



FORT LAUDERDALE PUBLIC WORKS ASSET MANAGEMENT

PROCUREMENT EVENT NO. 454

JUNE 30, 2025



June 30, 2025

Erick Martinez
Senior Procurement Specialist
City of Fort Lauderdale
954.828.4019



RE: Event No. 454 - Public Works Asset Management Consulting Services

Dear Mr. Martinez:

On behalf of Woolpert Inc., I am pleased to submit our proposal to continue supporting the City of Fort Lauderdale's Asset Management Services. As a long-standing partner to the City, Woolpert is proud of our collaborative work in advancing the City's asset management capabilities, including our leadership role in implementing the Cityworks Asset Management System (AMS) across Public Works. Our team's deep familiarity with the City's infrastructure, systems, and strategic goals uniquely positions us to deliver continued value and innovation under this contract.

Woolpert's experience with the City is both broad and deep. Over the past several years, we have worked closely with City staff to configure, optimize, and support Cityworks AMS, ensuring alignment with the City's operational needs and strategic vision. This hands-on experience has provided us with a comprehensive understanding of the City's asset management environment, including its data structures, workflows, and performance objectives. Our team has been instrumental in helping the City leverage Cityworks to improve service delivery, enhance data-driven decision-making, and support long-term infrastructure planning.

Another key strength of our proposal is the inclusion of Craven Thompson & Associates (CTA), a trusted local partner with offices in Fort Lauderdale. CTA brings over 60 years of engineering and surveying experience in South Florida and has a long history of providing high-quality services to the City. Their local presence ensures responsive support and a deep understanding of the City's infrastructure and operational context. With CTA's civil engineering, surveying, and GIS expertise, our team is equipped to provide seamless, integrated support across all aspects of the project.

We are also proud to include Cultivate Geospatial Solutions (CGS) as a key partner in this effort. CGS brings nationally recognized expertise in asset management, GIS integration, and data governance. Their team includes internationally respected thought leaders in ISO 55000 and IAM frameworks, and they have successfully delivered asset management solutions for municipalities across the U.S. and abroad. CGS's experience in developing Strategic Asset Management Plans (SAMPS), CMOM programs, and GIS-based risk analysis will be invaluable in supporting the City's evolving asset management needs.

Together, Woolpert, CTA, and CGS offer a uniquely qualified team with the technical expertise, local knowledge, and strategic insight to help the City of Fort Lauderdale advance its asset management program. We are excited about the opportunity to continue this important work and look forward to collaborating with the City to achieve its goals.

Sincerely,

Woolpert, Inc.

A handwritten signature in blue ink that reads 'Bryan W. Dickerson'.

Bryan Dickerson, IAM, MBA
Vice President // Principal in Charge
Phone: 937.531.1476 // Cell: 913.217.8690
Bryan.Dickerson@Woolpert.com

A handwritten signature in blue ink that reads 'John Cestnick'.

John Cestnick, IAM, PSM
Vice President // Senior Project Manager
Phone: 305.351.2936 // Cell: 305.903.4335
John.Cestnick@Woolpert.com

Why Woolpert?

- **Proven Experience:** With over three decades of experience, Woolpert has delivered nearly 500 tailored asset management solutions, ranging from strategic framework development to tactical implementation. Our track record demonstrates a deep understanding of diverse organizational needs and successful project execution.
- **Thought Leadership:** While many firms' reference "best practices," Woolpert's team actively shapes them. Our staff are directly involved with international asset management communities and contribute to the development of global standards, including the ISO 55000 series.
- **Tailored Approach:** We recognize that asset management is not a one-size-fits-all discipline. Woolpert meets each client at their current level of asset management maturity and crafts a customized roadmap that aligns with their unique organizational structure, capabilities, and goals.



Section 1

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Section 2

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Overview of Firms

Woolpert, Inc. (Prime)

Woolpert delivers dynamic consulting and design services worldwide to clients who require architectural/engineering assistance, technology integration, or a combination of both. Our clients range from nationwide military programs to small towns, and from college campuses to private industry. We solve clients’ problems through results-focused consulting, creative-yet-practical design, and the appropriate use of technology—both nationally and internationally.

Our clients in the private sector and government benefit from Woolpert’s expertise in design, geospatial, and IT management. We offer services such as information management, GIS, surveying, aerial mapping, lidar, remote sensing, permitting, architectural/engineering design, aviation design, energy solutions, watershed management, water/wastewater analysis, and regulatory compliance.

Over the past decade, Woolpert has strategically expanded its global footprint and service capabilities through a series of targeted acquisitions. Since 2015, the firm has acquired 14 companies, with 11 of those acquisitions occurring in just the last five years. These acquisitions span across eight U.S. states and four countries, reflecting Woolpert’s commitment to enhancing its expertise in architecture, engineering, and geospatial (AEG) services.

Of those acquisitions, the most relevant to the City of Fort Lauderdale is the acquisition of Bermello, Ajamil & Partners, LLC (BA) in January 2024. Internationally known for planning and designing cruise line and port terminals, BA also offers your City full-service architecture, engineering, planning, and landscape architecture services. The combination of Woolpert and BA creates an ecosystem of integrated solutions that leverage strategic consulting, architecture, engineering, and geospatial services.

For this contract, **Woolpert’s BA Fort Lauderdale office will be available for meetings, workshops, and administrative support** (900 SE 3rd Ave, Fort Lauderdale, FL 33316). **Woolpert’s primary contact and senior project manager will be John Cestnick, PSM, IAM**, who resides in Broward County and has been servicing the City of Fort Lauderdale since 2000.

The Woolpert Team will be comprised of two strong subconsultants, Craven Thompson & Associates (CTA) and Cultivate Geospatial Solutions (CGS). CTA is a well-known local professional engineering and survey firm headquartered in Fort Lauderdale. CGS may be a newer name to the City, but their reputation in strategic asset management consulting is outstanding. Based in Indianapolis, CGS is a specialized firm at the intersection of GIS, enterprise asset management, and data governance.

CRAVEN THOMPSON & ASSOCIATES (SUBCONSULTANT)

CTA is a Florida-registered firm **with over 60 years of experience delivering civil engineering, surveying, landscape architecture, and GIS services**. With offices in both Delray Beach and in Fort Lauderdale, CTA is a 70-person firm led by Thomas McDonald and organized into three departments: Civil Engineering (including CEI), Landscape Architecture and Planning, and Surveying and GIS. CTA has provided GIS services for nearly two decades and has played a key role in shaping South Florida’s infrastructure. Their multidisciplinary team of engineers, surveyors, planners, and GIS specialists is committed to delivering innovative, high-quality solutions for public and private sector clients—ensuring resilient, well-planned communities across the region.



2,700+
Total Employees



70+
Offices Worldwide



47th
ENR Top 500
Design Firms

CRAVEN THOMPSON



& ASSOCIATES INC.

CULTIVATE GEOSPATIAL SOLUTIONS (SUBCONSULTANT)



CGS is a nationally recognized consulting firm specializing in geospatial data, enterprise asset management (EAM), and GIS implementation for the public sector. Headquartered in Indianapolis with offices in Orlando and Tampa, CGS supports municipalities nationwide with asset management planning, data governance, and CMOM program development. Their team brings more than 200 years of combined GIS experience and **deep expertise in aligning with EPA CMOM guidelines, IAM frameworks, and ISO 55000 standards**. Their services include asset management planning and development, asset inventory, condition assessment, GIS-based risk analysis, and seamless data migration into modern, cloud-based systems. CGS's proven approach results in spatial accuracy, data integrity, and long-term usability—empowering cities like Fort Lauderdale to make informed, data-driven infrastructure decisions.

Project Team Overview

Woolpert's proposed project team brings deep, specialized expertise in asset management planning, Cityworks Enterprise Asset Management (EAM) implementation, and utility infrastructure. Our professionals are not only highly qualified and passionate about their work, they also have recent, relevant experience delivering asset management consulting services to clients with similar needs to those of the City of Fort Lauderdale.

Many of our team members have worked together on several successful projects over the past two decades, demonstrating our strong collaboration and proven delivery. Additionally, several key staff are internationally recognized thought leaders who actively contribute to the development of asset management standards and best practices. As detailed in Section 3: Experience and Qualifications, we present a full team ready to support the City. Below, we highlight the key personnel who will work closely with you throughout the contract.

John Cestnick, IAM, PSM, Vice President (Fort Lauderdale, Florida) – As Senior Project Manager, John brings more than 27 years of experience to the project. He is currently managing Woolpert's Cityworks Asset Management System implementation project for the City, which provides him unique insights into the City's asset management needs and goals. Being a Broward County resident, John can reach any City office within an hour, as needed, to support this project. *John will serve as the principal point of contact for this contract, bringing a wealth of experience working directly with the City's Public Works team. He offers deep familiarity with the City's Cityworks environment, a strong background in asset management, and extensive expertise in surveying, field data collection, and statistical quality control testing and sampling.*



Bryan Dickerson, MIAM, PMP, Vice President (Kansas City, Missouri) – Bryan is a Sector Leader and Vice President within Woolpert and leads the Infrastructure team of asset management and engineering professionals. As an Asset Management Endorsed Assessor by the Institute of Asset Management (IAM), Bryan was instrumental in directing the firm's decision to fully embrace the IAM asset management model of implanting asset management for our clients. *For this project, Bryan will provide support to Project Manager John Cestnick as needed and offer corporate oversight and strategic guidance during the project. His involvement reinforces Woolpert's commitment to delivering high-quality, standard-aligned asset management services to the City of Fort Lauderdale.*



Ryen Tarbet, FIAM with CGS (Bend, Oregon) – Ryen is the former Chair of the USA Technical Advisory Group to the ISO 55000 Asset Management Standards, and the former Head of the USA Delegation to ISO 55000. He is certified by The Institute for Asset Management (IAM) and active with several regional and national asset management organizations. As a consultant, he has designed and implemented enterprise asset management systems across the U.S. and has worked on projects in Canada, New Zealand, and the Caribbean. *Ryen will serve as the lead in delivering asset management services to the City of Fort Lauderdale, leveraging his global expertise to support the City in any capacity needed. His deep knowledge of asset management principles and standards will be a key asset in advancing the City's strategic goals.*



Bob Leitch, IAM, PMP (Fairfax, Virginia) – Bob has more than 44 years of experience providing strategic asset management to clients. He is a challenge-driven and results-oriented executive with a proven track record of identifying and improving organization business processes and efficiencies. Bob leverages available resources and leads diverse teams in developing practical applications and visions for his clients. *For this project, Bob will provide asset management support services to Ryen Tarbet, drawing on his extensive experience to assist the City of Fort Lauderdale in any capacity needed. His depth of knowledge and leadership in asset management will be a valuable asset to the team and the City.*





Allen Ibaugh, GISP, AICP with CGS (Indianapolis, Indiana) – Allen brings over 25 years of specialized experience leading multidisciplinary programs in asset management, GIS integration, and infrastructure planning for public sector agencies, including departments of transportation, MPOs, local governments, and utilities. As CEO of CGS, Allen oversees strategic initiatives focused on delivering high-value asset management services grounded in ISO 55000 principles, EPA CMOM guidelines, and IAM frameworks. *In this project, Allen will provide asset management guidance and support to Ryen Tarbet, serve as a backup resource as needed, and provide strong corporate support from CGS. His leadership and broad expertise will help reinforce the project team's ability to meet the City's evolving needs with agility and confidence.*



Jared Livingston, GISP, IAM (Indianapolis, Indiana) – Jared is a seasoned Cityworks subject matter expert with over 18 years of experience leading the design and implementation of asset management programs for public and private utilities, airports, public works departments, and government agencies. He has successfully completed more than 40 Cityworks implementations—most of them for wet infrastructure clients—demonstrating deep expertise in utility asset management. Jared excels in integrating and optimizing GIS data to support client-specific goals, and is known for tailoring scalable, best-practice solutions that align with each organization's operational needs. *Jared will serve as the Cityworks subject matter expert, providing technical support and expertise to Jay Beadnell, Woolpert's lead Cityworks System Analyst, and the broader Cityworks team. His experience will be instrumental in supporting the City's ongoing system optimization and successfully implementing asset management strategies.*



Jay Beadnell, GISP, eBLD (Charlotte, North Carolina) – Jay is a Senior Systems Analyst in Woolpert's Technology Services group, specializing in the implementation and optimization of Cityworks AMS for municipal and utility clients. With a strong foundation in engineering and decades of public sector experience, Jay brings a unique blend of technical expertise and operational insight to every project. He plays a key role in analyzing business processes, recommending best practices, and configuring Cityworks through software customization, database scripting, SQL development, and GIS schema design. *In this project, Jay will serve as the Senior Cityworks Analyst, leading Cityworks implementations and providing ongoing support services. His involvement is a significant asset to the City, as he played a major role in the original implementation of Cityworks within Fort Lauderdale's Public Works Department and brings deep familiarity with the City's systems and workflows.*



Patrick Gibney, PE with CTA (Fort Lauderdale, Florida) – Patrick has over 38 years of experience providing project management, design, and construction management services for public civil engineering projects. These projects include infrastructure improvements for a multitude of infrastructure rehabilitation projects. This includes design and CEI services for water distribution systems, sanitary sewer collection and transmission systems, lift stations, pavement design, storm water management systems, drainage systems, and contract documents. *In this project, Patrick will lead the engineering support services, providing technical guidance to align with the City's asset management plans and activities. His involvement is instrumental due to his extensive experience working with the City of Fort Lauderdale. Additionally, his team at CTA brings decades of experience delivering expert engineering services to the City, providing local insight throughout the project.*



Richard Crawford, PSM with CTA (Fort Lauderdale, Florida) – Richard has over 40 years of experience in the surveying industry. During this time, his experience has grown to include all types of surveys, many of which have been in and around Fort Lauderdale. *For this project, Richard will provide professional surveying and mapping services as needed, supporting the team with accurate field data collection and oversight. His deep experience and local presence will help deliver high-quality, responsive service throughout the contract.*



Sarah Brenneman with CGS (Indianapolis, Indiana) – Sarah is a skilled GIS Specialist at CGS, where she supports the development and deployment of geospatial solutions that align with public sector asset management strategies. A graduate of Purdue University with a Bachelor of Science in Applied Statistics, Sarah applies her analytical expertise to support data migration, spatial analysis, and mobile and web GIS solutions critical to infrastructure asset planning and life cycle management. *In this project, Sarah will lead a team of GIS and technical specialists, providing hands-on support to execute the project's goals and data-driven objectives.*

Key Elements of Statement of Qualifications

Project Understanding

Woolpert understands that the City of Fort Lauderdale is seeking professional services to advance the development and implementation of a comprehensive asset management program for its Public Works assets. This program will encompass the creation of asset management plans, support strategic and data-driven decision-making, and include services such as asset condition assessments, attribute data collection, risk-based investment planning, life cycle management, resource optimization, and georeferenced asset mapping. Additional services will be provided as needed to meet the City's evolving priorities. Our proposal has been carefully tailored in response to the City's RFQ. Our ongoing work with the City provides us with valuable insight into its operational environment, strategic goals, and expectations for this engagement.

Qualifications

Our team includes recognized subject matter experts in strategic asset management:

- More than 20 of our team members are certified by the **Institute of Asset Management (IAM)**, and several of them have earned the **Advanced Asset Management IAM Diploma**.
- With **over 200 published articles** and client standards documents, we are recognized as a thought leader in strategic asset management.
- Several of our senior members participate in **national and international asset management committees**, such as the ISO 55000 TC251.

Experience

With over 35 years of experience delivering comprehensive asset management services, we have successfully completed hundreds of asset management projects nationwide, we offer the City decades of experience leading public works departments in their asset management journey. The Woolpert team has real-world experience with a variety of complex asset management projects following the IAM framework model. Relevant experience outlined in Section 3 includes:

- ISO 55000 Asset Management Framework Development and System Implementation for Pinellas County, Florida
- Strategic Asset Management Program Framework Development for Greenville Utilities Commission in North Carolina
- Asset Management Program Development for Medford Water, Oregon
- Enterprise Asset Management Program Development and Implementation Services / ISO 55001-Centric Implementation of Oracle WACS for the City of Saint Paul, Minnesota
- Asset Management Program Development for the City of Greeley, Colorado
- Enterprise Asset Management Solution Development for Prince William Water, Virginia
- Real Property Asset Management Program - Five Year Implementation Plan for the US Department of State.
- Cityworks Strategic Asset Management Plan – Three-Year Plan for the Seminole Tribe of Florida

Local Resources

The Woolpert team offers a strong local presence to support the City of Fort Lauderdale. With offices in Fort Lauderdale and Miami, and key personnel residing in Broward County, the Woolpert team is well-positioned to provide responsive onsite support. Together, Woolpert and CTA bring over 150 qualified professionals located in the tri-county area, ready to support the City's asset management goals with local knowledge, proven expertise, and immediate availability.

Why Woolpert?

- **Proven Experience:** With over three decades of experience, Woolpert has delivered nearly 500 tailored asset management solutions, ranging from strategic framework development to tactical implementation. Our track record demonstrates a deep understanding of diverse organizational needs and successful project execution.
- **Thought Leadership:** While many firms' reference "best practices," Woolpert's team actively shapes them. Our staff are directly involved with international asset management communities and contribute to the development of global standards, including the ISO 55000 series.
- **Tailored Approach:** We recognize that asset management is not a one-size-fits-all discipline. Woolpert meets each client at their current level of asset management maturity and crafts a customized roadmap that aligns with their unique organizational structure, capabilities, and goals.

Approach

Woolpert’s approach to supporting the City of Fort Lauderdale’s Asset Management Program is grounded in a proven methodology structured around four interdependent phases: **Plan, Do, Check, and Act**—aligned with the City’s “Press Play Fort Lauderdale” Strategic Plan 2029.



Excerpt from City of Fort Lauderdale’s “Press Play Fort Lauderdale” Strategic Plan 2029.

- **Plan** // Woolpert will begin with a comprehensive planning phase, including a Request for Information (RFI), Discovery Workshops, and a Gap Analysis to assess the current state of the city’s asset management program. This phase will also include the development of a Cityworks Strategic Asset Management Plan (CSAMP) to guide future system expansion and integration.
- **Do** // This phase focuses on execution. Woolpert will provide ongoing Cityworks support, assist with existing strategic initiatives, and implement new asset management tasks through a series of task orders. Activities may include asset condition assessments, GIS mapping, and development of additional Asset Management Plans (AMPs) among other tasks listed within the RFQ.
- **Check** // Woolpert will establish performance management tools, conduct results evaluations, and facilitate continuous improvement. This includes developing KPIs, dashboards, and evaluation reports so they are aligned with strategic goals and promote transparency.
- **Act** // Insights from the Check phase will inform updates to the Watershed Asset Management Plan, process improvements, and change management strategies. Woolpert will help institutionalize a culture of continuous improvement through regular reviews, feedback loops, and strategic adjustments.

This structured, iterative approach enables the City’s asset management program to remain responsive, data-driven, and aligned with long-term goals.

Detailed information on our approach is provided in Section 4 – Approach to Scope of Work.



Section 3

EXPERIENCE AND QUALIFICATIONS

EXPERIENCE AND QUALIFICATIONS

Woolpert has assembled a team of professionals who possess the experience necessary to meet the qualifications and scope of service requirements set forth in the RFQ. We also have the resources needed to perform the asset management consulting services required for the City's project. Woolpert and our principals have no record of judgments, pending lawsuits against the City or criminal activities involving moral turpitude, nor do they have any conflicts of interest. Neither our firm, principals, officers, nor stakeholders are in arrears or in default of any debt or contract involving the City (as a party to a contract, or otherwise); nor have they failed to perform faithfully on any previous contract with the City.

FIRM BACKGROUND



Woolpert is one of the very few firms that has been in business for more than a century. Charlton Putnam and Ralph L. Woolpert founded the firm in Dayton, Ohio, in 1911. Through the decades, Woolpert has consistently added service offerings to an expanding client base. As the firm has grown, we have added environmental and sanitary engineering, city and regional planning, photogrammetry, airport planning and design, traffic engineering, landscape architecture, environmental sciences, architecture, geospatial, and strategic consulting services to our repertoire.

Today, Woolpert is an international Architectural, Engineering, and Geospatial (AEG) firm of more than 2,700 talented professionals. Our headquarters remain in Dayton, and we serve clients on a local, regional, national, and international basis from over 70 offices on four continents. Woolpert's ability to continually adapt to changing times and provide an increasing range of professional services is the basis for our service-oriented culture. With **over 35 years of experience delivering comprehensive asset management services**, we have successfully completed hundreds of asset management projects nationwide, equipping us with the depth of knowledge and resources necessary to support the City of Fort Lauderdale's goals. One of our core competencies is implementing Trimble's Cityworks Asset Management System (AMS), and we continue to invest in advancing our capabilities to remain at the forefront of the industry.

