Coordination/liaison with MT/City (assume virtual and 4 hours/every 2 weeks per MT)		64	12	12								88	$23,660.00
	Task B: Surveying													**$119,275.00**
B.1	Charles / Craven + Parking lots		2			50	150	420					622	$69,620.00
B.2	Port Republic / Carteret + Parking lots		2			40	105	295					442	$49,655.00
	Task C: Hydraulic & Hydrologic (H&H) Support													**$13,180.00**
C.1	Rainfall / Design Frequency	5			2								7	$1,300.00
C.2	Tidal Boundary Conditions / Sea Level Rise	8			3								11	$2,020.00
C.3	H&H Modeling QC review	14			5								19	$3,460.00
C.4	MCT/City Coordination/Consultation	20			12								32	$6,400.00
	Task D: Landscape architecture													**$28,152.00**
D.1	Typical replaced / improved Street Section								16	40			56	$5,840.00
D.2	Stormwater BMP(s) in City Parking Lots (ex. Typical bioswale/bioretention)								6	15			21	$2,190.00
D.3	Design services for landscaping plan / details to support restoration of grounds								10	40			50	$5,030.00
D.4	2 Concept Plan Exhibits (60% and 90%)								6	12			18	$1,914.00
D.5	2 Conceptual Color Renderings (60% and 90%)								6	10			16	$1,730.00
D.6	2 Conceptual 3D perspectives (60% and 90%)								6	20			26	$2,650.00
D.7	Coordination of hardscape, arbors, swings, bollards, etc for park demolition/replacement								10	16			26	$2,822.00
D.8	Interdepartmental meetings and coordination with client (biweekly)								16				16	$2,160.00
D.9	Limited RFI responses related to bidding/contractor								10				10	$1,350.00
D.10	Street tree replacement plan for demolished / damaged trees as part of construction								6	18			24	$2,466.00
	Task E: Constructability Review													**$21,130.00**
E.1	Constructability review of 60% MT drawings		1								26	18	45	$7,890.00
E.2	Review meeting with DJF to discuss comments (1 meeting)		1								6	8	15	$2,540.00
E.3	Constructability review of 90% MT drawings		1								26	20	47	$8,160.00
E.4	Review meeting with DJF to discuss comments (1 meeting)		1								6	8	15	$2,540.00
	Task F: Construction Coordination													**$192,090.00**
F.1	Attend MT led pre-construction public engagement session (1 in-person mtg)		4		4								8	$2,240.00
F.2	Attend MT led pre-construction meeting (1 in-person mtg)		4								6		10	$2,240.00
F.3	Attend MT led monthly progress meetings (assume 18 meetings, in-person for RCM/Inspector only)		9		9						72	0	90	$19,440.00
F.4	Attend MT led weekly progress meetings (assume 72 virtual meeting)		9								72	0	81	$16,740.00
F.5	Conduct weekly onsite observations											576	576	$77,760.00
F.6	Provide consultation to MT regarding observed deficiencies				10						20		30	$7,000.00
F.7	Observe pertinent site conditions where Contractor indicates differing conditions										28		28	$5,600.00
F.8	Review/coordinate with MT on RFIs										40	40	80	$13,400.00
F.9	Review/coordinate with MT on submittals										20	20	40	$6,700.00
F.10	Review/coordinate with MT on shop drawings										6	12	18	$2,820.00
F.11	Review pay applications for conformance to contract documents										40	10	50	$9,350.00
F.12	Review of Contractor's Weekly Progress Reports										144		144	$28,800.00
	Expenses													**$19,843.00**
	Plotting, Printing, Paper, Exhibits, Etc.		$280.00											
	Mileage		$19,542.00											
	Task E: Estimated Expenses Cost:		$19,843.00											
												LABOR COSTS		$425,567.00
												DIRECT EXPENSES (PRINTING, MILEAGE, DISPLAY BOARDS)		$19,843.00
												TOTAL FEE		$445,410.00

