

Appendix H

Final Conceptual Level Cost Estimates

Preliminary Construction Costs
Oak Creek Upstream Northwest and Northeast Detention Basins (2)

Brief Description of Items	Unit	Estimated Quantity	Estimated Unit Price	Calculated Unit Price	Cost
Unit Costs					
Property Acquisition					
- Kenneth E Deinart Life Estate (Appraised Value - \$ ____; 104 acres total)	AC	\$90.00	\$20,000.00	\$20,000.00	\$2,250,000
Property Acquisition Subtotal					\$2,250,000
Site Preparation					
- Site Clearing and Grubbing	AC	2.5	\$3,000.00	\$ 3,000.00	\$7,500
Site Earthwork					
- Excavation	CY	770,000	\$2.00	\$ 2.00	\$1,540,000
- Excavation Haul					
- 1 mile	CY	660,000	\$4.00	\$ 4.00	\$2,640,000
- Temporary Dewatering					
- Wellpoint for Trench	EA	4	\$57.73	\$ 83.97	\$300
- 300 GPM Pump, 30 days	EA	4	\$2,153.70	\$ 3,132.71	\$15,700
- Compaction of Fill	CY	110,000	\$2.50	\$ 2.50	\$275,000
- Riprap - Anchor Points (D50=8")	CY	1,700	\$65.00	\$ 68.24	\$116,000
- Seeding and Plantings	SY	400,000	\$1.00	\$ 0.50	\$200,000
- Turf Planting	SY		\$8.00	\$ 8.40	-
- Native & Wetland Meadow Seeding	SY		\$1.00	\$ 1.05	
- Local Drainage Realignment					
- Excavation assumed included in basin excavation	CY	-	-	-	-
- Excavation Haul	CY	-	-	-	-
- Rip-rap for check dams (5' long, 1' high; D50=8")	CY	100	\$ 65.00	\$ 68.24	\$6,800
Structures					
- Inlet culverts for local drainage (3'x4' Concrete Box @ 100' Length)	EA	7	\$25,000.00	\$ 25,000.00	\$175,000
- Flap gates	EA	7	\$ 8,000.00	\$ 8,658.86	\$60,612
- Culverts between upstream basins (3'x4' Concrete Box @ 100' Length)	EA	6	\$25,000.00	\$ 25,000.00	\$150,000
- Inlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not included)	EA	12	\$25,000.00	\$ 25,000.00	\$300,000
- Flap gates	EA	12	\$ 8,000.00	\$ 8,658.86	\$103,900
- Outlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not included)	EA	12	\$25,000.00	\$ 25,000.00	\$300,000
- Flap gates	EA	12	\$ 8,000.00	\$ 8,658.86	\$103,900
- Outlet culverts - 3'x4' Concrete Box @ 100' Length	EA	10	\$25,000.00	\$ 25,000.00	\$250,000

Construction Subtotal=					\$7,014,012
	General Conditions	8%			\$561,100
	Overhead Profit and Insurance@15%				\$1,052,100
	Utility Relocation	5%			\$350,700
Construction with Percent Allowances Subtotal=					\$8,977,912
	Contingency	20%			\$1,795,600
Probable Cost Estimate=					\$10,773,512
	Engineering / Permitting / Survey / Geotech	12%			\$1,292,800
Project Subtotal					\$12,066,300
Total Conceptual Cost Estimate with Property Acquisition =					\$14,400,000
(Rounded up to the nearest \$100,000)					

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**Preliminary Construction Costs
Oak Creek Detention South Basin**

