

**SCHEDULE 2A
ENGINEERING COST SUMMARY**

1.	CITY COLUMBUS, OHIO DEPT. OF PUBLIC UTILITIES	2. CIP NO.: 650725-100012 CT NO.:	3. VERSION: 1
4.	NAME OF CONSULTANT: Chester Engineers	5. PROJECT TITLE: Scioto Main Large Diameter Condition Assessment Project	
6.	ADDRESS: 88 E. Broad Street, Suite 1980 Columbus, Ohio 43215	7. TYPE OF CONTRACT: DIRECT HOURLY W/MULTIPLIER	
8.	DIRECT LABOR:	EST. HRS.	HOURLY RATE
	Principal	4	\$88.45
	Project Manager	325	\$67.63
	Senior Project Engineer	108	\$57.23
	Project Engineer	692	\$46.82
	Design Engineer	0	\$41.62
	Eng. Technician	355	\$36.42
	Drafter	24	\$31.22
	Clerical	12	\$26.01
	DIRECT LABOR TOTAL:		
			\$74,907.99
9.	INDIRECT LABOR:	Overhead & Administrative (a)	Profit (b)
		1.75	0.10
			Indirect Cost Multiplier (a + b) + (a * b)
			2.03
	INDIRECT LABOR + PROFIT TOTAL:		
			\$151,688.69
10.	TOTAL LABOR + PROFIT COSTS (item 8 + item 9) (or 1 + Indirect Cost Multiplier):		
			\$226,596.68
11.	OTHER DIRECT COSTS:	EST. COST	
	a. TRAVEL		
	MILEAGE: 1250 x \$ (0.54) / mile		\$675.00
	AIRFARE:		\$0.00
	a. TRAVEL SUBTOTAL:		\$675.00
	b. EQUIPMENT, MATERIALS, SUPPLIES (EMS)	EST. COST	
			\$0.00
			\$0.00
			\$0.00
	b. EMS SUBTOTAL:		\$0.00
	c. SUBCONTRACTS	EST. COST	
	Stantec		\$190,128.09
	Resource International		\$90,582.88
	Sewer Inspections*		\$427,701.20
			\$0.00
	c. SUB SUBTOTAL:		\$708,412.17
	d. OTHER (Specify categories)	EST. COST	
	Sonde Locates (Redzone Robotics)		\$12,500.00
	Maintenance of Traffic Allowance (The Paul Peterson Company)		\$25,875.00
	d. OTHER SUBTOTAL:		\$38,375.00
	e. TOTAL OTHER DIRECT COSTS TOTAL (items a through d):		
			\$747,462.17
12.	TOTAL COST (item 10 + 11)		\$974,058.86
13.	Flow Control Allowance (as Authorized)		\$100,000.00
14.			\$0.00
15.			\$0.00
16.	CONTINGENCY (10%)		\$97,405.89
17.	MAXIMUM FEE (items 12 through 16)		\$1,171,464.74

*Sewer Inspection Contractor(s) to be determined during Operations Planning. Fee based upon Redzone's fees for CCTV/Sonar costs for sewers less than or equal to 48" and Man-Entry costs for sewers greater than 48".