TOTAL $17,450.30

Task No.	Task Description	Labor Hours for Indicated Classification/Grade Level						Total Task Hours	Total	Expenses (ODCs)			Task Total
		Principal	PM	Sr. Biologist	Sr. Env Scientist	Env Scientist	Jr. Env Scientist			Fee	Markup	Total	
1	Data Collection & Mapping	230.0	220.0	170.0	150.0	132.0	20.0	44	$5,320.00	170.30			$5,520.30
	Site visit				10		10	20	$2,250.00				
	data collection and review of previous studies		2	4	6		6	18	$2,450.00				
	mapping (project vicinity map, project site map, etc)				2		4	6	$620.00				
expenses	mileage (260 miles)							0	$0.00	$ 170.30			
	lunch x2							0	$0.00	30			
		$ 230.00	$ 200.00	$ 175.00	$ 140.00	$ 120.00	$ 85.00						

Task No.	Task Description	Labor Hours for Indicated Classification/Grade Level						Total Task Hours	Billable Labor	Expenses (ODCs)			Task Total
		Principal	PM	Sr Biologist	Sr. Env Scientist	Env Scientist/ Planner	Jr. Env Scientist/ GIS Technician			Fee	Markup	Total	
2	Stakeholder/Agency Coordination	0.0	12.0	0.0	0.0	4.0	0.0	16	$3,120.00				$3,120.00
	Prepare and submit project review form		8			2		10	$1,840.00				
	Coordination with SHPO		2			2		4	$640.00				
	start of study notification		2			2		4	$640.00				
								0	$0.00				
expenses								0	$0.00				
		$ 230.00	$ 200.00	$ 175.00	$ 140.00	$ 120.00	$ 85.00						

Task No.	Task Description	Labor Hours for Indicated Classification/Grade Level						Total Task Hours	Billable Labor	Expenses (ODCs)			Task Total
		Principal	PM	Sr Biologist	Sr. Env Scientist	Env Scientist/ Planner	Jr. Env Scientist/ GIS Technician			Fee	Markup	Total	
3	NEPA Documentation - ERR	2.0	20.0	0.0	0.0	32.0	6.0	60	$8,810.00				$8,810.00
	Prepare draft ERR and revise per team comments	2	8			20	6	36	$4,970.00				
	Coordination with SCOR for review		4			6		10	$1,520.00				
	Finalize ERR		2			6		8	$1,120.00				
								0	$0.00				
	Misc task management, calls, etc.		6					6	$1,200.00				
		$ 230.00	$ 200.00	$ 175.00	$ 140.00	$ 120.00	$ 85.00						

Task 05: Geotechnical Exploration

Active

SUBCONSULTANT

MFE Version 3.0.0

Manhours

Task Total: $39,929.00 | Project Total: $39,929.00

Sub-task	Staff Classification	A Principal	B Project Manager	C Sr. Geotechnical Engineer	D Geotechnical Engineer	E Jr. Geotechnical Engineer/EIT	F Project Geologist	G Sr. Engineering Technician	H Drill Rig Crew Manager	I Graphics Designer	J Administrative Assistant	K Project Laboratory Director	L	M
	Staff Classification Rate	$300.00	$250.00	$275.00	$180.00	$125.00	$110.00	$150.00	$150.00	$125.00	$65.00	$180.00		
	Manhour Totals by Classification:	3	6	15	5	30	20	10	4	7	4	4		
	for Project	3	6	15	5	30	20	10	4	7	4	4		
5.10	Field Exploration	1	2	1		10	20	10	4	6	4	2		
5.20	Final Report			4	5	20						2		
5.30	SCDOT Comments and Response	2	4	10						1				

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead	Profit	FCCM	Labor Total
	Principal	3	$300.00	$ 900.00	$ -	$ -	$ -	$ 900.00
	Project Manager	6	$250.00	$ 1,500.00	$ -	$ -	$ -	$ 1,500.00
	Sr. Geotechnical Engineer	15	$275.00	$ 4,125.00	$ -	$ -	$ -	$ 4,125.00
	Geotechnical Engineer	5	$180.00	$ 900.00	$ -	$ -	$ -	$ 900.00
	Jr. Geotechnical Engineer/EIT	30	$125.00	$ 3,750.00	$ -	$ -	$ -	$ 3,750.00
	Project Geologist	20	$110.00	$ 2,200.00	$ -	$ -	$ -	$ 2,200.00
	Sr. Engineering Technician	10	$150.00	$ 1,500.00	$ -	$ -	$ -	$ 1,500.00
	Drill Rig Crew Manager	4	$150.00	$ 600.00	$ -	$ -	$ -	$ 600.00
	Graphics Designer	7	$125.00	$ 875.00	$ -	$ -	$ -	$ 875.00
	Administrative Assistant	4	$65.00	$ 260.00	$ -	$ -	$ -	$ 260.00
	Project Laboratory Director	4	$180.00	$ 720.00	$ -	$ -	$ -	$ 720.00
	-			$ -	$ -	$ -	$ -	$ -
	-			$ -	$ -	$ -	$ -	$ -
	-			$ -	$ -	$ -	$ -	$ -
	-			$ -	$ -	$ -	$ -	$ -
DBE %	Task Totals for Labor	105		$ 17,330.00 (A)	$ - (B)	$ - (C)	$ - (D)	$ 17,330.00 (E)

