

Sanitary Sewer Services Quote

Marcus Jacobs
Borough of Wesleyville
3421 Buffalo Road
Wesleyville, PA 16510

This quote has been prepared by Christina Urbina for Borough of Wesleyville in relation to provision by Duke's Root Control, Inc. of service, as more fully set forth in the Scope of Services attached hereto. The prices and terms and conditions contained in this quotation shall remain valid for a period not exceeding 90 days.

This proposal provides COSTARS pricing for the services described below, based on the defined scope of work and anticipated project requirements.

COSTARS Contract 016-e22-232, Vendor Number 477970

Name	Price	QTY	Subtotal
6" Sewer Pipe Light Cleaning & CCTV - On Road - Per LF - Light Cleaning (up to 3 passes) - NASSCO V7.0 PACP Observation Coding - PDF Reports for each line segment with pipe graph and observation thumb nails - Picture folder with all observation photos	\$3.18	8504	\$27,042.72
8" - 12" Sewer Pipe Light Cleaning & CCTV - On Road - Per LF	\$2.85	40817	\$116,328.45
14"-18" Sewer Pipe Light Cleaning & CCTV - On Road - Per LF	\$3.25	1985	\$6,451.25
Level 2 Manhole Inspection Program - Per Each Manhole Inspection Program Includes: - Rinno digital 360 manhole inspections - MACP deliverables - GDB / GIS shape files with all deliverables - Deliverables Review Meeting	\$175.00	164	\$28,700.00
Condition Assessment Report (CAR) Includes: 11x17 or 24x36 Maps - Corresponding Rehab Recommendations - Corresponding Cost Summaries	\$40.00	164	\$6,560.00
Total			\$185,082.42

- This quotation is subject to the following terms and conditions:
- This quotation is subject to the attached Scope of Services.
 - This is an estimate. Pricing subject to change based on actual quantities completed.
 - Non-Prevailing Wage Rates applied
 - If applicable, monthly progress invoices will reflect the value of field work completed to date and are due upon receipt. A 10% retainage will be withheld until final deliverables are submitted and approved. Any mobilization fees will be invoiced as they are incurred.

Duke's Root Control, Inc.
Bob Hunn
Ohio Valley Regional Manager
bob@dukes.com
614-354-3927
400 Airport Rd. Suite E, Elgin, IL 60123



Proposed Exclusions:	
1	Permits, Licenses and Performance Bonds
2	Major Traffic Control
3	Owner to Provide Water for Cleaning Operations
4	Owner to Provide Dump/Disposal Site
5	Heavy Cleaning (4+ Pass) Can be Provided at a Separate Hourly Rate, if Applicable.

Sanitary
Sewer
Services
Quote

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Agreed and Accepted

By signing below, agree to all provisions set forth in this proposal. Any requirements not listed in this proposal may be subject to additional fees.

