

**Grandview Reserve Metropolitan District Improvements
Districts 1-4
Engineers Opinion of Probably Construction Costs**



INFRASTRUCTURE COSTS	TOTAL
PUBLIC ROADWAY AND SITE IMPROVEMENTS	
ARTERIAL (URBAN MINOR 4-LANE)	\$ 4,082,286
COLLECTOR (URBAN RESIDENTIAL)	\$ 2,000,288
LOCAL (URBAN)	\$ 1,078,298
LOCAL (LOW VOLUME)	\$ 33,904,432
SITE (GRADING, WALLS, STORM SEWER, EROSION CONTROL, DEMOLITION)	\$ 18,182,567
DETENTION/WATER QUALITY POND	\$ 22,241,600
COMMON LANDSCAPING	\$ 24,348,653
UTILITY	
POTABLE WATER	\$ 34,227,118
NON-POTABLE WATER	\$ 30,163,905
SANITARY SEWER	\$ 47,813,288
DRY UTILITIES	Not Included
	SUBTOTAL COST: \$ 218,042,435
	CONTINGENCY (10%): \$ 21,804,244
	SUBTOTAL: \$ 239,846,679
SOFT COSTS	
CIVIL ENGINEERING	\$ 11,992,334
LAND PLANNING/LANDSCAPE DESIGN	\$ 4,796,934
SURVEY/CONSTRUCTION STAKING	\$ 4,796,934
GEOTECHNICAL ENGINEERING	\$ 599,617
ENVIRONMENTAL ENGINEERING	\$ 419,732
TRAFFIC/TRANSPORTATION ENGINEERING	\$ 1,798,850
TAP FEES	
SCHOOL/PARK/TRANSPORTATION IMPACT FEES (\$/NA/LOT)	
CONSTRUCTION MANAGEMENT	\$ 3,597,700
ENTITLEMENTS/INSPECTION	\$ 1,439,080
MOBILIZATION	\$ 1,199,233
PERMITS	\$ 959,387
WARRANTY	\$ 4,796,934
LETTER OF CREDIT	\$ 1,199,233
	SUBTOTAL COST: \$ 37,595,967
	CONTINGENCY (10%): \$ 3,759,597
	SUBTOTAL: \$ 41,355,564
	ESTIMATED TOTAL COST: \$ 281,202,242

Due to the Engineer has no control over the cost of labor, materials or equipment, or over the Contractor's method of determining prices, or over competitive bidding or market conditions, his opinions of probable construction cost provided for herein are made on the basis of his experience and qualifications. These opinions represent his best judgment as a design professional familiar with the construction industry. However, the Engineer cannot and does not guarantee that proposal, bids, or the construction cost will not vary from opinions of probable cost prepared by him.

**Grandview Reserve Metropolitan District Improvements
Districts 1-4
POTABLE WATER**

SUMMARY TABLE				TOTAL
POTABLE WATER DISTRIBUTION (ON-SITE)				\$ 34,227,118
POTABLE WATER (OFF-SITE)				\$ -
SUBTOTAL COST:				\$ 34,227,118

