

State Of Florida Department Of Transportation
24" PVC C905 Force Main
Key West, Florida
BASIS OF ESTIMATE



Estimate ID: 2011
Project Name: 24" PVC C905 Force Main at North Roosevelt Blvd.
Class Estimate: Class 1
Requested By: Andrew Smyth/KWF
Estimated By: Erika B. Smith/GNV
Estimator Phone: 352.335.5877
Estimate Date: July 21, 2011
CCI Index: 9080.15 (July 2011)
Material Index: 2843.15 (July 2011)

E.B. Smith/GNV
ESTIMATOR

Purpose of Estimate

The purpose of this Engineer's Estimate for Construction Cost is to establish an Engineer's opinion of probable cost at 100% Design Phase.

General Project Description

The client is The State Of Florida Department Of Transportation. The project site is located in Key West, Florida. The scope of work includes: 24" PVC C905 Force Main, 4" -6" -8" -12" & 16" PVC C900 Water main, valves and fittings, pavement markings and traffic control.

Overall Costs

The following is a summary breakdown of the costs. See attached breakdown for additional detailed information.

Low Range	ESTIMATE RANGE	High Range
-10%	Total \$3,558,886	15%
\$3,202,997		\$4,092,719

Scope of Work

The scope of work includes:

24" PVC C905 Force Main

24" Steel Force Main

4" PVC C900 Pipeline

6" PVC C900 Pipeline

8" PVC C900 Pipeline

12" PVC C900 Pipeline

16" PVC C900 Pipeline

Fittings

Valves

Traffic Control

Markups

The following typical contractor markups were applied to the Cost Estimate:

General Conditions	10%
Contractor Overhead	10%
Profit	5%
Mobilization/Bond	4%
Estimate Contingency	10%
Key West Adjustment Factor	20%

Escalation Rate

Escalation to the midpoint of construction was included.

Estimate Classification

This cost estimate prepared is considered a Definitive Estimate or Class 1 estimate as defined by the American Association of Cost Engineering (AACE). It is considered accurate to +15% to -10% .

The cost estimates shown have been prepared for guidance in project evaluation and implementation from the information available at the time of the estimate. The final cost of the project will depend upon the actual labor and material costs, competitive market conditions, final project costs, implementation schedule and other variable factors. As a result, the final project costs will vary from the estimates presented herein. Because of this, project feasibility and funding needs must be carefully reviewed prior to making specific financial decisions to help ensure proper project evaluation and adequate funding. Our estimate is based on material, equipment, and labor pricing as of July 2011.

Cost Resources

The following is a list of the various cost resources used in the development of the cost estimate.

- R.S. Means
- CH2M HILL Historical Data
- Vendor Quotes on Equipment and Materials where appropriate.
- Estimator Judgment

Labor unit prices reflect a burdened rate, including: workers compensation, unemployment taxes, Fringe Benefits, and medical insurance.

Estimate Methodology

This cost estimate is considered a bottom rolled up type estimate with detailed cost items and breakdown of Labor, Materials and Equipment. Some quotations were obtained for various items. The estimate may include allowance cost and dollars per SF cost for certain components of the estimate.

Quantities for piping, fittings & valves were derived from Summary of Pay Items sheet FM-02A and Tabulation of Quantities sheets FM-04, 05 & 06. Quantities for traffic control, pavement and pavement markings were obtained from an average of AP engineer's estimate and contractor's bid.

Labor Costs

The estimate has been adjusted for local area labor rates.

Sales Tax

The estimate has been adjusted for local area sales tax of 6.65%.

Allowance Costs

The cost estimate includes the following allowances within the cost estimate:

- The General Conditions was estimated as a 10% of total cost.
- A 20% Key West Factor was applied to the estimate.

Major Assumptions

The estimate is based on the assumption the work will be done on a competitive bid basis and the contractor will have a reasonable amount of time to complete the work. All contractors are equal, with a reasonable project schedule, no overtime, constructed as under a single contract, no liquidated damages.

This estimate should be evaluated for market changes after 90 days of the issue date. It is assumed that much of the fabricated equipment will be shipped from the mainland USA.

- Sales tax is included.
- Buried pipe depth is assumed to be 3'6" to the top of the pipe.
- Landscaping is not included.

Excluded Costs

The cost estimate excludes the following costs:

- Non-construction or soft costs for design, services during construction, land, legal and owner administration costs.

- Material Adjustment allowances above and beyond what is included at the time of the cost estimate.