Brief Description of Items	Unit	Estimated Quantity	Estimated Unit Price	Calculated Unit Price	Cost
Unit Costs					
Property Acquisition					
- C&R Operations, LLC (Appraised Value - \$____; 148 acres total)	AC	31	\$1,296.72	\$20,000.00	\$775,000
Property Acquisition Subtotal					\$775,000
Site Preparation					
- Site Clearing and Grubbing	AC	4	\$3,000.00	\$ 3,000.00	\$12,000
Site Earthwork					
- Excavation	CY	180,000		\$ 2.00	\$360,000
- Excavation Haul					
- 1 mile	CY	10,000	\$4.00	\$ 4.00	\$40,000
- Temporary Dewatering					
- Wellpoint for Trench	EA	1	\$57.73	\$ 83.97	\$100
- 300 GPM Pump, 30 days	EA	1	\$2,153.70	\$ 3,132.71	\$15,700
- Compaction of Fill	CY	170,000	\$2.50	\$ 2.50	\$425,000
- Fine Grading	SY	200,000	\$0.29	\$ 0.29	\$58,000
- Riprap Grade Control Base (D50=8")	CY	1,100	\$65.00	\$ 68.24	\$75,100
- Riprap - Anchor Points (D50=8")	CY	1,700	\$65.00	\$ 68.24	\$116,000
- Seeding and Plantings	SY	200,000	\$1.00	\$ 0.50	\$100,000
Structures					
- Inlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not include	EA	6	\$25,000.00	\$ 25,000.00	\$150,000
- Flap gates	EA	6	\$ 8,000.00	\$ 8,658.86	\$52,000
- Outlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not includ	EA	6	\$25,000.00	\$ 25,000.00	\$150,000
- Flap gates	EA	6	\$ 8,000.00	\$ 8,658.86	\$52,000
- Outlet culverts - 3'x4' Concrete Box @ 100' Length	EA	5	\$25,000.00	\$ 25,000.00	\$125,000

Construction Subtotal=	\$1,730,900
General Conditions 8%	\$138,500
Overhead Profit and Insurance@15%	\$259,600
Utility Relocation 5%	\$86,500
Construction with Percent Allowances Subtotal=	\$2,215,500
Contingency 20%	\$443,100
Probable Cost Estimate=	\$2,658,600
Engineering / Permitting / Survey / Geotech 12%	\$319,000
Project Subtotal	\$2,977,600
Total Conceptual Cost Estimate with Property Acquisition =	\$3,800,000
(Rounded up to the nearest \$100,000)	

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Preliminary Construction Costs
Oak Creek Downstream Detention Basins (2)

Brief Description of Items	Unit	Estimated Quantity	Estimated Unit Price	Calculated Unit Price	Cost
Unit Costs					
Site Preparation					
- Site Clearing and Grubbing	AC	4	\$3,000.00	\$ 3,000.00	\$12,000
Site Earthwork					
- Excavation	CY	240,000	\$2.00	\$ 2.00	\$480,000
- Excavation Haul					
- 1 mile	CY	230,000	\$4.00	\$ 4.00	\$920,000
- Temporary Dewatering					
- Wellpoint for Trench	EA	2	\$57.73	\$ 83.97	\$200
- 300 GPM Pump, 30 days	EA	2	\$2,153.70	\$ 3,132.71	\$15,700
- Compaction of Fill	CY	10,000	\$2.50	\$ 2.50	\$25,000
- Fine Grading	SY	200,000	\$0.29	\$ 0.29	\$58,000
- Riprap Grade Control Base (D50=8")	CY	6,000	\$65.00	\$ 68.24	\$409,400
- Riprap - Anchor Points (D50=8")	CY	3,300	\$65.00	\$ 68.24	\$225,200
- Seeding and Plantings					
- Basin sites	SY	200,000	\$1.00	\$ 0.50	\$100,000
- Fill site	SY	210,000	\$1.00	\$ 0.50	\$105,000
Structures					
- Temporary Crossing over Local Drainage					
- 60" CMP @ 25' Length	EA	4	\$2,148.75	\$ 3,125.51	\$12,500.00
- Culverts between basins (3'x4' Concrete Box @ 100' Length)	EA	5	\$25,000.00	\$ 25,000.00	\$125,000
- Inlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not include	EA	5	\$25,000.00	\$ 25,000.00	\$125,000
- Flap gates	EA	5	\$ 8,000.00	\$ 8,658.86	\$43,300
- Outlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not includ	EA	4	\$25,000.00	\$ 25,000.00	\$100,000
- Flap gates	EA	4	\$ 8,000.00	\$ 8,658.86	\$34,600
- Outlet culverts - 3'x4' Concrete Box @ 100' Length	EA	5	\$25,000.00	\$ 25,000.00	\$125,000

Construction Subtotal=		\$2,903,400
General Conditions 8%		\$232,300
Overhead Profit and Insurance@15%		\$435,500
Utility Relocation 5%		\$145,200
Construction with Percent Allowances Subtotal=		\$3,716,400
Contingency 20%		\$743,300
Probable Cost Estimate=		\$4,459,700
Engineering / Permitting / Survey / Geotech 12%		\$535,200
Project Subtotal		\$4,994,900
Total Conceptual Cost Estimate=		\$5,000,000
(Rounded up to the nearest \$100,000)		

