

**SCHEDULE 2
ENGINEERING COST SUMMARY**

1. CITY: Columbus Division of Power and Water	2. CIP NO.: 690430 Contract No: 1078	3. VERSION:		
4. NAME OF CONSULTANT: Burgess & Niple, Inc.	5. PROJECT TITLE: HCWP DBP and Treatment Master Plan			
6. ADDRESS: 5085 Reed Road Columbus, OH 43220	7. TYPE OF CONTRACT: Cost plus Fixed Fee			
8. DIRECT LABOR (Specify labor categories)	EST. HRS.	HOURLY RATE	EST. COST	TOTALS
Principal	32	90.00	2,880	
Project Manager	770	69.00	53,130	
Project Engineer 1	2168	43.00	93,224	
Project Engineer 2	516	36.00	18,576	
Operator	2030	35.00	71,050	
CADD	200	25.00	5,000	
Support Personnel	84	15.00	1,260	
Administrative	446	24.00	10,704	
Total Man-hours	6,246			
DIRECT LABOR TOTAL:				\$255,824
9. INDIRECT COSTS	RATE	X BASE =	EST. COST	
PAYROLL	1.95	\$255,824	\$498,857	
ADMINISTRATIVE				
INDIRECT COSTS TOTAL:				\$498,857
10. OTHER DIRECT COSTS			EST. COST	
a. TRAVEL				
Transportation: 6,650 mi @ \$ 0.445/ mile			2,959	
Site Visits (Travel & Subsistence) Allowance			15,000	
b. EQUIPMENT, MATERIALS, SUPPLIES				
Pilot Plant Demonstration Equipment Allowance			725,000	
SUBTOTAL:				742,959
c. SUBCONTRACTS (includes 5 percent markup)			EST. COST	
MWH	762,010		800,111	
Zande	202,453		212,576	
CCI	323,496		339,671	
Dynotec	84,208		88,418	
SUBCONTRACTS SUBTOTAL:				1,440,776
d. OTHER (Specify categories)			EST. COST	
Miscellaneous Out-of-Pocket Expenses			3,260	
Bench Scale Testing Allowance			100,000	
Laboratory Testing Allowance			200,000	
Pilot Test Equipment Training Allowance			50,000	
OTHER SUBTOTAL:				353,260
e. OTHER DIRECT COSTS TOTAL:				2,536,995
11. TOTAL COST				\$ 3,291,676
12. FIXED FEE (includes profit) (15 percent direct & indirect labor)				113,202
13. TOTAL PRICE				\$ 3,404,878
14. CONTINGENCIES (2.5 percent) (expenditure requires prior authorization)				85,122
15. CONTRACT TOTAL				\$ 3,490,000

SCHEDULE 2 ENGINEERING COST SUMMARY

1. CITY: Columbus Div of Power and Water	2. CIP NO.: 690430 contract # 1078	3. VERSION:		
4. NAME OF CONSULTANT: R.D. Zande & Associates, Inc.	5. PROJECT TITLE: HCWP DBP and Treatment Master Plan			
6. ADDRESS: 1500 Lake Shore Drive, Suite 100 Columbus, Ohio 43204	7. TYPE OF CONTRACT: cost plus fixed fee			
8. DIRECT LABOR (Specify labor categories):	EST. HRS.	SALARY	EST. COST	TOTALS
technical review committee	248	\$44.50	\$11,036.00	
pilot plant operator	2,030	\$27.50	\$55,825.00	
DIRECT LABOR TOTAL:				\$ 66,861.00
9. INDIRECT COSTS	RATE	X BASE =	EST. COST	
PAYROLL	\$66,861	1.62	\$108,314.82	
ADMINISTRATIVE				
INDIRECT COSTS TOTAL:			\$108,314.82	\$ 108,314.82
10. OTHER DIRECT COSTS			EST. COST	
a. TRAVEL				
Transportation <u>2,250</u> mi @ \$ <u>0.445</u> / mile			\$1,001.25	
b. EQUIPMENT, MATERIALS, SUPPLIES	QTY.	COST		
SUBTOTAL:				
c. SUBCONTRACTS			EST. COST	
SUBCONTRACTS SUBTOTAL:				
d. OTHER (Specify categories)			EST. COST	
OTHER SUBTOTAL:				
e. OTHER DIRECT COSTS TOTAL:				\$ 1,001.25
11. TOTAL COST				\$ 176,177.07
12. FIXED FEE (Including Profit)				\$ 26,276.37
13. TOTAL PRICE				\$ 202,453.44
14. CONTINGENCIES				
15. CONTRACT TOTAL				\$ 202,453.44