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1.	CITY COLUMBUS, OHIO DEPT. OF PUBLIC UTILITIES	2. CIP NO.: 650725-100012 CT NO.:	3. VERSION:1		
4.	NAME OF CONSULTANT: Stantec Consulting Services, Inc.	5. PROJECT TITLE: Scioto Main Large Diameter Condition Assessment Project			
6.	ADDRESS: 1500 Lake Shore Drive Suite 100 Columbus, Ohio 43204	7. TYPE OF CONTRACT: DIRECT HOURLY W/MULTIPLIER			
8.	DIRECT LABOR:	EST. HRS.	HOURLY RATE	SUBTOTAL	EXTENDED TOTAL
	Principal	0	\$100.00	\$0.00	
	Project Manager	62	\$67.00	\$4,154.00	
	Senior Project Engineer	40	\$84.00	\$3,360.00	
	Project Engineer	0	\$56.67	\$0.00	
	Design Engineer	0	\$39.15	\$0.00	
	Eng. Technician	204	\$38.18	\$7,789.40	
	Drafter	0	\$31.84	\$0.00	
	Clerical	0	\$26.53	\$0.00	
	Registered Surveyor	80	\$47.75	\$3,820.27	
	Survey Crew (2-Person)	230	\$60.00	\$13,800.00	
	Survey Crew (3-Person)	368	\$80.00	\$29,440.00	
	DIRECT LABOR TOTAL:				\$62,363.67
9.	INDIRECT LABOR:	Overhead & Administrative (a)	Profit (b)	Indirect Cost Multiplier (a + b) + (a * b)	EXTENDED TOTALS
		1.73	0.10	2.00	
	INDIRECT LABOR + PROFIT TOTAL:				\$124,914.42
10.	TOTAL LABOR + PROFIT COSTS (item 8 + item 9) (or 1 + Indirect Cost Multiplier):				\$187,278.09
11.	OTHER DIRECT COSTS:	EST. COST			
	a. TRAVEL				
	MILEAGE: 2500 x \$ (0.54) / mile				\$1,350.00
	AIRFARE:				\$0.00
	a. TRAVEL SUBTOTAL:				\$1,350.00
	b. EQUIPMENT, MATERIALS, SUPPLIES (EMS)	EST. COST			
	Bolt Replacement for Manholes				\$1,500.00
					\$0.00
					\$0.00
	b. EMS SUBTOTAL:				\$1,500.00
	c. SUBCONTRACTS	EST. COST			
					\$0.00
					\$0.00
					\$0.00
	c. SUB SUBTOTAL:				\$0.00
	d. OTHER (Specify categories)	EST. COST			
					\$0.00
					\$0.00
	d. OTHER SUBTOTAL:				\$0.00
	e. TOTAL OTHER DIRECT COSTS TOTAL (items a through d):				\$2,850.00
12.	TOTAL COST (item 10 + 11)				\$190,128.09
13.					\$0.00
14.					\$0.00
15.					\$0.00
16.	CONTINGENCY (____ %)				\$0.00
17.	MAXIMUM FEE (items 12 through 16)				\$190,128.09

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ENGINEERING COST SUMMARY**

1.	CITY COLUMBUS, OHIO DEPT. OF PUBLIC UTILITIES	2. CIP NO.: 650725-100012 CT NO.:	3. VERSION: 1		
4.	NAME OF CONSULTANT: Resource International, Inc.	5. PROJECT TITLE: Scioto Main Large Diameter Condition Assessment Project			
6.	ADDRESS: 6350 Presidential Gateway Columbus, Ohio 43231	7. TYPE OF CONTRACT: DIRECT HOURLY W/MULTIPLIER			
8.	DIRECT LABOR:	EST. HRS.	HOURLY RATE	SUBTOTAL	EXTENDED TOTAL
	Principal	14	\$81.16	\$1,136.26	
	Project Manager	42	\$48.91	\$2,054.01	
	Senior Environmental Specialist	400	\$38.50	\$15,399.89	
	Environmental Specialist	324	\$35.38	\$11,462.52	
	DIRECT LABOR TOTAL:				\$30,052.68
9.	INDIRECT LABOR:	Overhead & Administrative (a)	Profit (b)	Indirect Cost Multiplier (a + b) + (a * b)	EXTENDED TOTALS
		1.50	0.10	1.75	
	INDIRECT LABOR + PROFIT TOTAL:				\$52,592.20
10.	TOTAL LABOR + PROFIT COSTS (item 8 + item 9) (or 1 + Indirect Cost Multiplier):				\$82,644.88
11.	OTHER DIRECT COSTS:	EST. COST			
	a. TRAVEL				
	MILEAGE: 2,200 miles x \$(0.54) / mile				\$1,188.00
	AIRFARE:				\$0.00
	a. TRAVEL SUBTOTAL:				\$1,188.00
	b. EQUIPMENT, MATERIALS, SUPPLIES (EMS)	EST. COST			
	Air Sampling Equipment				\$6,750.00
					\$0.00
					\$0.00
	b. EMS SUBTOTAL:				\$6,750.00
	c. SUBCONTRACTS	EST. COST			
					\$0.00
					\$0.00
					\$0.00
	c. SUB SUBTOTAL:				\$0.00
	d. OTHER (Specify categories)	EST. COST			
					\$0.00
					\$0.00
	d. OTHER SUBTOTAL:				\$0.00
	e. TOTAL OTHER DIRECT COSTS TOTAL (items a through d):				\$7,938.00
12.	TOTAL COST (item 10 + 11)				\$90,582.88
13.					\$0.00
14.					\$0.00
15.					\$0.00
16.	CONTINGENCY (0%)				\$0.00
17.	MAXIMUM FEE (items 12 through 16)				\$90,582.88

