

**EXHIBIT F
GENERAL ARCHITECTURAL & ENGINEERING SERVICES
SCOPE OF SERVICES**

1. INTRODUCTION

(a) The Contractor shall provide Greater Richmond Transit Company (GRTC) with Civil Engineering services for any facility, proposed facility, feasibility studies and/or evaluations on an as-needed, task order basis. Each task order will contain a separate scope of work, fee, schedule, and deliverables.

(b) GRTC may select and contract with an engineering firm with listed sub-consultants to provide an indefinite quantity of services required for an unspecified number of projects, project phases or segments. Anticipated services include the following:

- (1) Civil Engineering
- (2) Architecture
- (3) Landscape Architecture
- (4) Structural Engineering
- (5) M.E.P. Engineering

(6) Transit Engineering & Design (including transit related industrial engineering for fueling, exhaust, fall protection, shop and yard layouts and equipment, wash systems, sand systems, drop tables, paint booths, etc.).

(7) Others as recommended by the Contractor to fulfill the obligations of this contract.

(c) GRTC may award multiple task orders under this Contract or none.

(d) In most task orders, the Contractor will be one of a team of contractors comprising the project team reporting to the project manager. The Contractor shall closely communicate, integrate, and coordinate services with other GRTC Contractors when required.

(e) GRTC maintains a separate task order contract for Construction Management and Construction Engineering and Inspection services to supplement this Civil Engineering task order contract.

(f) The Contractor will provide civil engineering services for any task orders issued prior to the end of the Contract Term.

2. OBJECTIVE OF THE PROJECT

(a) The objective is to provide Civil Engineering Consulting Services to GRTC when required by the attributes of an individual project or by Statute.

(b) The services may include but are not limited to the following: Feasibility studies/reports, conceptual plans, preliminary building and site designs, hydraulic (drainage) studies, assessment of public and private road crossings across transit right-of-way, environmental assessments, final project designs, construction repairs/rehabilitations for existing facilities; construction documents of proposed new transit related facilities including, but not limited to, administrative and maintenance buildings, lease space or tenant finish outs, transfer centers, neighborhood transfer centers, park & rides, bus stops and amenities, bicycle facilities, any roadway construction and maintenance, and transit oriented developments.

(c) The Contractor should have experience in transportation project feasibility studies, evaluations, preliminary design, design development, public and private road crossings across transit right-of-way, environmental assessments, final design, preparing construction documents, design of transit stations, transfer centers, park and ride facilities, traffic impact analysis, pavement design, bus stop accessibility improvements, curb ramps, sidewalks, drainage features and improvements, BRT stations, and roadway ROW construction.

3. ANTICIPATED SERVICES

The following is intended as a good guide to the general nature of services that will be provided, but is not intended to be all inclusive as requirements may vary between task order scopes of work:

(a) Phase A – Preliminary Engineering Report:

In Phase A of the project, the Contractor shall review previous environmental studies and underground utility records, and analyze geo-technical information, conduct feasibility studies, and prepare project feasibility reports and other tasks as may be appropriate or directed. Following GRTC's authorization, the Contractor shall move forward with the design. More specifically the Contractor shall:

- (1) Collect all available information concerning existing and proposed utility facilities in the project area, collect photos and video footage, including but not limited to water, and wastewater pipelines, telephone, fiber optics, natural gas, electrical overhead & underground, drainage facilities and structures, and traffic signal systems, etc.

(2) Conduct preliminary field surveys and determine any site constraints and special permitting requirements (federal, state, local) and environmental, including recent revisions to the Land Development Code, and other activities as may be appropriate or directed.

(3) Review existing GRTC provided information concerning the assigned projects including as-built drawings (if available) and current conditions.

(4) Provide traffic volume data and projections and related reports. Review traffic volume data prepared by others. Provide project recommendations.

(5) Evaluate alternative methods of materials and construction, and performance. Evaluate and recommend alternate methods of project delivery.

(6) Upon conclusion of the reviews, investigations, and preliminary evaluations, prepare, present, and publish details and a summarization of findings, solution options, cost estimates and a design and construction schedule for the project.

(7) Assist in preparing scopes of work and independent cost estimates as requested to procure other GRTC consultants.

(b) Phase B – Design and Bid Documents Preparations:

(1) The Contractor shall conduct or otherwise acquire the necessary field surveys, geotechnical reports from GRTC and other relevant investigations for the final design. The Contractor shall prepare final contract documents consisting of detailed plans, specifications (utilizing VDOT, and City of Richmond standards, as applicable) and cost estimates for the bidding and construction of the project improvements as approved by GRTC. The Contractor shall furnish sub-consultant services as may be appropriate for the execution of the design and assist in applying for governing agencies' approvals (City of Richmond, VDOT) and permits necessary for the construction of the project.