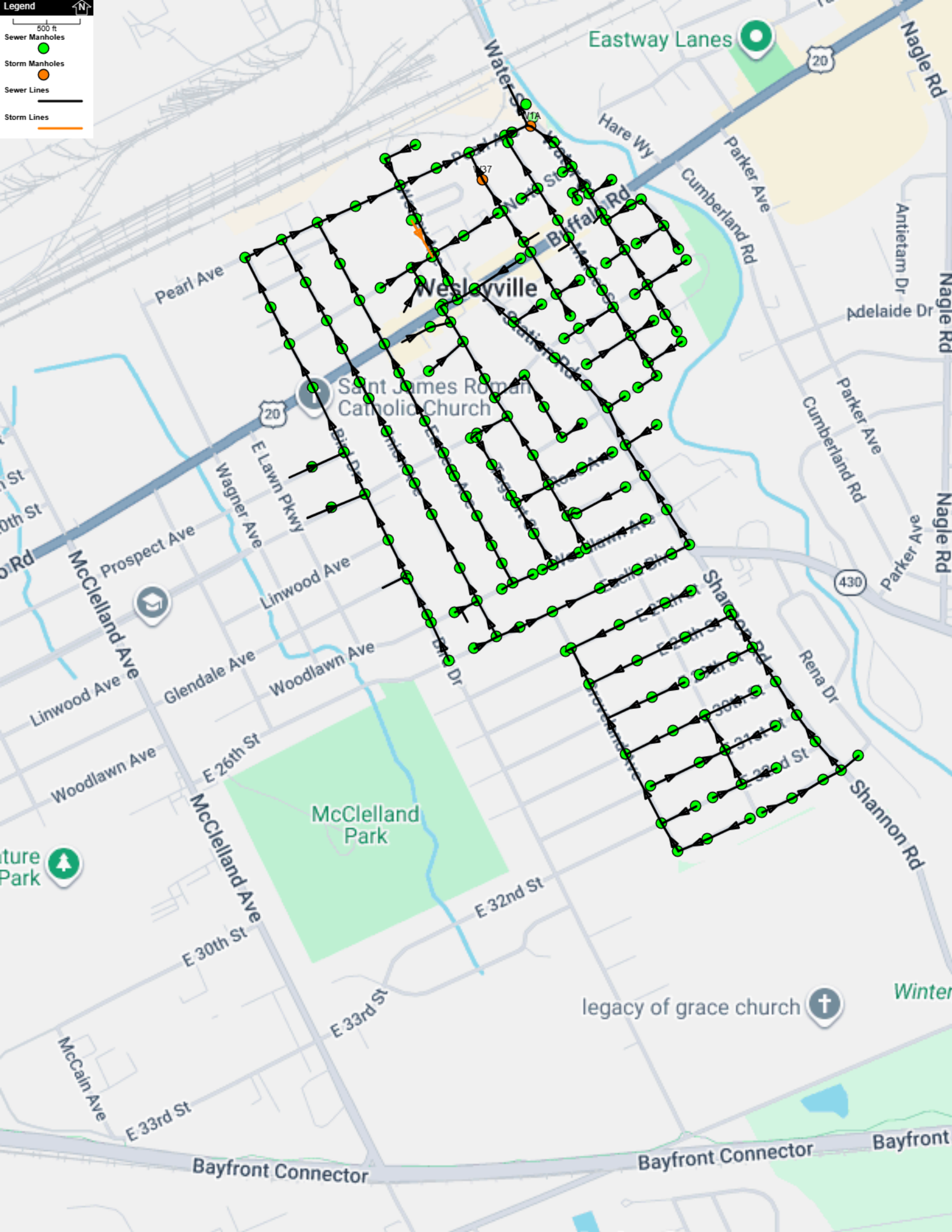
Date:

Name:

Title:

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Mainline Televising – Scope of Services

Pipeline Televising Field Process

1. Using a 1-3 man crew, with the operator holding a current NASSCO certification, perform pipeline televising in accordance with most recent version of the PACP (currently v7.0.3). All back office staff including a coder and reviewer will be NASSCO certified for quality control of data.
2. Provide light traffic control, as needed.
3. Provide all data in Access (NASSCO export DB) and .CSV / Excel format. Provide all video files. Provide all PDF reports including appropriate attribute information collected per level of inspection detailed below. Provide access to these files via FTP or web link and provide them via USB external hard drive when requested.
4. Duke's will provide access to Insight 360, Duke's web hosted data platform. A username and password will be provided so that access to all data, graphs, maps, and raw data downloads are available.

Optional Services for Additional Cost

GPS Coordinates / Geodatabase deliverable

When included in proposal, contractor to shoot each asset using Trimble GNSS R2 receiver with centimeter accuracy (where available) with data correction services. Exceptions to centimeter accuracy might occur based on tree cover or other satellite obstruction. Contractor will make every possible effort to ensure centimeter accuracy is achieved for each asset. All data will be delivered via Geodatabase format including updating the client's existing attribute table and linking PDF reports to the asset (if requested).

Integration Into Client Asset Management or Work Order System

When included in proposal, and when available, consultant to work with utility to define repair types and populate those into client's work order management system.