SCHEDULE 2 ENGINEERING COST SUMMARY

1.	CITY: Dept. of Public Utilities	2. CIP NO.: 690430 / Contract No. 1078	3. VERSION:		
4.	NAME OF CONSULTANT: MWH	5. PROJECT TITLE: HCWP DBP End Treatment Master Plan			
6.	ADDRESS: 85 E. Gay Street, Suite 1100-A Columbus, OH 43215	7. TYPE OF CONTRACT: Cost + Fixed Fee			
8.	DIRECT LABOR (Specify labor categories)	EST. HRS.	HOURLY RATE	EST. COST	TOTALS
	Senior Level	760	\$77.00	\$58,520	
	Middle Level	2074	\$51.00	\$105,774	
	Associate Level	673	\$50.00	\$33,650	
	Engineer	600	\$28.00	\$16,800	
	Technical Support	3	\$60.00	\$180	
	Administration/Accountant	190	\$29.00	\$5,510	
	DIRECT LABOR TOTAL:	4300			\$220,434
9.	INDIRECT COSTS	RATE	X BASE =	EST. COST	
	PAYROLL	1.875	\$220,434	\$413,314	
	ADMINISTRATIVE				
	INDIRECT COSTS TOTAL:				\$413,314
10.	OTHER DIRECT COSTS			EST. COST	
	a. TRAVEL				
	Trips from Cleveland: 54 x \$200/trip			\$10,800	
	Trips from U.S.: 16 x \$1,400/trip			\$22,400	
	b. EQUIPMENT, MATERIALS, SUPPLIES	QTY.	COST		
	SUBTOTAL:			\$33,200	
	c. SUBCONTRACTS			EST. COST	
	SUBCONTRACTS SUBTOTAL:				
	d. OTHER (Specify categories)			EST. COST	
	OTHER SUBTOTAL:				
	e. OTHER DIRECT COSTS TOTAL:				\$33,200
11.	TOTAL COST				\$666,948
12.	FIXED FEE (Including Profit) (15% direct and indirect labor)				\$95,062
13.	TOTAL PRICE				\$762,010
14.	CONTINGENCIES				
15.	CONTRACT TOTAL				

Columbus HC Master Plan

Other Direct Cost Budget Assumptions

		For Budgeting use:
Cost per Trip		
Trip From Cleveland (1-Day)		
1-Day		
Travel (300+ miles)	\$135	
Meals	\$25	
Sum	\$160	
2-Day		
Travel (330+ miles)	\$150	
Meals (4)	\$100	
Hotel	\$150	
Total Cost	\$400	
Cost/Day	\$200	
Use Cost/Day		\$200
Air Trip from U.S.		
Airfare	\$1,000	
Hotel	\$150	
Meals	\$100	
Car Rental	\$60	
Total	\$1,310	
Use Cost/Day		\$1,400
Estimated Number of Trips		
Estimated Number of Trips from Cleveland		
Scheduled Meetings/Workshops	14	
1 Trip/2 Weeks over 18-Month Period	40	
Total	54	
Estimated Number of Trips from U.S.		
Workshop #1	3	
Workshops #2-4	6	
Technical Review Committee	2	
Pilot Study Survey	1	
Criterium Decision Plus	4	
Total	16	
Estimated Trip Costs		
Trips From Cleveland	54 x \$200/trip-day	\$10,800
Trips From U.S.	16 x \$1,400/trip-day	\$22,400
Total Travel Cost		\$33,200