Woolpert develops tailored asset management plans that address life cycle performance, risk and capacity analysis, and financial forecasting—including renewal and replacement projections. Our integrated approach combines strategic consulting with advanced technology solutions, supporting infrastructure systems such as water, wastewater, stormwater, transportation, facilities, and more. We specialize in implementing and integrating systems like Work Order and Maintenance Management (WOMM), Permitting and Licensing (PLL), GIS, CMMS, and FMS.

Woolpert has more than **20 Institute of Asset Management (IAM)-certified professionals, several of whom hold the Advanced IAM Diploma (MIAM)**. With over 200 published articles and client standards documents, we are recognized as a thought leader in strategic asset management. We are committed to delivering long-term, value-driven results that enhance organizational performance and infrastructure resilience.

ASSET MANAGEMENT EXPERIENCE

Woolpert is a corporate member of the IAM. The IAM (<https://theiam.org>) is the professional body for those involved in acquisition, operation, and care of physical assets, especially critical infrastructure—and particularly for professionals worldwide dedicated to furthering our knowledge and understanding of Asset Management. **Our participation in the IAM, along with the individual certifications of our team members, further solidifies Woolpert's position as an industry leader in asset management.**

As International Organization of Standardization (ISO) leaders, senior members of our firm, including our proposed team members, collaborate with other international asset management thought leaders on various national and international asset management committees, such as the ISO 55000/TC251, ISO 41000/TC267, and ISO 22300/TC292. ISO 55000 standards represent the internationally accepted best-practices framework for creating and maintaining an asset management organization. Woolpert's alignment with these specifications positions us to assist our clients in transforming the way in which they manage their assets throughout all life cycle phases. **Woolpert is a key thought-leading firm that is part of committees currently developing the next generation of international asset management standards and best practices.**



Woolpert team members have a passion for asset management, and offers the City of Fort Lauderdale the right people, processes, and technologies to solve your immediate and future asset management challenges. Our infrastructure management and organizational management domain expertise positions us to uniquely understand the entire life cycle of enterprise asset management and the best practices that drive optimized asset performance. This enables our team to deliver the technology solutions that holistically support your organization’s over-arching asset management, compliance, and sustainability objectives.

TRIMBLE CITYWORKS EXPERIENCE

Woolpert offers a dedicated team of experts with deep, cross-disciplinary experience in Cityworks AMS, Esri GIS, and enterprise asset management. **As a Cityworks Platinum Implementation Partner since the inception of the partner program,** Woolpert has consistently delivered high-impact solutions that drive operational efficiency and asset performance. Our leadership in the field is recognized globally—**Woolpert is the first and only Cityworks partner to earn a Specialty Designation, reflecting our thought leadership and contributions to advancing asset management standards.**

“The Cityworks – Woolpert business partner relationship spans nearly twenty years, during which time Woolpert has established themselves as our most accomplished business partner. Woolpert’s Cityworks implementation professionals consistently perform at a high level in the implementation and support of our products.”

—Brian L. Haslam, Founder of Azteca Systems (Cityworks)

With **nearly 500 successful enterprise-level Cityworks implementations** and more than 40 water and wastewater treatment plant deployments in the past decade, Woolpert brings unmatched experience and technical depth. Our clients’ success stories are widely regarded as benchmarks within the Cityworks user community. For the City of Fort Lauderdale, this means a trusted partner with the proven ability to implement and optimize Cityworks AMS in support of a resilient, data-driven infrastructure asset management program.

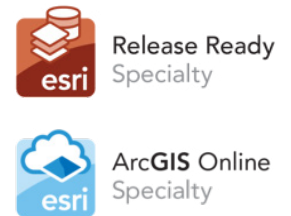
ESRI EXPERIENCE

Woolpert has provided thousands of clients with GIS solutions, and we have established ourselves as a leading geospatial services company. We provide unbiased, vendor-neutral recommendations to ensure the sensible application of technology that supports sustainable business processes and practices. By looking at your unique set of challenges and objectives, we work to implement the best solution for your specific needs—guided by our decades of experience and expertise. **No matter what your project type, Woolpert has the GIS capability, familiarity, and relationships needed to meet your expectations.** Our U.S. GIS/IT practice has nearly 250 professional staff dedicated to GIS data conversion, consulting, systems/data integration, and application development.



Woolpert is a Gold-Level Esri partner and holds two specialty designations:

- **Release Ready Specialty.** The Release Ready Specialty designation is only awarded to those Esri business partners who can prove their expertise and capability in understanding, adopting, and promoting the latest versions of Esri technology.
- **ArcGIS Online Specialty.** Esri Partners in the ArcGIS Online Specialty are ready to help organizations maximize the use of the ArcGIS Platform with technology and industry expertise, ready-to-use apps, content, and services.

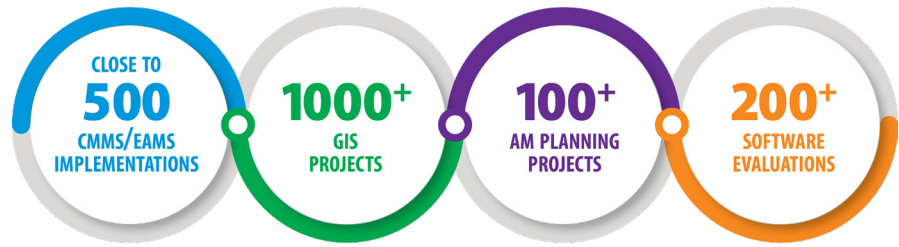


Additionally, we are actively working on Utility Networks and ArcGIS for Indoors.

Woolpert’s GIS services span GIS needs assessment, business process analysis, GIS portfolio management, foundational solution architecture design, workflow creation, custom application development, spatial solutions integration, and Utility Network migrations.

Similar Past Projects

Woolpert and Cultivate Geospatial are 100% focused on assisting asset owners in maturing their asset management programs. Our depth and breadth of expertise across different markets (federal, state, local, and utilities) enables us to bring innovative solutions and approaches to our clients' projects, as illustrated by our customer references and project descriptions.



Woolpert Asset Management - By the Numbers

Asset management consulting and software implementations are our core competencies, and we continually reinvest in keeping ourselves and our clients at the front of the industry. We help our clients manage their assets through innovative planning and information technology solutions. Our technology and advisory services staff solve complex asset-centric challenges for our clients by establishing strategies that align with the asset management vision of the organization and then layer appropriate technology and related business solutions to support those strategies.

“Woolpert’s been a very dependable consultant for us, and we can rely on them for just about anything. They have so many resources everywhere, and their staff is so stable, that you know that you are always going to have a good implementation, a good result.”

—Rocky Agbunag, St. Johns County Public Works Department, St. Johns, Florida

Key staff members from our team proposed for your engagement are internationally recognized thought leaders in asset management. They actively contribute to the ISO committee responsible for developing the ISO 55000 series of asset management standards and frequently present real-world case studies at both national and international conferences. Their work is also featured in leading industry references such as the IAM and the International Infrastructure Management Manual (IIMM). With a deep understanding of the asset management challenges faced by organizations like the City of Fort Lauderdale, our team delivers innovative, transformational solutions that redefine how assets are managed across their life cycle.

We are proud of the services we offer customers with asset management aspirations similar to yours and look forward to sharing our experiences and lessons learned with you and your stakeholders.

Within this section, you will find a small selection of our successful Cityworks AMS implementation projects for various clients. These references provide confirmation of the quality of our team's performance on various contracts, and reinforces our team's outstanding reputation for compliance with performance schedules.

ISO 55000 ASSET MANAGEMENT FRAMEWORK DEVELOPMENT AND SYSTEM IMPLEMENTATION

PINELLAS COUNTY, FLORIDA

Pinellas County Florida manages close to \$8 billion in infrastructure and needed to update their 20-year-old work management solution. The County’s solution had been irregularly implemented and poorly maintained across multiple disparate operating divisions. Before undertaking a new technology project, County leadership embraced the opportunity to undertake an organizational transformation effort – to truly become an asset-managing organization. County stakeholders sought to implement an ISO 55000 aligned organizational framework that would guide their asset management principles and practices for years to come.

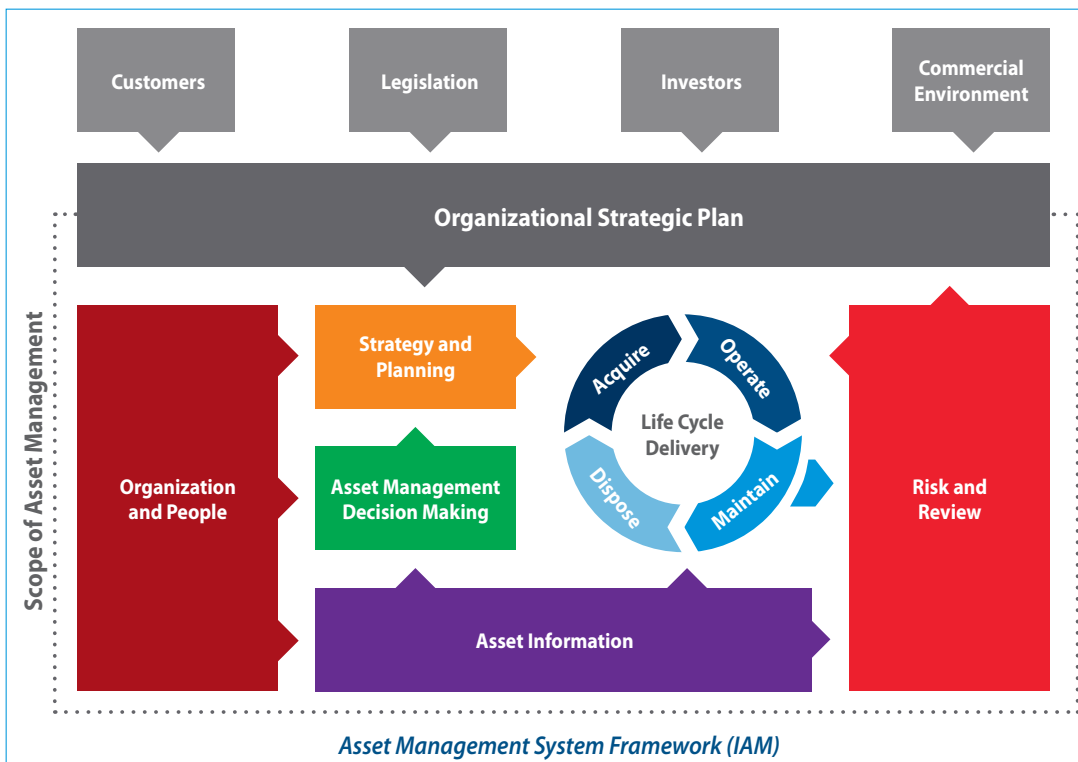
With Woolpert asset management expert consultants as their guide, Pinellas County embraced their journey in a manner that truly aligned their asset management policy and strategies with the County’s goal of being the premier public services organization in the country. Instead of a technology division-led effort, they empowered the asset-managing departments with ownership of the processes and outcomes.

Working with Woolpert, the County departments, led by senior management and their core team members, were able to:

- Incorporate risk and continuous improvement mindsets into their asset management plans.
- Formalize maintenance activities.
- Hold staff accountable.
- Develop and embrace objectives and strategies to put a clear focus on mid- and long-term sustainability outcomes.

SERVICES PROVIDED

- Asset Management Policy
- Strategic Asset Management Strategy
- Asset Management Framework Development
- Organization and Staffing Plan (created an Office of Asset Management)
- Individual Asset Management Plans
- Organizational Change Management
- Legacy EAMS/CMMS solution migration/replacement with Cityworks AMS



ISO Framework

Woolpert asset management subject matter experts (ISO certified) worked with the County to develop an ISO framework addressing many of the 39 individual subjects of the IAM's Anatomy of an Asset Management System. Subject groups covered as part of the framework development included:

- Strategy and Planning.
- Asset Management Decision-Making.
- Asset Information.
- Organization and People.

After the framework was developed and agreed upon, Woolpert and the County began working to develop the necessary details within each of the individual subjects.

Asset Management Policy

Woolpert facilitated a series of on-site workshops with County executives and asset managing department managers to develop the County's first-generation Asset Management Policy. The resulting policy was consistent with the County's Strategic Plan and defined the organizational behaviors and culture necessary to establish its asset management "line of sight" and achieve its over-arching asset management objectives. The resultant policy was adopted and signed by the County Administrator, distributed to all County asset managing employees, and posted in conspicuous places throughout the County offices.

Asset Management Strategies and Objectives

Woolpert facilitated a series of workshops with asset management leadership and Core Team members to develop the County's first-generation Asset Management Strategies and Objectives. The first step in this process was to establish the County's overall position on an asset management maturity scale. Once this was established, appropriate strategies and objectives were determined such that movement up the maturity scale could be achieved in a 24–36-month timeline. In total, 13 strategies, each with between three and seven objectives, were defined and agreed upon. Each of the objectives is Specific, Measurable, Achievable, Relevant, and Time-bound (SMART). Once agreed upon by the Core Team members, assignments and schedules were developed and the implementation of the Strategies and Objectives began.

Asset Management Plans

Woolpert developed a series of asset-specific management plans (AMPs). As part of this process, Woolpert determined the future state of how assets/asset classes will be managed throughout their life cycle, defined the appropriate decision-making processes, and identified the appropriate asset life cycle interventions necessary to optimize asset performance, risk, and cost within the context of the organization's strategies and objectives.

Asset Information

This effort included a thorough review and assessment of all the County's asset data (asset registers, financial data, performance data). Each data set was assessed for completeness, accuracy, and fitness for purpose. Based on the results, recommendations were made for closing any identified gaps, as well as the order by which groups should be implemented during the Cityworks software roll-out based on the health of their asset data.

Organization and People

Woolpert and the Pinellas County team began this effort by facilitating enterprise asset management (EAM) Awareness surveys throughout the organization. Workshops were held to define skills required for each position within the asset management organization and the expected behaviors that would be required to transform the organizational culture. Training requirements were determined for each of the planned positions within the organization and HR was engaged to begin developing position descriptions and development plans. This effort was capped by architecting an appropriate asset management organizational structure to best meet Pinellas County's long-term organizational objectives.

ASSET MANAGEMENT STRATEGIES AND OBJECTIVES

- Strategy 1: Systematic Approach
- Strategy 2: Service Levels
- Strategy 3: Asset Management Plans (AMP)
- Strategy 4: Criticality and Risk Assessment
- Strategy 5: Asset Life cycle Planning and Optimization
- Strategy 6: Asset Resiliency
- Strategy 7: Service Delivery and Funding Opportunities
- Strategy 8: Resource Management and Development
- Strategy 9: Asset Data
- Strategy 10: Asset Performance Reporting
- Strategy 11: Technology Enablers
- Strategy 12: Continual Improvement and Innovation
- Strategy 13: Asset Management Performance Measurement

Following the successful development of the County's Asset Management Framework, Woolpert was subsequently tasked with the implementation of the County's selected asset management software, Cityworks AMS. The implementation of Cityworks came in four major tasks:

- Task 1: GIS design and development for both horizontal and vertical assets.
- Task 2: Track 1 CMMS implementation for the first half of the departments, including various integrations to other business systems.
- Task 3: Track 2 CMMS implementation for the second half of the departments, including various integrations to other business systems.
- Task 4: Ad-Hoc Support Services.

Now complete, Pinellas County has an enterprise system that allows users to easily track, maintain, repair and replace assets across various departments. The County now has a fully operational Cityworks AMS system across the Parks and Conservation Resources Department, Public Works Department, Real Estate Management, Solid Waste Department, and Utilities Department.

Program Successes

- The County created an Office of Asset Management staffed with new positions to enable the enterprise scale of their asset management program. This approach led to bottom-up and top-down buy-in to the efforts and created a line-of-sight, accountability, and ownership of the decisions and outcomes within five of their largest operating departments with a portfolio of \$4 billion worth of assets – Public Works, Utilities, Solid Waste, Parks & Conservation Resources, and Administrative Services (Fleet and Facilities).
- The ISO framework alignment accomplished a positive organizational transformation and truly improved the way County employees tackled their day-to-day work management and long-term asset sustainability endeavors.
- The developed ISO framework elements, namely Asset Information, Strategy & Planning, and Organization and People, heavily influenced the first five years of the County's enterprise asset management program implementation.

Lessons Learned

Such a wide-scale implementation of asset management was a large cultural change for the County. It became imperative the project team focus on change management so that County staff were involved in decisions, kept notified of upcoming changes, and supported throughout the change.

STRATEGIC ASSET MANAGEMENT PROGRAM – FRAMEWORK DEVELOPMENT

GREENVILLE UTILITIES COMMISSION, NORTH CAROLINA

Greenville Utilities Commission (GUC) provides electric, water, sewer, and natural gas services to the City of Greenville and 75% of Pitt County, North Carolina. They serve a combined total of nearly 165,000 customer connections.

Strategic Asset Management Plan

GUC was faced with the need to replace its end-of-life work and asset management software solution and hired Woolpert to assist them in the evaluation of two alternatives: upgrade the current software to the newer web version or replace the solution with the Cityworks AMS platform.

Woolpert facilitated a series of workshops with GUC leadership, asset managers, finance, IT, customer service, and maintenance staff to review various asset management policy examples, draft GUC's first asset management policy, and develop GUC's first asset management strategies document. This document detailed seven specific strategies with associated objectives and action items. The results of these asset management program development efforts established a clear line of sight across the organization and yielded specific performance measures that their new Cityworks AMS solution (currently being implemented by Woolpert) will be configured to support at the tactical level.

Phase 0 Consulting Services

In addition to assisting GUC with developing its first-generation asset management policy, strategies, and asset management plans, Woolpert facilitated a series of tasks that helped prepare GUC for its planned Cityworks AMS implementation to replace their legacy Oracle WAM solution. The primary Phase 0 project tasks included:

- Corporate KPIs and Measurements.
- Technology Review.
- Readiness Assessment.
- GIS Review.
- Fit-Gap Assessment.
- Integrations.

Woolpert is currently nearing the completion of leading GUC through a phased implementation of Cityworks AMS.

Asset Management Implementation Projects

- Task Order 1: Program Management Consulting Services.
- Task Order 2: Cityworks Global Configuration, Integration Planning.
- Task Order 3: Water Distribution, Water and Wastewater Treatment Plant Cityworks Implementations.
- Task Order 4: Gas Cityworks Implementation.
- Task Order 5: Electric Cityworks Implementation.
- Task Order 6: Cityworks System Integrations.
- Task Order 7: GIS Utility Network Migration and Design Support.
- Task Order 8: Ad-hoc Support Services.

Program Successes

The work done on this project resulted in the development of GUC's Asset Management Policy and Strategy. These two strategic asset management artifacts proved to be extremely valuable to GUC as they provided the corporate-level guidance and line-of-sight that was used to develop the subsequent CMMS implementation scope of work. This included clearly defined workflows, asset life cycle data management requirements, performance reporting, risk management and continuous improvement initiatives.

Lessons Learned

As a result of the initial asset management workshops, GUC's leadership and asset managers recognized the value of establishing their first-generation asset management policy and asset management strategies.

GUC made an initial investment in what they termed Phase 0 consulting services. The Phase 0 efforts undertaken by Woolpert and the client took a critical look at their current use of WAM and compared and contrasted how business processes and system integrations (Oracle CIS, Oracle EBS, and Oracle MWM) would be handled in a new Cityworks AMS platform, if the decision was ultimately made to move to Cityworks. Irrespective of the decision to upgrade their Oracle platform or move to Cityworks, the Phase 0 deliverables (KPIs, GIS and technology reviews, fit gap, and readiness assessments) provided the framework to align GUC's tactical work management initiatives with their recently defined strategic corporate asset management objectives.

SERVICES PROVIDED

- Asset Management (AM) 101 Workshops
- First-Generation AM Policy
- First-Generation AM Strategies and Objectives
- Phase 0 Consulting Services
- Migration to Oracle WAM Migration Cityworks AMS

ASSET MANAGEMENT PROGRAM DEVELOPMENT

MEDFORD WATER, OREGON

The Medford Water Commission (Medford Water) operates and maintains the water system that delivers high-quality drinking water to about 140,000 Rogue Valley residents. The total water production of Medford Water averages approximately 17 million gallons per day (MGD) during the winter and 46 MGD during the summer months, with occasional summer peak days of around 62 MGD. In 2019, the planned retirement of Medford Water’s work management system offered an opportunity for the organization to improve their operations, financial accountability, inventory management, reliability, and life cycle management across the entire enterprise in alignment with their revised vision, mission, and values statement.