POTABLE WATER DISTRIBUTION (ON-SITE)				
8" AIR RELEASE VALVE	9	EA	\$ 8,750.00	\$ 78,980.56
1" COPPER WATER SERVICE	12	EA	\$ 3,500.00	\$ 42,000.00
8" x 8" CROSS	361	EA	\$ 1,500.00	\$ 541,581.00
12" x 8" CROSS	3	EA	\$ 1,750.00	\$ 4,633.30
8" 11.25 DEGREE BEND	361	EA	\$ 675.00	\$ 243,711.45
8" 22.5 DEGREE BEND	361	EA	\$ 675.00	\$ 243,711.45
8" WATER MAIN 45 DEGREE BEND	361	EA	\$ 675.00	\$ 243,711.45
8" 90 DEGREE BEND	361	EA	\$ 675.00	\$ 243,711.45
12" FITTINGS	132	EA	\$ 950.00	\$ 125,761.00
1.5" IRRIGATION TAP & METER PIT	25	EA	\$ 4,200.00	\$ 105,000.00
8" LOWERING	25	EA	\$ 3,500.00	\$ 87,500.00
8" MJ GATE VALVE w/ BOX & RESTRAINTS	722	EA	\$ 3,000.00	\$ 2,166,324.00
12" MJ GATE VALVE w/ BOX & RESTRAINTS	53	EA	\$ 4,200.00	\$ 222,398.40
8" PLUG w/ 2" BLOW OFF ASSEMBLY	25	EA	\$ 1,950.00	\$ 48,750.00
12" PLUG w/ 2" BLOWOFF ASSEMBLY	5	EA	\$ 2,250.00	\$ 11,250.00
8" PVC WATERMAIN C900 CL-200	180527	LF	\$ 82.00	\$ 14,803,214.00
12" PVC WATERMAIN C900 CL-200	13238	LF	\$ 101.00	\$ 1,337,038.00
8" x 12" REDUCER	3	EA	\$ 800.00	\$ 2,400.00
3/4" SINGLE WATER SERVICE	3261	LF	\$ 1,750.00	\$ 5,706,750.00
24" STEEL BORE CASING PIPE	1400	LF	\$ 275.00	\$ 385,000.00
12" x 12" x 12" TEE	1	EA	\$ 1,750.00	\$ 1,750.00
12" x 12" x 8" TEE	10	EA	\$ 1,400.00	\$ 14,000.00
8" x 8" x 12" TEE	10	EA	\$ 1,300.00	\$ 13,000.00
8" x 8" x 8" TEE	100	EA	\$ 1,200.00	\$ 120,000.00
AIR VAC ASSEMBLY	9	EA	\$ 8,750.00	\$ 78,980.56
TESTING	193765	LF	\$ 1.10	\$ 213,141.50
FIRE HYDRANT ASSEMBLY	194	EA	\$ 7,100.00	\$ 1,375,731.50
FIRE HYDRANT 6" DIP	2906	LF	\$ 86.00	\$ 249,956.85
FLOWFILL STREET CUT	1	LS	\$ 60,000.00	\$ 60,000.00
MARKER POSTS	39	EA	\$ 21.00	\$ 813.81
TIE INTO EXISTING	7	EA	\$ 5,500.00	\$ 38,500.00
TRACER WIRE	193765	LF	\$ 0.35	\$ 67,817.75
TRAFFIC CONTROL	1	LS	\$ 250,000.00	\$ 250,000.00
WATER TREATMENT PLANT	3	EA	\$ 1,700,000.00	\$ 5,100,000.00
SUBTOTAL:				\$ 34,227,118

POTABLE WATER (OFF-SITE)				
CONNECT TO EXISTING		EA	\$ 4,000.00	\$ -
SUBTOTAL:				\$ -

**Grandview Reserve Metropolitan District Improvements
Districts 1-4
NON-POTABLE WATER**

SUMMARY TABLE	TOTAL
NON-POTABLE WATER DISTRIBUTION (ON-SITE)	\$ -
NON-POTABLE WATER (OFF-SITE)	\$ 30,163,905
SUBTOTAL COST:	\$ 30,163,905

NON-POTABLE WATER DISTRIBUTION (ON-SITE)
SUBTOTAL: \$ -

NON-POTABLE WATER (OFF-SITE)				
12" DUCTILE IRON PIPE	24625	LF	\$ 115.00	\$ 2,831,875.00
12" FITTINGS	246	EA	\$ 1,200.00	\$ 295,500.00
12" MJ GATE VALVE w/ BOX & RESTRAINTS	5	EA	\$ 4,600.00	\$ 22,655.00
12" PLUG w/ 2" BLOWOFF ASSEMBLY	2	EA	\$ 2,250.00	\$ 5,540.63
AIR VAC ASSEMBLY	2	EA	\$ 8,750.00	\$ 21,546.88
BLOW OFF VALVE	2	EA	\$ 8,750.00	\$ 21,546.88
CLEAR WATER & PRESSURE TEST	24625	EA	\$ 1.10	\$ 27,087.50
MARKER POSTS	49	EA	\$ 21.00	\$ 1,034.25
R & R EXISTING ASPHALT AT TIE-INS	1	LS	\$ 21,000.00	\$ 21,000.00
STEEL BORE CASING PIPE	1200	LF	\$ 275.00	\$ 330,000.00
TIE INTO EXISTING	1	EA	\$ 5,500.00	\$ 5,500.00
TRACER WIRE	24625	LF	\$ 0.35	\$ 8,618.75
TRAFFIC CONTROL	1	LS	\$ 100,000.00	\$ 100,000.00
VERTICAL LOWERING	15	EA	\$ 4,800.00	\$ 72,000.00
WELLS	12	EA	\$2,200,000.00	\$ 26,400,000.00
SUBTOTAL			\$ 30,163,905	