Responsibilities of Duke's	Responsibilities of Client
1. Provide staff with proper identification and PPE including, but not limited to hi-vis vests. 2. Ensure that all vehicles are properly marked and have adequate safety lighting. 3. Act in a polite, professional manner at all times and especially when dealing with the public. 4. Report any severe observations to the point person from the client's office assigned to this project.	1. Provide contractor with all electronic data or PDF maps to successfully complete the project. 2. Assist contractor with public issues or concerns. 3. Assist with locating or exposing "cannot locate" or "cannot access" structures while on site. If structures cannot be exposed at time of project, additional travel costs will be incurred. 4. Provide point of contact for project. 5. Make every possible effort to ensure that the survey map is current and accurate and that manhole lids are accessible so that project can be completed in designated time frame. 6. Any bypass pumping required during the project will be billed at a rate of cost + 15%, unless otherwise specified in the proposal.

Pipeline Cleaning – Scope of Services

Pipeline Cleaning Field Process

1. Using a combination jetter / vactoring unit, perform cleaning service in accordance with industry accepted practices.
2. "Light Cleaning" shall consist of up to two passes through the sewer main, removing such items as light debris, fine loose roots, cobwebs or minor coating on pipe.
3. "Heavy Cleaning" shall consist of three or more passes through the sewer main, removing such items as medium debris, roots (except major tap roots requiring mechanical cleaning) and grease coating on the pipe.
4. "Mechanical Cleaning" shall be upon the direction of the client and billed at a Time and Materials rate. Mechanical cleaning shall be used to remove tap roots or heavy debris or encrustation.

Responsibilities of Duke's

1. Provide all staff with proper identification and PPE including, but not limited to hi-vis vests.
2. Ensure that all vehicles are properly marked and have adequate safety lighting.
3. Act in a polite, professional manner at all times and especially when dealing with the public.
4. Report any severe observations to the point person from the client's office assigned to this project.

Responsibilities of Client

1. Provide contractor with all electronic data or PDF to successfully complete the project.
2. Assist contractor with public issues or concerns.
3. Assist with locating or exposing "cannot locate" or "cannot access" structures, while on site.
4. Provide point of contact for project.
5. Acknowledge that consultant will not enter any private area without prior consent from client (e.g. gated yard, industrial area or resident property). Any resident interactions regarding access to property may require assistance from utility point of contact.
6. Any bypass pumping required during the project to be billed at a rate of cost + 15%, unless otherwise specified in the proposal.
7. Provide dump site.

Large Diameter Cleaning – Scope of Services

Pipeline Cleaning Field Process

1. Using Dukes LD 500 GPM Cleaning System, perform cleaning service in accordance with industry accepted practices.
2. Sonar pipe segments to verify the quantity of material.
3. Using step cleaning process, clean pipe with dual jetter nozzle 15 to 25 feet at a time.
4. Install a down manhole pump to remove debris from pipe.
5. Using the decanting process, return water into the sewer and store debris in vacuum boxes
6. Haul debris to dump site, provided by client.

Responsibilities of Duke's

1. Provide staff with proper identification and PPE including, but not limited to hi-vis vests.
2. Ensure that all vehicles are properly marked and have adequate safety lighting.
3. Act in a polite, professional manner at all times.
4. Foreman to be on site, at all times.

Responsibilities of Client

1. Provide access for equipment to all manholes.
2. Provide water to the contractor for the cleaning process, at no cost.
3. Provide dump site for waste.
4. Notify homeowners and/or business owners if contractor needs access to their property.

Mainline Pipe Inspections – Sample Deliverables

Video Files & Functionality

All pipelines are televised using our mainline camera system. All televising crew and back end data processing team carry current NASSCO certifications. The analog video files allow forward, rewind and pause functionality through your freeware video player.