Project Name: Scioto Main Large Diameter Condition Assessment Project						Dept. of Public Utilities	Date: 11/4/2016
Project Number: 650725-100012						Division: DOSD	
City Project Manager: Nick Domenick, P.E.						Contract Amt or Mod (\$):	
PM Phone #: 614-645-4693						\$1,171,464.74	
Prime Contractor/Consultant: Chester Engineers		Ordinance #: 0942-2017				Contract Duration: 12 Months	
Contractor and Subcontractor CCCN, Scope, and Funding Summary							
	Name / Address	Prime or Sub	Contact Information	C.C.# / Expires	DAX Vendor #	Firm Type	Contract or Mod Amount & %
1	Chester Engineers 88 E. Broad Street Columbus, Ohio 43215	Prime	Joshua Brooks jbrooks@chesterengineers.com (614) 224-4419 (Main) (614) 556-4287 (Direct)	20-2401674 5/18/2017	001157	MBE	Management Operations Planning Field Observations Technical Memorandum \$ 437,177.57 37.3%
2	Stantec Consulting Services, Inc. 1500 Lake Shore Dr Columbus, Ohio 43204	Sub	Mark Hudak Mark.Hudak@stantec.com (614) 485-5043 (Direct)	11-2167170 9/10/2017	000462	MAJ	Field Survey Manhole Inspections Technical Memorandum \$ 190,128.09 16.2%
3	Resource International 6350 Presidential Gateway Columbus, Ohio 43231	Sub	Michelle Eckels michellee@resourceinternational.com (614) 823-4949 (Main) (614) 797-9520 (Direct)	CC004197 3/24/2018	004197	FBE	Air Monitoring \$ 90,582.88 7.7%
4	Redzone Robotics 91 43rd Street Pittsburgh, PA 15201	Sub	Sam Cancilla scancilla@redzone.com (412) 476-8980 x231 (Office Direct) (412) 758-3327 (Mobile)	CC001956 10/26/2018	001956	MAJ	Sewer Inspections \$ 427,701.20 36.5%
5	The Paul Peterson Company 950 Dublin Road Columbus, Ohio 43216	Sub	Parr Peterson parrp@ppco.net (614) 486-4375 (Office)	31-4404549 4/27/2017	006107	MAJ	Maintenance of Traffic \$ 25,875.00 2.2%
6							0.0%
7							0.0%
8							0.0%
			Approved:			TOTAL CONTRACT or Mod AMOUNT	\$ 1,171,464.74
DPU Fiscal Revised 8/9/2016			Date:			Total Percentage	100.0%

Schedule 2A-2 Expenses

Task	Description						Cost	
Stantec								
3	Bolts	Lump Sum					\$1,500.00	
Resource								
5	Gas Meter (H2S, O2, CO, LEL)	Units:	6	Weeks:	5	Per Wk:	\$ 225.00	\$6,750.00
	Subtotal Expenses							\$8,250.00