**Grandview Reserve Metropolitan District Improvements
Districts 1-4
SANITARY SEWER**

SUMMARY TABLE	TOTAL
WASTEWATER COLLECTION (ON-SITE)	\$ 28,394,723
WASTEWATER (OFF-SITE)	\$ 19,418,565
SUBTOTAL COST:	\$ 47,813,288

WASTEWATER COLLECTION (ON-SITE)				
4' DIAMETER MANHOLE	413	EA	\$ 7,200.00	\$ 2,972,934.00
5' DIAMETER MANHOLE	413	EA	\$ 8,000.00	\$ 3,303,260.00
6' DIAMETER MANHOLE	58	EA	\$ 10,500.00	\$ 612,546.67
8" PVC w/ BEDDING	165163	LF	\$ 65.00	\$ 10,735,595.00
18" PVC w/ BEDDING	26252	LF	\$ 125.00	\$ 3,281,500.00
8" STUBOUT	12	EA	\$ 450.00	\$ 5,400.00
ADD PER 8" RUN DEPTH (10'-20')	248	EA	\$ 2,000.00	\$ 495,489.00
ADD PER 18" RUN DEPTH (10'-20')	18	EA	\$ 6,500.00	\$ 113,758.67
AIR TEST MAIN	191415	LF	\$ 0.85	\$ 162,702.75
DEFLECTION TEST MAIN	191415	LF	\$ 0.95	\$ 181,844.25
EXTRA DEPTH MANHOLE	1326	VF	\$ 55.00	\$ 72,942.60
POTHOLING	100	HR	\$ 1,500.00	\$ 150,000.00
SANITARY SERVICES	3261	EA	\$ 1,750.00	\$ 5,706,750.00
TRAFFIC CONTROL	1	LS	\$ 250,000.00	\$ 250,000.00
TRENCH STABILIZATION/DEWATERING	1	LS	\$ 350,000.00	\$ 350,000.00
SUBTOTAL:				\$ 28,394,723

WASTEWATER (OFF-SITE)				
12" PVC FORCEMAIN	14465	LF	\$ 105.00	\$ 1,518,825.00
6" PVC FORCEMAIN	14465	LF	\$ 34.00	\$ 491,810.00
12" FORCEMAIN CLEAN OUT	3	EA	\$ 8,500.00	\$ 25,500.00
6" FORCEMAIN CLEAN OUT	3	EA	\$ 5,000.00	\$ 15,000.00
21" PVC w/ BEDDING	33925	LF	\$ 140.00	\$ 4,749,500.00
5' DIAMETER MANHOLE	95	EA	\$ 8,000.00	\$ 760,000.00
CONNECT TO EXISTING	1	EA	\$ 4,000.00	\$ 4,000.00
TEST FORCEMAIN - PRESSURE	28930	LF	\$ 1.00	\$ 28,930.00
TRAFFIC CONTROL	1	LS	\$ 50,000.00	\$ 50,000.00
CROSS UNDER EXISTING UTILITIES	1	LS	\$ 25,000.00	\$ 25,000.00
ASPHALT R & R	1	LS	\$ 750,000.00	\$ 750,000.00
LIFT STATION	4	EA	\$ 2,750,000.00	\$ 11,000,000.00
SUBTOTAL:				\$ 19,418,565

Grandview Reserve Metropolitan District Improvements

Districts 1-4

PUBLIC ROADWAY AND SITE IMPROVEMENTS

SUMMARY TABLE	TOTAL
ARTERIAL (URBAN MINOR 4-LANE)	\$ 4,082,286
COLLECTOR (URBAN RESIDENTIAL)	\$ 2,000,288
LOCAL (URBAN)	\$ 1,078,298
LOCAL (LOW VOLUME)	\$ 33,904,432
SUBTOTAL COST:	\$ 41,065,305