Mainline Camera View



Protruding Tap



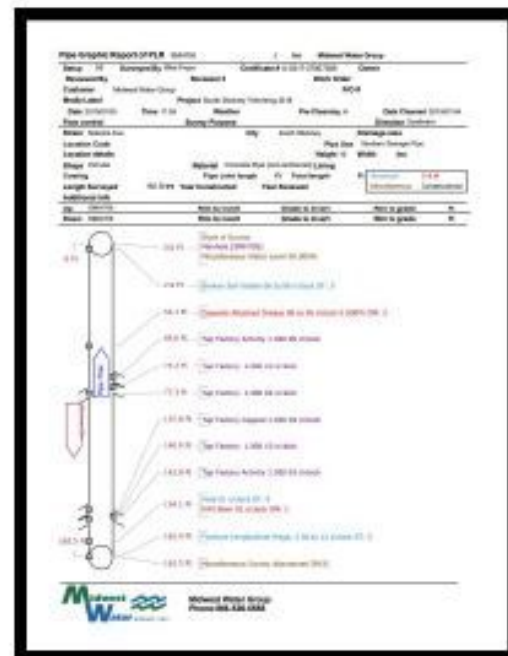
Debris Encrustation

Reporting Features

All observations are recorded in our software tool and produce NASSCO compliant reports. Customer will receive Reports are delivered in PDF format and include Tabular Report (shown below), Pipe Diagram/Flow Direction Report (shown below), Structural Graph and the O&M Graph Report. In addition to PDF format, all data is delivered in a NASSCO compliant MS Access DB export and MS Excel format for easy integration into most NASSCO compliant software platforms or internal reporting softwares. Please reach out to us if you have specific data integration needs.

Station	Depth	Condition	Notes
100.00	1.00	Good	
100.10	1.00	Good	
100.20	1.00	Good	
100.30	1.00	Good	
100.40	1.00	Good	
100.50	1.00	Good	
100.60	1.00	Good	
100.70	1.00	Good	
100.80	1.00	Good	
100.90	1.00	Good	
101.00	1.00	Good	

PACP Tabular Report

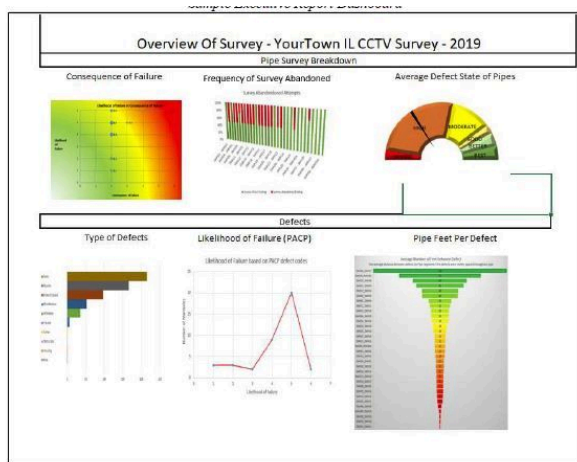
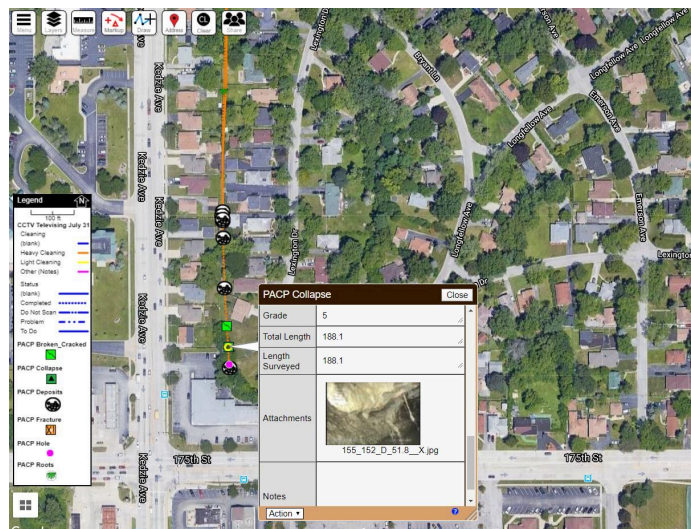


PACP Pipe Diagram Report

GIS Tool (Plotting of Observations)

Data turns into information when you can see and manipulate it.