**SCHEDULE 2B
MAXIMUM LABOR RATES
2017- 2019**

**Scioto Main Large Diameter Condition Assessment Project.
CIP NO. 650725-100012 , CONTRACT No. XXXX**

	Position Description	Hourly Rate 2017	Hourly Rate 2018	Hourly Rate 2019	Average
CHESTER	Principal	\$85.00	\$88.40	\$91.94	\$88.45
	Project Manager	\$65.00	\$67.60	\$70.30	\$67.63
	Senior Project Engineer	\$55.00	\$57.20	\$59.49	\$57.23
	Project Engineer	\$45.00	\$46.80	\$48.67	\$46.82
	Design Engineer	\$40.00	\$41.60	\$43.26	\$41.62
	Eng. Technician	\$35.00	\$36.40	\$37.86	\$36.42
	Drafter	\$30.00	\$31.20	\$32.45	\$31.22
	Clerical	\$25.00	\$26.00	\$27.04	\$26.01
STANTEC	Principal	\$99.00	\$100.00	\$101.00	\$100.00
	Project Manager	\$65.00	\$67.00	\$69.00	\$67.00
	Senior Project Engineer	\$82.00	\$84.00	\$86.00	\$84.00
	Project Engineer	\$55.00	\$56.65	\$58.35	\$56.67
	Design Engineer	\$38.00	\$39.14	\$40.31	\$39.15
	Eng. Technician	\$37.15	\$38.15	\$39.25	\$38.18
	Drafter	\$30.90	\$31.83	\$32.78	\$31.84
	Clerical	\$25.75	\$26.52	\$27.32	\$26.53
	Registered Surveyor	\$46.35	\$47.74	\$49.17	\$47.75
	Survey Crew (2-Person)	\$58.00	\$60.00	\$62.00	\$60.00
	Survey Crew (3-Person)	\$78.00	\$80.00	\$82.00	\$80.00
RESOURCE	Principal	\$78.00	\$81.12	\$84.36	\$81.16
	Project Manager	\$47.00	\$48.88	\$50.84	\$48.91
	Senior Environmental Specialist	\$37.00	\$38.48	\$40.02	\$38.50
	Environmental Specialist	\$34.00	\$35.36	\$36.77	\$35.38
	Design Engineer	N/A	N/A	N/A	
	Eng. Technician	N/A	N/A	N/A	
	Drafter	N/A	N/A	N/A	
	Clerical	N/A	N/A	N/A	
	Registered Surveyor	N/A	N/A	N/A	
	Field Crew (2-Person)	N/A	N/A	N/A	
Field Crew (3-Person)	N/A	N/A	N/A		

SCHEDULE 4
Estimate of Cost Allocation by Task Activity

Project Title: Scioto Main Large Diameter Condition Assessment Project.
CIP NO.: 650725-100012

TASK NO.	ACTIVITY	LABOR HOURS											TOTAL	
		PR	PM	SPE	PE	DE	ET	DR	CL	RS	FP			
1	Review Existing Information (General)	2	88		48		20		4					162
2	Sewer Condition Assessment		77	108	440		263							888
2.1	Video Recording													0
2.2	Sonar Inspections													0
2.3	Man-Entry Inspections													0
2.4	Flow Control													0
3	Manhole Inspections		16		8									24
4	Field Survey		8		4									12
5	Air Sampling and Monitoring		16		20									36
6	Technical Memorandum	2	120		172		72	24	8					398
7	Supplemental Services													0
	City Review													
	Total Hours	4	325	108	692	0	355	24	12	0	0	0	0	1520

PR - Principal
PM - Project Manager

SPE - Senior Project Engineer
PE - Project Engineer

DE - Design Engineer
ET - Eng. Technician

DR - Drafter
CL - Clerical

RS - Registered Surveyor
FP - Field Person

SCHEDULE 4
Estimate of Cost Allocation by Task Activity

Project Title: Scioto Main Large Diameter Condition Assessment Project.
CIP NO.: 650725-100012

