

## IN THE KNOW – CCTV CONTRACT ADMINISTRATION

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Many municipalities invest heavily in CCTV inspections for sewer condition assessment and face challenges throughout the collection process that can be traced back to avoidable issues in contract administration. Problems with inappropriate deliverables and disputes over inspection quality can undermine data-dependent sewer maintenance and repair programs. Efficient administration is crucial for successful CCTV inspection contracts, yet the essentials are often learned through trial and error.

Understanding your network before writing your contract is crucial. Specifications for sanitary sewer networks can differ significantly from those for stormwater networks, depending on the project's perspective. It's essential to express the contract's goals concisely.

A well-written contract clearly outlines project goals and the use of the resulting inspection data, whether for state-of-good repair, crossconnections in stormwater, infiltration and inflow (I&I) in sanitary networks, or capital works planning. Contractors appreciate understanding the nuances of each focus. Define parameters such as the use of PACPTM, LACPTM, and MACP<sup>TM</sup> standard coding, conditions for reinspection, Quality Control and Quality Assurance (QA/QC) requirements, data submittal frequency and formats, cleaning requirements, and the inventory source address considerations like waste disposal and water supply for cleaning activities to avoid unexpected costs and ensure an efficient workflow. Field sketches or GPS coordinates for assets found during inspection often address inventory issues proactively. Seasonal factors are crucial for program success. In areas with snowfall and heavy rain,

off-road assets can hinder field staff and equipment, potentially causing work stoppages. Conversely, conducting an I/I program during dry summer periods is less likely to yield useful data. Mindful planning and logical timelines for project completion are key.

A thorough review of your inventory data can prevent issues before they begin. If your inventory is sourced from a GIS, providing all relevant network layers will assist field staff in accurately locating your assets. Regardless of the inventory source, aim to supply all known and relevant information about the network. Inspection technicians and their crews require a dataset containing unique asset identifiers for pipes and associated structures, such as manholes, catch basins, cleanouts, or discharge points. These records should not have duplicated or null values and should provide diameters, materials, pipe lengths, structure depths, and location information. Drive further efficiency by providing up- and down-stream asset identifiers attached to a pipe within the relevant table.

Consider implementing a central repository for data storage, distinguishing between raw and processed data for better management and data sharing. Perform QA/QC at appropriate stages, adhering to NASSCO guidelines, and consider factors like total length vs. inspected length, inspection status, and abandoned inspections to determine payment. Be prepared to review contractor submittal promptly for quality assurance and quality control; it's easier and more reliable to perform data review in smaller chunks, catching issues along the way versus identifying them all at the end of your contract.

Frequent reviews and clear communication increase data confidence and expedite the accounting processes. Individuals assigned to data quality review should be certified and experienced in the standard used for observation recording.

NASSCO standards, especially the newly released PACP Version 8, offer a widely understood and accepted framework for conditions and ratings of gravity and pressure networks. As a contract administrator, it is recommended that you possess a strong working knowledge of the condition assessment standard used for your contract.

When selecting a contractor for CCTV inspection, prioritize experience and quality over price, ensuring staff hold current NASSCO certification for industry standards. Review the contractor's fleet to avoid issues from inappropriate (i.e., under-sized crawlers), failing, or aging equipment that can compromise inspection quality. Effective communication is vital. Outline expectations for on-site or virtual meetings and data exports.

This stage is an excellent opportunity to discuss contractor needs, such as the potential for additional inspection units. Consider the impact of being present for the contractor on- and off-site, understanding that knowledge transfer or troubleshooting delays often translate into project delivery delays or unfavorable field decisions. Being available to provide clear direction as challenges arise facilitates efficient forward progress, per your expectations. Your presence also offers opportunities to address issues for correction, such as safety protocols, data collection processes for unmapped assets, and incomplete inspections.

By integrating the updated data into your inventory source, stakeholders can access reliable and current information, enabling informed decision-making and prioritization. Your dedication to planning and executing condition assessments of underground water, wastewater, and stormwater asset contracts supports the essential goals of protecting environmental and public health in this industry while ensuring operational efficiency at all levels of the inspection process.



GIS inventory map updated with newly collected condition data

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