Our export feature allows you to see the condition of your pipes and quickly sort through defects such as root intrusions, leaks and broken pipes with the click of a button. Isolate out pipelines within the subject area for CIP programs with a few key strokes.



Executive Dashboard Program

Your pipeline survey is imported into a data management tool with our Executive Dashboard program. We allow you to dynamically filter, query and isolate pipeline segments and print combined PDF documents and export to GIS format. Don't spend time reading through countless PACP reports, get right to the information you need!

Manhole Inspections – Level 2 MACP Scope of Services

Process

1. Making every reasonable effort to access each manhole, complete field televising using a digital manhole camera system. Upon occasion, access with the camera system will not be possible due to terrain, resident access issues or location. At those times, crews will use a digital manhole pole camera to obtain video files. Verify all field measurements with survey stick, pipe diameter verification tool and tape measure.
2. Duke's to provide all equipment and personnel as required to complete inspections, including at least (1) NASSCO certified inspector onsite during inspections per camera truck.
3. Upon project completion, Duke's will provide all data in Access (NASSCO export DB) and .CSV / Excel format, all digital scan files (.IPF/.MP4 file extension as applicable) as well as the free required view software to view the IPF files, when necessary. Provide all PDF reports including appropriate attribute information collected via a FTP or web link and provide them via USB external hard drive when requested. Duke's will provide access to Insight 360, Duke's web hosted data platform. A username and password will be supplied so that access to all data, graphs, maps, and raw data downloads are available.

Level 2 MACP Inspection Specifics

Complete inspection using digital scanning camera equipment to perform full Level 2 MACP inspections including "remote entry" observations including all Level 1 MACP fields as well as all Cover dimensions (diameter, surface bearing, condition, lid type); Frame dimensions (all measurements, condition, inflow); Cover Insert (yes/no, condition); Frame Adj Ring (yes/no, height, condition); Chimney (yes/no, material, condition, depth); Cone (yes/no, type, material, condition, depth); Wall/Barrel (type, material, condition, depth); Bench (yes/no, type, material, condition, lining); Channel/Invert (yes/no, type, material, condition, lining); Pipe (All Rim-to-Invert dimensions for each pipe, pipe size/shape, condition, and material).

For an additional cost, any additional pictures, videos or fields not listed on the MACP Level 2 can be added, as required by the client, with advanced notice prior to start of project.

Responsibilities of Duke's

1. Provide staff with proper identification and PPE including, but not limited to hi-vis vests.
2. Ensure that all vehicles are properly marked and have adequate safety lighting.
3. Act in a polite, professional manner at all times and especially when dealing with the public.
4. Report any severe observations to the point person from the client's office assigned to this project.

Responsibilities of Client

1. Provide contractor with all electronic data or PDF maps to successfully complete the project.
2. Assist contractor with public issues or concerns.
3. Assist with locating or exposing "cannot locate" or "cannot access" structures while on site.
4. Provide point of contact for project.
5. Make every possible effort to ensure that the survey map is current and accurate and that manhole lids are accessible so that project can be completed in designated time frame.

Manhole Inspections – Level 2 MACP Scope of Services (cont.)

Optional Services for Additional Cost

Condition Assessment Report (CAR)

When included in proposal, repair recommendations for each manhole will be provided. The means in which this data will be delivered will be via Excel VBA driven spreadsheet program and will include the Asset ID#, Severity Rating (2 or less = good condition – no I/I and/or no structural defect or repair that should be considered as preventative or made within 7-10 years; 3 = moderate condition – light I/I and/or structural defect that should be repaired within 5-7 years; 4 = moderate severity – regular flowing I/I and/or structural repair that should be made within 1-3 years; 5 = severe condition – heavy I/I and/or severe structural defect that should be repaired immediate to 1 year), Type of Repair by category (e.g. grout, curtain grout, chimney seal, lining, inside drop, bench rehab or replacement, etc), estimated budget price for repair and notes on condition or repair. All data from the original survey will be presented in excel. High resolution maps will be provided.

