

City of Norfolk  
Downtown PS Service Area  
Force Main, Gravity Sewers and Water Mains

Bid Opening: February 14, 2008

No.	Description	Unit	Quantity	Engineers Estimate		T.A. Sheets		Vico		Precon		Suburban		Tidewater Utility	
				Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost	Unit Cost	Total Cost
1	12" DIP Force Main	LF	98	\$ 140.00	\$ 13,720.00	\$ 200.00	\$ 19,800.00	\$ 84.40	\$ 9,251.20	\$ 140.00	\$ 13,720.00	\$ 325.00	\$ 31,850.00	\$ 200.00	\$ 19,800.00
2	12" PVC Force Main	LF	3,156	\$ 89.00	\$ 280,884.00	\$ 110.00	\$ 347,160.00	\$ 57.40	\$ 181,154.40	\$ 106.00	\$ 334,536.00	\$ 160.00	\$ 504,960.00	\$ 129.00	\$ 407,124.00
3	6" DIP Gravity Sewer	LF	22	\$ 98.00	\$ 2,156.00	\$ 250.00	\$ 5,500.00	\$ 135.80	\$ 2,987.60	\$ 335.00	\$ 7,370.00	\$ 200.00	\$ 4,400.00	\$ 200.00	\$ 4,400.00
4	8" PVC Gravity Sewer (C-900)	LF	568	\$ 80.00	\$ 45,440.00	\$ 200.00	\$ 113,600.00	\$ 109.40	\$ 62,139.20	\$ 455.00	\$ 258,440.00	\$ 230.00	\$ 130,640.00	\$ 140.00	\$ 79,520.00
5	10" DIP Gravity Sewer	LF	27	\$ 112.00	\$ 3,024.00	\$ 300.00	\$ 8,100.00	\$ 159.10	\$ 4,295.70	\$ 345.00	\$ 9,315.00	\$ 430.00	\$ 11,610.00	\$ 200.00	\$ 5,400.00
6	12" PVC Gravity Sewer (C-900)	LF	2,627	\$ 80.00	\$ 210,160.00	\$ 200.00	\$ 525,400.00	\$ 231.70	\$ 608,675.90	\$ 441.00	\$ 1,158,507.00	\$ 325.00	\$ 853,775.00	\$ 350.00	\$ 919,450.00
7	16" PVC Gravity Sewer (C-900)	LF	318	\$ 75.00	\$ 23,850.00	\$ 250.00	\$ 79,500.00	\$ 178.20	\$ 56,667.60	\$ 434.00	\$ 138,012.00	\$ 350.00	\$ 111,300.00	\$ 975.00	\$ 310,050.00
8	16" DIP Gravity Sewer	LF	307	\$ 102.00	\$ 31,314.00	\$ 275.00	\$ 84,425.00	\$ 223.90	\$ 68,737.30	\$ 575.00	\$ 176,525.00	\$ 440.00	\$ 135,080.00	\$ 975.00	\$ 299,325.00
9	6" PVC Water Main (C-900)	LF	380	\$ 108.00	\$ 41,040.00	\$ 115.00	\$ 43,700.00	\$ 61.40	\$ 23,332.00	\$ 64.00	\$ 24,320.00	\$ 125.00	\$ 47,500.00	\$ 68.00	\$ 25,840.00
10	8" PVC Water Main (C-900)	LF	2,022	\$ 75.00	\$ 151,650.00	\$ 120.00	\$ 242,640.00	\$ 44.30	\$ 89,574.60	\$ 67.00	\$ 135,474.00	\$ 170.00	\$ 343,740.00	\$ 93.00	\$ 188,046.00
11	12" PVC Water Main (C-900)	LF	631	\$ 90.00	\$ 56,790.00	\$ 200.00	\$ 126,200.00	\$ 62.60	\$ 39,500.60	\$ 89.00	\$ 56,159.00	\$ 210.00	\$ 132,510.00	\$ 125.00	\$ 78,875.00
12	6" Gate Valve	EA	1	\$ 1,000.00	\$ 1,000.00	\$ 1,250.00	\$ 1,250.00	\$ 1,265.00	\$ 1,265.00	\$ 750.00	\$ 750.00	\$ 1,000.00	\$ 1,000.00	\$ 800.00	\$ 800.00
13	8" Gate Valve	EA	6	\$ 1,500.00	\$ 9,000.00	\$ 1,500.00	\$ 9,000.00	\$ 1,602.00	\$ 9,612.00	\$ 1,140.00	\$ 6,840.00	\$ 1,200.00	\$ 7,200.00	\$ 1,200.00	\$ 7,200.00
