

Freese and Nichols, Inc.		
Town of Highland Park Field Inspection and Remaining Useful Life Evaluation for the Turtle Creek Sewer Interceptor 8/30/2018 Detailed Cost Breakdown	Project Fee Summary	
	Basic Services	153,000
	Special Services	-
	Total Project	153,000

Basic Services												
Employee			Scott Cole	Mazen Kawasmi	Stephen Johnson	Cassie Seabourn	Scott Maughn	Total Hours	Total Labor Effort	Total Expense Effort	Total Sub Effort	Total Effort
Phase	Task	Project Role	PIC	PM	PE	GIS	Renwal/Rehabilitation Engineer					
A	1	Research GIS, As-Builts, Pipe Manufacturer, Shop Drawings or other sources to determine the best available estimate of original pipe wall thickness.	2	6	24	8		40	\$ 5,595	\$ 510	\$ -	\$ 6,105
A	2	Conduct review of manhole inspection data including interpretation of IBAK 360° scan of each manhole. Utilize inspection results to determine completeness of inspections and to assess structural condition of manhole and determine recommendation on rehabilitation or replacement. Convert inspection into NASSCO MACP format for standardization.	4	12	32	4		52	\$ 8,116	\$ 612	\$ -	\$ 8,728
A	3	Conduct full engineering analysis of CCTV, sonar, and laser profiling inspection data including interpretation of laser profile results to determine completeness of inspections and to assess structural condition of pipeline segment.	4	12	32	12	2	62	\$ 9,226	\$ 697	\$ -	\$ 9,923
A	4	Utilize inspection results and physical data on sewer interceptors to develop remaining useful life (RUL) estimates for each pipeline segment. Populate GIS with identified RUL score for each pipeline segment. Create a map book that graphically displays an RUL score for each of the pipeline segment.	8	12	24	40	2	86	\$ 11,569	\$ 901	\$ -	\$ 12,470
A	5	Prepare Draft Tech Memo including CCTV, sonar and laser profiling results along with any defects requiring immediate repairs, and recommendation on possible replacement for inspected manholes and interceptors.	2	8	32	8	4	54	\$ 7,984	\$ 1,104	\$ -	\$ 9,088
A	6	Meet with the Town to review Draft Technical Memorandum findings and present recommendations.	2	2	2		2	8	\$ 1,703	\$ 381	\$ -	\$ 2,084
A	7	Address comments and finalize Technical Memorandum.	2	8		8	2	20	\$ 3,308	\$ 815	\$ -	\$ 4,123
B	1	ACE to MSI HDCCT/Laser/Sonar Inspection of 12,385 Linear feet of 15"-30" Interceptor.	2	4				6	\$ 1,383	\$ 270	\$ 85,800	\$ 87,453
B	2	ACE to Sonar Inspect 24" Siphon.		4				4	\$ 815	\$ 117	\$ 1,320	\$ 2,252
B	3	ACE to provide IBAK HDCCTV Manhole Inspections for 35 manholes.		4				4	\$ 815	\$ 117	\$ 6,160	\$ 7,092
B	4	ACE to clean 35 manholes by power washing.		4				4	\$ 815	\$ 117	\$ 2,750	\$ 3,682
Total Basic Services Hours			26	76	146	80	12	340	\$ 51,329	\$ 5,641	\$ 96,030	\$ 153,000