ARTERIAL (URBAN MINOR 4-LANE)				
ACCESSIBLE RAMPS	39	EA	\$ 1,500.00	\$ 58,000.00
6' SIDEWALK - 6" THICK	14500	LF	\$ 48.00	\$ 696,000.00
SIDEWALK SUBGRADE PREP	14500	LF	\$ 1.95	\$ 28,275.00
6" VERTICAL CURB & GUTTER w/ 2' PAN	15225	LF	\$ 24.00	\$ 365,400.00
CURB & GUTTER PREP	15225	LF	\$ 2.05	\$ 31,211.25
CONCRETE CROSSPAN	19	EA	\$ 1,600.00	\$ 30,933.33
9" AGGREGATE BASE COURSE (ABC)	56389	SY	\$ 7.70	\$ 434,194.44
5" ASPHALT PAVING	52361	SY	\$ 25.00	\$ 1,309,027.78
STRIPING	72500	LF	\$ 1.10	\$ 79,750.00
SIGNAGE	39	EA	\$ 900.00	\$ 34,800.00
RAISE MANHOLE LIDS/VALVE BOXES	4	EA	\$ 500.00	\$ 2,000.00
TRAFFIC CONTROL	1	LS	\$ 30,000.00	\$ 30,000.00
SUBGRADE PREPARATION (FLY ASH)	56389	SY	\$ 5.90	\$ 332,694.44
ARTERIAL TIE-INS	2	EA	\$ 325,000.00	\$ 650,000.00
SUBTOTAL:				\$ 4,082,286

COLLECTOR (URBAN RESIDENTIAL)				
ACCESSIBLE RAMPS	49	EA	\$ 1,500.00	\$ 73,200.00
5' SIDEWALK - 4" THICK	12200	LF	\$ 29.00	\$ 353,800.00
SIDEWALK SUBGRADE PREP	12200	LF	\$ 1.95	\$ 23,790.00
6" VERTICAL CURB & GUTTER w/ 2' PAN	12810	LF	\$ 24.00	\$ 307,440.00
CURB & GUTTER PREP	12810	LF	\$ 2.05	\$ 26,260.50
CONCRETE CROSSPAN	24	EA	\$ 1,600.00	\$ 39,040.00
9" AGGREGATE BASE COURSE (ABC)	30500	SY	\$ 7.70	\$ 234,850.00
5" ASPHALT PAVING	27111	SY	\$ 25.00	\$ 677,777.78
STRIPING	36600	LF	\$ 1.10	\$ 40,260.00
SIGNAGE	49	EA	\$ 900.00	\$ 43,920.00
SUBGRADE PREPARATION (FLY ASH)	30500	SY	\$ 5.90	\$ 179,950.00
SUBTOTAL:				\$ 2,000,288

LOCAL (URBAN)				
ACCESSIBLE RAMPS	33	EA	\$ 1,500.00	\$ 49,200.00
5' SIDEWALK - 4" THICK	8200	LF	\$ 29.00	\$ 237,800.00
SIDEWALK SUBGRADE PREP	8200	LF	\$ 1.95	\$ 15,990.00
6" VERTICAL CURB & GUTTER w/2' PAN	8610	LF	\$ 24.00	\$ 206,640.00
CURB & GUTTER PREP	8610	LF	\$ 2.05	\$ 17,650.50
6" AGGREGATE BASE COURSE (ABC)	15944	SY	\$ 6.75	\$ 107,625.00
4" ASPHALT PAVING	13667	SY	\$ 21.00	\$ 287,000.00
STRIPING	16400	LF	\$ 1.10	\$ 18,040.00
SIGNAGE	33	EA	\$ 900.00	\$ 29,520.00
UTILITY SLEEVES	33	EA	\$ 450.00	\$ 14,760.00
SUBGRADE PREPARATION (FLY ASH)	15944	SY	\$ 5.90	\$ 94,072.22
SUBTOTAL:				\$ 1,078,298

LOCAL (LOW VOLUME)