14	12" Gate Valve	EA	1	\$ 3,000.00	\$ 3,000.00	\$ 2,500.00	\$ 2,500.00	\$ 2,363.00	\$ 2,363.00	\$ 2,025.00	\$ 2,025.00	\$ 2,000.00	\$ 2,000.00	\$ 2,500.00	\$ 2,500.00
15	6" Ductile Iron Fittings	EA	4	\$ 300.00	\$ 1,200.00	\$ 300.00	\$ 1,200.00	\$ 260.00	\$ 1,040.00	\$ 500.00	\$ 2,000.00	\$ 400.00	\$ 1,600.00	\$ 200.00	\$ 800.00
16	8" Ductile Iron Fittings	EA	16	\$ 400.00	\$ 6,400.00	\$ 350.00	\$ 5,600.00	\$ 420.00	\$ 6,720.00	\$ 650.00	\$ 10,400.00	\$ 450.00	\$ 7,200.00	\$ 300.00	\$ 4,800.00
17	12" Ductile Iron Fittings	EA	13	\$ 750.00	\$ 9,750.00	\$ 500.00	\$ 6,500.00	\$ 741.00	\$ 9,633.00	\$ 2,600.00	\$ 32,500.00	\$ 725.00	\$ 9,425.00	\$ 750.00	\$ 9,750.00
18	Precast Manhole (0 ft to 6 ft)	EA	1	\$ 5,500.00	\$ 5,500.00	\$ 3,500.00	\$ 3,500.00	\$ 3,684.00	\$ 3,684.00	\$ 5,200.00	\$ 5,200.00	\$ 7,375.00	\$ 7,375.00	\$ 7,500.00	\$ 7,500.00
19	Precast Manhole (6 ft to 9 ft)	EA	12	\$ 7,000.00	\$ 84,000.00	\$ 4,500.00	\$ 54,000.00	\$ 3,963.00	\$ 47,556.00	\$ 8,475.00	\$ 101,700.00	\$ 7,875.00	\$ 94,500.00	\$ 14,500.00	\$ 174,000.00
20	Precast Manhole (>9 ft)	EA	28	\$ 8,500.00	\$ 238,000.00	\$ 6,500.00	\$ 182,000.00	\$ 7,700.00	\$ 215,600.00	\$ 10,375.00	\$ 290,500.00	\$ 12,000.00	\$ 336,000.00	\$ 21,000.00	\$ 588,000.00
21	Fire Hydrant Assembly	EA	3	\$ 3,700.00	\$ 11,100.00	\$ 3,800.00	\$ 11,400.00	\$ 11,584.00	\$ 34,782.00	\$ 5,100.00	\$ 15,300.00	\$ 4,360.00	\$ 13,080.00	\$ 4,500.00	\$ 13,500.00
22	20" x 8" Tapping Sleeve and Valve	EA	1	\$ 19,000.00	\$ 19,000.00	\$ 10,000.00	\$ 10,000.00	\$ 15,454.00	\$ 15,454.00	\$ 16,720.00	\$ 16,720.00	\$ 13,500.00	\$ 13,500.00	\$ 12,500.00	\$ 12,500.00
23	3/4" Service Saddle	EA	110	\$ 250.00	\$ 27,500.00	\$ 50.00	\$ 5,500.00	\$ 50.00	\$ 5,500.00	\$ 25.00	\$ 2,750.00	\$ 45.00	\$ 4,950.00	\$ 40.00	\$ 4,400.00
24	1/4" Corporation Stop	EA	110	\$ 300.00	\$ 33,000.00	\$ 300.00	\$ 33,000.00	\$ 143.50	\$ 15,785.00	\$ 25.00	\$ 2,750.00	\$ 360.00	\$ 39,600.00	\$ 40.00	\$ 4,400.00
25	1/2" Type K Copper Tubing	LF	5,500	\$ 40.00	\$ 220,000.00	\$ 75.00	\$ 412,500.00	\$ 20.60	\$ 113,300.00	\$ 3.00	\$ 16,500.00	\$ 50.00	\$ 275,000.00	\$ 10.00	\$ 55,000.00
26	Air Release Valve	EA	3	\$ 2,800.00	\$ 8,400.00	\$ 1,400.00	\$ 4,200.00	\$ 2,170.00	\$ 6,510.00	\$ 2,075.00	\$ 6,225.00	\$ 3,500.00	\$ 10,500.00	\$ 1,500.00	\$ 4,500.00
27	Connect to Existing Water Main	EA	12	\$ 1,800.00	\$ 21,600.00	\$ 3,500.00	\$ 42,000.00	\$ 4,070.00	\$ 48,840.00	\$ 4,500.00	\$ 54,000.00	\$ 3,600.00	\$ 43,200.00	\$ 10,750.00	\$ 129,000.00