Medford Water has recognized the strategic value of implementing a comprehensive, organization-wide asset management program. In pursuit of this vision, the utility has taken deliberate steps to align its improvement initiatives with this overarching goal. By adopting asset management practices consistent with ISO 55000 principles, Medford Water is embracing a structured and internationally recognized approach to identifying, organizing, planning, and executing improvements across the organization.

Woolpert conducted a series of collaborative workshops with Medford Water leadership and staff to develop key foundational documents for a robust Asset Management framework. This included the creation of an asset management policy, a Strategic Asset Management Plan (SAMP) to guide the implementation of policy objectives, and two targeted asset management plans—one for the water treatment plant and another for the distribution system. These documents collectively promote consistent asset visibility, incorporate condition and risk assessments, define specific performance levels, outline resource requirements, and consolidate critical information to support informed, life cycle-based asset management decisions..

Program Successes

This Woolpert lead asset management program greatly influenced Medford Water’s pursuit of a more advanced work management system that:

- Leveraged their GIS system to capture their asset inventory.
- Integrated more completely with their financial system.
- Improved their maintenance posture by enabling a shift from a reactive to a more proactive approach.

Lessons Learned

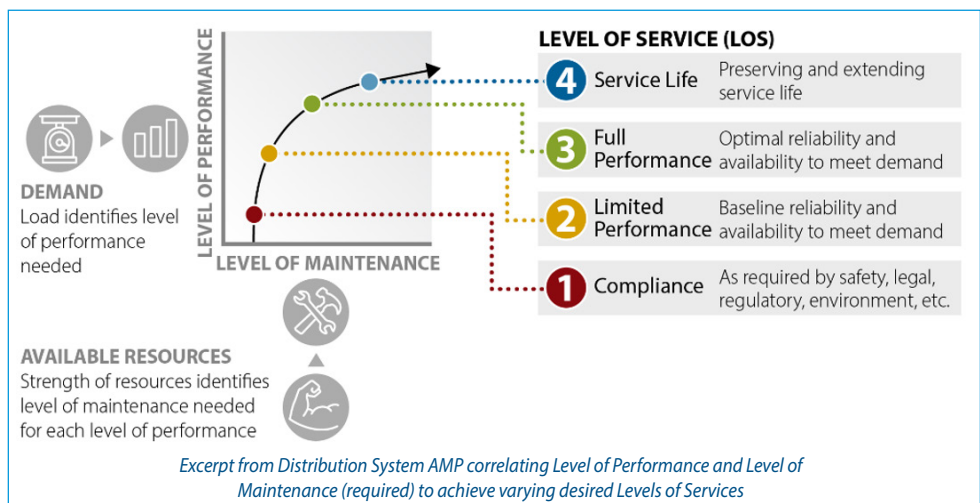
Success of the project was directly influenced by the significant preparedness, positive attitude, and notable alignment of the Medford Water team.

SERVICES PROVIDED

- Asset Management Policy
- Strategic Asset Management Plan
- Asset Management Plans for WTP and Distribution System
- CMMS Needs Assessment and Software Specification Development



The Medford Water SAMP calls out specific actions and strategies intended to build a strong asset management foundation to improve the current state and provide a solid base to advance from.



ENTERPRISE ASSET MANAGEMENT PROGRAM DEVELOPMENT AND IMPLEMENTATION SERVICES / ISO 55001-CENTRIC IMPLEMENTATION OF ORACLE WACS CITY OF SAINT PAUL, MINNESOTA

The City of St. Paul, Department of Public Works (DPW) provides transportation (pavement, bridge, signage, signaling), storm water, and sewer services to over 300,000 residents and businesses. St. Paul Regional Water Services (SPRWS) is a separate utility from the City of St. Paul and provides water to approximately 450,000 customers in the greater St. Paul metropolitan area.

Both DPW and SPRWS have been using Oracle Work and Asset Management (WAM), via a joint license, as their computerized maintenance management system (CMMS) for over 20 years. WAM is officially being deprecated by Oracle to be replaced by Oracle Work and Clouds Services (WACS). DPW and SPRWS needed to reassess their asset management needs from a CMMS, compare and competitively procure a new CMMS, and then implement the new CMMS consistent with their asset management business needs.

ISO 55001 Driven CMMS Needs Assessment

The City of Saint Paul partnered with Cultivate Geospatial Solutions (CGS) to assess their current asset management processes across Public Works (all divisions), Parks, Real Estate & Facilities, and SPRW (water production, distribution, and utility billing) to apply ISO 55001 subject matter expertise to:

- Assess current asset management business capabilities for:
 - Performing condition assessments.
 - Aligning asset hierarchy and register to GIS and EAM software.
 - Connecting City goals and objectives to asset management goals, levels of service, asset level performance, and concomitant financial planning to achieve them.
- Sunset Oracle WAM and procure a new EAM/CMMS (Oracle WACS).
- Provide multi-year City advisory and advocacy during a complex implementation of the new EAM/CMMS.
- Conduct ISO 55001 based pre-implementation planning and readiness.

CGS held stakeholder engagement workshops with over 20 different business groups within DPW and SPRWS to develop business requirements for a replacement CMMS. The approach to developing business requirements was based on asset level information required of an ISO 55001 conforming asset management plan. Broader, core business capabilities (goals and objectives) were based on the needs of a strategic asset management plan. The needs assessment resulted in functional requirements, the creation of the procurement RFP, demonstration scripts, and CMMS vendor scoring criteria. Additionally, CGS produced the anticipated staffing needs and level of effort for each EAM/CMMS workstream. CGS also developed the leadership framework to support implementation project teams, an EAM steering committee, and an EAM Board to hold the steering committee accountable.

Development of Asset Management Plans and Advisory of Implementation

CGS created a set of tactical asset management plans for DPW, covering transportation, stormwater, and sewer assets. These plans became the basis for how the new CMMS is currently being implemented. CGS and Woolpert (sub to CGS) are currently providing CMMS implementation oversight, organizational change management, advisory, and PMO services to DPW as part of the Oracle WACS implementation, which is being delivered by a third-party Oracle implementation vendor.

Program Success

The work has provided DPW and SPRWS with a sound basis for selecting and procuring a new CMMS rooted in thoroughly developed and documented asset management outcomes. The work performed for DPW ensures the millions of dollars spent on the new CMMS implementation is focused on wrapping the CMMS around asset information and business processes that can drive the outcomes of an ISO 55001 conforming asset management plan.

SERVICES PROVIDED

- Comprehensive asset management business requirements assessment across 21 business units.
- ISO 55001 asset management standards-based approach to business requirements – aligned to any/all future asset management programming.
- Implementation oversight on behalf of the City to ensure the CMMS is an integral tool driving asset management outcomes as defined by the SAMP and related AMPs

ASSET MANAGEMENT PROGRAM DEVELOPMENT

CITY OF GREELEY, COLORADO

The City of Greeley treats and distributes nearly 9 billion gallons of water every year with over 500 miles of pipeline, two Water Treatment plants, one Wastewater Treatment plant, and nine water reservoirs. The City desired to develop a framework that would enable asset performance evaluation and asset management decision-making. The City also wanted to update business processes and replace an out-of-date and underused asset management system.

Woolpert led a series of workshops across the City's enterprise that resulted in the first Asset Management Policy and Strategic Asset Management Plan (SAMP). These two documents were adopted citywide and were used to create a detailed Asset Management Plan (AMP) for the wastewater treatment assets. These three documents formulated the design and configuration of the Cityworks AMS for Water and Sewer. Cityworks was deployed to approximately 175 users across distribution, collection, non-potable, high mountain reservoirs, water treatment, and water reclamation divisions.

Program Successes

- Documented and standardized business workflow processes across the City's departments.
- Developed vertical GIS database schema for Water Treatment and Wastewater Treatment Plants following industry best practices.
- Leveraged the adaptability of the Cityworks AMS suite to meet diverse business needs.
- Implemented a robust Cityworks AMS solution with the ability to capture costs, track asset life cycle status, and the flexibility to adapt to an ever-changing asset infrastructure.

Lessons Learned

- The project schedule did not allow enough time for Greeley to develop data for their newly created vertical data sets.
- This project engaged stakeholders across the city enterprise and was fully supported by the City Manager's office. This executive level support made the asset management program a priority for all divisions which drove outstanding workshop participation.

SERVICES PROVIDED

- Asset Management Program Development
- Asset Management Policy
- Strategic Asset Management Plan (SAMP)
- Cityworks CMMS Implementation for Water and Sewer Division
- Vertical GIS Schema Development for Treatment Plants
- Reporting/Dashboard Development and Training

ENTERPRISE ASSET MANAGEMENT SOLUTION DEVELOPMENT

PRINCE WILLIAM WATER, VIRGINIA

A regional leader in supplying clean water and superior service to its customers and communities, Prince William Water is widely respected for its exacting standards around safety and reliability. Through its success in meeting tough standards, Prince William Water earns some of the best performance marks in the water and wastewater industry. The client retained Woolpert to replace their legacy (Hansen) work order management solution with a GIS-centric CMMS. To date, the new CMMS (Cityworks AMS) has been fully implemented to support land development and meter certification business processes, distribution and collection systems O&M activities, water reclamation facility, water quality laboratory, pump/booster stations, building assets and related systems, and grounds maintenance.

Program Successes

More than just replacing outdated software, Woolpert partnered with all stakeholders (planning, engineering, finance, communications, customer service, operations, and maintenance) to document performance and reporting requirements, develop asset models and data standards, re-engineer business processes and workflows, integrate enterprise systems, and configure and deploy the new CMMS solution, Cityworks, as a critical piece of the enterprise asset management solution. The new integrated enterprise solution transformed the way Prince William Water manages its assets; provides the organization with the ability to proactively manage the life cycle of their asset portfolio; and greatly improves their asset management decision-making processes to address risk and align asset performance with levels of service requirements.

SERVICES PROVIDED

- Strategy and Planning Support
- Asset Life Cycle Delivery Business Process Development
- Asset Management Decision-Making Support
- Asset Information Development
- CMMS Migration/ Implementation of Cityworks AMS

Prince William Water was a 2022 NACWA National Achievement Award Winner in the Operations & Environmental Performance category for their Asset Management Analytics - Sewer Pipe Business Risk Exposure Model that was developed, in part, with Woolpert's asset management consulting and implementation support.

"I wanted to send this to my counterparts at Woolpert to personally recognize the contributions your organization made in bringing this program to fruition. It all started with Cityworks and basic AM principles that you helped us instill at the SA. Our staff have learned so much from your team, and the success of this program would not have materialized without your knowledge and support."

—Glenn Pearson, PE – Director, Environmental Services and Water Reclamation, Prince William Water

Lessons Learned

One of the key lessons learned from this program—and consistent with Woolpert's broader experience—is the critical importance of establishing a strong strategic framework. This framework provides the organizational context within which tactical initiatives are developed, aligned, and executed. Clearly defining the performance measures to be tracked, managed, and achieved is a foundational step. These metrics guide the development of asset management workflows, inform the creation of asset management plans, and shape the configuration of data and technology solutions to ensure the right information is captured to support effective decision-making.

Another important lesson is the value of flexibility in project delivery. Adapting and adjusting approaches to leverage available and emerging technologies can significantly enhance outcomes and long-term value. A major contributor to the success of this initiative was the presence of a visionary internal champion within Prince William Water. This individual was empowered to work across

divisions and collaborate closely with consultants—including Woolpert and a GIS partner—to promote innovative ideas and sustain end-user engagement and support.

Finally, successful asset management requires inclusive stakeholder engagement. Identifying and involving all relevant stakeholders—such as finance, operations, planning, and engineering—and fostering cross-functional collaboration is essential to making informed, business-aligned decisions.

CITYWORKS STRATEGIC ASSET MANAGEMENT PLAN – THREE-YEAR PLAN

SEMINOLE TRIBE OF FLORIDA

Woolpert partnered with the Seminole Tribe of Florida (STOF) to deliver a comprehensive, phased implementation of Cityworks Asset Management System (AMS) across the Tribe’s Public Works Department (PWD). This engagement began with a strategic workshop held on July 7, 2023, which brought together stakeholders from Public Works, IT, and GIS to assess current operations and define a roadmap for transforming the Tribe’s asset management capabilities.

Cityworks AMS Roadmap Development

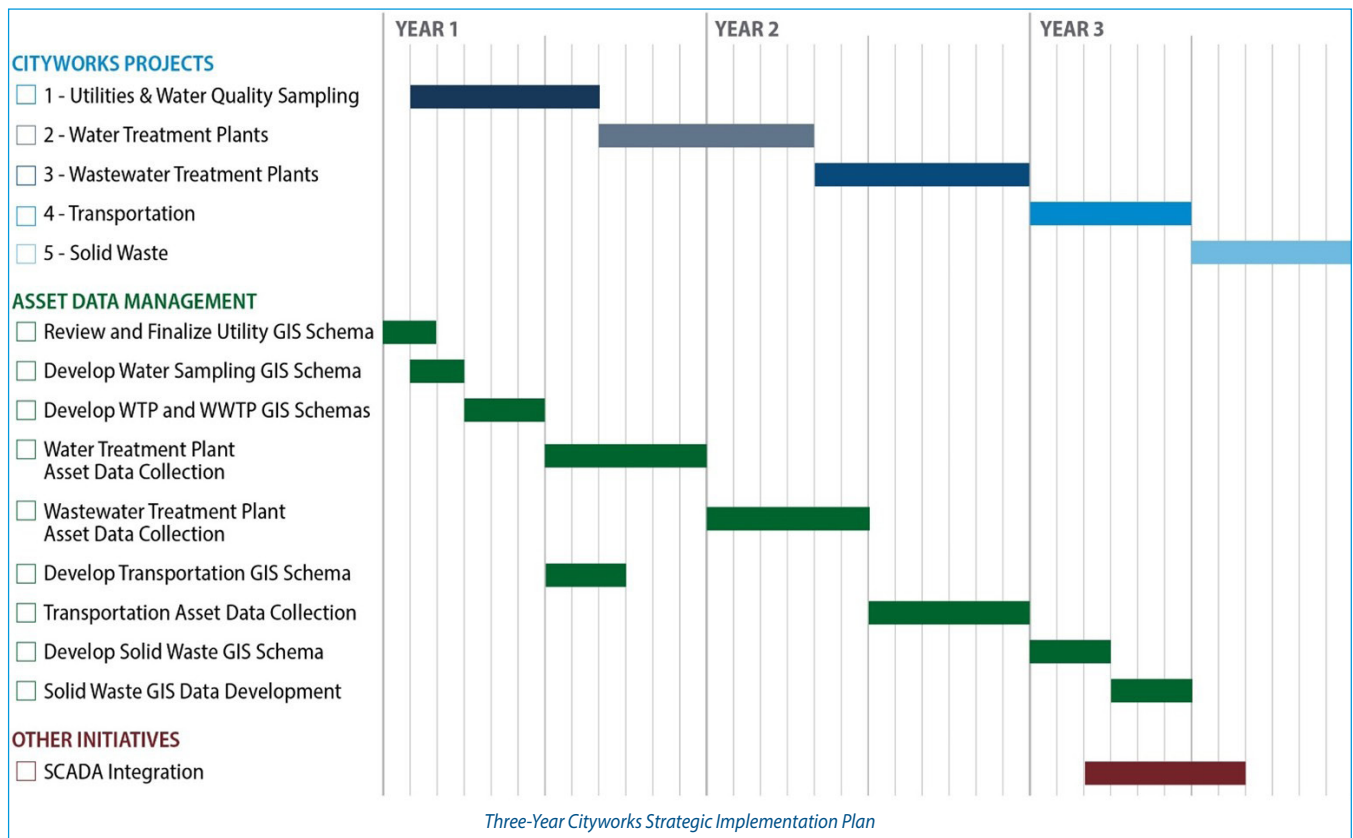
The initial phase focused on evaluating the Tribe’s existing use of Cityworks, which had been limited primarily to purchase order tracking. Woolpert facilitated a workshop to identify key priorities and developed a detailed Cityworks AMS Strategic Asset Management Plan. This roadmap outlined a phased strategy targeting five core divisions of the Tribe:

1. **Utilities and Water Quality**
2. **Water Treatment Plants**
3. **Wastewater Treatment Plants**
4. **Transportation**
5. **Solid Waste**

The roadmap also included a parallel track for GIS schema development and asset data management to support each of the implementation phases.

SERVICES PROVIDED

- Asset Management 101 Training
- Enterprise Asset Management Implementation Plan
- GIS Geodatabase Schema Consulting, Design, Development
- Cityworks EAM Implementation for Water and Wastewater
- Cityworks EAM Implementation for Water Treatment Plants
- Cityworks EAM Implementation for Transportation Department (currently in contracting)



Implementation of Utilities and Water Quality Systems

Following the completion of the Cityworks Strategic Implementation Plan, Woolpert led the successful implementation of Cityworks AMS for the Tribe's water distribution and wastewater collection systems. This included:

- Configuration of Cityworks for maintenance and asset management.
- Integration of GIS data for horizontal infrastructure.
- Development of workflows for EPA compliance reporting and water quality sampling.
- End-user training and go-live support.

This phase was completed in mid-2024 and marked a significant milestone in the Tribe's journey toward proactive, data-driven asset management.

Water Treatment Plants Implementation

Building on the success of the utilities implementation, Woolpert is currently assisting the Tribe with the deployment of Cityworks AMS for its four Water Treatment Plants. This project includes:

- Design and development of a vertical GIS network tailored to plant assets.
- Configuration of preventive maintenance workflows.
- Coordination with ongoing SCADA system upgrades.

Transportation GIS and AMS Planning

Concurrently, Woolpert is working with the Tribe's Transportation Department to design a GIS schema that will support future Cityworks AMS implementation. This includes defining asset types, data structures, and integration strategies to ensure a seamless transition into the Cityworks environment.

Future Phases

The next planned phase will focus on implementing Cityworks AMS for the Wastewater Treatment Plants. This will follow a similar approach to the WTP implementation, including GIS schema development, asset inventory, and preventive maintenance planning.

REAL PROPERTY ASSET MANAGEMENT PROGRAM – FIVE YEAR IMPLEMENTATION PLAN

U.S. DEPARTMENT OF STATE (FEDERAL)

The U.S. Department of State's Bureau of Administration, Office of Operations (DOS A/OPR) is responsible for the management of the agency's domestic real property portfolio. The DOS has sites across the U.S. that serve all the agency's bureaus. At the start of this project, asset management was performed at the individual campus, site, or building level, which provided Headquarters with very little visibility for how its assets were being managed at the portfolio level. There was a clear need for a comprehensive, holistic asset management program that would encompass the management of the entire portfolio from acquisition to disposal.

Historically, management of DOS's domestic portfolio was decentralized, and its effectiveness relied solely on the knowledge and expertise of the respective building managers, and field staff. Leadership needed a mechanism to understand the condition, existing needs and requirements, and life cycle investments needed to effectively manage the portfolio.

Woolpert worked with senior leadership to develop a strategy and five-year plan for the development and implementation of their ISO 55000-aligned Strategic Real Property Asset Management Program. This program would apply to all owned and delegated domestic sites and align agency mission objectives to portfolio performance.

At the start of this effort, Woolpert drafted the agency's first asset management policy. The policy set forth the intent, strategy, and objectives of the program and defined A/OPR's approach to asset management. In alignment with the policy, Woolpert reviewed the organization's existing procedures and developed a five-year implementation plan that identified and prioritized essential business processes needed to implement the program. Woolpert then developed key performance indicators that the agency could use to measure its facilities' effectiveness in meeting the agency's mission and the facilities' efficiency in serving the people.

Lastly, the Woolpert team met with building managers and the real property group to develop a comprehensive snapshot of essential information at each of the 17 site locations. This effort produced a high-value work product that the organization had not been able to produce itself. It provided an overview of the site, the site mission, a visual depiction of the site or map, customers located at the site, real property information such as gross square feet, PRV and number of real property items, any known issues, recommendations to remediate the issues, KPIs, and an evaluation of the funding the site should receive versus what it currently receives. These site summaries, or snapshots, served as reference tools within the facilities management and real property groups as well as a communication tool for senior leadership.

Woolpert's deliverables for this effort included a Five-Year Strategic Real Property Asset Management Program Implementation Plan, the DOS A/OPR Asset Management Policy, Site Summaries, and a portfolio-level summary for each of their 17 owned and delegated locations, and portfolio-level key performance metrics.

