



Memo

TO: Committee of the Whole
FROM: Ed Andrews, Public Works Director
DATE: August 11, 2017
SUBJECT: Freedom Parkway Engineering

The preliminary plans for Freedom Parkway roadway extension were completed by Austin Engineering in 2012. These preliminary plans helped define the alignment of the sanitary sewer and watermain installations along this alignment and have helped support the competitive submittal process to PPUATS and CEDS for potential federal funding.

As part of this year's budget, finalization of these plans as well review of the supporting intersection design studies (IDS) for a signalized intersection at N Cummings and Lakeshore Drive were included.



A proposal for this effort was obtained from Austin Engineering teamed with Christopher Burke for the traffic signal work and IDS update(s). Both firms are prequalified with the City of Washington and IDOT to perform their respective services supporting this effort.

Consideration of advancing this proposal to a formal contract is being brought before Committee of the Whole as a follow-up to discussion at the Public Works Committee meeting of August 4th.

cc: File



AUSTIN ENGINEERING, CO., INC.

Consulting Engineers / Surveyors

Peoria, Illinois

austinengineeringcompany.com

Mr. Ed Andrews
Public Works Director – City of Washington
301 Walnut Street
Washington, IL 61571
(309) 444-1136
eandrews@ci.washington.il.us

August 04, 2017

Re: Freedom Parkway – Phase 2 Design Services
Lake Shore Drive – Phase 1 Design Services
Professional Engineering & Land Surveying Services Proposal
Team Proposal with Christopher B. Burke Engineering, Ltd.

Dear Mr. Andrews:

Thank you for the opportunity to submit a proposal for Civil Engineering & Land Surveying Services for the continued development of Phase 2 Construction Plan Documents for Freedom Parkway Extended from the existing terminus at the Northeasterly corner of the Wal-Mart Development to Cummings Lane. Per your request, Austin Engineering Company, Inc. (AECI) will be teaming with Christopher B. Burke, Ltd. (CBB) as a sub-consultant to incorporate a roundabout design at the future intersection of Lake Shore Drive and Freedom Parkway. Our proposal also includes a scope of services for limited Phase One services for Lake Shore Drive and Freedom Parkway, as further defined below. A few important design notes and guidelines are listed below under “Project Understanding” per the scoping meeting we had with you at our office on the morning of July 19, 2017.

Project Understanding

- Austin Engineering previously prepared Phase 2 design plans for the extension of Freedom Parkway. The Western limits being the existing terminus at the Northeasterly corner of the Wal-Mart Development and the Eastern limits being its intersection with Cummings Lane. The total length is approximately 3,600 feet and consists of a 3-lane Urban Collector Street with a 40-foot width, face to face of curb & gutter. These plans were prepared for submittal to IDOT for preliminary design review for the purpose of being considered for Federal Funding through PUATS. These plans were halted at about 80% completion in early 2012.
- The majority of the required Right of Way as well as temporary and permanent construction easements required to construct the extension of Freedom Parkway were

previously prepared by AECI and others. To our knowledge, the majority of them have been secured during previous efforts on the part of the City of Washington and their consultants. We are aware of additional R.O.W. required at the intersection of Freedom Parkway and Cummings Lane as well as additional storm sewer easements that are needed. We propose in our scope of services to conduct a thorough search and investigation and formulate a list of any R.O.W. or easements still required.

- The aforementioned Freedom Parkway Extension Plans were previously utilized to construct a public sanitary sewer main and a public water main extension along the proposed alignment, within the public R.O.W. The sanitary sewer serves approximately 2,600 feet of the total 3,600 feet roadway extension. The water main has been extended along the entire 3,600 feet of proposed street extension. Austin Engineering prepared the utility construction plans for bid for the sanitary sewer and assisted with securing the necessary construction permits from IEPA. AECI also provided limited Phase 3 Construction Services for the Sanitary Sewer construction.
- Christopher B. Burke has previously completed an Intersection Design Study for a proposed intersection at Business Route 24 and Lake Shore Drive. The purpose of the IDS was to improve the existing intersection and extend Lake Shore Drive North of Business Route 24. This IDS needs to be updated based on current development projections and a modified centerline alignment. The BIG R Store within the Cherry Tree Shopping Center (CTSC) and future development plans to the west of CTSC have shown a willingness to re-configure the westerly parking lot layout of CTSC so that the future alignment of Lake Shore Drive can be situated east of the original plan and IDS prepared by CBB.
- The City of Washington Public Works Department would like to complete a preliminary Phase 1 alignment for the Northerly extension of Lake Shore Drive from Business Route 24 to its future intersection with Freedom Parkway. Further, the City would like to plan for a roundabout to be constructed at the future intersection of Freedom Parkway and Lake Shore Drive and desires the construction plans for Freedom Parkway to be modified to incorporate this future infrastructure component. A water main loop should also be planned along the future alignment of Lake Shore Drive to connect/loop existing water mains at Freedom Parkway and Business Route 24.
- The City of Washington Public Works Department does not anticipate that these projects will be able to be funded by PUATS for Federal Funding Dollars in a timely manner to meet the needs of the Washington Community. As such, the scope of services to be provided from this point on will only need to satisfy the approval of the City of Washington Public Works Department for presentation to the City Council for approval. The lone exception being the Lake Shore Drive Intersection at Business Route 24, which will require IDOT approvals.
- A possible way to fund this project would be through the implementation of a special service area sales tax as well as establishing road frontage fees to be collected from those properties directly benefiting from the construction of both roads at the time the properties are annexed into the City of Washington.

