

March 31, 2024

Mike Andrako, P.E.
Mobility Engineer
Franklin County Engineer's Office
970 Dublin Road
Columbus, Ohio 43215

**RE: Professional Engineering Services – 2023 Mobility GES Task Order - Task #2
Feasibility Study for Clark State Road Pedestrian and Bike Facilities – Revision 2
Toole Design Proposal No. 00CMH.00205.02**

Dear Mike,

Please find below a revised letter scope and fee proposal based on your comments received on 3/20/24. This high-level feasibility study will consider pedestrian and bike facility recommendations along 4.2 miles of Clark State Road between Hamilton Road and Jefferson Community Park. Considerations will include:

- Existing widths of the roadway, berms, graded shoulders, bridges/culverts, and right-of-way
- Potential for on-street bike lanes or separated facilities
- Provisions for a 5-foot-wide concrete sidewalk on one side or both, or
 - a 10-foot-wide asphalt shared use path on one side or both, or
 - a combination of concrete sidewalk and asphalt shared use path (SUP)
- Clark State Road and side street crosswalks (including locations for enhanced crosswalks)
- Scenic byway considerations

The study will result in recommendations for a preferred alignment, typical sections for the preferred alignment, and a planning-level cost estimate that can be used to identify potential funding. The study will also identify any potential red flags with the preferred alignment and make suggestions for project phasing, with costs divided by phase. Given the above considerations and project assumptions, we anticipate a total authorized fee of \$67,400.00 (including \$14,500.00 for structural analysis by Woolpert) plus an if-authorized fee of \$2,000.00 for additional tasks as determined by the FCEO.

Our team is excited to have the opportunity to assist you in taking the first step in moving this multimodal improvement from a planned to a constructed facility which will have a profound effect on active transportation options for this area. If you have any questions please contact Steve Koch, PE, at skoch@tooledesign.com or 614-325-2109. We appreciate the opportunity to submit this proposal and look forward to working with you.

Sincerely,



David Shipps, AICP
Ohio Office Director
dshipps@tooledesign.com

Scope of Services

Task 1 – Study Coordination

This task will cover regular coordination with the FCEO staff along with invoicing and monthly progress reports. Upon notice to proceed, Toole Design will schedule a kickoff meeting to review our scope of services and confirm design elements and cost analysis parameters. Our team has assumed up to three meetings with the FCEO, Jefferson Township, the City of Gahanna, and others as appropriate.

Task 2 – Preliminary Alternative Analysis

Toole Design will obtain Franklin County parcel and right-of-way shapefiles and USGS topo maps to prepare a basic CADD basemap. We will use this information to evaluate the feasibility and high-level impacts of the different types of potential pedestrian and bike facilities (bike lanes, sidewalk, shared use path, or a combination thereof) along Clark State Road. This information will be used to help identify red flags for each alternative, rule out infeasible alternatives or alternatives that do not meet the study goals, identify potential right-of-way and other impacts to the corridor. Toole Design will also review pertinent existing planning studies (such as the Central Ohio Greenways, community plans, etc.) to evaluate how the different alternatives meet or fulfill the relevant recommendations. Toole Design will review the results of this analysis during an informal meeting with the FCEO.

Task 3 – Develop Preferred Alignment and Cost Estimate

Based on the alternatives analysis completed in Task 2, Toole Design will recommend a preferred alternative for further analysis. In this task, we will develop sidewalk/SUP alignments specifying which side of the road for the facility and/or if the facility deviates from the road. Plan sheets will be developed identifying locations where significant grading may be necessary, where additional right-of-way is anticipated, locations where utility easements and potential conflicts exist, and locations where structure modifications (by Woolpert) may be necessary. We will also identify proposed crosswalk locations to connect to existing pedestrian and bike facilities and any crossing enhancements that may be necessary based on the FHWA and ODOT guidance. Typical sections will be developed showing the proposed section, including roadway, swale or ditch location, the proposed path or sidewalk, offset from the edge of pavement, and tiedown to existing grade. Toole Design will develop an estimate with costs separated by roadway, structure modification, and right-of-way.

Toole Design will solicit the aid of Woolpert, Inc., to provide input on structure impacts and determine structure modification costs. This work will be provided based on the detailed scope provided in the attached proposal.

It is assumed that the FCEO will estimate land acquisition costs for inclusion in the final cost estimate based on the right-of-way needs identified as part of this task.

Task 4 – Feasibility Study Report

Based on the analysis and findings in Tasks 2 and 3, Toole Design will prepare a report documenting the study findings, including the existing conditions, the alternatives considered, and the preferred alignment and cost estimate. One round of edits is assumed for this report. Toole Design will prepare an exhibit depicting the preferred alignment as part of the final deliverable as well as typical sections for the preferred alignment.