Manhole Inspections – Level 2 MACP Sample Deliverables

Video Files & Functionality

There are three views - the 360 view with zooming capabilities through the structure, the unfolded view which allows the user to take measurements and, when requested, the point cloud view which allows the user to determine structure type and import into CAD. Collectively, these three perspectives portray the condition, size and defects within the structure.

Sample Pictures:



Sample Defect

Photos:

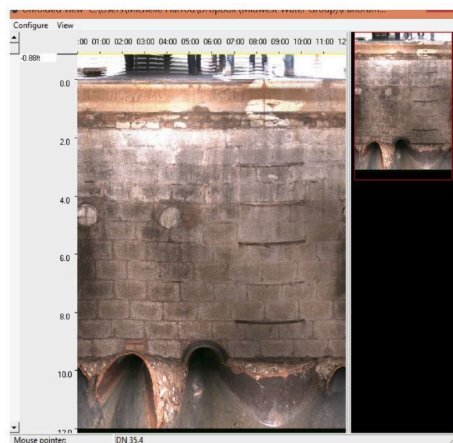


Hole Void Visible

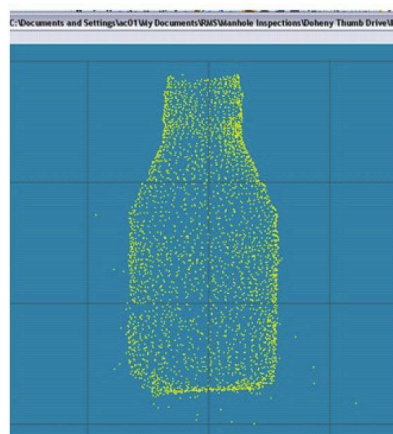


Hole

Unfolded View



Point Cloud View (When specified on Proposal)



Reporting

Client will receive reports delivered in PDF format from a NASSCO certified software. Fields within the Level 2 MACP report will be entered according to the required fields. Customer will receive a picture defect report, in addition to the standard MACP report pictured below. In addition to PDF format, all data is also delivered in a current NASSCO MACP compliant MS Access Database (.MDB) and MS Excel (.XLS) format for easy integration into most software platforms. Other reports such as the NASSCO Quick Rating score report and summary reports is also prepared as part of the standard deliverables package. Please reach out to us if you have specific data integration needs.



Manhole Inspection Report

Manhole Number: **MH05009**

Header Information

Surveyor:	Certificate Number:	Reviewed By:	Certificate Number:	Inspection Status:	Inspection Level:
TH	U-0317-07007289	TH	U-0317-07007289	RI	2
System Owner:	Customer:	Access Type:	City:	Purpose:	
Carmel NY	Carmel NY	AMH	Carmel	B	
Location:					
134 Carey St					
Group Name:	Location Code:	Date Inspected:	Pre-Cleaning:		
	E	5/22/2023	N		
Weather:	Use of Sewer:	Runoff Potential:	Surcharge Evidence:		
	SS	N	N		
Rim to Invert:	Rim to Grade:	Surface:			
7.8	1.2				
Grade to Invert:	Grade to Invert:	☐ Asphalt	☒ Grass	☐ Pavement	
6.6	6.6	☐ Collar	☐ Gravel	☐ Other	
Additional Information:					