Non-salary Direct Expenses

	Expense Description	Quantity	Units	Unit Cost	Total Cost
1	-	-	-	$ -	$ -
2	-	-	-	$ -	$ -
3	-	-	-	$ -	$ -
4	-	-	-	$ -	$ -
5	-	-	-	$ -	$ -
6	-	-	-	$ -	$ -
7	-	-	-	$ -	$ -
8	-	-	-	$ -	$ -
9	-	-	-	$ -	$ -
10	-	-	-	$ -	$ -
11	-	-	-	$ -	$ -
12	-	-	-	$ -	$ -
13	-	-	-	$ -	$ -
14	-	-	-	$ -	$ -
15	-	-	-	$ -	$ -
16	-	-	-	$ -	$ -
	Final Geotechnical Testing	Refer to Testing Directs, Worksheet 1			$ 22,599.00
				Task Total for Non-salary Direct Expenses	$ 22,599.00 (F)

Subconsultant Involvement

DBE %	Subconsultant	Total Fee for Task	Manhours

Fee Summary for Task

A	Direct Labor	$ 17,330.00
B	Overhead [A x 0]	$ -
C	Profit [(A+B) x 0]	$ -
D	FCCM [A x 0]	$ -
E	Labor Total	$ 17,330.00
F	Non-salary Direct Expenses	$ 22,599.00
G	Subconsultant Fees	$ -
	Task Total	$ 39,929.00

Project ID:	Charles Street and Port Republic Drainage Impr ()
County:	0
Task Description:	Task 05: Geotechnical Exploration
Date Prep.:	1/0/1900
Prepared By:	0
Org:	F&ME
Preliminary Total	$ -
Final Total	$ 22,599.00