28	Cut and Cap Existing Water Main	EA	10	\$ 1,950.00	\$ 19,500.00	\$ 2,000.00	\$ 20,000.00	\$ 1,168.00	\$ 11,680.00	\$ 3,140.00	\$ 31,400.00	\$ 2,825.00	\$ 28,250.00	\$ 1,500.00	\$ 15,000.00
29	Service Lateral Replacement (4" PVC, C-900)	LF	4,000	\$ 45.00	\$ 180,000.00	\$ 100.00	\$ 400,000.00	\$ 32.30	\$ 129,200.00	\$ 30.00	\$ 120,000.00	\$ 90.00	\$ 360,000.00	\$ 10.00	\$ 40,000.00
30	Service Lateral Replacement (6" PVC, C-900)	LF	1,000	\$ 150.00	\$ 150,000.00	\$ 110.00	\$ 110,000.00	\$ 39.90	\$ 39,900.00	\$ 35.00	\$ 35,000.00	\$ 94.00	\$ 94,000.00	\$ 10.00	\$ 10,000.00
31	Property Line Cleanup	EA	110	\$ 250.00	\$ 27,500.00	\$ 250.00	\$ 27,500.00	\$ 200.00	\$ 22,000.00	\$ 25.00	\$ 2,750.00	\$ 360.00	\$ 39,600.00	\$ 40.00	\$ 4,400.00
32	Force Main Connection to PS Pipe Stub by others	LS	1	\$ 2,500.00	\$ 2,500.00	\$ 5,000.00	\$ 5,000.00	\$ 1,897.00	\$ 1,897.00	\$ 3,075.00	\$ 3,075.00	\$ 12,250.00	\$ 12,250.00	\$ 50,000.00	\$ 50,000.00
33	42" x 12" Tapping Sleeve and Valve	EA	1	\$ 24,000.00	\$ 24,000.00	\$ 12,000.00	\$ 12,000.00	\$ 19,270.00	\$ 19,270.00	\$ 26,800.00	\$ 26,800.00	\$ 11,200.00	\$ 11,200.00	\$ 28,750.00	\$ 28,750.00
34	HRSD Force Main Connection	LS	1	\$ 45,000.00	\$ 45,000.00	\$ 6,000.00	\$ 6,000.00	\$ 10,221.00	\$ 10,221.00	\$ 6,700.00	\$ 6,700.00	\$ 14,000.00	\$ 14,000.00	\$ 47,500.00	\$ 47,500.00
35	Jack and Bore, Brambleton Avenue	LS	1	\$ 70,000.00	\$ 70,000.00	\$ 80,000.00	\$ 80,000.00	\$ 133,353.00	\$ 133,353.00	\$ 97,415.00	\$ 97,415.00	\$ 92,575.00	\$ 92,575.00	\$ 17,500.00	\$ 17,500.00
36	24" Casing Pipe	LF	60	\$ 200.00	\$ 12,000.00	\$ 300.00	\$ 18,000.00	\$ 1,175.00	\$ 70,500.00	\$ 525.00	\$ 31,500.00	\$ 220.00	\$ 13,200.00	\$ 750.00	\$ 45,000.00
37	32" Casing Pipe	LF	30	\$ 250.00	\$ 7,500.00	\$ 400.00	\$ 12,000.00	\$ 1,700.00	\$ 51,000.00	\$ 568.00	\$ 17,040.00	\$ 320.00	\$ 9,600.00	\$ 900.00	\$ 27,000.00
38	Tree Removal	EA	2	\$ 250.00	\$ 500.00	\$ 750.00	\$ 1,500.00	\$ 385.00	\$ 770.00	\$ 300.00	\$ 600.00	\$ 1,500.00	\$ 3,000.00	\$ 2,100.00	\$ 4,200.00
39	Earth Fill for Landscaping, Llewellyn Avenue	CY	75	\$ 20.00	\$ 1,500.00	\$ 100.00	\$ 7,500.00	\$ 30.00	\$ 2,250.00	\$ 45.00	\$ 3,375.00	\$ 20.00	\$ 1,500.00	\$ 55.00	\$ 4,125.00
40	Test Pits (<3 ft deep)	EA	10	\$ 1,000.00	\$ 10,000.00	\$ 800.00	\$ 8,000.00	\$ 543.00	\$ 5,430.00	\$ 500.00	\$ 5,000.00	\$ 1,500.00	\$ 15,000.00	\$ 1,100.00	\$ 11,000.00