Program Successes

This effort created the basic framework for the development of an ISO 55000-aligned asset management program for the State Department's domestic portfolio. Anchored by an asset management policy, the State Department now has both a strategic and tactical plan for how to implement this program within its organization.

SERVICES PROVIDED

- Five-Year Asset Management Program Development
- Asset Management Policy Development
- Key Performance Metrics
- Communication Strategy
- ISO 55000
- Site Summary Reports
- Portfolio Summary Report
- Asset Inventory and Condition Assessments

Woolpert's Commitment to Delivering Projects on Time and Within Budget

Woolpert has a proven track record of delivering asset management projects on schedule and within budget, a testament to our disciplined project management approach and client-focused mindset. **Our methodology is grounded in the Project Management Institute's Body of Knowledge (PMBOK), which provides a structured framework for planning, executing, and monitoring projects.** This includes comprehensive scheduling, resource planning, risk management, and performance tracking—ensuring that every phase of the project is aligned with client expectations and contractual commitments.

Our experienced team brings deep technical expertise and a proactive mindset to every engagement. We identify potential risks early and implement mitigation strategies to prevent delays and cost overruns. However, we also recognize that no project is immune to change. Whether due to evolving client needs, unforeseen site conditions, or external factors, Woolpert remains agile and responsive. Our project managers work collaboratively with clients to reassess priorities, revise timelines, and adjust scopes as needed—always with transparency and a shared commitment to success.

To help us meet time and budget objectives for the City of Fort Lauderdale, we propose the following strategies:

- **Establish clear project milestones and deliverables** with regular progress reviews.
- **Maintain open, consistent communication** with City stakeholders to address issues promptly.
- **Utilize earned value management (EVM)** to track schedule and cost performance in real time.
- **Deploy experienced, cross-functional teams** with a strong understanding of municipal asset management.
- **Incorporate contingency planning** to manage risks without compromising project goals.

These practices will help us deliver a solution that meets your requirements and provides lasting value.

Sustainable Business Practices

Woolpert is committed to integrating sustainability into every project, minimizing environmental impact and benefiting the community. The team addresses infrastructure vulnerabilities to enhance long-term reliability and offers specific expertise in green building, sustainable growth, natural resource management, and energy. Well-versed in local, state, and federal sustainability programs and practices, our comprehensive sustainable design services enable us to identify unique synergies and opportunities.

WHAT SETS US APART

The team leverages in-house advanced technologies like geospatial data analysis and 3D modeling to efficiently plan and design projects, minimizing environmental impact. These technologies also aid in creating strategic sustainability plans for clients, including:

- **Resiliency and Risk Mitigation** // Performing climate change risk assessments and designing buildings and infrastructure to withstand natural disasters, using elevated structures, flood-resistant materials, resilient building envelopes, and backup power systems to enhance resilience.
- **Green Infrastructure** // Integrating natural elements and sustainable practices into project designs to manage stormwater, reduce heat islands, and improve air quality, enhancing both environmental and community health.
- **Water Conservation and Management** // Implementing water-efficient fixtures, rainwater harvesting systems, greywater recycling, and low-impact development techniques to reduce water consumption and manage stormwater runoff effectively.

SUSTAINABLE, RESILIENT DESIGN, AND EMBODIED CARBON

Our team helps clients reduce greenhouse gas emissions from the construction and operation of their new facilities by investigating and implementing the following strategies:

- **Passive Design Strategies** // Incorporating passive design principles to minimize energy consumption by optimizing solar exposure, natural ventilation, and daylighting, reducing reliance on artificial lighting and HVAC systems.

- **Material Selection and Lifecycle Assessment** // Advising clients on selecting sustainable building materials with low environmental impact, including recycled content, locally sourced materials, and materials with high durability and recyclability, and conducting lifecycle assessments to evaluate their environmental impacts.
- **Adaptive Reuse** // Transforming existing structures for new purposes, optimizing resource use, and reducing environmental impact while preserving historical and cultural significance.
- **Biophilic Design** // Incorporating natural elements into built environments to improve occupants' well-being, productivity, and connectivity to nature, fostering healthier and more sustainable spaces.

ENERGY EFFICIENCY, RENEWABLE ENERGY, AND OPERATIONAL CARBON

Woolpert’s approach to MEP systems prioritizes sustainable design from the project’s inception, aligning with the construction budget and avoiding late-stage sustainability roadblocks. The team optimizes building envelopes through modeling before analyzing HVAC and other energy conservation measures, including wall and roof construction, glazing types, and natural lighting. Once optimized, the team models the proposed HVAC systems, domestic water heating, and lighting improvements, complying with acoustical and lighting standards. When relevant to the project, the following methodologies are explored: energy modeling, controls optimization, hydronic and air moving strategies, solar photovoltaic (PV) systems, geothermal design, systems commissioning, and outdoor air optimization.

- **Energy-efficient systems** use advanced energy modeling to minimize energy use while maximizing occupant comfort, and designing energy-efficient HVAC systems, including geothermal heating and cooling and high-efficiency equipment, as well as recommending upgrades like variable speed drives and optimized control systems.
- **Energy audits and retro-commissioning** are conducted by the team to identify inefficiencies and opportunities for improvement in existing buildings, enhancing HVAC, lighting, insulation, and building envelope performance for energy conservation and optimization.
- **Smart building technologies** and automation systems are incorporated by the team for energy management and building performance optimization, enabling real-time monitoring and control to enhance efficiency and resilience.

Florida Registration

Woolpert is registered to do business in the State of Florida. Our document number from the State of Florida Department of State is F04000005579. We have six office locations in Florida, including Fort Lauderdale (BA, a Woolpert Company), Miami, Orlando, Jacksonville, Pensacola, and St. Petersburg. Our Fort Lauderdale office will supply services to the City for this project. Our Florida Certificate of Status can be found in the appendix at the end of this proposal.

The City’s point of contact will be Senior Project Manager and Vice President John Cestnick, PSM, IAM. John’s contact information is provided below:

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 Bermello Ajamil, a Woolpert Company
 900 SE 3rd Ave, Fort Lauderdale, FL, 33316
 Direct: 305.351.2936
 Cell: 305.903.4335
 John.Cestnick@Woolpert.com



Size of Firm

Woolpert Inc. is a global AEG firm with the scale and resources to support complex, multi-year asset management initiatives. With more than 2,700 professionals across over 70 offices worldwide—including a strong presence throughout Southeast Florida and the United States—Woolpert offers unmatched geographic reach and technical depth. Our diverse team includes certified asset management professionals, GIS specialists, engineers, and project managers who collaborate seamlessly across disciplines and locations to deliver consistent, high-quality results.

Woolpert is fully equipped to support the City of Fort Lauderdale with a long-term, strategic asset management program. Our team structure and resource availability will provide continuity, responsiveness, and scalability throughout the life of the contract. To further strengthen our local presence and understanding of regional needs, Woolpert has teamed once again with Craven Thompson & Associates, a respected Fort Lauderdale-based firm with deep roots in the community and complementary expertise in engineering and surveying. Together, we offer the City a powerful, locally grounded team backed by global capabilities.

To deliver this project successfully, Woolpert has assembled a highly qualified team with deep expertise in asset management, Cityworks AMS, Esri GIS, and municipal infrastructure. The following pages present our proposed project organization chart, followed by partial résumés of key personnel who will lead and support the City's asset management initiatives. Each team member brings a proven track record of delivering similar projects and a strong commitment to the City of Fort Lauderdale's long-term success.

Project Organizational Chart and Key Staff



150+ additional supporting resources in southeast Florida across all firms.

Key

- ^{WLP} Woolpert

- ^{CTA} Craven Thompson & Associates

- ^{CGS} Cultivate Geospatial Solutions

- * Resume Provided

- ♡ Southeast Florida Resource



JOHN CESTNICK, PSM, IAM

PROJECT MANAGER

As Program Director and Senior Project Manager within Woolpert's Technology Services discipline, John leads a multidisciplinary team of IT professionals in the design and implementation of asset management (AM) and maintenance management systems tailored to meet the diverse operational goals of public sector clients. He oversees all phases of project delivery—from scope development and contract execution to implementation and closeout—ensuring alignment with client expectations and industry best practices.

John has successfully managed projects for numerous city and county governments, including the City of Fort Lauderdale, City of North Miami, Miami-Dade County, Collier County, Pasco County, City of St. Cloud, and the City of Port St. Lucie. Known for his ability to navigate the complexities of GIS and AM initiatives, John serves as a responsive, knowledgeable consultant, and trusted advisor.

With over two decades of progressive experience, John brings a strong foundation in surveying and mapping, which informs his ability to craft efficient, cost-effective technology solutions. His expertise spans GIS utility mapping and asset inventories, enterprise asset management system implementation and consulting, GIS database development and conversion, photogrammetry, aerial and hydrographic mapping, topographic and boundary surveys, laser scanning, and subsurface utility engineering (SUE) for municipal, utility, and airport clients.

John is deeply committed to client satisfaction, leveraging his technical acumen and leadership skills to adapt to project challenges and deliver high-quality, timely results. His extensive contributions to GIS implementation projects across South Florida are a testament to his impact. **Following a major GIS conversion project for the Miami-Dade Water and Sewer Department (WASD), the client shared:**

"[John] was very responsive and always eager to address any issues or opportunities for improvement to our satisfaction. [His] team is flexible and does everything within their control to meet or exceed expectations. It was a pleasure working with the Woolpert team."

RELEVANT EXPERIENCE

Asset Management System Implementation

City of Fort Lauderdale // Fort Lauderdale, Florida

Project Director. The City of Fort Lauderdale hired Woolpert to implement the Cityworks AMS for their water, wastewater, and stormwater divisions. Each phase of the project incrementally increased the City's asset management understanding while also progressively moving the implementation team through the necessary steps of system configuration, testing, training, and go-live. In addition, the city tasked Woolpert with integrating the Cityworks AMS software with two other enterprise software solutions: QAlert 311 service requests, and Cayenta Customer Information System. At the completion of the project, Woolpert provided the City the ability to view assets and work orders across the enterprise, providing greater clarity, ease of management, and the ability to provide reports to assist in their budgeting process and system analysis.

EDUCATION

Bachelor of Science, Surveying Engineering, University of New Brunswick

Certificate, Technology Management & Entrepreneurship, University of New Brunswick

Certificate, Survey Technologist, College of Geographic Services

REGISTRATIONS CERTIFICATIONS

Institute of Asset Management (IAM): International, #1032109

Professional Surveyor & Mapper (PSM): FL #5994

MEMBERSHIPS

Florida Surveying and Mapping Society (FSMS)

FSMS Miami-Dade County Chapter

Institute of Asset Management (IAM)

American Public Works Association (APWA)

LOCATION

Fort Lauderdale, Florida

Enterprise Asset Management System Implementation (Utilities Department)

City of Port St. Lucie // Port St. Lucie, Florida

Project Manager responsible for the overall success of the project. The City of Port St. Lucie selected Cityworks Asset Management System (AMS) as the work management software for the Department of Water Distribution and Wastewater Collection. Woolpert's implementation approach led the project team through a series of implementation phases while providing training, change management, and quality control throughout its duration. In addition to a standard work management implementation, Woolpert provided custom reporting and performed an integration with their Advanced Utility Systems Infinity CIS billing system. The team also migrated from their legacy system.

Enterprise Asset Management System Implementation (Water & Wastewater Plants)

City of Port St. Lucie // Port St. Lucie, Florida

Project Director responsible for client satisfaction, senior staff support, and contracting. Woolpert is working with the City of Port St. Lucie Utilities Department to implement Cityworks AMS for the Water and Wastewater plants. This includes the design and development of an ArcGIS vertical asset registry, defining the relevant business processes, system configuration, testing, end-user training, and system go-live support.

Cityworks Implementation

Collier County // Collier County, Florida

Project Manager responsible for the overall success of the project. Collier County decided to take a long-range strategic approach by addressing the growing challenge of aging infrastructure. A key initiative in accomplishing this goal was implementing Cityworks AMS for the Public Services and Facilities Management departments. The County now has Cityworks AMS as their EAM for the Public Services Department, Facilities Management Department, and the Public Utilities Department (a previous Woolpert EAM implementation). To manage system operations and provide a future vision for the continued use of Cityworks AMS, the County has formed a strong team of technical professionals who work to manage and support the Cityworks AMS operations at the County. Together, this team supports all Cityworks users, provides continued training, assists with GIS updates, and is responsible for the overall direction and stewardship of the County's Cityworks usage.

Asset Management Implementation

Jefferson County Environmental Services (ESD) and Roads and Transportation Departments (RTD) //

Jefferson County, Alabama

Project Manager responsible for the overall success of the project. The Jefferson County Environmental Services Department (ESD) utilized an older version of the Cityworks AMS, and the Roads and Transportation Department (RTD) asset management and work order procedures were managed by numerous legacy applications. Woolpert implemented Cityworks across both departments to centralize the processes and systems to ultimately go paperless. As part of the project, Woolpert integrated the new Cityworks implementation with Tyler Technology's MUNIS software and Kronos time management software.

Cityworks AMS Implementation (Water Department) and MSGovern Utility Billing Integration

City of Savannah // Savannah, Georgia

Project Manager responsible for the overall success of the project. The City of Savannah contracted Woolpert to perform a Cityworks implementation in support of the Water Distribution and Supply Operations division. The project included a systems integration between Cityworks and MSGovern for water meter billing work orders. The integration provided a method for work order information for water meters to be transferred between systems, which was a key need for the City.

Cityworks AMS Implementation

DeKalb County // DeKalb County, Georgia

Project Manager responsible for the overall success of the project. Woolpert successfully implemented Cityworks for three key divisions within the County: Roads and Drainage, Facilities, and Traffic Engineering. The project was strategically designed to enhance operational workflows, migrate legacy work management data, deliver comprehensive training and change management support, and develop intuitive dashboards to help leadership monitor KPIs in real-time. Following the successful completion of this initial phase, Woolpert was awarded additional Cityworks implementations for Pump Stations, Lift Stations, Water and Wastewater Treatment Plants, as well as Cityworks PLL for the Transportation Department—further demonstrating the County's confidence in Woolpert's expertise and delivery.



BRYAN DICKERSON, IAM, MBA

PRINCIPAL IN CHARGE

As a seasoned professional with nearly three decades of experience at the intersection of civil infrastructure, innovation, and delivery excellence, Bryan leads Woolpert's Infrastructure Sector. In this role, he oversees an international team delivering integrated planning, survey, enterprise asset management, geographic information systems (GIS), and site/civil/structural engineering design for aviation, water, energy, and transportation clients. With profit and loss responsibility for worldwide sector operations, he contributes to corporate strategic planning and decision-making and is a key member of the Woolpert corporate leadership team.

Having led organizations in both the private and public sector, Bryan brings the unique experience of leading initiatives from both the consultant and client perspectives. With his understanding of both the objectives and challenges of managing large utility infrastructure systems, he provides forward-thinking but practical guidance to solving today's infrastructure management challenges.

EDUCATION

Master of Business Administration,
Northwest Missouri State University

Bachelor of Science, Geography,
Northwest Missouri State

REGISTRATIONS CERTIFICATIONS

Endorsed Assessor, Institute of
Asset Management

Certificate in Asset Management,
Institute of Asset Management

MEMBERSHIPS

Institute of Asset Management (IAM)

Society for Maintenance and Reliability
Professionals (SMRP)

Water Environmental Federation (WEF)

American Water Works Association
(AWWA)

AWWA Strategic Management Practices
Committee (2017–2020)

LOCATION

Kansas City, Missouri

RELEVANT EXPERIENCE

Infor EAM Implementation with GIS, Inventory, Procurement, Customer Care and Billing, and Financial Integrations

Miami-Dade Water and Sewer Department (MDWASD) // Miami, Florida

Project Director who led development of the asset management program for MDWASD, including business process re-engineering; change management; implementation of Infor EAM; integration with Esri GIS, PeopleSoft ERP, and Oracle Customer Care and Billing; and development of numerous mobile solutions for maintenance personnel. Woolpert provided implementation services for the Enterprise Asset Management System (EAMS) software product Infor EAMS (formerly Datastream 7i). The EAMS managed maintenance activities associated with water treatment and delivery and wastewater collection, treatment, and disposal. The system included features such as work order creation and tracking, inventory control, labor force management, and asset status and condition reporting requirements. This \$7 million asset management project also included mobile computing requirements, data conversion, system configuration and testing, application development, and training.

Des Moines Water Works Enterprise Asset Management Program

Des Moines Water Works // Des Moines, Iowa

Project Director who provided project oversight and guidance to develop an asset management program utilizing PAS 55 guidelines for program development. The project involved change management; development of organizational strategy and guidelines for asset management; implementation of Infor EAM solution; integration with GIS, Supervisory Control and Data Acquisition (SCADA), and PeopleSoft ERP; and deployment of mobile devices and applications for field personnel.

Lakehaven GIS Implementation Plan – Phase I

Lakehaven Utility District (LUD) // Federal Way, Washington

Project Manager responsible for developing a strategic GIS implementation plan for the LUD, which included data conversion procedures, QA/QC procedures; application integration specifications for GIS, CMMS, and hydraulic modeling; and program staffing and budget requirements. Woolpert was selected to implement the plan developed in Phase I. Services included geodatabase design;

migration of more than 50 square miles of utilities infrastructure data to an ArcSDE enterprise geodatabase; hardware/software specification, installation, and configuration; and application development of Lakehaven Infrastructure Online (LION), an ASP.Net/ArcIMS application integrating GIS, utility billing, and permitting. The completed project created a final enterprise geodatabase design encompassing the recommendations included in the GIS implementation plan. A cooperative approach to the project successfully transferred Woolpert's expertise to LUD personnel so they could effectively maintain the system.

Cityworks Implementation and Training

Willow Water District // Centennial, Colorado

Project Manager and Technical Lead for the design and implementation of Azteca Cityworks to manage asset information for all water utility-related assets and associated maintenance activities. The CMMS maintained asset information for all water utility-related assets and associated maintenance activities. Additionally, Woolpert configured Cityworks to support customer service request functions in the district and integrated it with an existing financial system to update employee-related information in Cityworks.

Utility Enterprise Initiative (UEI)*

Tulsa Metropolitan Utilities Authority (TMUA) // Tulsa, Oklahoma

Asset Management Program Implementation Consultant responsible for the technical coordination and execution of all asset management activities in the UEI. This program built Tulsa's asset management capabilities according to ISO 55000 standards. The program implementation tasks included developing asset management policies, strategies, objectives, and plans, as well as other framework activities to support the overall implementation of asset management. There was a large focus on developing and consolidating information systems to provide a cohesive asset management system that was aligned with the City's Business Intelligence and Performance Management Systems. The UEI and associated activities built upon the work and recommendations from TMUA's Comprehensive Assessment Project and constitute a continuous program of asset management and planning activities.

Asset Management and Reliability Centered Maintenance Program*

Trinity River Authority (TRA) // Dallas, Texas

Asset Management Program Implementation Consultant responsible for technical coordination and execution of all asset management activities in the development of TRA's asset management and reliability centered maintenance (RCM) programs. This program built TRA's asset management capabilities according to ISO 55000 standards. The program implementation tasks included conducting an ISO 55001 assessment, providing recommendations on improvements to the use and configuration of the authority's Maximo CMMS solution, and conducting a maintenance optimization assessment for improving maintenance practices aligned with RCM best practices.

2015 Comprehensive Master Plan Update*

City of Grand Rapids // Grand Rapids, Michigan

Asset Management Consultant/Information Systems Lead responsible for the technical coordination and execution of asset management activities. The project involved ISO 55001 assessment; review of existing Cityworks and Maximo Enterprise Asset and Maintenance Management Systems; development of an overall asset management strategy for water distribution, wastewater collection, wastewater treatment plant, and Lake Michigan Filtration Plant; and creation of asset management plan for water distribution system. All asset management activities aligned with the development of comprehensive five-year master plan for all utilities.

Asset Management Master Planning for Signal Butte Water Treatment Plant*

City of Mesa // Mesa, Arizona

Asset Management Information Solutions Lead responsible for the technical coordination and execution of all asset management information solution activities. This project involved the development of condition assessment inspection methodology and integration of collected data into Community Water Systems' (CWS) Infor EAM CMMS and Riva Asset Management Planning (AMP) for asset valuation and project forecasting. The team updated the Infor EAM configuration to support capture of retirement unit and condition assessment information for assets at both the Hanahan Water Treatment Plant and Plumb Island Wastewater Treatment Facility, as well as integration of asset data housed in Infor with the Riva AMP suite.