ON-CALL GEOTECHNICAL COST ESTIMATE

Type Work (FIELD)	Procedure	Procedure Description	Pay Unit	Preliminary Quantity	Preliminary Unit Rates	Preliminary Total Cost	Final Quantity	Final Unit Rates	Final Total Cost
Mobilization									
a Truck/Trailer Drill Rig and Crew			$ per mile			$0.00			$1,950.00
b Track/Rubber-Tire ATV Drill Rig and Crew and barge mobilized over land			$ per mile			$0.00			$0.00
c Barge mobilized over water			$ per hour			$0.00			$0.00
Use of All-terrain Vehicle			$ per day			$0.00			$0.00
Use of Swamp/Marsh Buggy			$ per day			$0.00			$0.00
Crane			$ per hour			$0.00			$0.00
Barge									
a small			$ per day			$0.00			$0.00
b large			$ per day			$0.00			$0.00
Difficult Moving/ Standby Expenditure			$ per hour			$0.00			$0.00
Private Utility Locating			$ per hour			$0.00			$0.00
Traffic Control									
a Shoulder work < 15 ft			$ per day			$0.00			$0.00
b Shoulder work 1-15 ft			$ per day			$0.00			$0.00
c Lane Closure			$ per day			$0.00			$4,700.00
d Freeway/Expressway Shoulder Closure			$ per day			$0.00			$0.00
e Freeway/Expressway Lane Closure			$ per day			$0.00			$0.00
Light Plant			$ per day			$0.00			$0.00
Bridge Deck Coring			$ per hole			$0.00			$0.00
Pavement Coring			$ per hole			$0.00			$1,530.00
Survey Crew and Equipment			$ per hour			$0.00			$990.00
Hand Clearing			$ per hour			$0.00			$0.00
Mechanized Clearing			$ per hour			$0.00			$0.00
Auger Probes or Wash Borings			$ per foot			$0.00			$0.00
Soil Test Borings on Land with Standard Penetration Testing (SPT-N)	AASHTO T206 AASHTO T306 (ASTM D1586 ASTM D6151 ASTM D4833)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils							
a Borings from ground surface to a depth of 150 feet			$ per foot			$0.00			$2,625.00
b Borings from 150 feet to 250 feet			$ per foot			$0.00			$0.00
c Borings from 250 feet to 550 feet	ASTM D2113	Triple-Tube Soil Coring	$ per foot			$0.00			$0.00
Soil Test Borings Over Water with Standard Penetration Testing (SPT-N)	AASHTO T206 (ASTM D1586 ASTM D6633)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per foot			$0.00			$0.00
Standard Penetration Tests (Additional)	AASHTO T206 (ASTM D1586)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per test			$0.00			$0.00
Piezocone Penetration Test (CPTu)	ASTM D 5778	Standard Test Method for Electronic Friction Cone and Piezocone Penetration Testing of Soils	$ per foot			$0.00			$0.00
CPTu Seismic Test	ASTM D 7400	Standard Test Methods for Downhole Seismic Testing	$ per test			$0.00			$0.00
CPTu Pore Pressure Dissipation Test			$ per hour			$0.00			$0.00
Field Vane Shear Tests	AASHTO T223 (ASTM D2573)	Standard Method of Test for Field Vane Shear Test in Cohesive Soil	$ per test			$0.00			$0.00
Flat Plate Dilatometer Testing	ASTM D6635	Standard Test Method for Performing the Flat Plate Dilatometer	$ per foot			$0.00			$0.00
Double-Ring Infiltrometer Test	ASTM D 3385	Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer	$ per test			$0.00			$3,300.00
Manual (Hand) Auger Borings			$ per hour			$0.00			$0.00
Dynamic Cone Penetrometer Tests	Sowers & Hedges 1966 (ASTM D6951)	Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications	$ per hour			$0.00			$0.00
Disturbed (Bulk) Soil Samples			$ per sample			$0.00			$0.00
Test Pits			$ per hour			$0.00			$0.00
Undisturbed (Shelby Tube) Soil Sampling									
a 3" tube (Fixed Head Sampler)	AASHTO T207 (ASTM D1587)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample			$0.00			$0.00
b 3" tube (Alternative Sampler)	AASHTO T207 (ASTM D1587 ASTM D6519)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample			$0.00			$0.00
Rock Coring									
a Rock Coring from ground surface to a depth of 150 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot			$0.00			$0.00
b Rock Coring from 150 feet to 500 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot			$0.00			$0.00
c Rock Coring from ground surface to a depth of 150 feet for seismic downhole testing	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot			$0.00			$0.00
Casing									
a 4" PVC			$ per foot			$0.00			$0.00
b 4" Steel			$ per foot			$0.00			$0.00
Grout Seal of Test Holes (SPT, CPT, DMT, augerwash borings, geophysical holes, rock core holes)			$ per foot			$0.00			$0.00
Geophysical Testing using Spectral Analysis of Surface Waves/Multi- channel Analysis of Surface Waves/Refraction Microtremor			$ per test			$0.00			$0.00
Geophysical Testing using Downhole Methods	ASTM D7400	Standard Test Methods for Downhole Seismic Testing	$ per test			$0.00			$0.00
Geophysical Testing using Suspension Logging methods	ASTM D5753	Standard Guide for Planning and Conducting Borehole Geophysical Logging	$ per foot			$0.00			$0.00
Specialized Geophysical Testing (Crosshole Shear Wave Velocity Method Seismic Refraction field Electric Resistivity Seismic Reflectivity Gamma/Spontaneous Potential Ground Penetrating Radar Optical/Acoustic Televiewer etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use				$0.00			$0.00
Installation and Monitoring of geotech instr (inclinometers, piezometers, settlement plates vibration monitoring etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use				$0.00			$0.00

