

Washington Water Service Co.

Engineering Department
6800 Meridian Road SE
Olympia, WA 98513

Engineer's Opinion of Probable Project Costs
Attachment "A"

Quistorff #3612 Single Service for 12311 64th Street Court NW

***** Construction Materials *****

Item	Description	Quant./Units	Unit	Unit Cost	Total
1	Single Service for 12311 64th Street Court NW	1	LS	\$ 900.00	\$ 900.00
2					\$ -
3					\$ -
4					\$ -
5					\$ -
6					\$ -
7					\$ -
8					\$ -
9					\$ -
10					\$ -
11		Sub-Total			\$ 900.00
12		Contingency		20%	\$ 180.00
13		Sales Tax		8.60%	\$ 92.88
14		SUB Total - Materials			\$ 1,172.88
15		Rounded Up Value			\$1,200.00

***** Construction Labor *****

Item	Description	Quant./Units	Unit	Unit Cost	Total
16	Backhoe & Operator	12	HRS	\$ 125.00	\$ 1,500.00
17	Two Servicemen & Truck	16	HRS	\$ 160.00	\$ 2,560.00
18					\$ -
19					\$ -
20					\$ -
21					\$ -
22	WWSC Engineering	1	LS	\$ -	\$ -
23					\$ -
24					\$ -
25		SUB TOTAL			\$ 4,060.00
26		Contingency		20%	\$ 812.00
27		Sub-Total - Construction Labor			\$ 4,872.00
28		Rounded Up Value			\$4,900.00

***** Outside Contractor *****

Item	Description	Quant./Units	Unit	Unit Cost	Total
29	County Permits (Encroachment)	1	LS		\$ 280.00
30	DOH Review Fees	1	LS		\$ -
31	Hydrogeologist	1	LS		
32	Geotechnical Engineer	1	LS		
33	Engineering Consultant	1	LS		
34	Land Cost	1	LS		
35	Additional Insurance	1	LS		
36	Bonding	1	LS		
37	Underground Contractor	1	LS		\$ -
38	Paveing Contractor - Pavement Restoration	55	SY	\$ 32.00	\$ 1,760.00
39					
40					
41		SUB TOTAL			\$ 2,040.00
42		Contingency		25%	\$ 510.00
43		Sub-Total - Outside Contractor			\$ 2,550.00
44		Rounded Up Value			\$2,600.00

Projected Funds Required = \$8,700

Assumptions:

- 1) This document is intended to forecast approximate construction costs based upon current information and similar projects, and is not intended to accurately represent actual design or construction components or prices.
- 2) Totals are rounded to nearest \$100

Rosario

Eng. File #3577

San Juan County

Marina Heights Lane Distribution Main Replacement

Engineer's Opinion of Projected Engineering Costs
3/9/2017

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Task	Hours	Employee Classification
<u>Facility Design</u>		
Project Setup		Engineer
Develop Base Drawings from Available Contour Info		Engineer
Design & Draft Watermain Construction Documents		Engineer
Sub-Total	0	
<u>Revisions per Peer Review Comments</u>		
P.E. Peer Review		Principle Eng
Revisions to Construction Documents per Peer Review Comments		Engineer
Coping & Re-Submittal of Project Report & Construction Documents		Clerical
Sub-Total	0	
<u>Construction</u>		
Pre-Construction Conference with Engineering & Contractor		Engineer
Construction Inspection by Operations		Engineer
Sub-Total	0	
<u>Record Documents</u>		
As-Built Drawings & Testing Validations along with Project Certification Document Preparation		Engineer
P.E. Project Certification		Principle Eng
Updating Base Maps & Site Piping		Engineer
Coping, Binding & Submittal of Project Certification to File & Rosario		Clerical
Sub Total	0	
Projected Total Hours	0	

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3/9/2017

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Engineer's Opinion of Probable Project Costs
Colonial Manor Hydraulic Model Creation Peak Hour Demand Scenario

Task	Hours	Rate	Total
<u>Hydraulic Model Construction</u>			
Data Collection of Preston's Source Facilities & Distribution System	1		
Distribution Pipes set-up in ACAD for importing into a GIS Shape File	2		
Distribution Pipes conversion ACAD to GIS Shape File	1		
Distribution Pipes - Import GIS Shape File, Create Junctions (Nodes) in Preston's Model	1		
Junction (Node) elevation assignment	1		
Preston Industrial Source of Supply Construction in the Model	4		
Load Model with Preston Industrial Park ERU's	1		
Calc Preston's Peak Day Diurnal Curve & Assign to Junctions w/ ERU's Loaded	4		
Run & Perform QA/QC checks & make any necessary refinements	4		
Sub-Total	11.0		\$0.00
<u>Hydraulic Model Scenario & Report</u>			
Setup & Run Hydraulic Model Scenario for MDD & PHD Meeting DOH Requirements	2.0		
Setup & Run Hydraulic Model Scenario for Fire Flow Analysis	2.0		
Prepare Hydraulic Model Narrative (Report) for DOH Submittal	4.0		
P.E. Peer Review	1.0		
Edit Project Report per Peer Review	1.0		
Final P.E. Peer Review for submittal	0.5		
Coping, Binding & of Project Report for DOH Submittal	1.0		
Sub-Total	11.5		\$0.00
Sub-Total	22.5	\$95.00	\$2,137.50
Department of Health Office of Drinking Water Review Fee			\$811.00
Projected Total Fees:			\$2,948.50

Notes:

1) This document is intended to forecast approximate Engineering fees based upon current information and similar projects, with billing on an hourly basis. Final project fees could vary from the projected fees shown.

Engineering Staff Hours to Consolidate Sea Cliff Records into Pecock Hill

Task	Hours	Empolyee Classification
Update System History	0.25	Engineer
Site Facility Address Update	0.25	Clerical
Source of Supply Inventory drawing	4	Engineer
Update Connection Summary	4	Clerical
Document Draw Records Consolidation	0.5	Clerical
Sattin System Customer Migration to Aspinwall	1	Clerical
System's Owned & Managed List Update	0.5	Clerical
CMP Revisions for consolidated System - Site Selection & rotation	1	Engineer
CMP Revisions for consolidated System - CMP Map Update	2	Engineer
Coliform Monitoring Schedule Updated - WQ	0.25	Clerical
Chemical Contaminants Monitoring Schedule Update - WQ	0.25	Clerical
Nitrate Monitoring Schedule Update - WQ	0.25	Clerical
Lead & Cooper Schedule Update - WQ	0.5	Clerical
WQ Records Merge	0.25	Clerical
Wellhead Meter Reading Forms merge	0.5	Clerical
Wellhead Protection Records Merge	1	Engineer
Sanitary Survey Action Items merge	2	Clerical
Total	18.5	