



**Request for Bids
Sanitary Sewer Cleaning and Televising Services**

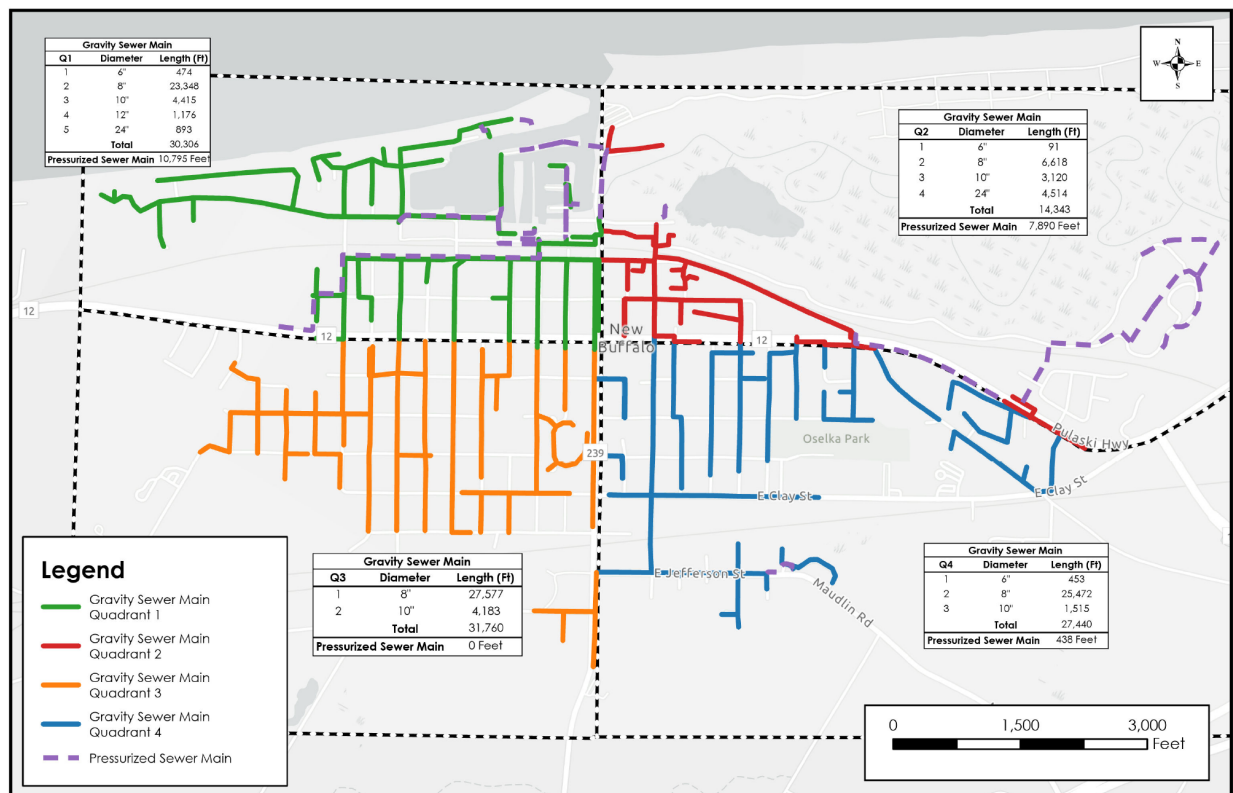
July 1, 2024

Background

The City of New Buffalo is requesting sealed bids for sanitary sewer televising and cleaning services in conjunction with the City's FY 2024/25 sanitary sewer inspection and cleaning program.

The City of New Buffalo has divided the City into four quadrants and is seeking a bid for the cleaning and televising of gravity sanitary sewer lines in each quadrant. The City maintains a City-wide numbering system for our manholes, and the numbering is to be utilized for the televising and cleaning work. The City may award contracts to one or more contractors for each or all four (4) quadrants depending on pricing received for the requested work.

City of New Buffalo Gravity Sewer Main by Quadrant



Note: pressurized sewer main is not part of the project scope, it is only listed on the above map for reference purposes.