Project Milestones and Costs

The proposed cost for this study is \$54,900 within an 8 to 12-month schedule. Our staff will begin this project immediately upon Notice to Proceed and have the availability to meet all project milestones listed below:

Project Activity (2024 timeframe)	May – July	Aug – Oct	Nov – Dec
<i>Task 1 – Study Coordination</i>			
<i>Task 2 – Preliminary Alternative Analysis</i>			
<i>Task 3 – Develop Preferred Alignment and Cost Estimate</i>			
<i>Task 4 – Feasibility Study Report</i>			

Attachments

- Attachment A – Toole Design Fee Proposal
- Attachment B – Woolpert Scope and Fee Proposal

Attachment A – Toole Design Fee Proposal

FCEO Mobility Task 2 - Clark State Road Pedestrian and Bike Facilities Feasibility Study

BY: JRS 1/26/2024 REV: SPK 1/26/2024

TDG Project Number: 00CMH.00205.02

Task	Firm Classification Role Rate	TOOLE DESIGN GROUP								Total Value	TOTALS		
		E5	E4	E4	E5	E2	E1				Hours	%	
		Sr. Engineer	QAQC	PM	Engineer	Engineer	Engineer	0	0				
		\$225.64	\$147.80	\$125.05	\$175.98	\$123.67	\$105.59	\$0.00	\$0.00				
1	Task 1: Study Coordination												
1.1	Invoices & Progress Reports	4		16						\$ 2,903	20		
1.2	Project meetings & administration	8		48						\$ 7,808	56		
	Subtotal	12		64						\$ 10,711	76	20%	
												\$ 10,700	
2	Task 2: Preliminary Alternatives Analysis												
2.1	Complete data downloads and basemap creation			8						\$ 1,000	8		
2.2	Evaluate feasibility of multimodal facilities along corridor			10						\$ 1,251	10		
2.3	Identify red flag areas for each alternative	8		40						\$ 6,807	48		
2.4	Prioritize feasible alternatives, evaluate existing planning studies, and remove alternatives not meeting goals		4	12						\$ 2,092	16		
2.5	Confirm existing ROW and determine needs for potential acquisition		4	4						\$ 1,091	8		
2.6	Identify existing utilities, easements, and potential conflicts		4	12		12				\$ 3,576	28		
2.7	Prepare summary of alternative analysis results	2		4						\$ 951	6		
	Subtotal	10	12	90		12				\$ 16,769	124	32%	
													\$ 16,800
3	Task 3: Develop Preferred Alignment and Cost Estimate												
3.1	Develop cost estimate template			8						\$ 1,000	8		
3.2	Identify critical grading, ROW, structure and utility conflict areas	8		24		20				\$ 7,280	52		
3.3	Identify proposed crosswalk locations			8		8				\$ 1,990	16		
3.4	Develop key typical sections identified in Task 2.2		4	12		8				\$ 3,081	24		
3.5	Prepare construction cost estimate (determine roadway costs and incorporate structure and ROW costs)		4	8		4				\$ 2,086	16		
3.6	Recommend preferred alternative alignment	2		4						\$ 951	6		
	Subtotal	10	8	64		40				\$ 16,389	122	32%	
													\$ 16,400
4	Task 5: Feasibility Study Report												
4.1	Prepare a summary report based on Task 2 and 3 findings		2	4		2				\$ 1,043	8		
4.2	Summarize existing conditions, red flags, and feasible alternatives		2	10						\$ 1,546	12		
4.3	Recommend preferred alternative with supporting documentation	4		4						\$ 1,698	10		
4.4	Update and prepare cost estimate for preferred alternative		2	8		12				\$ 2,780	22		
4.5	Prepare exhibit of preferred alternative including typical sections	2		8						\$ 1,452	10		
	Subtotal	6	8	34		14				\$ 8,519	62	16%	
													\$ 8,500
	IF-AUTHORIZED ITEMS (minor scope changes, etc.)												
	Additional tasks as directed by the client									\$ 2,000			
	Subtotal									\$ 2,000			
	TOTAL HOURS										384		
	LABOR TOTAL												\$ 54,388
Task	997 - Direct Expenses									\$ 512			
	EXPENSES TOTAL												\$ 512
	Hours Total	38	28	252	0	66	0	0	0		384		
	GRAND TOTAL												\$ 54,900

Fuel Expense (TDG)	GSA Rate	Miles	
Food	\$0.655	350	\$229
Hotels	\$64		\$0
Prints	\$122		\$0
			\$283

