

Bid Proposal

Please provide a price to build a concrete bridge abutment complete in place. The price shall include all labor, equipment, materials, and supplies required to provide a complete abutment per the attached design drawing.

This is a unit price contract based on the following bid items:

Item #	Description	Quantity	Unit
1	Mobilization	1.00	LS
2	Concrete Abutment	10.50	CY
3	Reinforcing Steel	2,364.00	LB
4	Paint	300.00	SF

Bid item description, measurement, and payment is as follows:

1 -Mobilization:

Contractor will be paid one mobilization to move personnel, equipment, and supplies to and from the project site. Total amount for this item may not exceed Ten (10) percent of the total contract amount.

Measurement - This item will be measured by the lump sum or each

Payment - This item will be paid as follows:

25% of total mobilization bid after initial mobilization to project site

90% of total mobilization bid after 50% of the contract work is complete

100% of total mobilization bid when work is complete and accepted by owner

2 - Concrete Abutment:

Construct concrete abutment including all labor, equipment, and materials per design drawing

Measurement - This item will be measured by the neat line cubic yard of concrete

Payment - This item will be paid by the measured cubic yard and will be full compensation for all work to provide a concrete abutment per design drawings

3 - Reinforcing Steel:

This item will include all work required to furnish and place reinforcing steel per design drawings

Measurement - This item will be measured by the pounds of reinforcing steel as required on design drawings

Payment - This is a plans quantity item. Payment will be for pounds of reinforcing steel as shown on the plans.

4 - Paint:

This item will include all work required to paint new concrete abutment

Measurement - This item will be measured by the square foot of vertical surface area

Payment - This item will be paid by the measured square foot of area and will be full compensation for painting the concrete abutment

Quantity Take-off

Concrete

Feature	Quantity	Length	Width	Height	CF	CY
Cap	1.00	26.00	3.50	2.50	227.50	8.43
Back wall	1.00	26.00	1.00	2.56	66.56	2.47
Beam Seats	4.00	1.75	3.00	0.13	2.63	0.10
					Total	10.99

Forms

Feature	Quantity	Length/Width		Height	SF	
Cap Side	2.00	26.00		2.50	130.00	
Cap End	2.00	3.50		2.50	17.50	
Back wall Side	2.00	26.00		2.56	133.12	
Back wall End	2.00	1.00		2.56	5.12	
Beam Seat	4.00	6.00		0.13	3.00	
					Total	288.74

Reinforcing Steel

Bar	Quantity	Size	Lbs/Ft	Length	Weight	
A	10.00	11	5.313	25.00	1,328.25	
D	2.00	9	3.400	1.67	11.36	
H	8.00	6	1.502	25.67	308.45	
L	18.00	6	1.502	4.00	108.14	
S	22.00	5	1.043	11.50	263.88	
U	4.00	6	1.502	8.08	48.54	
V	25.00	5	1.043	11.33	295.43	
					Total	2,364.05

Direct Cost

Concrete Abutment

10.5 CY

Use \$250.00 per crew hour, \$4.50 per SF for forms, and \$120 per CY for concrete

Activity	Quantity	Unit	Factor	Crew Hours	Crew Cost	Material Cost	Sub Cost	Total
Fine Grade	91.00	SF	0.04	3.64	\$910.00			\$910.00
Build Forms	156.00	SF	0.02	3.12	\$780.00			\$780.00
Buy Lumber	156.00	SF				\$702.00		\$702.00
Set & Dismantle Forms	289.00	SF	0.07	20.23	\$5,057.50			\$5,057.50
Pour/Finish/Cure Concrete	11.00	CY	0.40	4.40	\$1,100.00			\$1,100.00
Buy Concrete	12.00	CY				\$1,440.00		\$1,440.00
Patch & Rub Concrete	286.00	SF	0.012	3.43	\$858.00			\$858.00
Clean up	0.50	DA	1.00	0.50	\$125.00			\$125.00
				Total	35.32	\$8,830.50	\$2,142.00	\$10,972.50
							Unit Cost	\$1,045.00