Bid Due Date

Sealed bids must be submitted to the City of New Buffalo's Clerk's Office, 224 West Buffalo Street New Buffalo, MI 49117 no later than 11:00AM on July 29, 2024.

Bids shall be sealed and shall have the name and address of the bidder and the contract for which the bid is being submitted on the outside of the envelope. All bidders shall bid in accordance with and upon the bid forms included in the contract documents. There is no fee for each set of contract documents.

Questions

Any questions regarding this work should be directed to:

Darwin Watson, City Manager
City of New Buffalo
(269) 469-1500
dwatson@cityofnewbuffalomi.gov

Schedule

Work shall commence no sooner than Wednesday September 4, 2024 and shall be substantially complete no later than January 31, 2025 and subject to the Progress Clause.

Deliverables

- Standard PACP Exchange Database in electronic format produced from PipeLogix or equivalent software.
- Complete set of televising records including photographs and videos on a USB plug & play compatible portable external hard drive. Also include a notebook of the digital items.
- Provide PipeLogix database in a read-only format using software or approved equivalent. Also provide the read only version of PipeLogix or equivalent approved software. Videos and photos must also be in a readable format with standard viewing software, if a specific program is needed, submit for pre-approval.
- The intention of the City to upload this data into our GIS and Asset Management System, so submittal shall be in a format that is compatible with the upload.

Bid Requirements

A certified check, cashier's check, or bid bond in an amount equal to five percent (5%) of the total amount of the bid, made payable to the City of New Buffalo, will be required with each bid as security for the proper execution of the contract. One hundred percent (100%) Labor, Material and Performance Bond and a Certificate of Insurance will be required of the successful bidder.

Prior to contract award, the Contractor shall provide proof of Workman's Compensation Insurance and a completed W-9, or Sole proprietor form, a copy of their Liability Policy which designates the City of New Buffalo as additionally insured.

Minimum required insurance levels are as follows:

- General Liability - \$1,000,000 per occurrence for bodily injury, personal injury and property damage, and an aggregate limit of \$2,000,000; and/or
- Automobile Liability - \$1,000,000 per accident for bodily injury and property damage (if necessary and applicable to the contract); and/or
- \$1,000,000 per accident for bodily injury or disease; and/or
- Bodily Injury Liability (if the contract involves motor vehicles or mechanized equipment) - \$1,000,000 per occurrence for bodily injury and/or personal injury and/or property damage.

Owner's Rights

The City of New Buffalo reserves the right to reject any and all bids, waive any informalities in bidding or to accept the bid or bids should it consider same to be in its best interest. No bid shall be withdrawn for a period of sixty (60) days after the scheduled opening without the written consent of the City of New Buffalo. The City of New Buffalo will notify the successful bidder within sixty (60) days after receiving bids.

CONTRACTOR BID FORM

The undersigned having familiarized (himself/themselves) with the local conditions affecting the cost of the work and the Contract Documents, and hereby proposes to perform all work and to provide and furnish all labor, materials, necessary tools, equipment, utility and transportation services necessary to perform and complete in a workmanlike manner all work required for sewer televising and cleaning in accordance with the specifications as prepared by the Department of Public Services, City of New Buffalo, Michigan, for, including Addenda No. _____ issued thereto, the following unit prices:

Company: _____

Address: _____

City: _____ State: _____ Zip Code: _____

Signature: _____ Title: _____

Telephone: _____ Date: _____

E-Mail: _____

Bid Amount(s)

Quadrant 1 – 30,306' of sewer for cleaning and televising		
Diameter	Length	Bid Price
6"	474	\$
8"	23,348	\$
10"	4,415	\$
12"	1,176	\$
24"	893	\$
Total Bid Cost Quadrant 1:		\$

Quadrant 2 – 14,343' of sewer for cleaning and televising		
Diameter	Length	Bid Price
6"	91	\$
8"	6,618	\$
10"	3,120	\$
24"	4,514	\$
Total Bid Cost Quadrant 4:		\$