TASK NO.	ACTIVITY	LABOR HOURS											TOTAL	
		PR	PM	SPE	PE	DE	ET	DR	CL	RS	FP2	FP3		
1	Review Existing Information (General)		26				40				60			126
2	Sewer Condition Assessment						48							48
2.1	Video Recording													0
2.2	Sonar Inspections													0
2.3	Man-Entry Inspections													0
2.4	Flow Control													0
3	Manhole Inspections		20				116						368	504
4	Field Survey		8							20	230			258
5	Air Sampling and Monitoring													0
6	Technical Memorandum		8	40										48
7	Supplemental Services													0
	City Review													
	Total Hours	0	62	40	0	0	204	0	0	80	230	368		984

PR - Principal
PM - Project Manager

SPE - Senior Project Engineer
PE - Project Engineer

DE - Design Engineer
ET - Eng. Technician

DR - Drafter
CL - Clerical

RS - Registered Surveyor
FP - Field Person

SCHEDULE 4
Estimate of Cost Allocation by Task Activity

Project Title: Scioto Main Large Diameter Condition Assessment Project.
CIP NO.: 650725-100012

TASK NO.	ACTIVITY	LABOR HOURS											TOTAL	
		PR	PM	SPE	PE	DE	ET	DR	CL	RS	FP			
1	Review Existing Information (General)													
2	Sewer Condition Assessment													
2.1	Video Recording													
2.2	Sonar Inspections													
2.3	Man-Entry Inspections													
2.4	Flow Control													
3	Manhole Inspections													
4	Field Survey													
5	Air Sampling and Monitoring	14	42	400	324									780
6	Technical Memorandum													
7	Supplemental Services													
	City Review													
	Total Hours	14	42	400	324	0	0	0	0	0	0	0	0	780

PR - Principal
PM - Project Manager

SPE - Senior Project Engineer
PE - Project Engineer

DE - Design Engineer
ET - Eng. Technician

DR - Drafter
CL - Clerical

RS - Registered Surveyor
FP - Field Person

Schedule 6 – Sewer Inspection Unit Costs

1. CITY: Dept. of Public Utilities	2. CIP NO. 650725-100012	3. VERSION:
4. NAME OF SUBCONTRACTOR: Redzone Robotics	5. PROJECT TITLE: Scioto Main Large Diameter Condition Assessment Project.	
6. ADDRESS: 91 43rd Street, Pittsburgh, PA 15201	7. TYPE OF CONTRACT: Sewer Inspection	

8.	SEWER SIZE (inches)	Length (feet)	CCTV		CCTV/Sonar		CCTV/Man-Entry	
			Unit Price (\$/ft)	Cost (\$)	Unit Price (\$/ft)	Cost (\$)	Unit Price (\$/ft)	Cost (\$)
	10" to 36"	1,551	\$2.95	\$4,575.45	\$3.95	\$6,126.45	N/A	N/A
	36"	2,007	\$2.95	\$5,920.65	\$3.95	\$7,927.65	N/A	N/A
	42" to 48"	55,268	\$2.95	\$163,040.60	\$3.95	\$218,308.60	N/A	N/A
	51" to 60"	12,933	\$2.95	\$38,152.35	\$3.95	\$51,085.35	\$4.25	\$54,965.25
	63" to 78"	22,372	\$2.95	\$65,997.40	\$3.95	\$88,369.40	\$4.25	\$95,081.00
	81" to 96"	9,782	\$2.95	\$28,856.90	\$3.95	\$38,638.90	\$4.25	\$41,573.50
	108" to 180"	875	\$2.95	\$2,581.25	\$3.95	\$3,456.25	\$4.25	\$3,718.75
		104,788	SubTotal:	\$309,124.60	SubTotal:	\$413,912.60	SubTotal:	\$195,338.50

9.	Allowances	Qty.	Unit	Cost	
	Flow Control	1	LS	\$100,000	*Redzone's fees for CCTV/Sonar costs for sewers less than or equal to 48" and Man-Entry costs for sewers greater than 48". \$427,701.20
	Sonde Locates	25	EA	\$500	
	Manhole Inspections	225	EA	N/A	