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**Preliminary Construction Costs
Middle Creek Detention Basins (2)**

Brief Description of Items	Unit	Estimated Quantity	Estimated Unit Price	Calculated Unit Price	Cost
Unit Costs					
Property Acquisition					
- Sam and Joyce Delisi (Appraised Value - \$ _____; 120 acres total)	AC	105	\$ 30,000.00	\$ 30,000.00	\$ 3,150,000.00
- B&J Partnership (Appraised Value - \$ _____; 20 acres total)	AC	5	\$ 30,000.00	\$ 30,000.00	\$ 150,000.00
- Anderson Homes, Inc (Appraised Value - \$ _____; 22 acres total)	AC	22	\$ 30,000.00	\$ 30,000.00	\$ 660,000.00
- Anderson Homes, Inc (Appraised Value - \$ _____; 20 acres total)	AC	20	\$ 30,000.00	\$ 30,000.00	\$ 600,000.00
- Donald and Linda Daringer (Appraised Value - \$ _____; 20 acres total)	AC	20	\$ 30,000.00	\$ 30,000.00	\$ 600,000.00
Property Acquisition Subtotal					\$ 5,160,000.00
Site Preparation					
- Site Clearing and Grubbing	AC	5	\$ 3,000.00	\$ 3,149.40	\$ 15,000.00
Site Earthwork					
- Excavation	CY	680,000	\$ 2.00	\$ 2.00	\$ 1,360,000
- Onsite Excavation Relocation	CY	660,000	\$ 2.00	\$ 2.00	\$ 1,320,000
Temporary Dewatering					
- Wellpoint for Trench	EA	2	\$ 57.73	\$ 83.97	\$ 200
- 300 GPM Pump, 30 days	EA	2	\$ 2,153.70	\$ 3,132.71	\$ 6,300
- Compaction of Fill	CY	20,000	\$ 2.50	\$ 2.50	\$ 50,000
- Fine Grading	SY	450,000	\$ 0.29	\$ 0.29	\$ 130,500
- Riprap Grade Control Base (D50=8")	CY	1,600	\$ 65.00	\$ 68.24	\$ 104,000
- Riprap - Anchor Points (D50=8")	CY	3,300	\$ 65.00	\$ 68.24	\$ 225,200
- Seeding and Plantings	SY	728,000	\$ 1.00	\$ 0.50	\$ 364,000
Local Drainage Realignment					
- Excavation (Assume 14 sq ft trapezoidal channel)	CY	2,100	\$ 2.00	\$ 2.00	\$ 4,200
- Excavation Haul	CY	2,100	\$ 10.00	\$ 10.00	\$ 21,000
- Turf Reinforced Matrix (side slopes only - 6.3 sq ft per channel-foot)	LF	4,000	\$ 18.74	\$ 18.74	\$ 75,000
- Rip-rap for check dams (5' long, 1' high; D50=8")	CY	6,000	\$ 65.00	\$ 68.24	\$ 409,400
Structures					
- Culverts between upstream basins (3'x4' Concrete Box @ 100' Length)	EA	7	\$ 25,000.00	\$ 25,000.00	\$ 175,000.00
- Inlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not include)	EA	30	\$ 25,000.00	\$ 25,000.00	\$ 750,000.00
- Flap gates	EA	30	\$ 8,000.00	\$ 8,658.86	\$ 259,800.00
- Outlet gates - 3'x4' Concrete Box @ 50' Length (w flap gates -cost not include)	EA	12	\$ 25,000.00	\$ 25,000.00	\$ 300,000.00
- Flap gates	EA	12	\$ 8,000.00	\$ 8,658.86	\$ 104,000.00
- Outlet culverts - 3'x4' Concrete Box @ 100' Length	EA	10	\$ 25,000.00	\$ 25,000.00	\$ 250,000.00

Construction Subtotal=	\$5,900,000
General Conditions 8%	\$472,000
Overhead Profit and Insurance@15%	\$885,000
Utility Relocation 5%	\$295,000
Construction with Percent Allowances Subtotal=	\$7,552,000
Contingency 20%	\$1,510,400
Probable Cost Estimate=	\$9,062,400
Engineering / Permitting / Survey / Geotech 12%	\$1,087,500
Project Subtotal	\$10,149,900
Total Conceptual Cost Estimate with Property Acquisition =	\$15,400,000
(Rounded up to the nearest \$100,000)	

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