Quadrant 3 – 31,760' of sewer for cleaning and televising		
Diameter	Length	Bid Price
8"	27,577	\$
10"	4,183	\$
Total Bid Cost Quadrant 3:		\$

Quadrant 4 – 27,440' of sewer for cleaning and televising		
Diameter	Length	Bid Price
6"	453	\$
8"	25,472	\$
10"	1,515	\$
Total Bid Cost Quadrant 4:		\$

Note: The final page of this request for bids contains a map each quadrant with pipe diameters and lengths

PART 1 - GENERAL

1.01 SUMMARY:

- A. This section includes cleaning of existing sewers and removal of debris, and internal television (TV) inspection of sewers.
- Clean existing sewer pipelines.
 - Inspect sewer interior using color closed-circuit television (CCTV) camera, and document inspection on DVD or USB thumb drive with audio location and date information, title information, and continuous tape counter. Provide hard copy of inspection logs. All inspections and reports shall be performed in accordance with Pipeline Assessment and Certification (PACP) Standards
 - Additional TV inspections may be required at other stages of operation, to meet requirements specified in Field Quality Control article.
- B. This section includes cleaning of existing manholes and removal of debris, and internal television (TV) inspection of manholes.
- Clean existing sewer manholes.
 - Inspect manhole interior using color closed-circuit television (CCTV) camera, and document inspection on DVD or USB thumb drive with audio location and date information, title information. Provide hard copy of inspection logs. All inspections and reports shall be performed in accordance with Manhole Assessment and Certification (MACP) Standards
 - Additional TV inspections may be required at other stages of operation, to meet requirements specified in Field Quality Control article.

1.02 SUBMITTALS:

- A. Quality Assurance: Submit one example of previous sewer inspection, lateral inspection and manhole inspection work that shows operational and structural defects in sewers, laterals and manholes complete with audio commentary and inspection log(s). The sample should be in the same digital format that the final product will be delivered in. If the submittal will be provided in DVD format, finalize the DVD to prevent re-recording.
- Video and inspection logs will be reviewed to determine if quality of CCTV image is acceptable, and if defects were properly identified and documented according to the City's requirements.
 - Modify equipment and/or inspection procedures to achieve report material of acceptable quality.
 - Do not commence Work prior to approval of report material quality by City. Upon acceptance, report material shall serve as standard for remaining work.

B. Inspection Logs: Unless otherwise indicated, submit inspection logs that include the following as a minimum:

- Project title
- Name of City
- Time of day
- Street Name
- Manhole to manhole pipe section
- Pipe segment length
- Pipe material
- Line size
- Compass direction of viewing
- Direction of cameras travel
- Pipe depth
- Operator name
- Tape counter reading at beginning and end of each manhole-to-manhole pipe segment
- Must comply with PACP, LACP and MACP Standards.

Electronic Database of Televising Records Submit:

- Standard PACP Exchange Database in electronic format produced from PipeLogix or equivalent software.
- Complete set of televising records including photographs and videos on a USB plug & play compatible portable external hard drive.
- Provide PipeLogix database in a read-only format using software or approved equivalent. Also provide the read only version of PipeLogix or equivalent approved software. Videos and photos must also be in a readable format with standard viewing software, if a specific program is needed, submit for pre-approval.

C. Maintain copy of all inspection documentation (DVDs, digital databases, and logs) for a period of 3 years from the date of completion.

1.03 SAFETY:

A. Prior to award of the contract, the Contractor shall provide a safety plan. The plan shall have, at a minimum:

- Confined Space Entry
- Personal Protective Equipment
- Traffic Control
- Road Way Safety

1.04 SCHEDULED WORK HOURS

- A. Scheduled work hours are from 8:00 AM to 7:00 PM, Monday through Friday. The Contractor shall work during these hours and days only, unless prior approval is provided by the City.

1.04 CONTRACTOR'S RESPONSIBILITIES INCIDENTAL TO THE PROJECT:

- A. The Contractor shall secure all required permits from MDOT when working in the MDOT Right of Way.
- B. Removal and replacement of landscape borders, fences (including posts)
- C. Care and Protection of all trees and tree branches
- D. Restoration of all out lawn areas disturbed
- E. Required cleanups if a backup is caused or suspected by the Contractor's operations resulting in sewage in buildings or residential homes
- F. The Contractor's Staff will notify all affected residents in writing with a door hanger a minimum of 48 hours prior to cleaning and taping mainline sewers and laterals.