**Completed in prior association.*



EDUCATION

Master of Science, Risk Management,
Notre Dame-University of Maryland

Bachelor of Science, Nautical Science,
minor in Business,
Maine Maritime Academy

REGISTRATIONS CERTIFICATIONS

Certificate in Asset Management,
International

Project Management Professional,
National, #1206178

Diploma with Distinction in Asset
Management, International

Register of Asset Management
Professionals, International

Certified Maintenance and Reliability
Professional, National

USCG Master Steam and Motor Vessels,
Unlimited Tonnage, Oceans, First
Class Pilotage, Auxiliary Sail 500 Ton
Endorsement, National/International,
#1117034

LOCATION

Fairfax, Virginia

BOB LEITCH, AMP, MIAM

ASSET MANAGEMENT SUBJECT MATTER EXPERT

As an asset management specialist, Bob Leitch assists organizations with strategic asset management, from clarity of organizational objectives to improved decision making, as well as more technical improvements such as maintenance management, condition assessment, lifecycle planning, risk assessments, development or identification of key performance measures, and improved prioritization linked to organizational objectives. He is a challenge-driven and results-oriented executive with a proven track record of identifying and improving organizational business processes and efficiencies. Bob leverages available resources and leads diverse teams in developing practical applications and visions for his clients. He previously served as a subject matter expert in all aspects and principles of asset management to provide leadership and training for the U.S. Army Corps of Engineers (USACE).

Bob understands that Strategic Asset Management is completely scalable, so it is usual for him to work with both senior leadership focused on changing significant parts of large, complex organizations and field personnel who desire better clarity and awareness at a single facility or installation. Whatever the scale, he provides an objective assessment of the client's situation, highlighting observations and findings they may or may not be aware of, and he offers recommendations in line with their goals to describe a path forward to the improvements they seek.

Bob brings breadth and depth of experience to the practice of ISO 55000-aligned Asset Management, with more than 20 years directly engaged in the practical application of asset management, and more than 15 years at the senior level in a very complex, multi-layered and multi-discipline national organization. He has experienced significant resource constraints and unique challenges firsthand, and as such, he is able to empathize with his clients' position. Bob finds that the greatest rewards in asset management come from helping clients see their organization in a new light. His experience with people and situations allows him to understand and communicate in a relaxed, reassuring manner.

RELEVANT EXPERIENCE

Asset Management Implementation and CMMS Evaluation Medford Water Commission // Medford, Oregon

Project Manager responsible for developing Medford Water's Asset Management Policy, Strategic Asset Management Plan, and prototype Asset Management Plans for Medford Water's Distribution System in addition to their Robert A. Duff Water Treatment Plant/Big Butte Springs Water Supply. This effort engaged stakeholders across the entire organization to craft a viable and actionable set of documents to advance the daily practice of asset management for Medford Water linked to the organization's strategic objectives and Vision, Mission, and Values statement.

Asset Management Needs Assessment Medford Water Commission // Medford, Oregon

Project Manager responsible for facilitating multiple functional and technical workshops to assess asset management needs and recommendations, with specific focus on Medford Water Commission's (MWC's) current CMMS. Bob developed a Needs Assessment report that highlighted Existing Conditions, Gaps Analysis, and Recommendations to the organization.

Strategic Real Property Asset Management Program Five-Year Implementation Plan

U.S. Department of State A/OPR // Washington, D.C.

Technical Consultant who developed Strategic Real Property Asset Management policy, implementation plan, and roadmap outlining major tasks required for more than 200 DOS domestic facilities. Tasks included Information Technology strategy, enterprise KPI identification, maintenance management improvements, facility condition and risk assessments, and lifecycle investment planning and decision improvements.

Technology Driven Strategy Asset Management Visioning and Roadmap Development

City of Toronto // Ontario, Canada

Senior Consultant/Subject Matter Expert responsible for draft products. Woolpert is developing a roadmap for the development of enterprise-wide strategy that aligns smart technology investment strategies and outcomes with future business requirements and organizational performance metrics in a quantifiable relationship. The team's approach featured work sessions with agency senior leadership and stakeholders that took place over a 3–4-day period.

PRESENTATIONS**Assets Are in the Eye of the Beholder**

International Maintenance Conference, reliabilityweb.com // December 2023

Practical Material Management Advancements at Stanford Healthcare

International Maintenance Conference, reliabilityweb.com // December 2023

Strategic Planning to Address Asset Management Challenges

CEATI Asset Management Conference // October 2022

Benefits of Integrating Dam Safety and Asset Management

U.S. Society of Dams (USSD) Conference // April 2022

Improving Enterprise Maintenance Data Management for Reclamation

Institute of Asset Management North American Conference // October 2021

Asset Management and Dam Safety - Twins Raised Apart?

International Commission on Large Dams (ICOLD) // November 2020

Improving Asset Management with Decision Quality

Institute of Asset Management // November 2019

Recent Developments in Federal Asset Management

Asset Leadership Network—Asset Leadership Week, Moderator // September 2019

USACE Asset Management Strategy, Workshop and Report

Facilitator/Principal // December 2018

Enabling Asset Management Maturity Through Sustainable Fundamentals

Institute of Asset Management // November 2018

USACE Asset Management & ISO 55000

Asset Leadership Network—Asset Leadership Week, Panelist // November 2018

Developing an Asset-Focused Value Model

Institute of Asset Management // November 2017

USACE Civil Works Asset Management Value

Asset Leadership Network—Asset Leadership Week // November 2017

USACE Asset Management Status Update

I-STORM (International Network for Storm Surge Barriers) // June 2017

New Opportunities and Future Directions in Asset Management

Global Infrastructure Leadership Forum // March 2017

Improving Maintenance Management for the U.S. Army Corps of Engineers

International Maintenance Conference // December 2016

Implementing Asset Management for USACE

Institute of Asset Management // November 2016

USACE Asset Management Strategy & Implementation

St. Lawrence Seaway Management Commission (Canada) // August 2016

USACE Maintenance Management Implementation

Public Works Digest Magazine, Co-author // August 2016

Influencing the Future of our Water Infrastructure: USACE Civil Works Asset Management Strategy

SAME-IFMA Conference // February 2016

USACE Asset Management Implementation & Status

Ministry of Land, Infrastructure, and Transportation (Japan) // October 2015

USACE Infrastructure Strategy

ASCE Convention // October 2015

PUBLICATIONS

Implementing the USACE Maintenance Management Improvement Plan

The Military Engineer Magazine // Co-author // July 2015

USACE Civil Works Asset Management PgMP

Program Management Plan // Principal author // December 2014

Positioning U.S. Army Corps of Engineers Dredges

Sea Technology Magazine // Co-author // October 1999



JAY BEADNELL, GISP, eBLD

SENIOR SYSTEM ANALYST

Jay Beadnell is a Senior Systems Analyst in Woolpert's Technology Services group, specializing in the implementation and optimization of Cityworks AMS for municipal and utility clients. With a strong foundation in engineering and decades of public sector experience, Jay brings a unique blend of technical expertise and operational insight to every project. He plays a key role in analyzing business processes, recommending best practices, and configuring Cityworks through software customization, database scripting, SQL development, and GIS schema design.

As a certified GIS Professional (GISP), Jay is highly skilled in GIS data analysis and enhancement, helping clients improve the quality and usability of their asset data to support long-term asset management goals. His ability to translate complex technical concepts into practical solutions makes him an effective trainer and change facilitator, particularly during system rollouts and upgrades.

Jay's municipal background includes serving as the Cityworks System Administrator for the City of Raleigh, NC, where he gained deep operational knowledge of water and sewer systems. His field experience enables him to bridge the gap between software configuration and real-world application, guiding clients through workflow development and system adoption to achieve measurable operational improvements.

In addition to his technical contributions, Jay develops custom reports and dashboards that help clients monitor data quality, track performance metrics, and identify opportunities for continuous improvement. His well-rounded expertise makes him a valuable asset to any Cityworks implementation team.

EDUCATION

Certificate, Civil Engineering
Technology, Civil Survey,
Wake Technical Community College

REGISTRATIONS CERTIFICATIONS

Certified GIS Professional, National,
#40142

e-Builder Certified Professional

ITIL Foundation License,
#GR750165793JB

MEMBERSHIPS

e-Builder Silver Partner

North Carolina ArcGIS Users Group

LOCATION

Charlotte, North Carolina

RELEVANT EXPERIENCE

Cityworks AMS for Water, Wastewater, Stormwater

City of Fort Lauderdale // Fort Lauderdale, Florida

Cityworks AMS Implementation Urban Forestry

City of Savannah // Savannah, Georgia

Cityworks AMS Implementation for Water, Wastewater

City of Savannah // Savannah, Georgia

Electric Cityworks Implementation

Greenville Utilities Commission (GUC) // Greenville, North Carolina

City of Gahanna Cityworks AMS Implementation

City of Gahanna // Gahanna, Ohio

Santa Ana Cityworks Ad-Hoc Services

City of Santa Ana // Santa Ana, California

Cleveland Parks, Maintenance, Properties Cityworks Implementation

City of Cleveland // Cleveland, Ohio

Environmental Services and Roads and Transportation Departments

Cityworks Asset Management Implementation

Jefferson County Commission // Jefferson County, Alabama

Cityworks AMS Upgrade

City of Durham // Durham, North Carolina

Asset Management Assessment

Baltimore County // Baltimore County, Maryland

Cityworks Installation for Bureau of Utilities

Baltimore County // Baltimore County, Maryland

PRESENTATIONS

Preventative Maintenance on Vertical Assets Using Cityworks and ArcGIS Online

Cityworks User Conference // Utah // January 2016

Playing Nice: Integrating Cityworks with Other Enterprise Business Applications

Cityworks User Conference // Utah // January 2015

Implementing Cityworks while Integrating Third Party Solutions

Cityworks User Conference // Utah // January 2014



JARED LIVINGSTON, GISP, IAM

CITYWORKS SUBJECT MATTER EXPERT

As a technical subject matters expert (SME), Jared Livingston leads teams in designing and implementing best-in-practice asset management programs for public and private utilities, airports, public works, and other government entities. With extensive experience collecting and integrating GIS data for a diverse client base, Jared is adept at identifying and adapting solutions to meet clients' specific needs and goals. Jared has both a finesse for handling the consulting side of projects and the expertise for applying the technology at hand to troubleshoot complex problems and answer client questions. He is committed to building client relationships and trust by transparently managing expectations; making the best decisions possible for the client; and providing them with the support and training necessary for them to continue to thrive after their project is completed.

Jared has more than 18 years' experience implementing Cityworks. He has completed more than 40 Cityworks implementations, the majority of which have been for wet infrastructure clients. He has led 20 treatment plant implementations and completed 20 vertical treatment plant geodatabase designs. Jared played a critical role in the configuration of an integrated asset management system for the City of Topeka's Public Works Department, which was awarded as a 2015 Cityworks Exemplary User for its efficiency in leveraging Cityworks asset management capabilities.

To promote quality assurance and continuous improvement for implementations, Jared has spent the last several years building a comprehensive library of best practices and standard operating procedures based on ISO 55000 standards for asset management. He believes that regardless of who is leading the project or the type of project, whether for a water treatment plant or an airport, it is important to prevent divergent processes and confirm everyone on the team is "playing from the same sheet of music."

EDUCATION

Bachelor of Science, Physical Geography, Indiana State University

REGISTRATIONS CERTIFICATIONS

Certified GIS Professional, National, #91650

Certified Asset Management, International, #1015506

CONTINUING EDUCATION

Oracle Utilities Work and Asset Management Advanced Implementation, Oracle, 2017

Asset Management Guidelines (ISO 55000), International Institute of Asset Management, 2015

ArcGIS Server: Web Administration Using Microsoft .NET Framework, Esri, 2011

ArcGIS Server: Web Administration Using Microsoft .NET Framework, Esri, 2008

Geodatabase Design Concepts, Esri, 2007

Working with ArcPad, Esri, 2006

Learning ArcGIS 8, Part II, Esri, 2003

LOCATION

Indianapolis, Indiana

PRESENTATIONS

Onward and Upward: Utilizing GIS to Track and Maintain Vertical Infrastructure // Trimble Innovate Conference // May 2024

Is Your Facilities Department the Middle Child in Your Cityworks Family? // Cityworks User Conference // May 2011

Modeling Facilities-Based Infrastructure in GIS for Use with Cityworks // Cityworks User Conference // May 2010

Developing Digital As-built Standards That (Almost) Everyone Can Live With // Indiana GIS Conference // February 2008

GIS Drives Compliance with NPDES Phase II Requirements // Indiana GIS Conference // March 2007

Satisfying the Need to Map Stormwater // Indiana GIS Conference // March 2005

PUBLICATIONS

Scaling Server AMS for Mid-Sized Deployment: Noblesville, Indiana, Moves to Cityworks Server AMS with ArcGIS Workgroup // Cityworks InPrint // Summer-Fall 2012



RYEN TARBET, FIAM
ASSET MANAGEMENT LEAD

Over the past 23 years, Ryen has developed extensive experience as a leader and educator in the field of asset management. Ryen has expertise in US, Canadian, and International financial accounting for asset management, is familiar with numerous asset management software systems, and is a subject matter expert with infrastructure lifecycle financial planning and the use of BIM within asset management systems.

Ryen has worked as the principal asset management advisor for government organizations spanning water, sewer, transportation, rail, City/County, state, federal, and private organizations. Including to the NYC Metropolitan Transit Authority (MTA) on a multi-year all agency asset management system implementation spanning an asset portfolio of over \$1 trillion dollars. He is currently advising the Architect of the Capitol (federal agency) on its formal ISO 55001 certification.

Ryen is a subject matter expert in capital forecast modeling, creating GIS based temporal-spatial visualizations of infrastructure capital investment needs, and using PowerBI combined with GIS web applications to deliver what are normally difficult to understand asset management documents and spreadsheets to diverse stakeholders. He leads the design and development of web applications that give executives and asset managers visibility into, control over, and audit of the progression of implementing asset management and the ongoing operation of asset management within large and complex organizations.

Ryen is the former Chair (and former Head) of the USA delegation to the International Standards Organization Technical Committee 251, which is responsible for the definitive international standard for asset management: ISO 55001. As Chair of the U.S. Delegation, Ryen represented the interests of the United States regarding its ability to participate in asset management on an even footing with the international community.

Since 2014, Ryen co-teaches Citywide Asset Management at the University of Wisconsin-Madison through the College of Engineering; teaches asset management at Lamar University's graduate program for Port & Marine management and co-manages asset management course work for Ruger's University for professional continuing education credits.

Ryen is a Fellow with The Institute for Asset Management.

EDUCATION

Bachelor of Science, Environmental Biology and Management, UC Davis
Master of Arts, Geographic Information Systems, UC Davis

**REGISTRATIONS
CERTIFICATIONS**

Fellow, The Institute for Asset Management, Cert No. 1025972

MEMBERSHIPS

Chair of US Delegation, International Standards Organization, Technical Committee 251 (ISO 55000)
Asset Management Lecturer at:
University of Wisconsin-Madison
Lamar Univ. Port & Marine Management Graduate Program
Rutgers University
Institute for Asset Management, Fellow
ASCE Coasts, Oceans, Ports and Riveris Institute – Asset Management Committee Exec. Board Member
APWA Asset Management Committee Member
URISA, Member, Asset Management SME

LOCATION

Bend, Oregon

ENTERPRISE ASSET MANAGEMENT PROJECTS

Asset Management Program Design and Development

Architect of the Capitol // 2021–Present
Project Lead/Senior Asset Management Consultant

Asset Management Principal Consultant, EAM Implementation
Port of Long Beach, CA

Asset Management Advisory
New York Metropolitan Transit Authority // 2018–2021
Project Lead/Senior Asset Management Consultant

EAM Asset Management Software Implementation
City of Santa Ana, CA

EAM Asset Management Software Implementation

City of Mercer Island, WA

EAM Asset Management Software Implementation

Port of Long Beach, CA

EAM Business Process and Asset Management Software Implementation

Northstar CSD, CA

EAM Business Process and Asset Management Software Implementation

City of Olympia, WA

EAM Asset Management Software Implementation

Thurston County, WA

EAM Asset Management Software Implementation

Washington County, OR

EAM Asset Management Software Implementation

Rhode Island DOT, RI

OTHER PROFESSIONAL EXPERIENCE

Asset Management Subject Matter Expertise and Outreach

- Chair (former Head) of US Delegation to ISO TC 251, the body responsible for the ISO 55000 Asset Management Standard—International
- American National Standards Institute (ANSI) Technical Advisory Group 251
- Citywide Asset Management Co-Instructor, University of Wisconsin-Madison College of Engineering
- Co-author of Asset Management Primer, Infrastructure for Jobs and Prosperity Act - Province of Ontario, Canada



ALLEN IBAUGH, AICP, GISP

ASSET MANAGEMENT OVERSIGHT

Allen Ibaugh brings over 25 years of specialized experience leading multidisciplinary programs in asset management, GIS integration, and infrastructure planning for public sector agencies, including departments of transportation, MPOs, local governments, and utilities. As CEO of Cultivate Geospatial Solutions, LLC (CGS), Allen oversees strategic initiatives focused on delivering high-value asset management services grounded in ISO 55000 principles, EPA CMOM guidelines, and IAM frameworks.

Under his leadership, CGS has delivered scalable asset management plans, risk-based decision frameworks, GIS-integrated lifecycle analysis tools, and comprehensive data migration services to support stormwater, wastewater, roadways, seawalls, bridges, and water infrastructure. He brings technical proficiency and policy-level understanding in lifecycle planning, condition assessment, financial forecasting, and asset risk management. A nationally recognized expert in urban and regional planning and geospatial technologies, Mr. Ibaugh is a Past President of the Urban and Regional Information Systems Association (URISA), current President of the GIS Certification Institute, and a Board Member of GPN's GISCorps. He actively teaches workshops on enterprise asset management implementation and GIS strategy aligned with international standards.

EDUCATION

Bachelor of Science, Psychology;
Bachelor of Arts, Geography, Indiana University

Master of Science, Urban & Regional Planning; Master of Arts, Geography; University of Iowa

REGISTRATIONS CERTIFICATIONS

American Institute of Certified Planners,
Certificate Number: 012940

Certified GIS Professional, Certificate
Number: 10611

LOCATION

Indianapolis, Indiana

RELEVANT EXPERIENCE

A+PLUS

Florida DOT Central Office

Principal-in-Charge, Project Director. CGS staff worked on web-based software to help the Central Office design and develop a computer system to allow users, both internal and external to FDOT, to request and receive historical aerial imagery.

Unified Roadway Basemap Implementation Plan

Florida DOT Central Office

Principal-in-Charge, Project Director. CGS staff worked with FDOT to develop a Strategic Implementation Plan to guide FDOT in acquiring and developing a Unified Roadway Basemap.

Highway-Rail Crossing Application

Florida DOT Central Office

Principal-in-Charge, Project Director. CGS staff worked with FDOT to develop a GIS-based mapping system for highway railroad crossings to help analyze, query, and display railroad crossing information.

Environmental Screening Tool (EST)

Florida DOT

Principal-in-Charge, Project Director. CGS staff created the EST as an interactive database and mapping application available online.

Online Transportation Information System (OTIS)

Colorado DOT

Principal-in-Charge, Project Director. CGS staff collaborated with CDOT to migrate the application to new platforms using standard development languages, while maintaining a single data repository for all applications.



SARAH BRENNEMAN

GIS ANALYST



EDUCATION

Bachelor of Science, Applied Statistics,
Purdue University

ESRI CERTIFIED FOUNDATION

ArcGIS Pro Associate 2101

GIS Fundamentals Foundation 2024

ArcGIS Pro Foundation 2101

ArcGIS Online Administration Associate
2024

AWARDS

2024 GIS-T Savvy Mapper Web
Application Award For Information &
Data Analytics

Purdue GIS Day 2023 Undergraduate
Student Lightning Talk Award

LOCATION

Indianapolis, Indiana



Sarah is a skilled Geographic Information Systems (GIS) Specialist at Cultivate Geospatial Solutions, LLC (CGS), where she supports the development and deployment of geospatial solutions that align with public sector asset management strategies. A graduate of Purdue University with a Bachelor of Science in Applied Statistics, Sarah applies her analytical expertise to support data migration, spatial analysis, and mobile and web GIS solutions critical to infrastructure asset planning and lifecycle management.

