



April 4, 2016

Ms. Susan Parker, Town Administrator  
Town of Sunset Beach  
700 Sunset Boulevard North  
Sunset Beach, North Carolina 28468

RE: Revised Proposal for Engineering Services  
Stormwater Management Plan  
Sunset Beach, North Carolina

Dear Ms. Parker:

McGill Associates, P.A., Consulting Engineers (Consultant) is pleased to submit this proposal to the Town of Sunset Beach (Town) to assist the Town in preparing a Stormwater Management Plan for the Town's stormwater infrastructure. It is our understanding that this project entails several phases of study and deliverables, with the ultimate goal being a comprehensive stormwater capital improvement plan with funding strategies. A brief outline of our anticipated path to reaching that final goal is as follows:

- Review available stormwater infrastructure-related information, including previously prepared stormwater studies, maps, plans, ordinances, and permits.
- Develop a GIS inventory of the Town's existing stormwater infrastructure.
- Assess the capacity and condition of the Town's stormwater infrastructure. We understand that much of the Town's system was installed in the 1970's and is comprised of a combination of pipe materials (corrugated metal, plastic, RCP, Aluminum, BC1000) and varies in condition.
- Identify deficiencies within the Town's stormwater infrastructure and develop solutions to alleviate those deficiencies.
- Prioritize identified solutions and develop a 10-year Capital Improvement Plan.
- Identify strategies for funding identified solutions.
- Compile information into a stormwater management plan and summarize the results in a final report.

Following initial meetings and correspondence with Town Staff, we have developed a scope of services we feel is consistent with the understood expectations. The attached images help depict this scope, beginning with the Areas of Evaluation. The portion on the mainland is

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specific to the Seaside Station and Shoreline Woods Community, bounded by the roadways as outlined, while the entire island is part of the evaluation at various levels. Work in both areas will include inspections and data collection for pipes, manholes, catch basins, and stormwater features, in addition to the remaining general Scope of Work as summarized in the Request for Qualifications.

The attachment for Seaside Station and Shoreline Woods Community depicts the two roadways (Magnolia Drive and Azalea Circle) that have a need for more detailed evaluation. The additional scope in these communities is intended to cover detailed evaluation of existing drainage easements and boundary flow analysis that will help reasonably evaluate capacities of culvert infrastructure at roadway crossings, as well as the use of easements more effectively for stormwater management.

The Island Community attachment identifies locations where additional surveying is needed to record stormwater easements, as well as specific trouble spots identified for more extensive evaluation.

Based on this understanding, Consultant anticipates providing the following detailed scope of services under this proposal:

**PRELIMINARY PHASE:**

1. Attend one (1) project kickoff meeting. Under this item, Consultant will meet with the Town's staff to establish goals for the project. Goals may include flood control, erosion control, water quality, and wetlands management/enhancement. For the purposes of this proposal, the project goals will be limited to flood control throughout the project area as described in the Town's Request for Qualifications document. If the Town desires to include other goals, either throughout the project area or in specific targeted areas, services associated with meeting these goals can be provided under a separate agreement. It is anticipated that this meeting will include a tour highlighting the Town's stormwater infrastructure and the Town's known stormwater concerns will be identified.
2. Conduct a review of previously prepared stormwater studies, plans, ordinances, and permits. Under this item, Consultant will review available stormwater-related documentation provided by the Town. Hard copies or electronic copies of documents may be presented to Consultant at the project kickoff meeting. Information from these documents will be evaluated based on current stormwater regulations and practices and recommended modifications and/or improvements will be provided. This item does not include preparation of any revised or final documents, attendance at public hearings, meetings, or work sessions to discuss or enact recommended modifications, or the preparation for attendance at such meetings. These services

may be provided if desired and requested by the Town as additional services to this agreement or under a separate agreement.