PART 2 - PRODUCTS

2.01 MATERIAL AND EQUIPMENT:

- A. USB Drive:
 - Audio portion of USB shall be sufficiently free from electrical interference and background noise to provide complete intelligibility or oral report.
 - Identify each USB with labels showing Owner's name, Contractor's name and each manhole to manhole pipe segment of sewer line represented on it or provide an index or table of contents if more than one segment is on the drive.
- B. Television Inspection Camera(s): Equipped with rotating head, capable of 90-degree rotation from horizontal and 360-degree rotation about its centerline.
 - Minimum Camera Resolution: 3000 lines of vertical resolution in the side view and a minimum of 500 lines in the perspective view.

- Camera Lens: Minimum of 185 degree viewing angle, with automatic or remote focus and iris control.
- Front Mounted pan and tilt/zoom camera (40:1 Optical/Digital Zoom)
- Cameras shall be intrinsically safe and operative in 100 percent humidity conditions.
- Lighting Intensity: Remote-controlled and adjusted to minimize reflective glare.
- Lighting and Camera Quality: Provide clear, in-focus picture of entire inside periphery of sewer.

C. Footage Counter: Measures distance traveled by camera in sewer and lateral, accurate to plus or minus 1 foot in 1,000 feet

D. Video Titling: Each segment shown on the videos should have its own Chapter titles with the beginning and end point of the pipe segment.

E. High Velocity Cleaning Equipment

High velocity cleaning equipment is to be capable of producing a flow rate of 65 gal/minute at 2000 psi of pressure, complete with the following:

- Selection of nozzles capable of effectively scouring and removing grease from the sewer pipe wall and transporting debris in all sizes of the sewers to be cleaned.
- Water tank.
- Auxiliary engines.
- Pumps.
- Hydraulically driven hose reel with a wash down gun for cleaning manholes. Approved backflow prevention device and approved water meter for filling water tank from a hydrant.

F. Debris Removal Equipment

- Vacuum unit(s) used for removing sewer debris to be complete with the following: Positive displacement pumps or fans producing a minimum 25 cubic feet per second of air movement.
- Storage tank.
- Minimum 6-inch diameter suction hoses attached to a hydraulic boom. b. Configure the storage tank to allow the liquid portion of the debris to be returned to the sewer.

G. Communication Equipment

- Equip cleaning crews with cellular telephones and a suitable communication system linking all crewmembers.

PART 3 - EXECUTION

3.01 SEWER FLOW REQUIREMENTS:

- A. Do not exceed depth of flow shown in Table 1 for respective pipe sizes as measured in manhole when performing TV inspection.
- B. When depth of flow at upstream manhole of sewer line section being worked is above maximum allowable for TV inspection, reduce flow to level shown in the Table below by plugging or blocking of flow, or by pumping and bypassing of flow as required.

Maximum Depth of Flow for TV Inspection:

<u>Pipe Diameter</u>	<u>Maximum Depth of Flow as percentage of Pipe Diameter</u>
6" – 12"	20% of pipe diameter
14" – 18"	15% of pipe diameter
21" – 36"	10% of pipe diameter
36"	20% of pipe diameter

3.02 SEQUENCE OF WORK:

Perform Work in the following sequence:

- A. Clean sewer lines and manholes in accordance with requirements of this Section.
- B. Televiser sewer lines and manholes after cleaning.

3.03 SEWER CLEANING:

- A. Notify the Owner of the location where sewer, manhole or catch basin cleaning will be done one full day before starting the cleaning work at that location. Deliver notices to residents and businesses effected by the cleaning.
- B. Clean sewers and manholes completely of debris including sludge, dirt, sand, gravel, rocks, bricks, grease and other solid and semi-solid materials removed from the sewer by the equipment identified in Article 3.01 of this specification.
- C. Remove grease deposits on pipe walls to within 0.5 inch of the inside surface of the pipe wall or as directed by the Owner.