Components

Cover Shape:	Cover Size / Width:	Cover Material:	Cover Fit:	Hole Diameter:	Hole No:
C	24	CAS	G	A	2
Cover Type:					
☐ Solid	☐ Bolted	☐ 1 Hatch	☒ Sound	☐ Missing	☐ Restraint Missing
☒ Vented	☐ Inner	☐ 2 Hatch	☐ Cracked	☐ Corroded	☐ Restraint Defective
☐ Gasketed	☐ Locking	☐ Lamphole	☐ Broken	☐ Broken	☐ Bolts Missing
Cover Insert Type:					
Insert Condition:					
☐ N ☐ Sound ☐ Poor Fit ☐ Cracked/Torn/Holes ☐ Leaking ☐ Corroded ☐ Fell In					
Adj. Ring Material:					
Ring Height: Adj. Ring Type:					
N ☐ Sound ☐ Cracked ☐ Leaking ☐ Bad Install ☐ Broken ☐ Corrode					
Frame Material:	Clear Opening:	Frame Bearing Depth/Width:	Frame Depth:	Offset Distance:	Frame Inflow:
CAS	23	1	0.50	4	0.1
Frame Condition:					
☐ Sound	☒ Corroded	☐ Missing	☒ Sound	☐ Loose	☐ Missing
☐ Cracked	☐ Coated	☐ Broken	☐ Cracked	☐ Offset	
Chimney Material:	Chimney Material 2:	Chimney Opening:	Chimney Depth:	Chimney Lit:	
			0		
Chimney Lining Interior:	Chimney Lining Exterior:	Chimney Condition:			
Cone Material:	Cone Type:	Cone Depth:	Cone Condition:		
CR	CO	4.2	D		
Cone Lining Interior:	Cone Lining Exterior:				
N	N				

Manhole Number: **MH05009**

Wall Material:	Wall Diameter:	Wall By:	Wall Depth:	Wall Condition:
CR	48	F	7	D
Wall Lining Interior:	N			
Wall Lining Exterior:	N			
Bench Present:	Bench Material:	Bench Lining:	Bench Condition:	
Y	CN	N	S	
Step Material:	Step Number:			
M	7			
Channel Installed:	Channel Material:	Channel Type:	Channel Exposure:	Channel Condition:
Y	CN	F	F	S
Additional Component Info:				

MACP Scoring

Structural:	P1	Pipe Ratings Index:	5.6	Quick Rating:	E321
CM:	I2	Pipe Ratings Index:	1.3	Quick Rating:	E316
Overall:	P3	Pipe Ratings Index:	1.9	Quick Rating:	E324