ACCESSIBLE RAMPS	1075	EA	\$ 1,500.00	\$ 1,613,220.00
5' SIDEWALK - 4" THICK	268870	LF	\$ 29.00	\$ 7,797,230.00
SIDEWALK SUBGRADE PREP	268870	LF	\$ 1.95	\$ 524,296.50
6" VERTICAL CURB & GUTTER	282314	LF	\$ 24.00	\$ 6,775,524.00
CURB & GUTTER PREP	282314	LF	\$ 2.05	\$ 578,742.68
CONCRETE CROSSPAN	269	EA	\$ 1,600.00	\$ 430,192.00
6" AGGREGATE BASE COURSE (ABC)	522803	SY	\$ 6.75	\$ 3,528,918.75
4" ASPHALT PAVING	358493.33	SY	\$ 21.00	\$ 7,528,360.00
STRIPING	537740	LF	\$ 1.10	\$ 591,514.00
SIGNAGE	1075	EA	\$ 900.00	\$ 967,932.00
UTILITY SLEEVES	1075	EA	\$ 450.00	\$ 483,966.00
SUBGRADE PREPARATION (FLY ASH)	522803	SY	\$ 5.90	\$ 3,084,536.39
			SUBTOTAL:	\$ 33,904,432

**Grandview Reserve Metropolitan District Improvements
Districts 1-4
PUBLIC ROADWAY AND SITE IMPROVEMENTS**

SUMMARY TABLE	TOTAL
SITE (GRADING, WALLS, EROSION CONTROL, STORM SEWER, DEMOLITION)	\$ 18,182,567
DETENTION/WATER QUALITY POND/CHANNEL	\$ 22,241,600
COMMON LANDSCAPING	\$ 24,348,653
SUBTOTAL COST:	\$ 64,772,820

SITE (GRADING, WALLS, EROSION CONTROL, STORM SEWER, DEMOLITION)				
EXCAVATION CUT	684250	CY	\$ 3.00	\$ 2,052,750.00
EXCAVATION FILL	595000	CY	\$ 5.00	\$ 2,975,000.00
EROSION CONTROL	768	AC	\$ 1,800.00	\$ 1,382,760.00
DEWATERING OPERATIONS	1	LS	\$ 350,000.00	\$ 350,000.00
SWPP BOOK & MAINTENANCE	60	MO	\$ 1,250.00	\$ 75,000.00
5' DIAMETER MANHOLE	92	EA	\$ 5,250.00	\$ 483,966.00
18" FES	26	EA	\$ 775.00	\$ 19,845.17
24" FES	77	EA	\$ 875.00	\$ 67,217.50
18" RCP CL-III	23046	LF	\$ 105.00	\$ 2,419,830.00
24" RCP CL-III	23046	LF	\$ 125.00	\$ 2,880,750.00
RCB BOX CULVERT	9	EA	\$ 145,000.00	\$ 1,305,000.00
5' TYPE R INLET	92	EA	\$ 7,200.00	\$ 663,724.80
10' TYPE R INLET	92	EA	\$ 11,000.00	\$ 1,014,024.00
EXTRA DEPTH	553	LF	\$ 32.00	\$ 17,699.33
DEMOLITION & HAUL OFF	1	LS	\$ 100,000.00	\$ 100,000.00
SUBTOTAL:				\$ 18,182,567

DETENTION/WATER QUALITY POND/CHANNEL				
DRAINAGE CHANNELS	24489	LF	\$ 800.00	\$ 19,591,200.00
OFFSITE DRAINAGE CHANNEL STABILIZATION	2200	LF	\$ 800.00	\$ 1,760,000.00
OUTLET STRUCTURE	8	LS	\$ 45,000.00	\$ 360,000.00
RIPRAP	320	CY	\$ 265.00	\$ 84,800.00
TRICKLE CHANNEL	4800	LF	\$ 9.50	\$ 45,600.00
FOREBAY	8	LS	\$ 15,000.00	\$ 120,000.00
WATER QUALITY POND/OUTLET	8	EA	\$ 35,000.00	\$ 280,000.00
SUBTOTAL:				\$ 22,241,600

COMMON LANDSCAPING				
COMMON SPACE LANDSCAPING W/IRRIGATION	8622702	SF	\$ 2.50	\$ 21,556,755.00
ENTRY MONUMENTATION	3	EA	\$ 35,000.00	\$ 105,000.00
OPEN SPACE TRACT TRAIL (8 FEET)	320640	SF	\$ 4.45	\$ 1,426,848.00
SPLIT RAIL FENCING	100804	LF	\$ 12.50	\$ 1,260,050.00
SUBTOTAL:				\$ 24,348,653