Type Work (LAB)	Procedure	Procedure Description	Pay Unit	Quantity	Unit Rates	Total Cost	Quantity	Unit Rates	Total Cost
UD Preparation			$ each			$0.00			$0.00
Moisture Content	AASHTO T265 (ASTM D2216)	Standard Method of Test for Laboratory Determination of Moisture Content of Soils	$ each			$0.00	[illegible]	[illegible]	$180.00
Atterberg Limits	AASHTO T89 AASHTO T90 (ASTM D4318)	Standard Method of Test for Determining the Liquid Limit of Soils And Determining the Plastic Limit and Plasticity Index of Soils	$ each			$0.00	[illegible]	[illegible]	$1 890.00
Shrinkage Limits	AASHTO T92 (ASTM D4943)	Standard Method of test for Determining the Shrinkage Factors of Soils	$ each			$0.00			$0.00
Swell Test	AASHTO T258	Standard Method of Test for Determining Expansive Soils	$ each			$0.00			$0.00
Grain Size Analysis									
a Wash 200	AASHTO T11 (ASTM D1140)	Standard Method of Test for Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing	$ each			$0.00			$0.00
b Grain Size	ASTM D6913	Standard Method of Test for Particle Size Analysis of Soils	$ each			$0.00	[illegible]	[illegible]	$1 365.00
c Hydrometer	ASTM D7928	Standard Method of Test for Particle Size Analysis of Soils	$ each			$0.00			$0.00
d Elutriation	SC T-34	Mechanical Analysis of Soils (Elutriation Method)	$ each			$0.00			$0.00
Percentage of Fractured Particles in Coarse Aggregates	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregate	$ per bulk sample			$0.00			$0.00
Specific Gravity	AASHTO T100 (ASTM D854)	Standard Method of Test for Specific Gravity of Soils	$ each			$0.00			$0.00
Unit Weight									
a Standard Proctor	AASHTO T99 (ASTM D698)	Standard Method of Test for Moisture-Density Relations of Soils Using a 5.5 lb Rammer and a 12-in Drop	$ each			$0.00	[illegible]	[illegible]	$405.00
b Modified Proctor	AASHTO T180 (ASTM D1557)	Standard Method of Test for Moisture-Density Relations of Soils Using a 10 lb Rammer and an 18-in Drop	$ each			$0.00			$0.00
c Maximum Index Density and Unit Weight of Soils	ASTM D4253	Standard Method of Test for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	$ each			$0.00			$0.00
d Minimum Index Density and Unit Weight of Soils	ASTM D4254	Standard Method of Test for Minimum Index Density and Unit Weight of Soils Using and Calculation of Relative Density	$ each			$0.00			$0.00
California Bearing Ratio	AASHTO T193 (ASTM D1883)	Standard Method of Test for The California Bearing Ratio	$ each			$0.00	[illegible]	[illegible]	$1 890.00
Unconfined Compressive Strength of Cohesive Soil	AASHTO T208 (ASTM D2166)	Standard Method of Test for Unconfined Compressive Strength of Cohesive Soil	$ each			$0.00			$0.00
Compressive Strength of Rock Core	ASTM D7012	Standard Test for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures	$ each			$0.00			$0.00
LA Abrasion									
a Small-Size Coarse Aggregate	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	$ each			$0.00			$0.00
b Large-Size Coarse Aggregate	ASTM C535	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine	$ each			$0.00			$0.00
Soundness of Aggregates	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	$ each			$0.00			$0.00
Permeability Test									
a Constant Head	AASHTO T215	Standard Method of Test for Permeability of Granular Soils (Constant Head)	$ each			$0.00			$0.00
b Falling Head	ASTM D5856	Standard Test Method for Measurement of Hydraulic Conductivity of Porous Material Using a Rigid-wall, Compaction-mold Permeameter	$ each			$0.00			$0.00
c Flexible Wall	ASTM D5084	Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter	$ each			$0.00			$0.00
Ignition Loss	SC T-36	Procedure for Determining % Ignition Loss of Inorganic Soils	$ each			$0.00			$0.00
Triaxial Shear									
a Unconsolidated Undrained (UU)	AASHTO T296 (ASTM D2850)	Standard Method of Test for Unconsolidated Undrained Compression Strength of Cohesive Soils in Triaxial Compression	$ each			$0.00			$0.00
b Consolidated Undrained with pore pressure measurement (CU w/pp)	AASHTO T297 (ASTM D4767)	Standard Method of Test for Consolidated Undrained Triaxial Compression Test on Cohesive Soils	$ each			$0.00			$0.00
c Consolidated Drained (CD)	ASTM D7181	Standard Test Method for Consolidated Drained Triaxial Compression Test for Soils	$ each			$0.00			$0.00
Resonant Column	ASTM D4015	Standard Test Methods for Modulus and Damping of Soils by Resonant-Column Method	$ each			$0.00			$0.00
Torsional Shear									