Sarah plays a key role in projects involving the development of GIS databases and georeferenced asset inventories for stormwater, water, wastewater, and roadway systems—helping local governments meet ISO 55000 and EPA CMOM requirements. She is certified in ArcGIS Pro and ArcGIS Online Administration, and she specializes in the configuration of dashboards, hosted feature layers, and map services that support decision-making processes and enterprise asset management systems like Cityworks.

With a background as a student-athlete, Sarah brings strong leadership, discipline, and collaboration skills to fast-paced team environments. Her commitment to quality data, spatial accuracy, and operational efficiency makes her an asset in executing comprehensive, data-driven asset management plans for clients.

RELEVANT EXPERIENCE

CalTech University

Created an indoor 3-D GIS Environment. Geospatial Digital Twin development.

Rochelle, Illinois

GIS support services and digital data creation

Frankfort, Illinois

Assisted the city with GIS support

Hamilton County, Indiana

Assisted the city with GIS support

Warrenville, Illinois

Assisted the city with GIS support



RICHARD G. CRAWFORD JR., PSM

PROFESSIONAL SURVEYOR & MAPPER



Richard has over 40 years of experience in the surveying industry. During this time, his experience has grown to include all types of surveys. Richard is well trained and proficient in the processing of survey data collection from a variety of data collection devices, such as GPS, Digital Leveling, and Conventional Total Stations.

RELEVANT EXPERIENCE

Fort Lauderdale Potable Water GIS & Surveying

City of Fort Lauderdale, Florida

Surveyor - The project consists of accurately remapping the City's Water System and correcting the City's GIS. The Project includes 750+ miles of water mains 4" and larger, 19,000+ valves, 6,200 fire hydrants, 250 air release valves, and 62,600 meters.

Fort Lauderdale Sanitary Sewer System GIS & Surveying

City of Fort Lauderdale, Florida

Surveyor - Craven Thompson established primary & secondary vertical control with over 3,000 new benchmarks for sanitary sewer mapping of the city, including as-built/inventory of manholes, pump stations, meters, valves, air valves and 80 miles of force mains. Phase I, the benchmarks and GPS control monuments were established for each of the 52 Data Collection Zones (DCZ). Phase II included multiple feature data acquisitions for the city's GIS system.

Shenandoah Stormwater Master Pump Station

Davie, Florida

Principal Surveyor responsible for boundary and topographic survey, which includes location all aboveground visible Improvements from north edge of pavement of I-595 westbound ramp to Sawgrass Expressway to south bank of the North New River Canal. The purpose of the Shenandoah Stormwater Master Pump Station project is to reduce surface flooding throughout Shenandoah and assist with flooding within the Vista Filare neighborhood. The project achieves these goals through the use of a new stormwater pipe with drawdown pump that is intended to lower staging in nearby water bodies prior to storm events.

Seminole Estates Neighborhood / Drainage

Seminole Tribe of Florida, Hollywood, Florida

Principal Surveyor responsible for surveying services for the Seminole Estates Neighborhood between the Florida Turnpike and State Road 7. Services included topographic survey information for design purposes. The area included the rights-of-way and survey limits. The project baselines and road alignment along the rights-of-way consist of approximately 4,900 linear feet of road and 1,500 linear feet of swale area. The scope of work included location of all aboveground and visible improvements. Rims, inverts, and pipe sizes on all sanitary structures 100 feet of the project limits are noted on the drawings.

City of Fort Lauderdale GIS and Surveying for Storm Water Master Plan

Fort Lauderdale, Florida

Project Surveyor responsible for directing survey data collection, GIS analysis, and assisting others team members. Provided oversight for field data acquisition of storm water infrastructure attributes needed to populate an existing GIS Database.

EDUCATION

Associates of Science in Land Surveying,
Palm Beach Community College

Associates of Arts in Architecture,
Broward College

REGISTRATIONS CERTIFICATIONS

State of Florida Professional Surveyor
and Mapper No. LS5371

FAA Remote Pilot with a UAS Rating
Certificate No. 3911523

MEMBERSHIPS

Florida Society of Professional Surveyors
and Mappers

LOCATION

Fort Lauderdale, Florida



PATRICK J. GIBNEY, PE

PROFESSIONAL CIVIL ENGINEER

Mr. Gibney has over thirty-eight years of experience providing project management, design and construction management services for public civil engineering projects. These projects include infrastructure improvements for a multitude of infrastructure rehabilitation projects. This includes design and CEI services for water distribution systems, sanitary sewer collection & transmission systems, lift stations, pavement design, storm water management systems, drainage systems, & contract documents.

EDUCATION

Bachelor of Science, Civil Engineering,
Rutgers, The State University

FDOT Pre-Qualified Roadway
Construction Engineering Inspection

REGISTRATIONS CERTIFICATIONS

State of Florida Professional Civil
Engineer No. 49428 (1995)

LOCATION

Fort Lauderdale, Florida

RELEVANT EXPERIENCE

Sidewalk, Swale, Drainage & Roadway Improvements CDBG Improvements Hallandale Beach, Florida

The project included ADA connections, details and cross-sections for the project area. The sidewalk was installed to complete the existing neighborhood sidewalk network. Swales were constructed adjacent to the new sidewalks and exfiltration trench was installed to eliminate nuisance flooding. Upgraded ADA pedestrian ramps and driveways, sidewalks, and re-graded swales.

West Palm Beach Water & Sewer Service Conversions

West Palm Beach, Florida

Project Manager - The City of West Palm Beach contracted with Craven Thompson to provide professional services for the conversion of sanitary and water services from rear property lines to front property lines. This included reviewing design plans of a specific address/location available to date for constructability, checking design calcs, etc. including site visits as required.

River Oaks Neighborhood Drainage Improvements

Fort Lauderdale, Florida

Project Manager - Improvements included: 12,677 linear feet of swale re-grading, 5,346 linear feet of storm pipe removal, removal of 251 storm structures, the installation of 90 linear feet of 15" storm sewer, 4,374 linear feet of 18" storm sewer, 4,675 linear feet of 24" storm sewer, 1,771 linear feet of 36" storm sewer, 145 linear feet of 48" storm sewer, 3,129 linear feet of 66" storm sewer, and 1,056 linear feet of 72" storm sewer, 2,640 linear feet of 24" exfiltration trench.

Wastewater Reclamation Facility Reuse Water System Expansion

Miramar, Florida

Project Manager - Water distribution system improvements included: 10,971 linear feet of 6" main, 7,387 linear feet of 8" main, 1,607 linear feet of 12" main, 2,596 linear feet of 16" main, 28 fire hydrants, abandonment and grouting of 15,700 linear feet of existing watermain, and the construction of 280 water services. The project also included 19,900 linear feet of mill & overlay along with right-of-way restoration.

Eastside Master Infrastructure Project, Phases 2 & 3

Davie, Florida

Project Manager - Patrick managed the design and permitting of the project which consisted of 340 acres of infrastructure rehabilitation. The basic infrastructure work consisted of watermain, sanitary sewer, and storm sewer. The drainage/roadway work consisted of: 22,763 LF of roadway reconstruction; 41,000 SY of swale regrading; 18,940 linear feet of storm sewer; 12,450 SY of sidewalk; 7,400 SY of driveway restoration; 146 storm structures; 3 outfalls; 1 control structure.



Section 4

APPROACH TO SCOPE OF WORK

APPROACH TO SCOPE OF WORK

Understanding of the City’s Needs, Goals, Objectives

The successful development, implementation, and long-term sustainment of Asset Management Planning for the City of Fort Lauderdale’s Public Works asset portfolio is best achieved through a balanced integration of top-down strategic alignment and bottom-up operational insight. This dual approach ensures that asset management initiatives are both visionary and grounded, aligning seamlessly with the City’s broader organizational goals.

The City has already demonstrated a strong strategic direction, as reflected in its forward-thinking initiatives such as the "Fast Forward Fort Lauderdale" Vision Plan 2035 and the "Press Play Fort Lauderdale" Strategic Plan 2029. These documents provide a clear roadmap for the City’s future and establish a solid foundation for continued progress.

In addition, the City has made significant strides in asset management through the development of a first-generation Watershed Asset Management Plan (WAMP), completed under the previous 2020 Public Works Asset Management contract. The proactive adoption and implementation of the Cityworks Enterprise Asset Management System further underscore the City’s commitment to modern, data-driven infrastructure management.

To build on this momentum, the City’s Public Works Department now seeks two consultant teams who can collaborate effectively with City staff—and with each other—to realize the goals outlined in existing strategic and asset management plans.



Excerpt from City of Fort Lauderdale’s "Press Play Fort Lauderdale" Strategic Plan 2029.

Woolpert’s Vision for the Contract

Woolpert envisions the following key outcomes from this engagement:

- **Advance Planning Efforts** // Continue and expand upon the initiatives launched under the 2020 Asset Management contract, including the development of any outstanding or missing Asset Management Plans (AMPs).
- **Strategic Implementation of Cityworks** // Develop a comprehensive Cityworks Strategic Asset Management Plan (CSAMP) to guide the full utilization and integration of the Cityworks AMS platform.
- **Ongoing Technical Support** // Provide continued support to the City’s Cityworks and GIS teams to ensure seamless system performance and data integrity.
- **WAMP Goal Alignment** // Drive progress toward the objectives established in the Watershed Asset Management Plan.
- **Performance Management** // Assist the City with periodic reviews and updates of Asset Management Plans to support continuous improvement and performance tracking.

These practices will help us deliver a solution that meets your requirements and provides lasting value.

Asset Management Program Development Roadmap

Woolpert's methodology is structured around four interdependent focus areas—**Plan, Do, Check, and Act**—which align with the City of Fort Lauderdale's *"Press Play Fort Lauderdale" Strategic Plan 2029*. Each phase includes targeted actions and measurable outcomes designed to support the City's long-term asset management goals.



PLAN

Woolpert understands that this engagement builds upon a previous Public Works Asset Management Consulting Services contract. As such, our team places a high priority on gaining a comprehensive understanding of the outcomes, challenges, and lessons learned from that initial effort. We anticipate that the first five months (approximately) of the contract will be mainly focused on in-depth planning activities, which will lay the foundation for successful implementation.

REQUEST FOR INFORMATION (RFI)

At the outset, Woolpert will issue a formal Request for Information to collect all pertinent documentation related to the City's asset management initiatives. This will include, but is not limited to:

- Current Vision, Mission, and Values Statements
- Strategic and Operational Plans
- Documentation from the previous asset management contract

The objective is to ensure our team is fully aligned with the City's documented direction and priorities.

DISCOVERY WORKSHOPS

Upon reviewing the RFI materials, Woolpert will conduct a series of collaborative Discovery Workshops with City staff. These sessions will validate our understanding of the current ("AS-IS") state of the City's asset management program. Key topics will include:

- Status of ongoing or incomplete projects
- Updated timelines and deliverables
- Identified data quality or availability issues
- Uninitiated or partially completed asset management plans
- Shifts in priorities, staffing, or organizational structure

GAP ANALYSIS

The culmination of the planning phase will be a comprehensive Gap Analysis Report. This deliverable will summarize key findings from the Discovery Workshops and identify:

- Gaps between current practices and desired outcomes
- Priority areas for improvement
- Recommended tasks and goals for the new contract period

This structured approach ensures that all subsequent phases are grounded in a clear understanding of the City's current position and future aspirations.

CITYWORKS STRATEGIC ASSET MANAGEMENT PLAN

Building on our previous collaboration with the City of Fort Lauderdale's Public Works team, Woolpert is well-acquainted with the City's significant investment in and progress with the implementation of its Enterprise Asset Management System—Cityworks AMS. As the City advances its *"Press Play Fort Lauderdale" Strategic Plan 2029*, ensuring that the Cityworks support infrastructure is properly resourced and staffed will be increasingly vital to long-term success.

To support this, Woolpert proposes that one of the initial tasks under this new contract be the development of a Cityworks Strategic Asset Management Plan. With Cityworks already deployed in several Public Works divisions, interest from additional departments and divisions continues to grow. A structured, forward-looking plan is essential to manage this expansion effectively and sustainably.

This Strategic Plan will address key areas including:

- **Budgeting** // Forecasting and aligning financial resources with system growth and support needs.
- **Staffing and Organizational Structure** // Defining roles, responsibilities, and team composition to support Cityworks across departments.
- **Vision and Goals** // Establishing a shared understanding of Cityworks' purpose and long-term value.
- **Training and Skill Development** // Identifying required competencies and creating a roadmap for user training and upskilling.
- **Performance Monitoring** // Leveraging dashboards and KPIs to track progress and drive continuous improvement.
- **Implementation Roadmap** // Outlining a phased, 3-year plan for onboarding new divisions and departments that have expressed interest.

This plan will serve as a foundational document to guide the City's continued investment in Cityworks, ensuring that expansion efforts are strategic, coordinated, and aligned with broader organizational goals.

DO

The second focus area in Woolpert's approach is the "DO" phase—where the majority of the contract's work will be executed in direct support of the City's strategic asset management initiatives. This phase is action-oriented and structured around three key sub-phases:

1. ONGOING CITYWORKS SUPPORT

From the outset of the contract, even as planning activities are underway, Woolpert will provide as-needed support to the City's Cityworks Support Team. Given the current staffing limitations, the team faces challenges in keeping pace with existing requests and expectations. Woolpert proposes initiating this support through an early Task Order, enabling:

- Reduced operational risk
- Improved utilization of the City's Asset Management System
- Continued momentum on current initiatives

This support will ensure that the City's investment in Cityworks continues to deliver value while longer-term strategies are being developed.

2. ONGOING STRATEGIC ASSET MANAGEMENT INITIATIVES

In parallel with Cityworks support, Woolpert is prepared to assist with ongoing asset management initiatives that originated under the previous Watershed Asset Management Plan (WAMP). These efforts may include partially completed tasks or initiatives that require continued attention. Woolpert's team can begin contributing to these efforts immediately, ensuring continuity and minimizing disruption.

3. PLANNED (NEW) STRATEGIC INITIATIVES

Finally, Woolpert will support the implementation of prioritized strategic initiatives as outlined in the City's existing asset management plans. These initiatives represent a continuation of work from the previous contract and may encompass a wide range of activities identified in the City's Request for Qualifications. Woolpert anticipates that these efforts will be executed through a series of Task Orders, each tailored to specific goals and deliverables. Tasks could include such activities as:

- Implementing Asset Management Plans
- Strategy and Decision Making Support
- Asset Condition Assessments
- Data Collection
- GIS/Asset Mapping
- Development of additional Asset Management Plans

CHECK

The third focus area in Woolpert’s approach is the “CHECK” phase—where performance is measured, outcomes are evaluated, and insights are gathered to inform continuous improvement. This phase is essential to ensuring that the City’s asset management efforts remain aligned with strategic goals and deliver measurable value, and occurs following each task order.

Woolpert’s activities in this phase will focus on three core components:

1. PERFORMANCE MANAGEMENT

Woolpert will work closely with the City to establish and refine Key Performance Indicators (KPIs) and performance dashboards that provide real-time visibility into asset management activities. These tools will enable City leadership and staff to:

- Monitor progress against strategic objectives
- Track system usage and adoption across departments
- Identify areas of operational efficiency and inefficiency

By embedding performance management into daily operations, the City can be confident in accountability and data-driven decision-making.

2. RESULTS EVALUATION

In this sub-phase, Woolpert will conduct periodic evaluations of ongoing and completed initiatives. The evaluations will assess:

- Achievement of defined goals and milestones
- Effectiveness of implemented solutions
- User feedback and satisfaction
- Return on investment (ROI) and resource utilization

Evaluation findings will be documented in concise reports and shared with stakeholders to promote transparency and shared understanding.

3. CONTINUOUS IMPROVEMENT

The insights gained from performance monitoring and results evaluation will feed directly into a continuous improvement loop. Woolpert will facilitate regular review sessions with City staff to:

- Identify lessons learned
- Recommend adjustments to strategies, processes, or tools
- Prioritize enhancements for future implementation

This iterative approach ensures that the City’s asset management program remains agile, responsive, and aligned with evolving needs and priorities.

ACT

The final focus area in Woolpert’s approach is the “ACT” phase—where insights gained from planning, execution, and evaluation are translated into meaningful action. This phase ensures that the City of Fort Lauderdale’s asset management program remains dynamic, responsive, and continuously aligned with its strategic goals.

STRATEGIC UPDATES TO THE SAMP

Based on findings from the CHECK phase, Woolpert will support the City in updating its Strategic Asset Management Plans (SAMPs) to reflect:

- Lessons learned from recent initiatives
- Adjustments to performance targets and KPIs
- Evolving organizational priorities and resource availability
- Feedback from stakeholders and system users

These updates will ensure that the AMPs remains living documents—that evolves with the City’s needs and continues to guide decision-making with clarity and purpose.

PROCESS IMPROVEMENTS AND CHANGE MANAGEMENT

Woolpert will also assist in implementing process improvements identified through performance monitoring and results evaluation. This may include:

- Streamlining workflows within Cityworks AMS
- Enhancing data governance and quality control practices
- Refining roles and responsibilities to improve efficiency
- Introducing new training or support mechanisms for staff

Where appropriate, Woolpert will facilitate change management activities to ensure that updates are adopted smoothly and effectively across departments.

INSTITUTIONALIZING CONTINUOUS IMPROVEMENT

To close the loop, Woolpert will help the City institutionalize a culture of continuous improvement by:

- Establishing regular review cycles for the SAMPs and related processes
- Embedding feedback mechanisms into daily operations
- Supporting leadership in using data to drive strategic decisions

By acting on insights and embedding improvements, the City will be well-positioned to sustain and expand the value of its asset management program over time.

Scheduling Methodology Timeline

Given the nature of this five-year task order-based contract, it is not feasible to produce a detailed and accurate schedule at the outset. The scope of work is inherently dynamic, with each task order issued by the City of Fort Lauderdale likely to vary significantly in complexity, duration, and resource requirements. These task orders will be developed and assigned over time based on evolving priorities, funding availability, and organizational needs. As such, any attempt to define a fixed schedule now would be speculative and potentially misleading.

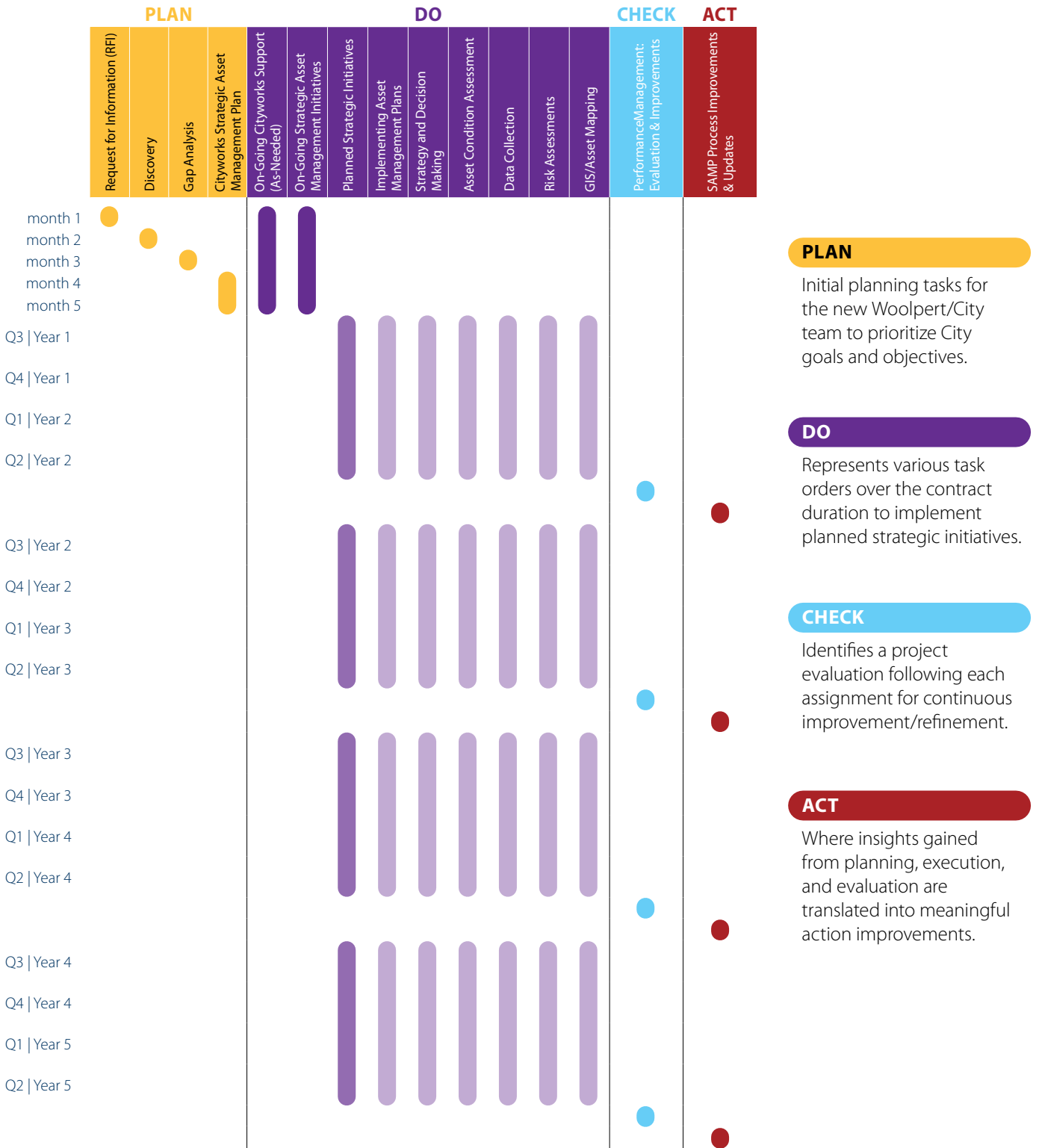
Instead, a conceptual schedule graphic is used to illustrate the overarching methodology and phased approach that Woolpert will follow throughout the contract. This graphic begins with an initial Planning Phase, which is expected to span approximately the first five months of the engagement. During this phase, Woolpert will conduct discovery workshops, perform a gap analysis, and develop foundational documents such as the Cityworks Strategic Asset Management Plan. This early work is critical so that all subsequent efforts are grounded in a shared understanding of the City's current state and strategic direction.