- D. Removal of roots shall be performed where necessary to clear pipe section in order to perform the TV inspection and provide camera clearance.
- E. Take necessary precautions to ensure that no flooding of public or private property occurs during sewer and manhole cleaning. Reduce pressure of cleaning equipment if needed.
- F. Start the cleaning operation with the upstream sewers in the system and proceed downstream with the direction of flow.
- G. Scour manhole walls and benching clean before cleaning the sewers downstream of manholes.
- H. Clean all contributing upstream sewers before proceeding with cleaning downstream sewers.
- I. Advise the Owner immediately when pipe material or backfill material is observed during the cleaning of a sewer. The Owner will direct one of the following operations be performed.
 - Complete or attempt to complete cleaning of the sewer.
 - Suspend cleaning operations and inspect the sewer.
 - Simultaneously clean and inspect the sewer.

Note: heavy cleaning is defined as more than three passes and/or extensive root cutting. If heavy cleaning is determined a necessity on a portion of a main, the City shall be notified prior to continuing. This work shall proceed only after City approval is provided.

3.04 EMERGENCY SEWER REPAIRS:

- A. The Owner will arrange for an emergency repair of the sewer at blockage locations as soon as possible if the sewer condition prevents cleaning of the upstream sewer sections or poses an immediate operational or safety concern such as a complete collapse.
- B. Carry out cleaning of other sewers not affected by the emergency repair and complete cleaning of the sewer where the blockage was removed when notified by the Owner the emergency repair has been completed.

- C. Clean and remove backfill and debris that may have entered the sewer during emergency repairs.

3.05 REMOVAL OF EQUIPMENT THAT BECOMES LODGED IN A SEWER:

- A. Advise the Owner immediately if equipment becomes lodged in a sewer. Attempt to remove equipment that is lodged using whatever means are necessary for at least 4 hours. Advise the Owner if the equipment cannot be freed after 4 hours and mark the position on the surface over the sewer where the equipment is lodged.
- B. The Contractor will arrange to have an excavation made to the top of the sewer where the equipment is lodged within 48 hours of notification the equipment cannot be freed.
- C. Be present during the excavation and once the top of the sewer is exposed and the excavation is secured remove the top of the sewer pipe and retrieve the equipment lodged in the sewer.
- D. The Contractor will arrange to have the sewer repaired after removal of the equipment that was lodged.
- E. Clean and remove backfill and debris that may have entered the sewer during removal of the equipment and subsequent repair of the sewer.
- F. The cost of all this work will be the Contractors responsibility and incidental to the project

3.06 DEBRIS REMOVAL:

- A. Continuously remove debris from the downstream manhole during sewer cleaning. Do not allow debris to be passed into the downstream sewer unless approved by the Owner.
- B. The Owner's is a member of the Galien River Sanitary District (GRSD) which manages the WWTP for its member communities. The GRSD can accept solids and debris removed from the sewers during the cleaning process but acceptance of said material will be at the expense of the contractor. Decant or dewater debris removed from sewers and catch basins and legally dispose of solid and semi-solid debris to the City's facility as directed by the Owner's staff. Return decanted or dewatered liquid to the sewer of origin as soon as possible.

- C. Store debris in totally sealed containers at all times and remove from the Site at the end of each day.
- D. Keep a log containing the following information for each debris disposal unit.
 - Contract Name and Project No.
 - Vehicle ID – License Number
 - Date of Disposal
 - Time of Disposal
 - Origin of Debris – Sewer ID Number(s)
 - Net Weight. of Load
- E. Provide log books to the City.

3.07 MANHOLE CLEANING AND ASSESSMENT:

- A. Manhole basins completely of debris including sludge, dirt, sand, gravel, rocks, bricks, and other solid and semi-solid materials. Dispose of debris as indicated in Article 3.05 of this specification.
- B. Continually track manhole cleaning progress and observed condition such as missing risers, damaged frame or cover or broken barrel.
- C. Record discrepancies with existing manhole information such as additional or missing manholes or different locations than shown on the drawing provided.
- D. Provide the completed manhole record drawing to the City at the completion of the Work per NASSCO MACP Level 2 Assessment.
- E. If manholes are buried under the pavement surface the Contractor will be responsible to locate and expose the manhole cover.