- The intersection of Freedom Parkway with Cummings Lane should be further analyzed with regard to geometrics and centerline profile now that IDOT will no longer be part of the design approval process for this intersection. It is anticipated that the intersection will still warrant signalization. Inclusion of Phase 2 design services for traffic signals should be included in the proposal for design services.

Phase 1 Design Services

Based on the items noted above, AECI and CBB would propose the following list of Phase 1 design service deliverables to be completed.

1. Business Route 24/Lakeshore Drive IDS Update/Revisions (CBB)
2. Freedom Parkway & Cummings Lane IDS (CBB)
3. Roundabout IDS at Freedom Parkway and Lake Shore Drive (CBB)
4. Preliminary Centerline Alignment & Profile for Lake Shore Drive from Business Route 24 to Cruger Road. (AECI & CBB)
5. Review all previous ROW and Easements required for Freedom Parkway construction and verify all ROW and Easements have been secured or provide a list of those that are still required. We believe there are storm sewer easements and perhaps additional ROW to be acquired at the intersection of Freedom & Cummings. (AECI)
6. Complete limited survey boundary work to establish the Survey control line for the Lake Shore Drive Centerline Alignment from Business Route 24 to Cruger Road. (AECI)

Attached you will find a more detailed list of tasks associated with each of the deliverables noted above and an estimation of the manhours required for each. We propose to complete these professional design services on an hourly basis at the respective hourly rate for each professional as noted. We would propose the Phase 1 services contract be setup as an hourly, not to exceed budget of **\$50,000**. We propose to complete the Phase 1 Services by November 30, 2017, so long as a notice to proceed is secured before August 15, 2017.

Phase 2 Design Services

Based on the items noted above, AECI and CBB would propose the following list of Phase 2 design service deliverables to be completed.

1. Update Freedom Parkway construction plans from Eagle Point/CAD to CIVIL 3D and situate on State Plane Coordinate System (AECI)
2. Modify/Revise Intersection of Freedom Parkway and Cummings Lane per CBB IDS (AECI)
3. Include Traffic Signal Design at Freedom Parkway and Cummings Lane and provide all details on the Construction Plan Documents for construction.
4. Incorporate the "Future" Lake Shore Drive Intersection Roundabout design into the Freedom Parkway Phase 2 construction plans so that the Roundabout can be easily constructed at a point in the future. (AECI)
5. Complete an overall analysis of Surface Drainage and Storm Sewer Design and review with Public Works Director to verify previous plan is still the best option/design. (AECI)
6. Prepare a preliminary Right of Way Plat Exhibit for the required roundabout right of way and the right of way for Lake Shore Drive from Business Route 24 to Cruger Road.

7. Provide all miscellaneous plan updates as required to produce a cohesive, ready to bid set of construction plans for Freedom Parkway (3,600 feet +/-) (AECI)
8. Prepare all contract documents and specifications to be "ready to bid" for Freedom Parkway. (AECI)

Attached you will find a more detailed list of tasks associated with each of the deliverables noted above and an estimation of the manhours required for each. We propose to complete these professional design services on an hourly basis at the respective hourly rate for each professional as noted. We would propose the Phase 2 services contract be setup as an hourly, not to exceed budget of **\$45,500**. We propose to complete the Phase 2 services prior to April 01, 2018 at the earliest.

Invoices will be submitted on a monthly percent complete basis as time is incurred and payment is expected within 30 days of the date of each invoice. This proposal assumes all work will be completed within the 2017 thru 2019 calendar years. If the project is delayed for any reason past 2019, the proposal will require modification to include updated hourly rates.

Again, we appreciate your consideration of Austin Engineering Co., Inc. and Christopher B. Burke, Ltd. for your Professional Engineering and Land Surveying needs. If you have any questions or need additional information with respect to this proposal, please do not hesitate to contact us. We will begin work immediately upon receipt of your authorized signature below.

Sincerely,

Accepted by:



Devin Birch, PE
President
Austin Engineering Co, Inc.