o Drained Residual Shear Strength	ASTM D6467	Standard Test Method for Torsional Ring Shear Test to Determine Drained Residual Shear Strength of Cohesive Soils	5 each			$0.00		$0.00

b Drained Fully Softened Shear Strength	ASTM D7608	Standard Test Method for Torsional Ring Shear Test to Determine Drained Fully Softened Shear Strength and Nonlinear Strength Envelop of Cohesive Soils (using normally consolidated specimen) for Slopes with No Preexisting Shear Surface	$ each			$0.00			$0.00
Direct Shear	AASHTO T236 (ASTM D3080)	Standard Method of Test for Direct Shear Test of Soils Under Consolidated Drained Conditions	1 each			$0.00			$0.00
Consolidation									
a Consolidation Test (16 load increments)	AASHTO T216 (ASTM D 2435)	Standard Method of Test for One Dimensional Consolidation Properties of Soils	$ each			$0.00			$0.00
b Additional load increments			$ each			$0.00			$0.00
c Additional test time			$ per day			$0.00			$0.00
Organic Content	AASHTO T267 (ASTM D2974)	Standard Method of Test for Determination of Organic Content in Soils by Loss on Ignition	$ each			$0.00			$0.00
pH									
a soil	AASHTO T289 (ASTM G51)	Standard Method of Test for Determining pH of Soil for Use in Corrosion Testing	$ each			$0.00			$0.00
b water	ASTM D1293	Standard Test Methods for pH of Water	$ each			$0.00			$0.00
Chloride Content									
a soil	AASHTO T291	Standard Method of Test for Determining Water-Soluble Chloride Ion Content in Soil	$ each			$0.00			$0.00
b water	ASTM D512	Standard Test Methods for Chloride Ion in Water	$ each			$0.00			$0.00
Sulfate Content									
a soil	AASHTO T290 (ASTM C1580)	Standard Method of Test for Determining Water-Soluble Sulfate Ion Content in Soil	$ each			$0.00			$0.00
b water	ASTM D516	Standard Test Methods for Sulfate Ion in Water	$ each			$0.00			$0.00
Resistivity									
a soil	AASHTO T288	Standard Method of Test for Determining Minimum Laboratory Soil Resistivity	$ each			$0.00			$0.00
b water	ASTM D1125	Standard Test Methods for Electrical Conductivity and Resistivity of Water	$ each			$0.00			$0.00
Bituminous Mixture Extraction	SC-T-5	Standard Method of Test for Determination of Asphalt Binder Content for Asphalt Paving Mixtures by the Ignition Oven	$ each			$0.00			$0.00
Aggregate Sieve Analysis	SC-T-4	Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates	$ each			$0.00			$0.00
PLM asbestos Bulk Sample Analysis	EPA 600	Method for the Determination of Asbestos in Bulk Building Materials	$ each			$0.00			$0.00
PLM Asbestos Bulk Sample Analysis	ASTM D 6281	Standard Test Method for Airborne Asbestos Concentration in Ambient and Indoor Atmospheres as Determined by Transmission Electron Microscopy Direct Transfer (TEM)	$ each			$0.00			$0.00
XRF Analyses of Lead	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ per day			$0.00			$0.00
Total Lead Analysis	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ each			$0.00			$0.00

