

The Bowie Heritage Trail Engineering Studies– Project Components and Projected Costs

– Component #1. Phase 1 Final Engineering (Projected Cost: \$41,500)

Source: AB Consultants' "The Bowie Heritage Trail 30% Engineering Design" FINAL REPORT

4.2. Engineering Design Cost Estimate and Scope of Work

The scope of work for the final engineering design for this project should include:

1. Familiarize with all available information and perform independent research.
2. Perform all necessary additional survey work for the production of construction documents and permits. At a minimum, identify and map all existing improvements and features including but not limited to: utilities, roads, tree lines (individual trees 12" DBH, storm drains (inlets, and manholes with inverts), sanitary sewer (including inverts), fences, wetlands, streams, etc.
3. Provide all Geotechnical services (soil borings, sampling, analysis, recommendations for specific elements of design, as needed). Access path(s) for geotechnical borings.. Consultant will pay any and all required bonds.
4. Produce construction documents including but not limited to site grading, storm drainage and stormwater management, erosion and sediment control, maintenance of traffic plan, signage, structural design for retaining wall, boardwalk, etc., landscape plan, tree conservation plan and all environmental reports (wetlands, streams, Natural Resources Inventory (NRI), trail head with parking lot, gazebos and other landscape items, kiosk trail maps and interpretative displays along with standard hiker-biker signage, location of exercise equipment along trail, roadway improvement plans for all trail connections, etc.
5. Prepare specifications and construction cost estimate.
6. Coordinate and secure all approvals and permits.
7. Attend meetings. At a minimum the following meets shall be required, project kick-off, 3 design review meetings, pre-bid meeting and pre-construction meeting. Prepare minutes of meeting and distribute within 7 days of the meeting.
8. Provide Construction administration including shop drawings review, and responses to RFI's

- Component #2. Estimate for Preliminary Engineering of Trail Underpass of MD 197 (Projected Cost: \$26,000)

Method 1

Total construction cost estimate Old Town Bowie to Bowie State MARC Station, from Bowie State MARC Sector Plan, Table VI-2, Public Facility Cost Estimates: \$240,000

Preliminary engineering at 11% of construction estimate (percent based on data from AB Consultants' Phase 1 cost computations) 11% of \$240,000 = \$26,400

Method 2

AB Consultants' Detailed Engineering Design Fee Total Cost Estimate for Phase 1, including MD 564 bridge underpass = \$82,990

**Rough estimate of possible items: \$52,000 (total design fee)
\$52,000 x 0.50 = \$26,000 (to provide 30% design plans)**