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1.	CITY: Division of Power & Water Dept. of Public Utilities	2. CIP NO.: 690430 Contract #: 1078	3. VERSION:		
4.	NAME OF CONSULTANT: CAD Concepts, Inc.	5. PROJECT TITLE: HCWP DBP and Treatment Master Plan			
6.	ADDRESS: 1328 Dublin Road, Suite 201 Columbus, Ohio 43215	7. TYPE OF CONTRACT: Cost plus Fixed fee			
8.	DIRECT LABOR (Specify labor categories)	EST. HRS.	HOURLY RATE	EST. COST	TOTALS
			Includes Overhead and Profit		
	Pilot Plant Operations	2030	75	152,250	
	Engineering Technician	260	24	6,240	
	DIRECT LABOR TOTAL:				\$158,490
9.	INDIRECT COSTS	RATE	X BASE =	EST. COST	
	PAYROLL	0.77	\$158,490	122,037	
	ADMINISTRATIVE				
	INDIRECT COSTS TOTAL:				\$122,037
10.	OTHER DIRECT COSTS			EST. COST	
	a. TRAVEL				
	Transportation 2,000 mi @ \$ 0.445 / mile				890
	b. EQUIPMENT, MATERIALS, SUPPLIES				
		QTY.	COST		
	SUBTOTAL:				
	c. SUBCONTRACTS			EST. COST	
	SUBCONTRACTS SUBTOTAL:				
	d. OTHER (Specify categories)			EST. COST	
	OTHER SUBTOTAL:				
	e. OTHER DIRECT COSTS TOTAL:				
11.	TOTAL COST				281,417
12.	FIXED FEE (Including Profit)				42,079
13.	TOTAL PRICE				323,496
14.	CONTINGENCIES				
15.	CONTRACT TOTAL				323,496

**SCHEDULE 2
ENGINEERING COST SUMMARY**

1.	CITY: COLUMBUS, OHIO Department of Public Utilities	2. CIP:	3. VERSION:		
4.	NAME OF CONSULTANT: DYNOTEC INC.	PROJECT TITLE: HAP CREMEAN Water Plant			
5.	ADDRESS: 1925 E. Dublin-Granville Rd. Columbus, Ohio 43229	Disinfection By-Products Master Plan			
		6. TYPE OF CONTRACT Cost Plus Fixed Fee			
7.	DIRECT LABOR (specify labor categories):	HOUR RATE	EST. HOURS	EST. COST	Totals
	Principal (PR)	\$65.00		\$0	
	Project Manager (PM)	\$60.00	116	\$6,960	
	Department Manager (DM)	\$55.00		\$0	
	Engineer III (E3)	\$45.00		\$0	
	Engineer II (E2)	\$35.00	576	\$20,160	
	Engineer I (E1)	\$25.00		\$0	
	Engineering Technician II (ET2)	\$22.00		\$0	
	Engineering Technician I (ET1)	\$20.00		\$0	
	Scientist (S)	\$25.00		\$0	
	Professional Surveyor (PS)	\$30.00		\$0	
	3 man Field Crew (3FC)	\$54.00		\$0	
	2 man Field Crew (2FC)	\$38.00		\$0	
	Clerical (CL)	\$16.00		\$0	
	Administrator (A)	\$20.00		\$0	
	DIRECT LABOR TOTAL:		692		\$27,120
8.	INDIRECT COSTS	Rate	x DL Total	Est. Cost	
	Payroll	1	\$27,120	\$27,120	
	Administrative	0.7	\$27,120	\$18,984	
	INDIRECT COSTS TOTAL:			\$46,104	\$46,104
9.	OTHER DIRECT COSTS (ODC)		Rate	Est. Cost	
	a. Transportation Mileage			\$0	
	b. Equipment, Materials, Supplies	Qty.	Unit Cost	Est. Cost	
				\$0	
				\$0	
	Subtotal:			\$0	
	c. Subcontracts			Est. Cost	
	Soil borings not included but needed				
	Subcontracts Subtotal:			\$0	
	d. Other (specify categories)			Est. Cost	
	Other Subtotal:			\$0	
	e. OTHER DIRECT COSTS TOTAL:				\$0
10.	TOTAL DL + IDL COST				\$73,224
11.	FIXED FEE (including profit)	PERCENT AMOUNT:	15%		\$10,984
12.	TOTAL PRICE				\$84,208
13.					\$0
15.	CONTINGENCIES				\$0
16.	CONTRACT TOTAL				\$84,208