3.08 FLOW CONTROL:

- A. Undertake flow control measures such as off-peak work, plugging, use of sewer cleaning equipment to lower downstream flow levels or plugging and bypass pumping if sewer flows are hampering effective sewer cleaning or televising.
- B. Provide the Owner with at least 48 hours notice and proposed method of flow control before undertaking flow control measures.

- C. Use sewer plugs to stop or reduce sewer flow that tether to and are removable from the ground surface.
- D. Monitor flow levels upstream of a plugged sewer at all times to ensure flooding of public or private property does not occur.
- E. Demonstrate that off peak work, plugging, sewer cleaning equipment, or a combination of methods cannot effectively reduce the flow levels to the specified maximum before requesting the use of bypass pumping.
- F. Provide the City with information on capacity of pumping equipment for review before setting up by-pass pumping.
- G. Remove plugs placed in sewers and re-establish normal flow when directed to do by the Owner.
- H. Provide additional by-pass pumping equipment when requested to do so by the City.
- I. Provide approved traffic ramps for by-pass pumping discharge hoses where crossing roadways and traffic lanes and locate where approved by the City.
- J. This work shall be incidental to the project.

3.09 WATER SUPPLY FOR SEWER CLEANING:

- A. Hydrant use for water supply for sewer cleaning is available at North Willard and West Mechanic Street.
- B. Only 1 hose/nozzle connection will be permitted per hydrant.

3.10 INSPECTION REQUIREMENTS:

- A. Access: The City shall have access to observe video monitor and other operations at all times.
- B. Video Commentary: Record the following information on audio track of inspection video: narrative of location, direction of view, manhole numbers, pipe diameter and material, date, time of inspection, and location of laterals and other key features.

- Inspection video shall visually display this information at beginning and end of each manhole-to-manhole pipe segment.
- Video between manholes shall visually display length in feet from starting point of given segment.

C. Sewer Identification: Video and inspection documentation shall include sewer line and manhole identifiers shown on Drawings provided by the City.

D. Image Perspective: Camera image shall be down center axis of pipe when camera is in motion.

- Provide 360-degree sweep of pipe interior at points of interest, to more fully document existing condition of sewer.
- Points of interest may include, but are not limited to the following: defects, cracks, voids, joints connections, encrustations, mineral deposits, debris, sediment, and any location determined not to be clean or part of an improper line installation, and defects in liner that include, but are not limited to bumps, folds, tears, and dimples.
- Cabling system employed to transport camera and transmit its signal shall not obstruct camera's view.

E. Sewer Reach Length: Physically measure and record length of each sewer reach from centerline of its terminal manholes.

F. Inspection Rate: Camera shall be pulled through sewer in either direction, but both inspections are to be in the same direction. Maximum rate of travel shall be 30 feet (9 m) per minute when recording.

3.11 FIELD QUALITY CONTROL:

- A. The City will review video and logs to ensure compliance with requirements listed in this specification.
- B. If sewer line, in sole opinion of the City, is not adequately clean, it shall be recleaned and CCTV-inspected by Contractor at no additional cost.
- C. All Inspection logs and reports will comply with PACP, LACP and MACP Standards.

3.12 ACCEPTANCE OF WORK:

- A. Submit required video inspections of sewer, lateral and manhole cleaning, solid debris cutting and intruding sewer service removal to the City for review and determination if work performed is acceptable. The City will review the inspection videos within 20 days of submission.
- B. The City will visually inspect manholes to determine if cleaning is acceptable.
- C. Perform remedial work for sewer, lateral and manhole cleaning, cutting of solid debris and removal of intruding sewer services and a re-inspection for the locations where the work was determined by the City as not being acceptable.

City of New Buffalo Gravity Sewer Main by Quadrant