**EXISTING CONDITIONS ASSESSMENT PHASE:**

1. Compile a map of the Town's existing stormwater infrastructure. Under this item, Consultant proposes to locate the Town's stormwater infrastructure using consumer grade GPS mapping equipment and visual placement on existing aerial photography. Stormwater infrastructure items to be located include piping, catch basins, junction boxes, pond outlets, road culverts, engineered ditches, and the like. Stormwater infrastructure items must be visible and accessible from the ground surface. This proposal does not include uncovering buried infrastructure or use of equipment to access otherwise inaccessible structures. Information gathered as part of the survey will include horizontal location of the infrastructure, and will include supplemental data including size, material, general condition, and approximate age. This information will be used in building a GIS infrastructure map both for the Town's continued use and for the purposes of this study. We emphasize that consumer grade GPS information is likely not sufficiently accurate for detailed capacity modeling. However, survey grade data will be collected in areas of know system deficiencies in order to adequately evaluate those portions of the system.
2. Perform a general conditions assessment of the Town's readily accessible stormwater infrastructure. Under this item, Consultant will visually assess the general condition of the Town's stormwater infrastructure elements that will be located as described above. The purpose of this assessment is to ascertain the general condition of the infrastructure as observable from the ground surface. Overall structural integrity of the infrastructure will not necessarily be determinable from these observations. These observations will be performed and recorded simultaneously with the field data collection in order to maximize efficiency.
3. Create a Geographic Information System (GIS) map and database of the Town's stormwater infrastructure. Under this item, Consultant will use data gathered as part of the field survey and general conditions assessment to develop a geodatabase using Environmental Systems Research Institute (ESRI) ArcGIS software. This item will be delivered to the Town for their use independent of this project as well as for use in conjunction with this project.
4. Develop a generalized hydrologic model of the project area. Under this item, Consultant will create one hydrologic model of the project area representing existing conditions for the purpose of quantifying the amounts of runoff draining to each stormwater infrastructure element. For the purposes of this study, existing conditions will represent the maximum amount of runoff a parcel could generate as currently zoned without being considered development as defined by the Unified Development

Ordinance. As the Town of Sunset Beach Unified Development Ordinance requires stormwater management for development, a second model simulating the effects of future development will not be needed. Whenever possible, previously published runoff information (such as from the most current Flood Insurance Study published by FEMA) will be incorporated into the hydrologic model. Available topographic, parcel, aerial photography, and soil mapping will be used to determine watersheds and appropriate runoff parameters. Where additional analysis is needed, runoff will be calculated using the NRCS curve number method.

5. Develop a generalized hydraulic model of the Town's stormwater infrastructure. Under this item, Consultant will use information from the field mapping, together with the results of the generalized hydrologic model to create a generalized hydraulic model of the Town's stormwater infrastructure. The generalized hydraulic model will be used to evaluate the approximate capacity of the Town's existing stormwater infrastructure, validate known problems or deficiencies, and identify capacity issues that may not be known. The model will also be used to identify the extent of the risk these deficiencies present.

#### **RECOMMENDATIONS PHASE:**

1. Consultant will identify conceptual solutions for addressing deficiencies in critical areas. Under this item, Consultant will use the generalized hydraulic model, together with newly created mapping, to identify practical solutions for addressing deficiencies. Consultant will also prepare concept layouts and establish conceptual total project cost estimates for the proposed solutions.
2. Consultant, in conjunction with Town Staff, will then review the conceptual solutions to the identified deficiencies, and will prioritize the projects into a Capital Improvements Plan (CIP) spanning the next ten (10) years. In order to perform this task objectively, Consultant will develop a decision-making matrix, in conjunction with Town Staff, for the purpose of evaluating projects and assigning relative importance to the proposed improvements. This item will include Consultant attendance at two (2) review meetings with the Town's staff. As directed by the Town, Consultant can also facilitate or attend community meetings to present and discuss the conceptual solutions with the public. Should the Town desire our assistance with presentation to the public, we can prepare a proposal for these services under a separate agreement.
3. Consultant will then finalize 10-Year CIP and present the results to the Town Council. This item includes Consultant attendance at one (1) meeting with the Town Council to formally present the document.

4. Consultant will prepare a financial analysis of the completed CIP in order to determine the affordability of the plan, and to identify potential funding scenarios involving capital needs and debt assumptions. This analysis will also identify and recommend potential outside funding sources, as well as identify potential modifications to the Town's current revenue streams in order to better support the recommended 10-Year CIP.
  
5. Consultant will consolidate all of the above information into a comprehensive Stormwater Management Plan document. This document will, to the extent possible, be created such that it can be used as supporting documentation as required by potential outside funding programs. The plan will include a summary of tasks performed for this project, as well as implementation costs and schedules for the recommended CIP. This item includes Consultant attendance at one (1) Town Council meeting in order to formally present the document.