Mr. Ed Andrews
Public Works Director, City of Washington

Christopher B. Burke Engineering, Ltd.
 114 State Street, Suite 1B
 Peoria, IL 61602

Manhour Projections - Freedom Parkway / Lake Shore Drive Extensions City of Washington					08/03/17
	Traffic Engineer	Project Engineer	Engineering Technician	Total	
Bus Rte 24 / Lakeshore Drive IDS Revisions	4	12	12	28	
Update Traffic Volumes (IDOT and manual counts)			5	5	
Update Topographic Survey at Bus Rte 24 (multi-use path)	4	8		12	
Revise Intersection Horizontal and Vertical Alignments	4			4	
Signal Warrant Analysis	4			4	
Capacity Design Study	4	4		8	
Elements Controlling Design	4	4		8	
Traffic Data	4			4	
Revise IDS / Plan and Profile Sheets	4	8	8	20	
Cummings Lane / Freedom Pkwy IDS / Signal Plans					
Signal Warrant Analysis	4			4	
Capacity Design Study	4	4		8	
Elements Controlling Design	4	4		8	
Traffic Data	4			4	
Prepare IDS from existing Plan and Profile Sheets	2	8		10	
Signal Plans - Cummings Lane / Freedom Pkwy					
Cover / General Notes	4	4		8	
Summary of Quantities	4		12	16	
Traffic Signal Installation Plan	8	8		16	
Cable Diagram	8	8		16	
Interconnect Schematic	4	8		12	
Standards / Details	4		8	12	
Contract Special Provisions	8			8	
Roundabout IDS at Freedom Pkwy / Lake Shore Drive Intersection					
Roundabout Geometric Design	16	8	8	32	
Roundabout Capacity Analysis	8	4		12	
Traffic Data	6			6	
Elements Controlling Design	6		4	10	
Roundabout Profiles	8	8	16	32	
Design Vehicle Turning Analysis	8	8		16	
Fastest Path Analysis	8	8		16	
Intersection Sight Distance	4	8		12	
Miscellaneous					
Coordination	12			12	
Meetings	12	16		28	
Review Comments	8	8	8	24	
Total Hours	182	148	81	289	
Total Estimated Fee	\$26,390.00	\$14,060.00	\$5,913.00	\$46,363.00	



Austin Engineering Company, Inc.
 311 SW Water Street, Suite 215
 Peoria, IL 61602



Manhour Projections - Freedom Parkway / Lake Shore Drive Extensions							08/02/17
City of Washington							
	Senior Engineer	Project Manager & Professional Engineer	Professional Land Surveyor	Survey Crew	Engineer II	Total	
Phase 1 Services							
Lake Shore Drive - Preliminary Alignment & Profile							
Limited Property Boundary Survey along Proposed Alignment		2	6	10		18	
Limited Topo of Big-R Parking Lot (Cherry Tree Shopping Center)				4	3	7	
Office Survey to Establish Horizontal Boundary Control & GIS Review		2	10			12	
Preliminary Plan & Profile Sheets for Lake Shore Drive	6	12			16	34	
Right of Way and Easement Review for Freedom Parkway Construction							
Research at City of Washington Clerk Office			3			3	
Research at Tazewell County Courthouse			8			8	
Project review of all Easements or ROW Docs previously prepared (Added ROW and Storm Sewer)		2	4			6	
Prepare Overall Exhibit and Summary of Findings		2	4		4	10	
Miscellaneous							
Coordination	10	8				18	
Meetings	8	8	4			20	
Review Comments						0	
	Sub-Total	24	36	14	23	136	
	Budget	\$2,880	\$3,600	\$3,705	\$1,820	\$1,955	\$13,960
	Senior Engineer	Project Manager & Professional Engineer	Professional Land Surveyor	Survey Crew	Engineer II	Total	
Phase 2 Services							
Update Freedom Parkway Plans to Civil-3D							
As-Built Topo Survey for Existing Water Main - Misc. Infill of Topo as needed		2	2	8	6	18	
Survey Base File to State Plane Coordinates			2	4		6	
Update Linework					16	16	
Incorporate Existing Plan Centerline Profile Data		2			28	30	
Update Utilities - Show As-Built Sewer & Water Information					8	8	
Review of Drainage and Storm Sewer Design							
Review & Compile Previous Design Notes		2			4	6	
Overall Review of drainage basins affected by Freedom Parkway Construction		2			8	10	
Meet with Public Works Director to verify current design still best design route		3			3	6	
Modify Intersection of Freedom Parkway and Cummings Lane							
Horizontal Features		1			3	4	
Vertical Alignment		2			6	8	
Incorporate Signal Design Features from CBB		2			4	6	
Utility Adjustments		2			6	8	
Adjust All Plan Sheets Notes					3	3	
Incorporate "Future" Lake Shore Drive Roundabout Intersection							
Horizontal Features		2			8	10	
Vertical Alignment		10			16	26	
Utility Adjustments Including Storm Sewer Design Changes/Modifications		2			16	18	
Adjust All Plan Sheets & Notes		2			8	10	
Prepare Preliminary Right of Way Plat Exhibits							
Lake Shore Drive Roundabout		2	4		8	14	
Lake Shore Drive Centerline Alignment from Business Route 24 to Cruger Road		2	8		16	26	
Miscellaneous							
Finalize Plans to Make All Revisions & Adjustments Cohesive & Update all Title Blocks/Notes, Etc	6	12			16	34	
Project Contract Documents and Specifications Booklets	2	16				18	
Coordination	22	22				44	
Meetings	8	8	4		4	24	
Review Comments	2	4			16	22	
	Sub-Total	40	100	20	12	203	375
	Budget	\$4,800	\$10,000	\$1,900	\$1,560	\$17,255	\$35,515