Following the Planning Phase, the schedule graphic depicts a series of iterative "Do, Check, Act" cycles. Each cycle represents a conceptual framework and timeframe for how individual task orders will be executed, evaluated, and refined. While the actual duration and content of each task order will differ, this cyclical model emphasizes the City's commitment to continuous improvement and adaptive management. It also reflects Woolpert's flexible, responsive approach to supporting the City's asset management goals over time.

Ultimately, the conceptual schedule is not intended to serve as a project timeline in the traditional sense, but rather as a visual representation of the contract's strategic rhythm. It communicates the iterative nature of the work and the importance of feedback loops in achieving long-term success. As task orders are issued and completed, the schedule will evolve organically, guided by the principles of strategic alignment, operational insight, and continuous improvement.

Scheduling Methodology Timeline

Our high-level schedule (timeline) for our contract vision is provided below.

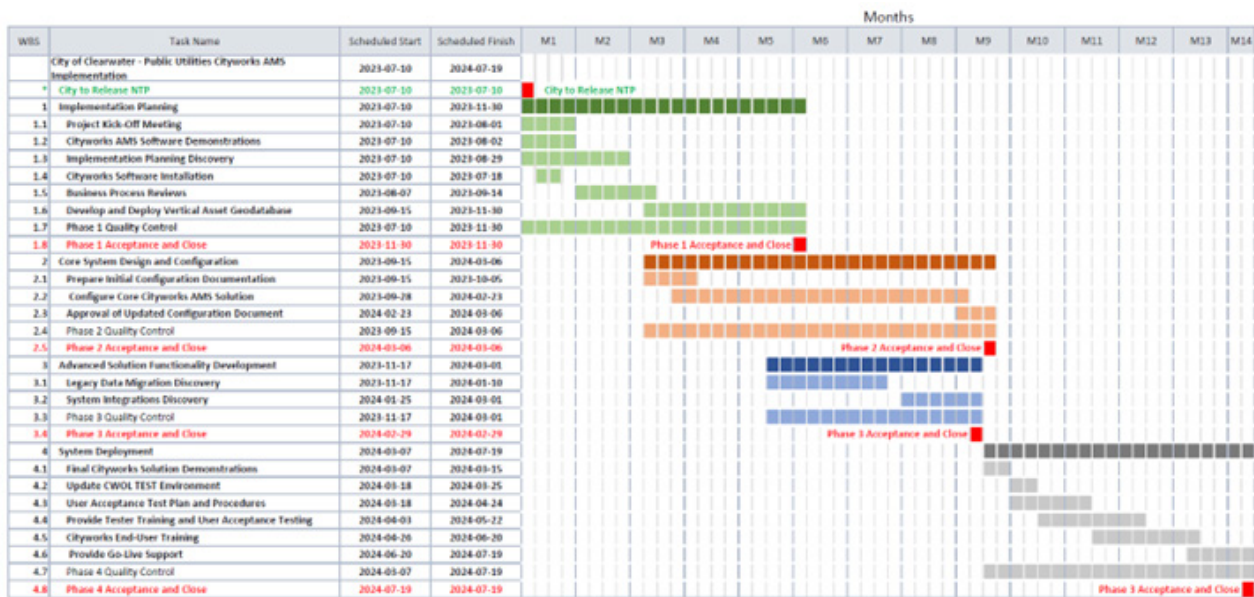


Planning, Scheduling, and Execution with Microsoft Project

Woolpert utilizes **Microsoft Project** as a foundational tool for planning, estimating, and scheduling all project work. From the earliest stages of project development, Woolpert builds a detailed Microsoft Project schedule that defines:

- Tasks and activities
- Dependencies and sequencing
- Resource assignments
- Cost estimates
- Key milestones and deliverables

This schedule serves as the backbone of project execution and is developed prior to drafting the formal Statement of Work (SOW). Once the Microsoft Project plan is complete, Woolpert confirms that the SOW is fully aligned with the schedule—creating a unified and consistent project roadmap.



Statement of Work: Defining the Who, What, Where, When, and How

Each Woolpert SOW is structured to clearly answer the fundamental questions of project delivery:

- Who is responsible for each task (Woolpert and City roles)
- What will be delivered (defined deliverables and outcomes)
- Where the work will be performed (on-site, remote, or hybrid)
- When tasks and milestones will occur (based on the project schedule)
- How the work will be executed (including assumptions, methods, and dependencies)

As we have done for all previous work for the City, each task within the SOW includes clearly defined sections for:

- Woolpert Responsibilities and Deliverables
- Task Assumptions
- City Responsibilities

This structured approach enhances clarity, reduces the risk of miscommunication, and ensures that all stakeholders share a common understanding of project expectations from the outset.

Current Workload

The Woolpert Team's current asset management workload consists of several strategic asset management activities at varying levels of complexity for several international airports in the U.S.; a number of government entities at the national, state, and local level; a few regional river authorities located in the U.S.; and numerous efforts with municipal and county governments. The work proposed by Fort Lauderdale will fit very well into this body of work both in terms of Woolpert's resources, and also in terms of consistency of approach and sharing of lessons learned.

Woolpert's current workload permits us to provide the City with professional asset management consulting services immediately upon notification. The manpower available from Woolpert staff and each of our subconsultants means that ample resources are on hand to begin an assigned task order quickly and efficiently.

Available Resources

The Woolpert Team has a significant number of resources available to support and engage with this effort, including extensive geospatial and data management expertise; architecture, design, and engineering services; and strategic asset management development, implementation, and sustainment experience across a wide variety of industries and levels of government. In addition, Woolpert Team personnel have been thought leaders regarding the development, innovation, and guidance of all these areas, including the development of the SDSFIE geospatial standard, the technical committees for both ISO 55000 and ISO 41000, the National Academy of Sciences, the National Institute of Building Sciences, and numerous other technical organizations.

Between Woolpert and Craven Thompson, together we have two offices in Broward County, one office in Miami, and more than 150+ resources to service the City of Fort Lauderdale's project. Should it ever become necessary, the Woolpert Team is not opposed to adding additional firms to our team to ensure that the City of Fort Lauderdale has all the necessary resources available. Over the course of the past 30 years, Woolpert has developed very strong business relationships with most of the leading engineering and design firms in Southeast Florida. Should the project require additional resources, or a specialty resource not currently available through the existing project team, our team is willing and able to add additional capabilities to the team.

Our technology and resources include, but are not limited to, the following:

- Enterprise asset management system (EAMS)/Cityworks expertise.
- Asset management thought leadership on various national and international committees.
- Two Esri Gold-Level Business Partners
- Local engineering expertise with experience working closely with the City of Fort Lauderdale.
- Local survey capabilities:
 - Aerial mapping.
 - Lidar.
 - Ground survey.
 - Subsurface utility engineering (SUE).
 - 3D scanning (bridges).
 - Mobile 3D scanning (roadway inventory and mapping).
 - Utility inventory data collection, and condition assessment.
 - Hydrographic survey (canals, stormwater outfalls).



Section 5

REFERENCES

REFERENCES

Evaluating a firm’s proven performance and long-standing client relationships offers valuable insight into its capability to consistently meet and exceed client expectations. Woolpert is proud of its strong track record, built on a foundation of trust, collaboration, and results. Our team is deeply committed to partnering with clients to deliver high-quality consulting services and technical expertise that align with their goals and drive long-term success.

A sample of Woolpert's long time, repeat Asset Management clients include:

Pinellas County, Florida

A Trimble Cityworks award-winning client, Pinellas County has partnered with Woolpert for over nine years. Together, we have developed and implemented an ISO 55001-aligned asset management framework, deployed Cityworks AMS across five departments, and completed five system integrations. We continue to collaborate closely to support ongoing improvements and innovation.

Collier County, Florida

A valued Woolpert client for over eleven years, Collier County has benefited from comprehensive Cityworks implementations, asset management consulting, and long-term support services. Our work has included business process reengineering, system integrations, and continuous advisory services to enhance operational efficiency and asset performance.

DeKalb County, Georgia

Over the past six years, Woolpert has supported DeKalb County through six successful Cityworks implementations, two system integrations, GIS geodatabase schema design, and a range of data migration services. This partnership reflects our commitment to delivering scalable, data-driven solutions tailored to the County’s evolving needs.

City of Savannah, Georgia

A Woolpert client since 2012, the City of Savannah continues to expand its use of Cityworks with our support. We are currently assisting the City in developing a GIS Strategic Implementation Plan and transitioning its on-premise Cityworks environment to Cityworks Online (CWOL)— a modernization effort similar to a recently completed effort for the City of Fort Lauderdale.

To hear exactly what our clients are saying about our professional services, please visit or click the following links:

- Jerry Philpot, City of Augusta, GA: <http://bit.ly/JerryPhilpot>
- Amber Reynolds, formerly with the City of Topeka, KS: <http://bit.ly/AmberReynolds>
- Michele Pearman, formerly with the City of Augusta, GA: <http://bit.ly/MichelePearman>
- Elthron Anderson, Southgate Water and Sanitation Districts, CO: <http://bit.ly/ElthronAnderson>

On the following pages, we have provided five references from similar clients. Full project descriptions for each reference have been included within Section 3 of this submittal. We welcome the City to contact any of the references listed.

What some of our clients have to say...

“The best implementation anywhere, anytime in the City, in the history of the City of Augusta.”

—Michele Blackburn Pearman, GIS Manager, City of Augusta, Georgia

“Woolpert exceeded our expectations, provided timely deliverables, engaged staff and management, and ultimately provided a complete strategic vision for us to work from.”

—Mike Haynes, Chief Operating Officer, Seattle City Light

“Woolpert is... one our longest and most successful partners.”

—Brian L. Haslam, President, Azteca Systems

Pinellas County, Florida

Steve Alston, Program Manager, Office of Asset Management

727.453.3133

salston@pinellascounty.org

509 East Avenue South, Clearwater, FL 33756

Year Completed: 2016-Present

Total Cost: \$11 million (estimated), \$11 million (actual)

Description of Work: Woolpert worked with Pinellas County to develop an asset management framework and was subsequently tasked with the implementation of the county's selected asset management software, Cityworks AMS (now Unity Maintain). As a result, the ISO framework alignment accomplished a positive organizational transformation and improved the way county employees tackled their day-to-day work management and long-term asset sustainability endeavors. In addition, the Cityworks AMS implementation has enabled the county to track and maintain its assets, meet its business management needs, and more readily provide services to its citizens.

Services Provided

- Asset Management Policy
- Strategic Asset Management Strategy
- Asset Management Framework Development
- Organization and Staffing Plan (created an Office of Asset Management)
- Individual Asset Management Plans
- Organizational Change Management
- Legacy EAMS/CMMS Solution Migration/Replacement

Medford Water, Oregon

Chad Glass, Senior IT Administrator

541.774.2465

chad.glass@medfordwater.org

200 South Ivy Street #177, Medford, OR 97501

Year Completed: 2022

Total Cost: \$250,000 (estimated), \$250,000 (actual)

Description of Work: Woolpert was hired to improve Medford Water's asset management practices across the entire organization and develop strategies to help make their IT systems more efficient. Woolpert conducted extensive interviews and workshops across Medford Water to gather the necessary information, business process insights, and individual expertise. The team helped communicate the need for and benefits of the proposed improvements. This information informed and supported the implementation of ISO 55000-aligned asset management principles and best practices, along with support for their planned acquisition of a new computerized maintenance management software solution to integrate into the overall asset management framework.

Services Provided

- Asset Management Policy
- Asset Management Strategy
- Strategic Asset Management Plan
- Asset Management Plans for Water Treatment Plant and Distribution System
- CMMS Needs Assessment and Software Specification Development
- Legacy EAMS/CMMS Solution Migration/Replacement

City of Greeley, Colorado

Nina Cudahy, Deputy Director (formerly), Currently Water Quality Division Director at Pinellas County, FL
 727.464.4000 // ncudahy@pinellascounty.org
 1001 11th Ave 2nd Floor, Greeley, CO 80631

Year Completed: 2023

Total Cost: \$500,000 (estimated), \$563,000 (actual – additional services)

Description of Work: Woolpert led a series of workshops across the City’s enterprise to develop the City’s first asset management policy and SAMP. These two documents were adopted citywide and were used to create a detailed Asset Management Plan (AMP) for the wastewater treatment assets. These three documents formulated the design and configuration of the Cityworks AMS for Water and Sewer. Cityworks is being deployed to approximately 175 users across distribution, collection, non-potable, high mountain reservoirs, water treatment, and water reclamation divisions.

Services Provided

- Asset Management Program Development
- CMMS Implementation for Water and Sewer Division
- Vertical GIS Schema Development for Treatment Plants
- Reporting/Dashboard Development and Training

Greenville Utilities Commission (GUC), North Carolina

Andy Anderson, Director of IT
 252.752.7166 // andersag@guc.com
 401 S. Greene Street, Greenville, NC 27834

Year Completed: 2025

Total Cost: \$1.5 million (estimated total program), \$1.5 million (actual)

Description of Work: As part of a much larger asset management consulting and implementation program, Woolpert facilitated the development of a SAMP for GUC through a series of on-site workshops and remote meetings. The engagement focused on guiding GUC leadership in drafting an asset management policy, first-generation asset management strategies, and asset-specific management plans. The completed work, conducted in alignment with ISO 55000 standards and the IAM guidelines, established a foundational SAMP framework aligning GUC’s asset management practices with its corporate objectives and long-term strategic goals.

Services Provided

- Asset Management Policy
- Asset Management Strategy

Seminole Tribe of Florida, Florida

Randy Fouch
 954.203.1034 // ranthusfouch@semtribe.com
 5700 Griffin Road, Davie, FL 33314

Year Completed: 2021-Present

Total Cost: \$500,000 (estimated), \$500,000 (actual)

Description of Work: The Seminole Tribe of Florida has used Cityworks AMS for over a decade but recognized it was not fully utilized as a comprehensive asset management system. To enhance operational efficiency, the Tribe partnered with Woolpert to develop a SAMP. Woolpert began by providing foundational asset management training to align the implementation team. The team then collaborated with the Tribe to gather key data and created a phased, three-year EAM implementation plan. With the plan approved, the Tribe began the implementation, starting with water distribution and wastewater collection systems. Cityworks AMS is now being deployed for Water Treatment Plants, with future phases planned for Transportation, Wastewater Treatment Plants, and Solid Waste Departments. This strategic approach is transforming the Tribe’s Cityworks platform into a robust enterprise asset management tool that supports long-term operational excellence.

Services Provided

- Asset Management 101 Training
- Enterprise Asset Management Implementation Plan
- GIS Geodatabase Schema Consulting, Design, Development
- Cityworks EAM Implementation for Water and Wastewater
- Cityworks EAM Implementation for Water Treatment Plants
- Cityworks EAM Implementation for Transportation Department (currently in contracting)



Section 6

MINORITY/WOMEN (M/WBE) PARTICIPATION

MINORITY/WOMEN (M/WBE) PARTICIPATION

Although no M/WBE firms are being proposed for this contract, Woolpert supports the cities and communities in which we work by engaging local subconsultants, especially disadvantaged business enterprise (DBE) subconsultants, whenever practical. Woolpert believes in the importance of providing quality opportunities to DBEs.

In addition to utilizing the services of our DBE consultants, we provide them with quality opportunities for growth, development, and experience. We believe in developing quality DBE teammates to continue working with in the future. To this end, we strive to accomplish the following goals through each project opportunity.

THE BENEFITS OF DIVERSE BUSINESS PARTNERSHIPS



New Experiences

Diverse businesses gain **broader experiences** that build their resumes



Consultant Relationships

Diverse businesses enjoy **increased exposure** and improved competitiveness



New Technology

Diverse businesses can **learn emerging technologies**



More Opportunities

Diverse businesses **develop new skill sets** which increase priming opportunities

- **Improving long-term development.** Many of the firms we work with provide excellent services of high quality. However, many of them have not had the opportunity to be competitive as a prime consultant due to lack of specific experience. Woolpert provides tasks and assignments that will increase the firm's level of experience for future opportunities.
- **Increasing abilities to participate in a variety of work and handle increasingly significant projects.** We offer subconsultant firms the chance to gain much-needed experience by supporting tasks they may not have had exposure to on past projects. This experience can prepare them for future opportunities and give clients an introduction to their capabilities.
- **Developing capabilities to utilize emerging technology.** Whenever possible, Woolpert strives to expose DBE firms to technology they may not currently have access to. Working on our team gives them the ability to learn emerging technology under our experienced staff.
- **Helping achieve self-sufficiency.** Partnering with Woolpert allows many of our subconsultant firms the opportunity to shadow a larger firm throughout the entire life cycle of a project. By seeing each phase of a project in action, these firms can gain valuable experience allowing them to ultimately pursue a wider variety of projects on their own.

Woolpert views DBE participation as an opportunity to mentor small businesses in facets of projects that are outside of their normal exposure. Working side by side with these firms gives them the chance to grow and mature in their prospective disciplines, learning from a more experienced firm. This also allows Woolpert to share knowledge and experiences. When disadvantaged businesses succeed, grow, and develop new skills, Woolpert is proud to be a part of that growth process.



Section 7

SUBCONTRACTORS

SUBCONTRACTORS

Woolpert is proud to present a highly capable and collaborative team for the City of Fort Lauderdale, consisting of Woolpert (prime consultant), Craven Thompson & Associates, and Cultivate Geospatial Solutions (CGS). We have built strong, trusted relationships with both firms and successfully partnered together on numerous projects that address complex challenges in asset management, data collection, GIS, and engineering.

Woolpert frequently collaborates with CGS on enterprise asset management initiatives across various sectors. Their thought leadership and technical depth consistently enhance the quality and innovation of our joint engagements.

We recognize that effective team management is essential to the success of this contract. Woolpert brings the following strengths to coordinate with our team members and deliver high-quality solutions.

- **Collaborative Mindset** // Woolpert fosters a culture of partnership—internally, with our teammates and clients. We are committed to mutual respect, fairness, and shared success. For each task order, we will assign the most qualified team members to meet the City’s specific needs and expectations.
- **Commitment to the City’s Goals** // Woolpert is fully dedicated to supporting the City of Fort Lauderdale in achieving its objectives. If a task order requires expertise beyond our current team, we are prepared to engage additional qualified subcontractors so that the City receives the best possible service. Our flexible, responsive approach provides continuity and project excellence throughout the project life cycle.
- **Proven Team Synergy** // Our team has a history of successful collaboration, built on aligned values, open communication, and a shared commitment to quality. These established relationships enable us to function as a cohesive, integrated unit—ready to deliver results from day one.
- **Extensive Team Management Experience** // Woolpert has deep experience managing large, multidisciplinary teams across geographically dispersed locations. We utilize proven tools such as project collaboration platforms, synchronized calendars, and virtual meeting environments to clearly communicate and effectively coordinate with team members. Our approach is designed to overcome logistical challenges and maintain momentum across all phases of the project.