**PROPOSED FEES**

Consultant anticipates providing the above services for the following **Lump Sum Fees:**

<b>PRELIMINARY PHASE.....</b>	<b>\$15,900</b>
<b>EXISTING CONDITIONS ASSESSMENT PHASE.....</b>	<b>\$84,700</b>
<b>RECOMMENDATIONS PHASE.....</b>	<b>\$59,100</b>

**ADDITIONAL SERVICES**

The following services are not included in this proposal. If any of the following services are required or desired, they may be provided as Additional Services and paid by the Town on an hourly basis in accordance with the attached fee schedule, or provided under a separate, mutually agreed upon agreement.

1. Providing property boundary, topographic, and/or other surveying services not specifically identified in the scope of services.
  
2. Making revisions to drawings or other documents when such revisions are inconsistent with approvals or instruction previously given by Town, or are due to causes beyond the control of Consultant.
  
3. Work required because of errors in information provided by others.

4. Providing services of professional subconsultants for items of work other than those outlined above.
5. Attendance at project related meetings other than those specifically listed above.
6. Preparation of applications and/or exhibits for review and/or presentation at public meetings other than those specifically listed above.
7. Performing traffic counts and/or performing Traffic Impact Studies.
8. Preparation and/or coordination of Phase I/Phase II Environmental Assessments.
9. Delineation of Wetlands/Jurisdictional Waters and Clean Water Act Section 401/404 permitting assistance.
10. Geotechnical investigation/engineering and/or performing soil/pavement borings and assessments.
11. Any design beyond the conceptual level of any recommended improvements.
12. Providing services other than those specifically listed in the above Scope of Services.

#### **TOWN'S RESPONSIBILITIES**

1. Town shall provide full information regarding the project area and promptly disclose any related requirements for the Project.
2. Town shall provide Consultant with electronic copies of all documents that the Town desires to have reviewed as part of this Project. Paper copies of documents may be provided, however, the Town shall be responsible for delivery of the documents to Consultant.
3. Town shall provide Consultant with access to the Town's mapping resources. This item includes existing GIS databases, digital copies of aerial photography, topography, and or infrastructure/utility mapping.
4. Town shall provide Consultant personnel full access to the project site.
5. Town shall provide assistance as needed in field locating infrastructure. This item includes uncovering buried infrastructure and assistance with accessing infrastructure that cannot be manually accessed or would be difficult to manually access with hand tools.

Ms. Susan Parker, Town Administrator

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6. Town shall designate a representative authorized to act in their behalf with respect to the Project. The Town or Town's representative shall examine documents submitted by Consultant and shall render decisions pertaining thereto promptly, in order to avoid unreasonable delay in the progress of Consultant's work.

### PAYMENT

Payment shall be made monthly as work progresses.

We sincerely thank you for the opportunity to work with you on this very important project. If you have any questions concerning this proposal or any element of our proposed scope of work, please do not hesitate to contact me at 919-378-9111. If the above is acceptable to you, please sign and return the attached Consulting Services Agreement to our office.

Sincerely,  
McGILL ASSOCIATES, P.A.



BILL ROARK, PE, CPSWQ  
Cary Office Manager

Enclosures: Attachments A-C  
Consulting Services Agreement  
Basic Fee Schedule

Cc: Michael Norton, Compass Pointe Engineering  
Andy Lovingood, McGill Associates