41	Test Pits (3 ft to 6 ft deep)	EA	30	\$ 1,500.00	\$ 45,000.00	\$ 1,000.00	\$ 30,000.00	\$ 724.00	\$ 21,720.00	\$ 1,000.00	\$ 30,000.00	\$ 1,500.00	\$ 45,000.00	\$ 1,000.00	\$ 30,000.00
42	Test Pits (6 ft to 9 ft deep)	EA	10	\$ 2,000.00	\$ 20,000.00	\$ 1,500.00	\$ 15,000.00	\$ 1,086.00	\$ 10,860.00	\$ 1,500.00	\$ 15,000.00	\$ 1,500.00	\$ 15,000.00	\$ 1,000.00	\$ 10,000.00
43	Test Pits (9 ft to 12 ft deep)	EA	10	\$ 2,500.00	\$ 25,000.00	\$ 1,600.00	\$ 16,000.00	\$ 2,173.00	\$ 21,730.00	\$ 2,000.00	\$ 20,000.00	\$ 1,500.00	\$ 15,000.00	\$ 1,000.00	\$ 10,000.00
44	Neoprene Rubber Pads	EA	12	\$ 350.00	\$ 4,200.00	\$ 400.00	\$ 4,800.00	\$ 143.00	\$ 1,716.00	\$ 15.00	\$ 180.00	\$ 64.00	\$ 768.00	\$ 0.01	\$ 0.12
45	Trolley Foundation Removal	LF	1,500	\$ 70.00	\$ 105,000.00	\$ 50.00	\$ 75,000.00	\$ 550.00	\$ 825,000.00	\$ 30.00	\$ 45,000.00	\$ 20.00	\$ 30,000.00	\$ 0.01	\$ 15.00
46	Select Bedding, #57 stone	TON	1,800	\$ 31.00	\$ 55,800.00	\$ 31.00	\$ 55,800.00	\$ 31.00	\$ 55,800.00	\$ 31.00	\$ 55,800.00	\$ 31.00	\$ 55,800.00	\$ 31.00	\$ 55,800.00
47	Select Backfill	CY	1,200	\$ 28.00	\$ 33,600.00	\$ 28.00	\$ 33,600.00	\$ 28.00	\$ 33,600.00	\$ 28.00	\$ 33,600.00	\$ 28.00	\$ 33,600.00	\$ 28.00	\$ 33,600.00
48	Temporary Pavement Patch	SY	5,400	\$ 16.00	\$ 86,400.00	\$ 17.00	\$ 91,800.00	\$ 73.90	\$ 399,060.00	\$ 10.00	\$ 54,000.00	\$ 15.00	\$ 81,000.00	\$ 22.00	\$ 118,800.00
49	Aggregate Base	TON	1,900	\$ 31.00	\$ 58,900.00	\$ 35.00	\$ 66,500.00	\$ 42.00	\$ 79,800.00	\$ 39.00	\$ 74,100.00	\$ 30.00	\$ 57,000.00	\$ 44.00	\$ 83,600.00
50	Pavement Milling	SY	500	\$ 5.00	\$ 2,500.00	\$ 3.00	\$ 1,500.00	\$ 10.50	\$ 5,250.00	\$ 13.75	\$ 6,875.00	\$ 15.00	\$ 7,500.00	\$ 12.00	\$ 6,000.00
51	Asphalt Base B-3	TON	870	\$ 142.00	\$ 123,540.00	\$ 75.00	\$ 65,250.00	\$ 99.00	\$ 86,130.00	\$ 150.00	\$ 130,500.00	\$ 82.00	\$ 71,340.00	\$ 130.00	\$ 113,100.00
52	Asphalt Surface Course S-5	TON	670	\$ 110.00	\$ 73,700.00	\$ 75.00	\$ 50,250.00	\$ 99.00	\$ 66,330.00	\$ 90.00	\$ 60,300.00	\$ 88.00	\$ 58,960.00	\$ 130.00	\$ 87,100.00
53	Asphalt Intermediate Course I-1	TON	650	\$ 100.00	\$ 65,000.00	\$ 75.00	\$ 48,750.00	\$ 99.00	\$ 64,350.00	\$ 150.00	\$ 97,500.00	\$ 85.00	\$ 55,250.00	\$ 130.00	\$ 84,500.00
54	Remove and Replace Cobblestone Pavement	SY	1,150	\$ 100.00	\$ 115,000.00	\$ 95.00	\$ 109,250.00	\$ 51.00	\$ 58,650.00	\$ 90.00	\$ 103,500.00	\$ 75.00	\$ 80,500.00	\$ 170.00	\$ 195,500.00
55	Trench Sheet Piling In-Place	MBF	100	\$ 393.00	\$ 39,300.00	\$ 393.00	\$ 39,300.00	\$ 393.00	\$ 39,300.00	\$ 393.00					