\$512

Attachment B – Woolpert Scope and Fee Proposal

Attachment A: Scope of Services

Client's Representative

- Name: Steve Koch
- Company: Toole Design Group
- Address: 20 East Broad Street Suite 400 | Columbus, OH 43215
- Phone Number: 614.325.2109
- Email address: skoch@tooledesign.com

Woolpert's Contact

- Name: Tom Less
- Address: One Easton Oval, Suite 400, Columbus, OH 43219-6062
- Phone Number: 614-827-6136
- Email address: tom.less@woolpert.com

Services

Thank you for inviting Woolpert to participate in this project! We understand that Toole Design is developing a preliminary cost estimate to aid the Franklin County Engineer Office for the following task as part of a General Engineering Services contract. **As part of this work an abbreviated feasibility analysis is needed to determine the preferred method to crossing the trail at each structure location.**


Clark State Road Trail

This task involves the development of a trail extension along Clark State Road and includes the following assumptions at each of the crossing locations:

- Culvert - CrookedMile-Shull (FRA-C0095-01230)
 - Alt 1: Extend culvert to the south to accommodate additional width.
 - Alt 2: Replace culvert with appropriately sized pipe to align channel.
- Clark State Bridge Over Rocky Fork (FRA-C0095-01620), SFN2534703
 - Provide trail crossing on separated/adjacent pedestrian structure.
- Culvert - Clark State Road before Mann Rd (FRA-C0095-02040)
 - Alt 1: Excavate and remove inlet/outlet sections of pipe to extend.
 - Alt 2: Remove and reinstall first two and last two sections of pipe with full height headwalls and wingwalls.
- Culvert - Clark State Road before Darling Rd (FRA-C0095-02450)
 - Alt 1: Extend southwest inlet and potentially move northwest junction chamber.
 - Alt 2: Improve and realign drainage system.
- Culvert - Clark State Road before Headley Rd (FRA-C0095-02700)
 - Alt 1: Extend culvert and remove or replace wingwall.

Woolpert will complete an alternatives evaluation for each crossing, with brief narrative writeups of each alternative, pros and cons, environmental and right of way coordination needed, and estimated costs. Sketches will be incorporated where appropriate to clarify intent. A recommended alternative will be provided in coordination with Toole Design's work.

The work includes feasibility evaluation of the above items to allow the use of a full 12-ft wide shared use path, a bike lane, or sidewalk in coordination with the alignment developed by Toole. All alternatives will provide trail on only one side of the road or structure, though the results would be relatively applicable for cost estimation of widening both sides. Multiple structure types will not be evaluated at this time, and full bridge hydraulic analyses are not included. Basic culvert hydraulics, using HY-8 and available StreamStats information, will be performed only where applicable and based on assumptions for rough sizing and costing of culverts, or culvert extensions. The crossing over Rocky Fork is located in Zone AE with known water surface elevation and the proposed structure profile will be set to clear the 25-year flood.



Assumptions:

1. Toole Design will evaluate the alternatives from the perspective of roadway, safety, maintenance of traffic, drainage, and utilities. Woolpert will provide only structural and limited hydraulic evaluation.
2. Toole Design will supply any relevant background data available (existing plans, CAD, aerial images, property lines, etc.) needed to complete the study.
3. Woolpert will provide Toole with brief discussion writeup of structure alternatives, feasibility, and cost to be incorporated in final Feasibility Study Report.
4. ODOT construction specifications and bid unit prices will be used for estimating purposes.
5. Estimating will be at a preliminary level and will use the 80/20 rule (20% of major items will generate 80% of the costs) with contingency to cover the balance.
6. Three meetings are anticipated; two to coordinate efforts with Toole Design, with an assumed meeting with Franklin County to present the results.
7. Preliminary HY-8 hydraulic analysis will be performed for each culvert to evaluate structure size.
8. Geotechnical studies are not included in the scope of work. Assumptions will be made based on borings available in ODOT TIMS and documented in narratives.
9. HEC-RAS analysis of the bridge structures is not required at this time.

Schedule:

Upon receipt of contract and notice to proceed, work will begin on the project. It is anticipated that the deliverable would be complete by 11/1/2024, assuming an NTP by 4/29/24. Comments can be incorporated within 3 weeks of receipt.



Attachment B: Compensation

Lump Sum Summary

For the work detailed above Woolpert proposes the following lump sum fee:

Alternatives Evaluation/Summary Writeup	\$14,500
Task Total	\$14,500

Hourly Summary

Additional meetings, beyond those listed above, are not included in the scope or work. For meetings beyond this or subsequent revisions, work can be negotiated separately or provided on an hourly basis using the following rates:

Principal	\$280/hour
Senior Bridge Engineer	\$215/hour
Bridge Engineer.....	\$180/hour
Junior Engineer	\$130/hour
Clerical	\$100/hour