ISLAND COMMUNITY

SEASIDE STATION AND SHORELINE WOODS COMMUNITY



PLAN  
NOT TO SCALE

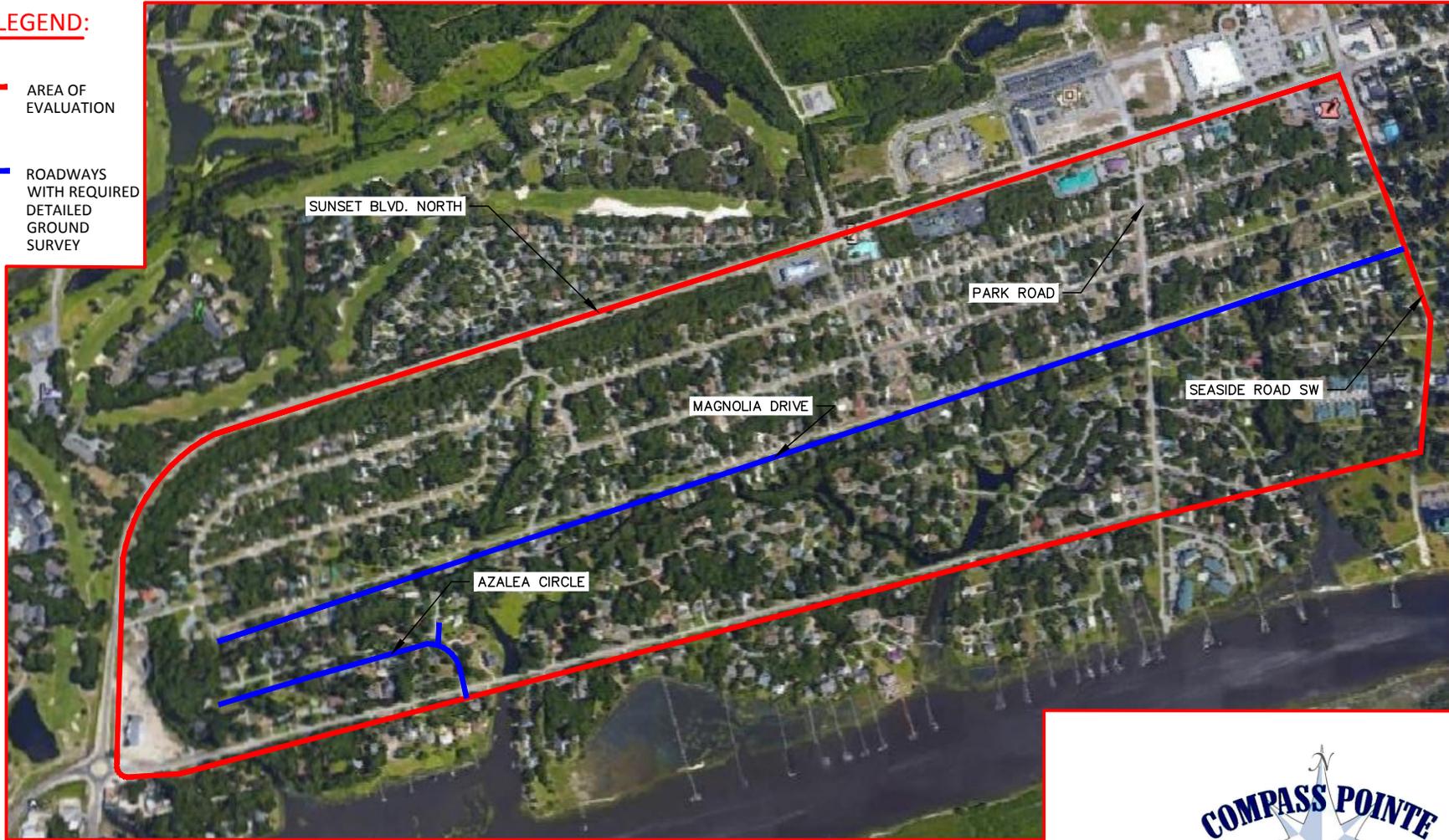
ATTACHMENT B

AERIAL MAP  
SEASIDE STATION AND SHORELINE WOODS COMMUNITY

**LEGEND:**

— AREA OF EVALUATION

— ROADWAYS WITH REQUIRED DETAILED GROUND SURVEY



PLAN  
NOT TO SCALE



ATTACHMENT C

AERIAL MAP  
ISLAND COMMUNITY

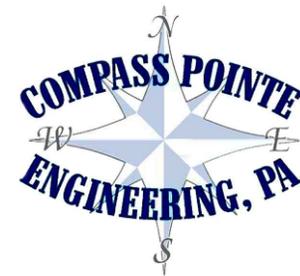


PLAN  
NOT TO SCALE

**LEGEND:**

- AREA OF EVALUATION
- DRAINAGE EASEMENTS IN NEED OF SURVEYING/RECORDING
- AREAS IN NEED OF DETAILED ASSESSMENT

**McGill**  
ASSOCIATES  
ENGINEERING · PLANNING · FINANCE  
1917 EVANS ROAD CARY, NC 27513 PH. (919) 378-9111 FIRM LICENSE # C-0459



# CONSULTING SERVICES AGREEMENT

This Consulting Services Agreement ("Agreement") entered into this \_\_\_\_\_ day of \_\_\_\_\_, 2016 by and between the Town of Sunset Beach, hereinafter called the Town, and McGill Associates, P.A., Consulting Engineers;