Photos



MH05009_Cover.jpg



MH05009_Interior.jpg



MH05009_Interior_Orientation.jpg



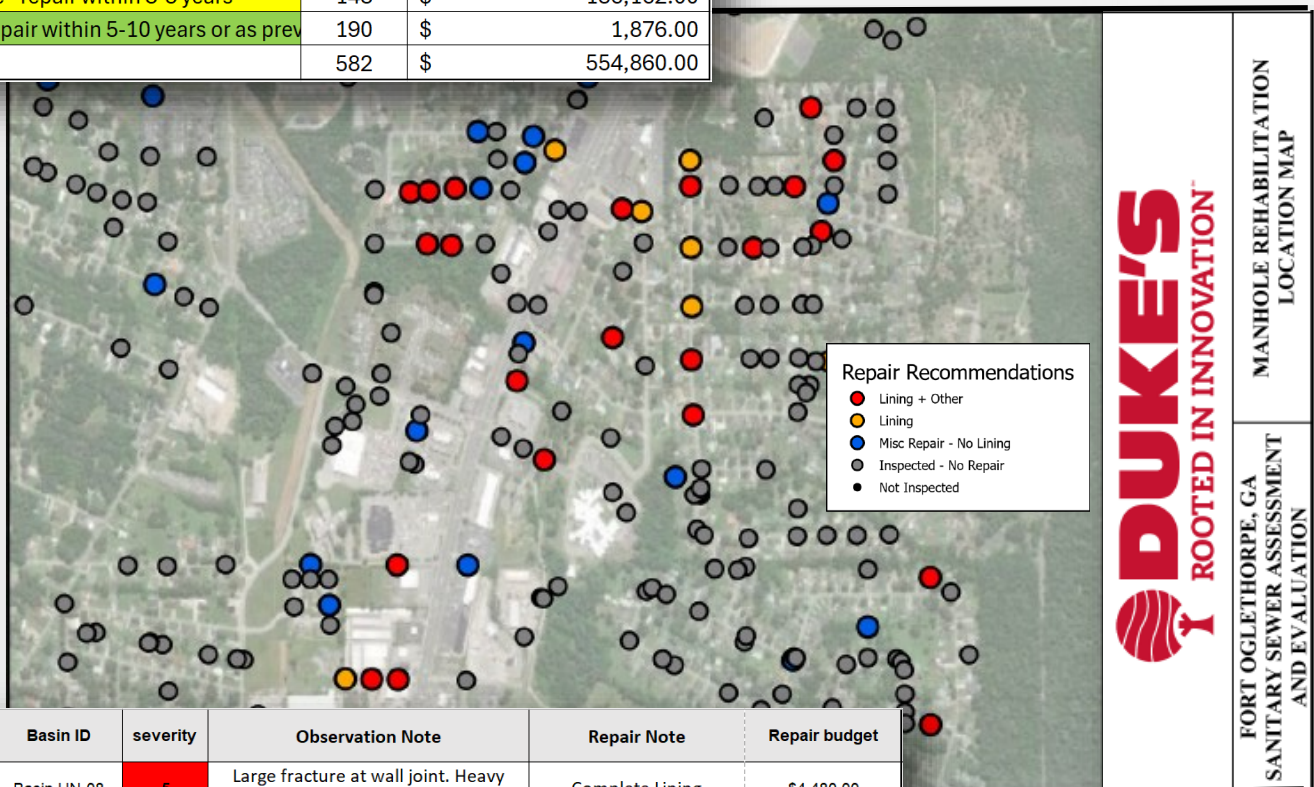
MH05009_Site.jpg

A Manhole **Condition Assessment Report** consolidates the large and complex volume of NASSCO Level 2 MACP inspection data set (MS-Access database, defect photos, manhole reports, video files) down to a simple and easy to understand priority list of recommended manhole rehabilitations, in order of severity—along with corresponding estimated costs of construction. Utility leadership can very quickly understand the scope and location of challenges along with the necessary information to begin matching up next steps with available budgets, or budget requests.

Manhole Inspection Defect Level	Number Found	Budget for Repair
Severe - repair within 1 year	51	\$ 113,353.00
High - repair within 1-3 years	198	\$ 253,469.00
Moderate - repair within 3-5 years	143	\$ 186,162.00
Good - repair within 5-10 years or as prev	190	\$ 1,876.00
TOTAL	582	\$ 554,860.00

Example Construction Cost Summary

High Resolution Maps for Quick Reference



Manhole Number	Basin ID	severity	Observation Note	Repair Note	Repair budget
40259	Basin UN-08	5	Large fracture at wall joint. Heavy roots at pipe connection.	Complete Lining	\$4,480.00
40128	Basin UN-08	5	Large debris in channel. Unsure if intentionally abandoning influent	Complete Lining, Reform Bench and Channel	\$5,830.00
32026	Basin UN-01	5	Actively surcharged. Close to bottom of chimney.	Clean Manhole	\$500.00
31663	Basin UN-01	5	Actively surcharged	Clean Manhole	\$500.00
40203	Basin UN-08	4	Heavy roots in manhole. Root control, Clean, Line or replace whole structure	Complete Lining	\$3,710.00
30460	Basin UN-01	4	Large frame offset MH not fully covered, surcharged, trash in manhole	Reset Frame, Clean Manhole	\$1,500.00
40204	Basin UN-08	4	Frame is missing/defective. Infiltration runner at effluent pipe connection.	Inject Hole (1), Inject Connection (1), Replace	\$2,100.00
41529	Basin UN-08	4	Large gap in frame joint - chimney almost missing	Reset Frame	\$1,000.00
41502	Basin UN-08	3	Manhole in middle of swamp/pond. Heavy infiltration in wall. Relocate, if	Relocate, if not possible then replace	\$0.00
31653	Basin UN-08	3	Frame not connected, infiltration at hole	Inject Hole (1), Reset Frame	\$1,250.00
					\$20,870.00

Example Condition Report Content

Maps—24x36 or 11x17

Corresponding Rehab Recs

Corresponding Cost Summaries