Reinforcing Steel

2,364.00 LB

Use \$0.45 per pound to buy and \$0.30 per pound to tie

Activity	Quantity	Unit	Factor	Crew Hours	Crew Cost	Material Cost	Sub Cost	Total
Hoist & Handle Rebar	2,500.00	LB	0.0004	1.00	\$250.00	\$1,125.00		\$1,375.00
Tie Rebar	2,364.00	LB					\$709.20	\$709.20
				Total	1.00	\$250.00	\$1,125.00	\$709.20
							Unit Cost	\$0.88

Paint

286.00 SF

Use \$1.50 per sf to paint

Activity	Quantity	Unit	Factor	Crew Hours	Crew Cost	Material Cost	Sub Cost	Total
Paint	286.00	SF					\$429.00	\$429.00
				Total			\$429.00	\$429.00
							Unit Cost	\$1.50

Indirect Cost

Activity	Quantity	Unit	Unit Cost	Crew Cost	Material Cost	Sub Cost	Total
Equipment Mobilization	2.00	EA	\$500.00	\$1,000.00			\$1,000.00
Safety	35.00	CH	\$2.50		\$87.50		\$87.50
Survey	5.00	HR	\$80.00			\$400.00	\$400.00
Supervision	10.00	HR	\$100.00	\$1,000.00			\$1,000.00
Office Expense	1.00	WK	\$500.00		\$500.00		\$500.00
Testing	5.00	HR	\$100.00			\$500.00	\$500.00
Small Tools	35.00	CH	\$5.00		\$175.00		\$175.00
			Total	2,000.00	\$762.50	\$900.00	\$3,662.50

Balancing Worksheet

Activity	Bid Quantity	Take-off Quantity	Unit	Total Cost	Indirect Spread	Margin Spread	Total Bid	Balanced Unit Cost
Mobilization	1.00				\$1,950.00		\$1,950.00	\$1,950.00
Concrete Abutment	10.50	11.00	CY	\$10,972.50	\$1,712.50	\$2,000.00	\$14,685.00	\$1,398.57
Reinforcing Steel	2,364.00	2,364.00	LB	\$2,084.20		\$572.23	\$2,656.43	\$1.12
Paint	300.00	286.00	SF	\$429.00			\$429.00	\$1.43
Subtotal Direct Cost				\$13,485.70	\$3,662.50	\$2,572.23	\$19,720.43	
Indirect Cost				\$3,662.50				
Total Cost				\$17,148.20				
Margin @ 15 % of Total cost				\$2,572.23				
Total Bid				19,720.43	1.46			

Bid Form

Item #	Description	Quantity	Unit	Unit Cost	Bid Price
1	Mobilization	1.00	LS	\$1,950.00	\$1,950.00
2	Concrete Abutment	10.50	CY	\$1,400.00	\$14,700.00
3	Reinforcing Steel	2,364.00	LB	\$1.12	\$2,647.68
4	Paint	300.00	SF	\$1.40	\$420.00
				Total	\$19,717.68

Over/Under Example

Activity	Bid Quantity	Final Quantity	Unit	Direct Unit Cost	Bid Unit Cost	Bid Price	Final Contract Price
Mobilization	1.00	1.00	LS		\$1,950.00	\$1,950.00	\$1,950.00
Concrete Abutment	10.50	11.00	CY	\$1,045.00	\$1,400.00	\$14,700.00	\$15,400.00
Reinforcing Steel	2,364.00	2,364.00	LB	\$0.88	\$1.12	\$2,647.68	\$2,647.68
Paint	300.00	286.00	SF	\$1.50	\$1.40	\$420.00	\$400.40
Total				\$13,506.70		\$19,717.68	\$20,398.08
Price to Direct Cost Ratio						1.46	1.51

3.5%

What if no Mob & Abut Under-runs

Activity	Bid Quantity	Final Quantity	Unit	Direct Unit Cost	Bid Unit Cost	Bid Price	Final Contract Price
Mobilization			LS			\$0.00	\$0.00
Concrete Abutment	10.50	10.00	CY	\$1,045.00	\$1,525.70	\$16,019.85	\$15,257.00
Reinforcing Steel	2,364.00	2,364.00	LB	\$0.88	\$1.29	\$3,042.93	\$3,042.93
Paint	300.00	286.00	SF	\$1.50	\$2.19	\$657.00	\$626.34
Total				\$13,506.70		\$19,719.78	\$18,926.27
Price to Direct Cost Ratio						1.46	1.40

1.46

1.46

1.46

-4.0%