Witnesseth that: Whereas, the Town desires to engage McGill Associates to provide consulting services; and, Whereas, the Town finds that the attached Scope of Services and terms of this agreement are acceptable; and, Whereas, McGill Associates desires to provide said services and agrees to do so for the compensation and upon the terms and conditions as hereinafter set forth,

Now, therefore, the parties hereto do mutually agree as follows:

**1. Scope of Services:** McGill Associates shall provide the services attached hereto in the proposal letter dated April 4, 2016 to the Town to this Agreement, hereinafter called services. Additional services will be invoiced in accordance with the attached rate and fee schedule.

**2. Standard of Care:** McGill Associates will perform its services using that degree of skill and diligence normally employed by professional engineers and consultants performing the same services at the time these services are rendered. McGill Associates will reperform any services not meeting this standard without additional compensation.

**3. Authorization to Proceed:** Execution of this Consulting Services Agreement will be considered authorization for McGill Associates to proceed unless otherwise provided for in this Agreement.

**4. Changes in Scope:** The Town may request changes in the Scope of Services provided in this Agreement. If such changes affect McGill Associates cost of or time required for performance of the services, an equitable adjustment will be made through a written amendment to this Agreement. Signed by both parties

**5. Compensation:** The Town shall pay the compensation to McGill Associates set forth in the proposal letter dated April 4, 2016 to the Town of Sunset Beach attached hereto. Unless otherwise provided, McGill Associates shall submit invoices to the Town monthly for work accomplished under this agreement and the Town agrees to make payment to McGill Associates within thirty (30) days of receipt of the invoices. McGill Associates shall not be bound by any provision such as contained in a purchase order or wherein McGill Associates waives any rights to a mechanic's lien or any provision conditioning McGill Associates' right to receive payment for its work upon payment to the Town by any third party. These general conditions are notice, where required, that McGill Associates shall file a lien whenever necessary to collect past due amounts. It is also mutually agreed that should the Town fail to make prompt payments as described herein, McGill Associates reserves the right to immediately stop all work under this agreement until disputed amounts are resolved.

**6. Personnel:** McGill Associates represents that it has, or will secure at its own expense, all personnel required to perform the services under this agreement and that such personnel will be fully qualified and adequately supervised to perform such services. It is mutually understood that should the scope of services require outside subcontracted services, McGill Associates may do so at their reasonable discretion and in its best professional judgment.

**7. Opinions or Estimates of Cost:** Any costs estimates provided by McGill Associates shall be considered opinions of probable costs. These along with project economic evaluations provided by McGill Associates will be on a basis of experience and judgment, but, since McGill Associates has no control over market conditions or bidding procedures, McGill Associates cannot warrant that bids, ultimate construction cost, or project economics will not vary from these opinions.

**8. Termination:** This Agreement may be terminated for convenience by either the Town or McGill Associates with 15 days written notice or if either party fails substantially to perform through no fault of the other and does not commence correction of such non performance within 5 days of written notice and diligently complete the correction thereafter. On termination, McGill Associates will be paid for all authorized work performed up to the termination date plus reasonable project closeout costs.

**9. Limitation of Liability:** McGill Associates liability for Town's damages will, in aggregate, not exceed the total fees paid by the Town for the Scope of Services referenced. This provision takes precedence over any conflicting provision of this Agreement or any documents incorporated into it or referenced by it. This limitation of liability will apply whether McGill Associates liability arises under breach of contract or warranty; tort, including negligence; strict liability; statutory liability; or any other cause of action, and shall include McGill Associates' directors, officers, employees and subcontractors.

**10. Assignability:** This agreement shall not be assigned or otherwise transferred by either McGill Associates or the Town without the prior written consent of the other.

**11. Severability:** The provisions of this Agreement shall be deemed severable, and the invalidity or enforceability of any provision shall not affect the validity or enforceability of the other provisions hereof. If any provision of this consulting services agreement is deemed unenforceable for any reason whatsoever, such provision shall be appropriately limited, and given effect to the extent that it may be enforceable.

**12. Ownership of Documents:** All calculations generated during the performance of services shall be considered intellectual property and remain the property of McGill Associates. Town agrees that the calculations are intended for the exclusive use and benefit of, and may be relied upon for this project only by the Town and will not be used otherwise. Town agrees that any prospective lender, buyer, seller or third party who wishes to rely on any calculations must first sign McGill Associates' Secondary Client Agreement.

