

**ATTACHMENT 4A  
LEVEL OF EFFORT  
Task Outline and Fee Estimate Worksheet  
Bristol East - Waterline Replacement Project  
VTM Project No: 22-1.4 D**

7/17/2024

Prepared By: SLP

Item	Code	Description	Principal Engineer	Project Engineer	Field Data Collection & Survey	Expenses & Subcontracts	Labor Costs	Total Costs
<b>STEP II - Final Design Phase Services</b>								
<b>I</b>		<b>Standard Final Design Phase Engineering Services</b>						
1	PA	Project Management/Coordination (4 hrs wk x 60 weeks)	240				\$30,000	\$30,000
2	PA	Step II DWSRF Funding Application (Bristol East)	16				\$2,000	\$2,000
3	PA	Step II Engineering Services Agreement (Bristol East)	24				\$3,000	\$3,000
4	S	Topo Survey/Field Reconnaissance & Coordination (13 street segments)	0		240		\$30,000	\$30,000
5	D	30% Drawing Preparation/Review with Client (12 Street Segments)	32				\$4,000	\$4,000
6	D	Layout/Design/Drawing Preparation (Estimate 31 sheets, 4 iterations )	240	620			\$92,000	\$92,000
7	D	60% Drawing Preparation/Review with Client (12 Street Segments)	32				\$4,000	\$4,000
8	D	Addition of Private Service Lines (Not included in scope)	0				\$0	\$0
9	D	90% Bid Document Preparation	60				\$7,500	\$7,500
10	D	Preparation/Public Review Meetings & Presentation with Selectboard & Public	20				\$2,500	\$2,500
11	D	Permit to Construct Preparation/Submittal/DEC Review	16				\$2,000	\$2,000
12	D	Final Internal Engineering Review & 100% Completion of Drawings & Specifications	40				\$5,000	\$5,000
13	D	Material Takeoffs/Cost Estimates	60	80			\$15,500	\$15,500
14	D	Environmental Documentation - SHPO, Env., Act 250, NEPA	60				\$7,500	\$7,500
15	D	ROW Certification Town Attorney Coordination	16				\$2,000	\$2,000
16	D	Step 3 Priority List Application	16				\$2,000	\$2,000
<b>Subtotal</b>			<b>872</b>	<b>700</b>	<b>240</b>	<b>\$0</b>	<b>\$209,000</b>	<b>\$209,000</b>
<b>II</b>		<b>Direct Expenses &amp; Subcontracts</b>						
1	D	Supplies (Cost + 8%)				\$500	\$0	\$500
2	PA	Permit Fees (Cost)				\$900	\$0	\$900
3	S	Travel (50 days x 44 miles@\$0.655) = \$28.82/day				\$1,441	\$0	\$1,441
4	SUB	VTUMS - Utility Location Services (Cost + 8%)				\$10,000	\$0	\$10,000
5	SUB	Geotechnical Evaluation				\$7,500	\$0	\$7,500
<b>Subtotal</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>\$20,341</b>	<b>\$0</b>	<b>\$20,341</b>
<b>III</b>		<b>Non-Standard Services</b>						
1	SUB	Archeological Services (Placeholder)				\$7,500	\$0	\$7,500
2	SUB	Environmental Services (Completed as part of the Bristol West Project)				\$0	\$0	\$0
3	SUB	Boundary & ROW Location Services (Placeholder)				\$15,000	\$0	\$15,000
<b>Subtotal</b>			<b>0</b>	<b>0</b>	<b>0</b>	<b>\$22,500</b>	<b>\$0</b>	<b>\$22,500</b>
SUBTOTAL (hours)			872	700	240			
HOURLY RATE (\$/hr)			\$125	\$100	\$125			
Subtotal Hourly Costs + Expenses (\$)						\$42,841	\$209,000	\$251,841
<b>TOTALS BY WORK TYPE:</b>								
Standard Final Design Phase Engineering Services :			\$209,000					
Direct Expenses & Subcontracts:			\$20,341					
Subcontracted Services:			\$22,500					
<b>Total</b>			<b>\$251,841</b>					
								<b>TOT STANDARD FINAL DESIGN PHASE ENG. COST = \$229,341</b>
								<b>TOTAL STEP 2 ENG COST = \$251,841</b>

**NOTES**

PA = Project Administration, D = Design, S = Survey, SUB = Subcontracted Services

No service replacements are anticipated within this scope of work

Budgetary Construction Cost =	\$3,428,900
VT Eng. Fee Curve (Large Proj.)=	\$211,411

7.3% Total Eng. Cost as % of Const.

Est. Constuction Eng. =	\$387,586
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