Hourly Rate Schedule			Pay Unit	Quantity	Unit Rates	Total Cost	Quantity	Unit Rates	Total Cost
Senior Principal			$ per hour			$0.00			$0.00
Principal/Project Manager			$ per hour			$0.00			$0.00
Senior Geotechnical Engineer			$ per hour			$0.00			$0.00
Geotechnical Engineer			$ per hour			$0.00			$0.00
Senior Geotechnical Professional			$ per hour			$0.00			$0.00
Project Geologist			$ per hour			$0.00			$0.00
Engineering Technician			$ per hour			$0.00			$0.00
Senior Environmental Specialist			$ per hour			$0.00			$0.00
Environmental Specialist			$ per hour			$0.00			$0.00
Graphics Designer			$ per hour			$0.00			$0.00
Administrative Assistant			$ per hour			$0.00			$0.00
Lodging			$ per day			$0.00			$0.00
Meals			$ per day			$0.00			$0.00
Travel			$ per mile			$0.00			$0.00
Outside Services Associated with Field and Laboratory Work	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment at use				$0.00			$0.00
					Preliminary	$0.00		Final Total	$22,599.00

TELICS

D30-N033-MJ

Project TIP D30-N033-MJ WBS PE _____ WBS RW _____ County Beaufort

Professional Services Firm Name TELICS Firm's LSA Contract ID _____

Project Estimator: Cory Wood Date: 10/13/2023

Classification/Name	Position classification & Name	Position classification & Name	Position classification & Name	Position classification & Name	Position classification & Name	Position classification & Name	Position classification & Name	SubTotal	
Project Estimate	(CW) Cory Wood	(CK) Chris Kennedy	(WA) Wayne Allred	(CW) Candi Wood				SubTotal	Notes
Recon, KO, Matrix, SUE	16	8	40	8					72
Prior Rights, PUE, Schedule	16	8	80	8					112
UBOs, SPs, Agreements	16	80	80	8					184
Utility Authorizations, Meetings	40	8	80	8					136
Final UBOs	24	80	24	8					136
									0
Manhours	112.0	184.0	304.0	40.0	0.0	0.0	0.0		640.0
Hourly Rate	$ 46.00	$ 32.50	$ 28.00	$ 15.00	$ 1.00	$ 1.00	$ 1.00		
SubTotal	$ 5,152.00	$ 5,980.00	$ 8,512.00	$ 600.00	$ -	$ -	$ -	$	20,244.00
						Overhead	77.660%	$	15,721.49
							Subtotal	$	35,965.49
						Fee	9%	$	3,236.89
						CoC	0.033%	$	6.64
							Subtotal	$	39,209.02
							Direct Costs	$	2,594.75
							Total Cost	**$**	**41,803.77**

Invoicing Percentages	Manhours	Mandays	% Work	$
Recon, KO, Matrix, SUE	72.0	9.0	11.3%	$ 4,702.92
Prior Rights, PUE, Schedule	112.0	14.0	17.5%	$ 7,315.66
UBOs, SPs, Agreements	184.0	23.0	28.8%	$12,018.59
Utility Authorizations,	136.0	17.0	21.3%	$ 8,883.30
Final UBOs	136.0	17.0	21.3%	$ 8,883.30
Total	640	80	100.0%	$41,803.77

Direct Costs	8-1/2"x11"	11"x17" Color	34" x 22" Bond Color	Film and Developing			Overnight per Diem (lodging & meals)	Mileage	Subtotals
Recon, KO, Matrix, SUE		100	100					3250	$ 2,594.75
									$ -
									$ -
									$ -
									$ -
Totals	0	100	100	0	0	0	0	3250	$ 2,594.75
Rate	$ 0.09	$ 1.66	$ 3.00	$20.00			$ 126.30	$ 0.655	Total
Costs	$ -	$ 166.00	$ 300.00	$ -	$ -	$ -	$ -	$2,128.75	**$ 2,594.75**

TELICS

TELICS SUE ESTIMATE			
TYPE	UNIT COST	Quantity*	TOTAL
LEVEL A SUE	$ 3,783.33	18	$ 68,100
LEVEL B SUE	$ 1.55	6500	$ 10,043
LEVEL C SUE	$ 1.38	20000	$ 27,551
LEVEL D SUE	$ 3.38	8000	$ 27,000
GRAVITY MANHOLES	$ 1,115.79	12	$ 13,389
AERIAL POLES	$ 562.50	15	$ 8,438
TOTAL FEE			$ 154,521

* If during the course of the SUE Investigation, additional quantities are discovered to be needed for capture, a supplement may be required.

** House connections will be captured when possible but may not be locatable