**13. Excusable Delay:** If performance of service is affected by causes beyond McGill Associates control, project schedule and compensation shall be equitably adjusted.

**14. Indemnification:** Town agrees to indemnify, defend and hold McGill Associates, its agents, employees, officers, directors and subcontractors harmless from any and all claims, and costs brought against McGill Associates which arise out of the failure by the Town to promptly and completely perform its obligations under this agreement, and as assigned in the proposal letter dated April 4, 2016 to the Town of Sunset Beach or from the inaccuracy or incompleteness of information supplied by the Town and reasonably relied upon by McGill Associates in performing its duties or for unauthorized use of the deliverables generated by McGill Associates.

**15. Choice of Law:** This Agreement shall be governed by the internal laws of the State of North Carolina.

**16. Entire Agreement:** This Agreement contains all of the agreements, representations and understandings of the parties hereto and supersedes any previous understandings, commitments, proposals, or agreements, whether oral or written, and may only be modified or amended as herein provided; and as mutually agreed.

**17. Attachments to this document:**

1. Proposal letter dated April 4, 2016 to the Town.

Client: Town of Sunset Beach  
Authorized Signature: \_\_\_\_\_

Print Name: Ms. Susan Parker  
Title: Town Administrator  
Address: 700 Sunset Boulevard North  
Sunset Beach, North Carolina 28468

Consultant: McGill Associates, P.A., Consulting Engineers  
Authorized Signature: \_\_\_\_\_

Print Name: Bill Roark, PE, CPSWQ  
Title: Cary Office Manager  
1917 Evans Road  
Cary, North Carolina 27513



## **BASIC FEE SCHEDULE**

**February, 2016**

<b><u>PROFESSIONAL FEES</u></b>	<u>Hourly Rate</u>
Firm Principal	\$185.00
Program Services Manager I	\$145.00
Program Services Manager II	\$160.00
Senior Project Manager I	\$160.00
Senior Project Manager II	\$170.00
Project Manager I	\$140.00
Project Manager II	\$150.00
Project Engineer I	\$105.00
Project Engineer II	\$115.00
Project Engineer III	\$125.00
Engineering Associate I	\$ 85.00
Engineering Associate II	\$ 90.00
Engineering Technician I	\$ 80.00
Engineering Technician II	\$ 90.00
Engineering Technician III	\$100.00
Environmental Specialist I	\$ 80.00
Environmental Specialist II	\$ 90.00
Electrical Engineer I	\$105.00
Electrical Engineer II	\$115.00
Electrical Engineer III	\$125.00
Electrical Engineering Associate I	\$ 85.00
Electrical Engineering Associate II	\$ 90.00
Electrical Engineering Technician I	\$ 80.00
Electrical Engineering Technician II	\$ 90.00
Electrical Engineering Technician III	\$100.00
CADD Operator I	\$ 75.00
CADD Operator II	\$ 80.00
CADD Operator III	\$ 85.00
Construction Services Manager I	\$120.00
Construction Services Manager II	\$130.00
Construction Administrator I	\$ 90.00
Construction Administrator II	\$100.00
Construction Administrator III	\$110.00

Construction Field Representative I	\$ 75.00
Construction Field Representative II	\$ 80.00
Construction Field Representative III	\$ 85.00
Planner I	\$ 95.00
Planner II	\$105.00
Planner III	\$125.00
Planner IV	\$135.00
Surveyor I	\$ 80.00
Surveyor II	\$ 90.00
Surveying Associate I	\$ 70.00
Surveying Associate II	\$ 75.00
Survey Field Technician I	\$ 55.00
Survey Field Technician II	\$ 60.00
Survey Field Technician III	\$ 65.00
Administrative Assistant (I-III)	\$ 70.00
Accounting Assistant (I-II)	\$ 80.00

1. **EXPENSES**

- a. Mileage - \$0.54/mile
- b. Robotics/GPS Equipment - \$25/hr.
- c. Telephone, reproduction, postage, lodging, and other incidentals shall be a direct charge per receipt.

2. **ASSOCIATED SERVICES -**

- a. Associated services required by the project such as soil analysis, materials testing, etc., shall be at cost plus ten (10) percent.