Reference Documents

The cost estimate is based upon contract documents provided by the Design Team dated January 18, 2011.

BID ITEM SUMMARY No.1

PROJECT: 414055 North Roosevelt FM
 DESIGN STAGE: 100%
 PROJECT No.: 414055

ESTIMATOR:
 Estimate No.:
 REV No./DATE:

Smith E
 <Estimate Number>
 <Revision Number>/<Revision Date>

Bid Group	Bid Item	Description	Takeoff Quantity	Bid Item Unit Price	Bid Item Total
3		Traffic Control Signs & Barriers			
	3	Traffic Control Signs & Barriers	1.00 LS	41,711.40 /LS	41,711
	3	Traffic Control Signs & Barriers	1.00 LS	41,711.40 /LS	41,711
5		Maintenance of Traffic			
	5	Maintenance of Traffic	1.00 LS	59,877.00 /LS	59,877
	5	Maintenance of Traffic	1.00 LS	59,877.00 /LS	59,877
10		Excavation For Structures			
	10	Excavation For Structures	10.00 CY	15.00 /CY	150
	10	Excavation For Structures	10.00 CY	15.00 /CY	150
15		Pavement			
	15	Pavement	1.00 LS	59,563.47 /LS	59,563
	15	Pavement	1.00 LS	59,563.47 /LS	59,563
20		Pavement markings			
	20	Pavement markings	1.00 LS	5,385.93 /LS	5,386
	20	Pavement markings	1.00 LS	5,385.93 /LS	5,386
25		4" PVC C900 Pipe			
	25	4" PVC C900 Pipe	50.00 LF	16.50 /LF	825
	25	4" PVC C900 Pipe	50.00 LF	16.50 /LF	825
30		6" PVC C900 Pipe			
	30	6" PVC C900 Pipe	524.00 LF	21.81 /LF	11,427
	30	6" PVC C900 Pipe	524.00 LF	21.81 /LF	11,427
35		8" PVC C900 PVC Pipe			
	35	8" PVC C900 PVC Pipe	125.00 LF	29.17 /LF	3,646
	35	8" PVC C900 PVC Pipe	125.00 LF	29.17 /LF	3,646
40		12" PVC C900 Pipe			
	40	12" PVC C900 Pipe	51.00 LF	48.10 /LF	2,453
	40	12" PVC C900 Pipe	51.00 LF	48.10 /LF	2,453
45		12" PVC C900 Temporary Pipe			
	45	12" PVC C900 Temporary Pipe	346.00 LF	48.10 /LF	16,643
	45	12" PVC C900 Temporary Pipe	346.00 LF	48.10 /LF	16,643
50		16" PVC C905 Pipe			
	50	16" PVC C905 Pipe	154.00 LF	52.27 /LF	8,050
	50	16" PVC C905 Pipe	154.00 LF	52.27 /LF	8,050
55		24" PVC Force Main			
	55	24" PVC Force Main	9,106.00 LF	86.34 /LF	786,178
	55	24" PVC Force Main	9,106.00 LF	86.34 /LF	786,178
60		24" Steel Force Main			
	60	24" Steel Force Main	241.00 LF	561.69 /LF	135,367
	60	24" Steel Force Main	241.00 LF	561.69 /LF	135,367
64		Remove & Dispose utility pipe			
	64	Remove & Dispose utility pipe	313.00 LF	9.25 /LF	2,894
	64	Remove & Dispose utility pipe	313.00 LF	9.25 /LF	2,894
65		D.I. Fittings			
	65	D.I. Fittings	1.00 LS	402,687.60 /LS	402,688
	65	D.I. Fittings	1.00 LS	402,687.60 /LS	402,688
70		Valves			
	70	Valves	1.00 LS	292,779.40 /LS	292,779
	70	Valves	1.00 LS	292,779.40 /LS	292,779

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Smith E
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Estimate Totals

Description	Amount	Totals	Rate
General Conditions	182,964		10.00 %
	182,964	2,012,600	
Sales Tax	78,757		6.65 %
	78,757	2,091,357	
Overhead	209,136		10.00 %
Profit	104,568		5.00 %
Mob/Demob	83,654		4.00 %
Bond	21,644		
	419,002	2,510,359	
Contingency	251,036		10.00 %
	251,036	2,761,395	
Escalation	204,343		7.40 %
	204,343	2,965,738	
Key West Factor	593,148		20.00 %
Construction Total	593,148	3,558,886	