(2) The Contractor shall develop a unit cost price schedule for GRTC to advertise and solicit competitive bids for the construction of the project, attend pre-bid conferences, and respond to bidders' questions. When requested, provide multiple bid packages for the same project.

(3) When requested, provide colored renderings, exhibits, and/or 3D images of the proposed designs.

4. TASK ORDERS

Prior to issuance of a written task order GRTC's primary procurement officer shall provide notification to the Contractor of the services required by the task order, which

shall include a required date to submit pricing for this task. The Contractor shall provide a complete and itemized cost breakdown, inclusive of labor hours, material/other costs, and a timeline for completion of the work back to the primary procurement officer. Fully burdened labor rates shall be those specified in the Contract. If GRTC does not agree with the proposed labor disciplines, number of labor hours, material/costs, or timelines, GRTC reserves the right to negotiate with the Contractor as to arrive at a final agreement for the task. Following final agreement, a written task order will be issued for a fixed price.

(a) In response to the initiation of an appropriate facilities project, GRTC's primary procurement officer shall issue a scope of required services for a uniquely numbered Task Order to the Contractor for pricing.

(b) Within five (5) working days of receipt of required services scope, the Contractor shall provide a detailed cost proposal to the primary procurement officer that is appropriate for all the required services, in accordance with the project schedule and based on the contract fee schedule.

(c) Task orders shall contain a complete description of the work, an itemized estimate of fixed labor costs and material/other costs as a fixed fee agreed to by all parties.

(d) A production schedule must accompany the task order proposal.

(e) Task Order proposals must represent a complete cost projection, including hourly fees by job classification, design and specification production and other activities associated with the proposed task order. All subcontractor costs must be included as part of the overall Task Order.

(f) When the language of an individual task order proposal conflicts with the requirements of this Contract, the Contract shall supersede the proposal unless the proposal specifically includes those conflicts in a list labeled "Exclusions."

(g) GRTC may reject any task proposal as non-responsive that excludes the required services.

(h) The Contractor shall immediately notify GRTC of any requirements for additional project investigation or documentation necessary to provide the required scope of services.

(i) All designs shall be appropriate to the project goals defined by the Project Manager.

(j) On review and approval of the cost proposal, the primary procurement officer shall issue a notice to proceed to the Contractor who will provide the required services in accordance with the project schedule.

(k) The Contractor shall submit a single monthly invoice for each task order to the post office box/email included in Exhibit E to this Contract. The invoice will document fees for

the authorized services and pre-approved reimbursable expenses, if any, incurred during that period only.

(l) The Contractor shall provide a listing produced by each sub-consultant that is similarly itemized, fully burdened and without additional mark-up by the Contractor.

(m) The Contractor shall submit the invoice and Schedule C of Subcontractor Participation form to the project manager with the request for payment, even if a DBE subcontractor was not utilized during the invoice period.

(n) On completion or termination of the project, the primary procurement officer will terminate the task order and initiate any final payment to the Contractor for civil engineering services rendered to that date.

4.1 POTENTIAL TASKS

Responses shall include a narrative that describes the methodology, staffing, and proposed approach to accomplish the potential task orders described below.

Potential Task 1: Facilities Master Plan Development/ Preliminary Engineering for Facility Construction

GRTC requires the services of a professional consultant to prepare the Comprehensive Facilities Master Plan and to assist GRTC with related planning and construction compliance requirements. These activities include a comprehensive evaluation of GRTC's operational needs based on full implementation of the recommendations of the TDP and regional transit vision plan, a detailed review of the adjacent parcel and GRTC's Maintenance and Administration Facility, development of recommendations for current and future facilities investments, preliminary engineering, and conceptual design.

Deliverables: Project Management, Progress Meetings, Monthly Progress Reports, Operations Analysis, Site Assessment, Facilities Master Plan and Recommendations Report

Potential Task 2: BRT Pulse Station Modifications

In preparation for deploying articulated vehicles on the Pulse BRT route, GRTC initiated a study to assess the feasibility of using articulated vehicles and determine what alterations may be required to the existing GRTC Pulse stations and corridor to accommodate articulated vehicles.

Engineering design is required for the recommended Pulse BRT station and adjacent roadway modifications, which include:

Remove a portion of the approach and departure knee walls to extend the platform length

Add new detectable warning tiles along the extended platform

Extend the length of the rub rail on the downstream side of the station

Relocate the ADA boarding and alighting area on the platform

Extend the approach concrete apron 12' farther from its current location

5. RESPONSIBILITIES OF THE CONTRACTOR

(a) All professional engineering design services must be performed in compliance with the Virginia Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers and Landscape Architects (APELSCIDLA) and display a signed and sealed professional engineering (P.E.) stamp.

(b) The Contractor must maintain current insurance required by this Contract.

(c) The Contractor shall maintain an effective quality control system for all services provided in this Contract. The Contractor shall provide necessary staffing, policies and procedures required to identify, document and correct quality defects and deficiencies.