Cultivate Geospatial Solutions

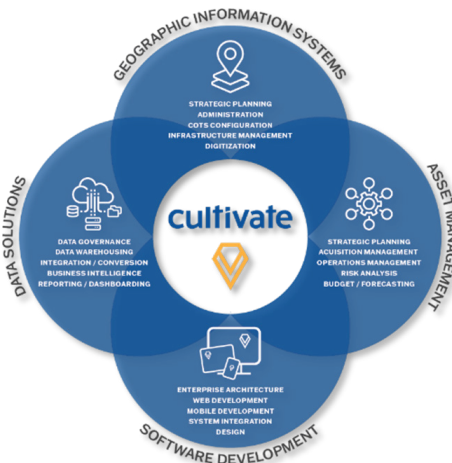
Cultivate Geospatial Solutions, doing business as Cultivate Geospatial Solutions (CGS), is a nationally recognized consulting firm dedicated to serving the public sector through expert geospatial data solutions, EAM strategy, and GIS implementation. Headquartered in Indianapolis, Indiana, CGS has strategic Florida offices in Orlando and Tampa and staff strategically



located across the United States. CGS delivers end-to-end support for municipal infrastructure asset management, data governance, and Capacity, Management, Operations, and Maintenance Programs (CMOM) program development.

CGS has extensive experience in developing and implementing comprehensive Asset Management Plans (AMPs) and CMOMs in alignment with the EPA CMOM guidelines (EPA 305-B-05-002), the IAM framework, and international asset management standards ISO 55000, 55001, 55002, and PAS 55-1/55-2. Their team has led large-scale citywide assessments for public works assets, including data collection, field verification, condition assessments, and GIS-based risk analysis.

CGS specializes in data migration, validation, and conversion services to build high-quality, georeferenced GIS databases that feed directly into clients’ asset management systems. Their team has over 200 years of collective GIS experience, including more than 75 years in asset data governance and life cycle asset data solutions. CGS routinely assists municipalities in transitioning legacy data into modern, cloud-based environments—delivering data



Cultivating Infrastructure Leadership through GIS, AM, and Data Intelligence Software Solutions.

integrity, spatial accuracy, and long-term usability.



CGS is a prestigious Esri Gold-Level Business Partner, a designation reserved for firms with deep expertise, sustained excellence, and a demonstrated commitment to advancing the Esri platform. With over 45 cumulative years of Esri partnership and former Esri staff, CGS leverage Esri’s latest technologies—such as ArcGIS Enterprise, Field Maps, Experience Builder, and ArcGIS Indoors—to power web and mobile solutions that transform infrastructure decision-making. Their close relationship with Esri provides early access to new capabilities, streamlined issue resolution, and unmatched technical insight.

CGS provides the following services directly aligned with the City’s needs:

- **AMP and CMOM Development** across all infrastructure categories including stormwater, water, wastewater, roadways, seawalls, and bridges.
- **Citywide Asset Assessments** that incorporate geospatial data, physical condition ratings, and life cycle performance analytics.
- **GIS Database Construction and Migration** tailored for integration with asset management systems such as Cityworks, and other CMMS/EAM platforms.
- **Risk Assessment Plans** based on criticality analysis and GIS-enabled decision support models.
- **Strategic Financial Forecasting** to support AMP prioritization and investment planning.
- **Grant Research and Coordination** to assist with financing capital improvement and resilience projects.
- **Training and Outreach Services** to build in-house capacity, engage stakeholders, and sustain program success.

CGS maintains deep technical expertise across Esri’s ArcGIS ecosystem and supports technologies such as Microsoft, Oracle, AWS, PostgreSQL, Safe Software FME, and open-source platforms. They bring credentialed experts including:

- IAM Asset Management Fellows.
- GIS Professionals (GISP).
- Certified Project Management Professionals (PMP).
- Certified Scrum Masters.
- Technical specialists in geotechnical, environmental, and infrastructure disciplines.

CGS understands the complexity of managing diverse municipal assets and routinely partners with subject matter experts and subconsultants in stormwater modeling, structural engineering, coastal resilience, traffic safety, environmental permitting, surveying (including hydrographic and benthic), and electrical/mechanical design. Their collaborative approach enables each



project to meet technical standards, regulatory compliance, and community expectations.

Craven Thompson & Associates

Craven Thompson & Associates, Inc. (CTA), a corporation registered in Florida, was founded in 1962 with offices in Delray Beach and Fort Lauderdale and has a large group of professional engineers, graduate engineers, surveyors, GIS specialists, landscape architects and planners. CTA has been providing civil engineering, surveying and CEI services for the past 63 years, landscape architectural services for the past 46 years, and GIS services for the past 19 years.

CTA is a seventy-person corporation led by Mr. Thomas McDonald. The firm consists of three separate departments including: the Civil Engineering Department (includes Construction Management, Administration, and Inspection), Landscape Architecture Department (includes Land Planning), and Surveying and GIS Department.

CTA's composition of 70 employees consists of three professional landscape architects, two landscape designers, two planners, 24 civil engineers, 22 surveyors and GIS specialists (including field crews), two construction managers, six construction inspectors, and administrative support personnel.

Their combination of dedicated professionals, innovative ideas, and diverse technical capabilities has been the basis of CTA's service offerings, along with their aggressive use of technology, sound business principles, and focus on customer satisfaction. Known for their innovative problem-solving ideas, they offer clients a broad range of services based on a combination of technological innovation, progressive state-of-the-art solutions and experience.

CTA focuses on the client's needs while being both time and cost conscious. To meet this challenge, they strive to maintain technical expertise on a variety of engineering, GIS, and surveying software, equipment, and applications. These platforms allow CTA to constantly improve their services, thus providing clients with greater problem-solving abilities.

CRAVEN THOMPSON



& ASSOCIATES INC.

What some of CTA's clients have to say...

"The City of North Miami finds Craven Thompson to be very responsive and accessible and is extremely satisfied with the services they have provided."

—Mr. Chuks Okereke, P.E.
City Engineer, City of North Miami

"...I have worked very closely with their staff over the past 12 years and have always found CTA to be very professional, responsive and competent in their work..."

—Mr. Mike Crowley
District Manager, Central Broward Water Control District

"This firm has done an excellent job in performing surveying, engineering, and landscape architectural tasks on behalf of the City of Hallandale Beach."

—Mr. Gregg Harris
Manager of Capital Projects, City of Hallandale Beach

"Craven Thompson and Associates has completed each project on time and under budget with special emphasis placed on public awareness. They do not file frivolous amendment requests and they pay attention to directives and specifications. I plan to work with them on future Neighborhood projects and highly recommend them."

—Mr. Alan W. Garcia, PE
Director Water and Wastewater Services Broward County Public Works Department



Section 8

REQUIRED FORMS

REQUIRED FORMS

City of Fort Lauderdale

CONSTRUCTION BID CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted electronically through www.BidSync.com prior to the bid opening date and time listed. Paper bid submittals will not be accepted. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the Department of State, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration)

Address:

City: State: Zip:

Telephone No.: FAX No.: Email:

Check box if your firm qualifies for MBE / SBE / WBE:

If a corporation, state the name of the President, Secretary and Resident Agent. If a partnership, state the names of all partners. If a trade name, state the names of the individuals who do business under the trade name.

| | | | |
|---|--|---|--|
| <input type="text" value="Neil Churman"/> Name | <input type="text" value="President & CEO"/> Title | <input type="text" value="Salman Rashid"/> Name | <input type="text" value="Chief Financial Officer"/> Title |
| <input type="text" value="Scott Cattran"/> Name | <input type="text" value="Executive Chairman"/> Title | <input type="text" value="Carl Lucas"/> Name | <input type="text" value="Chief Information Officer"/> Title |

ADDENDUM ACKNOWLEDGEMENT - Bidder acknowledges that the following addenda have been received and are included in the proposal:

| <u>Addendum No.</u> | <u>Date Issued</u> | <u>Addendum No.</u> | <u>Date Issued</u> | <u>Addendum No.</u> | <u>Date Issued</u> |
|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

VARIANCES: If you take exception or have variances to any term, condition, specification, or requirement in this bid you must specify such variance in the space provided below or reference in the space provided below all variances contained on other pages within your bid. Additional pages may be attached if necessary. No variances will be deemed to be part of the bid submitted unless such is listed and contained in the space provided below. The City does not, by virtue of submitting a variance, necessarily accept any variances. If no statement is contained in the below space, it is hereby implied that your response is in full compliance with this competitive solicitation. If you do not have variances, simply mark N/A. **You must also click the "Take Exception" button.**

The below signatory affirms that he has or will obtain all required permits and licenses from the appropriate agencies, and that his firm is authorized to do business in the State of Florida. The below signatory agrees to furnish all labor, tools, material, equipment and supplies, and to sustain all the expense incurred in doing the work set forth in strict accordance with the bid plans and contract documents at the unit prices indicated if awarded a contract. The below signatory has not divulged to, discussed, or compared this bid with other bidders, and has not colluded with any other bidder or parties to this bid whatsoever. Furthermore, the undersigned guarantees the truth and accuracy of all statements and answers contained in this bid. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a bid, that in no event shall the City's liability for bidder's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the City's protest ordinance contained in this competitive solicitation.

Submitted by:

Name (printed)

Signature

Date

Title

City of Fort Lauderdale

QUESTIONNAIRE SHEET

PLEASE PRINT OR TYPE:

Firm Name:

President

Business Address:

Telephone:

Fax:

E-Mail Address:

What was the last project of this nature which you completed? Include the year, description, and contract value.

The following are named as three corporations and representatives of those corporations for which you have performed work similar to that required by this contract, and which the City may contact as your references (include addresses, telephone numbers and e-mail addresses). Include the project name, year, description, and contract value.

-
-
-

How many years has your organization been in business?

Have you ever failed to complete work awarded to you; if so, where and why?

The name of the qualifying agent for the firm and his position is:

Certificate of Competency Number of Qualifying Agent:

Effective Date: Expiration Date:

Licensed in:

Engineering Contractor's License #
 (County/State)

Expiration Date:

City of Fort Lauderdale

NOTE: To be considered for award of this contract, the bidder must submit a financial statement upon request.

NOTE: Contractor must have proper licensing and shall provide copy of same with his proposal.

QUESTIONNAIRE SHEET

1. Have you personally inspected the proposed work and have you a complete plan for its performance?

Yes.

2. Will you sublet any part of this work? If so, list the portions or specialties of the work that you will.

a) AMP & CMOM development, asset assessments

b) Training & Outreach Services

c) GIS Database Construction & Migration

d) Risk Assessment Plans

e) Strategic Financial Forecasting, Grant Research

f) Surveying software, equipment, applications

g)

3. What equipment do you own that is available for the work?

The vast majority of the equipment that is needed for the core services of the contract is all software to be used in the development and execution of the asset management plans, and we have all of the software necessary.

Other equipment that might be needed, for the most part, would be for surveying, mapping, and condition assessment. As a Professional Surveying and Mapping firm, we also have all of that necessary equipment and software (i.e. GPS, aerial lidar, aerial camera, GPR, 3D Mobile Scanners, Static scanners, and other survey equipment.)

4. What equipment will you purchase for the proposed work?

None

5. What equipment will you rent for the proposed work?

None

REFERENCES

A minimum of three (3) references shall be provided:

1. Company Name:

Address:

Contact:

Phone #: **Email:**

Contract Value: **Year:**

Description:

2. Company Name:

Address:

Contact:

Phone #: **Email:**

Contract Value: **Year:**

Description:

3. Company Name:

Address:

Contact:

Phone #: **Email:**

Contract Value: **Year:**

Description:

4. Company Name:

Address:

Contact:

Phone #: Email:

Contract Value: Year:

Description:

As part of a much larger asset management consulting and implementation program, Woolpert facilitated the development of a SAMP for GUC through a series of on-site workshops and remote meetings. The engagement focused on guiding GUC leadership in drafting an asset management policy, first-generation asset management strategies, and asset-specific management plans.

5. Company Name:

Address:

Contact:

Phone #: Email:

Contract Value: Year:

Description:

Woolpert began by providing foundational asset management training to align the implementation team. The team then collaborated with the Tribe to gather key data and created a phased, three-year EAM implementation plan. With the plan approved, the Tribe began the implementation, starting with water distribution and wastewater collection systems. Cityworks AMS is now being deployed for Water Treatment Plants, with future phases planned for Transportation, Wastewater Treatment Plants, and Solid Waste Departments. This strategic approach is transforming the Tribe's Cityworks platform into a robust enterprise asset management tool that supports long-term operational excellence.



NON-COLLUSION STATEMENT

By signing this offer, the vendor/contractor certifies that this offer is made independently and *free* from collusion. Vendor shall disclose below any City of Fort Lauderdale, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement.

Any City of Fort Lauderdale, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement.

For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

In accordance with City of Fort Lauderdale, FL Policy and Standards Manual, 6.10.8.3,

3.3. City employees may not contract with the City through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g., ownership of five (5) percent or more).

3.4. Immediate family members (spouse, parents, and children) are also prohibited from contracting with the City subject to the same general rules.

Failure of a vendor to disclose any relationship described herein shall be reason for debarment in accordance with the provisions of the City Procurement Code.

| <u>NAME</u> | <u>RELATIONSHIPS</u> |
|-------------|----------------------|
| _____ | _____ |
| _____ | _____ |
| | _____ |
| | _____ |

In the event the vendor does not indicate any names, the City shall interpret this to mean that the vendor has indicated that no such relationships exist.

B. W. Dickerson

 Authorized Signature
 Bryan Dickerson

 Name (Printed)

Sector Leader

 Title
 6/26/25

 Date



**CONTRACTOR'S CERTIFICATE OF COMPLIANCE WITH
NON-DISCRIMINATION PROVISIONS OF THE CONTRACT**

The completed and signed form should be returned with the Contractor's submittal. If not provided with submittal, the Contractor must submit within three business days of City's request. Contractor may be deemed non-responsive for failure to fully comply within stated timeframes.

Pursuant to City Ordinance Sec. 2-17(a)(i)(ii), bidders must certify compliance with the Non-Discrimination provision of the ordinance.

- A. Contractors doing business with the City shall not discriminate against their employees based on the employee's race, color, religion, gender (including identity or expression), marital status, sexual orientation, national origin, age, disability, or any other protected classification as defined by applicable law.

Contracts. Every Contract exceeding \$100,000, or otherwise exempt from this section shall contain language that obligates the Contractor to comply with the applicable provisions of this section.

The Contract shall include provisions for the following:

- (i) The Contractor certifies and represents that it will comply with this section during the entire term of the contract.
- (ii) The failure of the Contractor to comply with this section shall be deemed to be a material breach of the contract, entitling the City to pursue any remedy stated below or any remedy provided under applicable law.

Bryan Dickerson, Sector Leader

Authorized Signature

Print Name and Title

6/26/25

Date



CONTRACT PAYMENT METHOD

The City of Fort Lauderdale has implemented a Procurement Card (P-Card) program which changes how payments are remitted to its vendors. The City has transitioned from traditional paper checks to credit card payments via MasterCard or Visa as part of this program.

This allows you as a vendor of the City of Fort Lauderdale to receive your payments fast and safely. No more waiting for checks to be printed and mailed.

In accordance with the contract, payments on this contract will be made utilizing the City's P-Card (MasterCard or Visa). Accordingly, bidders must presently have the ability to accept the credit card or take whatever steps necessary to implement acceptance of a card before the start of the contract term, or contract award by the City.

All costs associated with the Contractor's participation in this purchasing program shall be borne by the Contractor. The City reserves the right to revise this program as necessary.

By signing below, you agree with these terms.

Please indicate which credit card payment you prefer:

MasterCard

Visa

Woolpert, Inc.

Company Name

Bryan Dickerson

Name (Printed)

Signature

Sector Leader

Title

6/26/25

Date



E-VERIFY AFFIRMATION STATEMENT

Event 454 - Public Works Asset
Solicitation/Bid /Contract No: Management Consulting Services

Project Description:
Asset Management Planning services for various City of Fort Lauderdale Public Works Asset Groups.

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E-Verify System to verify the employment eligibility of,

- A. all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
- B. all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name: Woolpert, Inc.

Authorized Company Person's Signature: 

Authorized Company Person's Title: Sector Leader

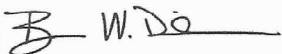
Date: 6/26/25

AFFIDAVIT OF COMPLIANCE WITH FOREIGN ENTITY LAWS
(Florida Statute- §287.138, 692.201, 692.202, 692.203, and 692.204)

The undersigned, on behalf of the entity listed below ("Entity"), hereby attests under penalty of perjury as follows:

1. Entity is not owned by the government of a foreign country of concern as defined in Section 287.138, Florida Statutes. (Source:§ 287.138(2)(a), Florida Statutes)
2. The government of a foreign country of concern does not have a controlling interest in Entity. (Source:§ 287.138(2)(b), Florida Statutes)
3. Entity is not organized under the laws of, and does not have a principal place of business in, a foreign country of concern. (Source: § 287.138(2)(c), Florida Statutes)
4. Entity is not owned or controlled by the government of a foreign country of concern, as defined in Section 692.201, Florida Statutes. (Source:§ 288.007(2), Florida Statutes)
5. Entity is not a partnership, association, corporation, organization, or other combination of persons organized under the laws of or having its principal place of business in a foreign country of concern, as defined in Section 692.201, Florida Statutes, or a subsidiary of such entity. (Source: § 288.007(2), Florida Statutes)
6. Entity is not a foreign principal, as defined in Section 692.201, Florida Statutes. (Source: § 692.202(5)(a)(I), Florida Statutes)
7. Entity is in compliance with all applicable requirements of Sections 692.202, 692.203, and 692.204, Florida Statutes.
8. **(Only applicable if purchasing real property)** Entity is not a foreign principal prohibited from purchasing the subject real property. Entity is either (a) not a person or entity described in Section 692.204(1)(a), Florida Statutes, or (b) authorized under Section 692.204(2), Florida Statutes, to purchase the subject property. Entity is in compliance with the requirements of Section 692.204, Florida Statutes. (Source:§§ 692.203(6)(a), 692.204(6)(a), Florida Statutes)
9. The undersigned is authorized to execute this affidavit on behalf of Entity.

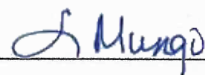
Name: Bryan Dickerson Title: Sector Leader Entity: Woolpert, Inc.


Signature:  Date: 6/26/25

NOTARY PUBLIC ACKNOWLEDGEMENT SECTION

STATE OF South Carolina
COUNTY OF Lancaster

The foregoing instrument was acknowledged before me, by means of physical presence or online notarization, this 26th day of June 2025, by Bryan Dickerson, as Sector Leader for Woolpert, Inc., who is personally known to me or who has produced N/A as identification.

Notary Public Signature: 
Print Name: Lashawn Mungo

(Notary Seal) 
My commission expires: 10/25/33



Appendix

LICENSES

Woolpert - SIGNING AUTHORITY

AUTHORIZATION OF CONTRACT SIGNING AUTHORITY FOR PROJECT RELATED CONTRACTS

Effective the 1st day of April, 2025, pursuant to the authority granted to the President of Woolpert, Inc. (the "Corporation"), by the Action by Written Consent executed by the members of the Board of Directors dated the 30th day of October, 2018, each employee listed below is hereby granted certain authority to sign project services and project pursuit related contracts on behalf of the Corporation. Except as provided otherwise, each employee who is granted contract signing authority can only sign contracts pertaining to projects to be performed within his or her own Sector, Market, Practice, or business function of Woolpert, only up to the dollar limit provided to that person as shown on the list unless signing on behalf and with the consent of another individual with contract signing authority but only for the Sector, Market, Practice, or business function and contract signing authority limit of the other individual with contract signing authority. Authority is delineated based on the underlined headings below.

BUILDINGS SECTOR

| | Authority Limit |
|---|------------------------|
| Suzette Stoler – Sector Leader | \$7M |
| Don Hayes – Director of Operations (primarily US) | \$2M |
| Jose Ramon-Prados – Director of Operations (primarily Europe, Africa and Australia) | \$2M |
| Doug Brown – Market Director, Federal | \$2M |
| Jose Lugo – Market Director, Private/Public | \$2M |
| Christina Parr – Market Director, Advisory Services | \$2M |
| Neil Sheehan – Market Director, Mission Critical | \$2M |
| Chris Shrodes – Discipline Leader, Project Management | \$2M |
| Gus Barrera – Discipline Leader, Architecture | \$1M |
| Ann Hofsis – Discipline Leader, Management Consulting | \$500K |

GEOSPATIAL SECTOR

| | Authority Limit |
|--|------------------------|
| Amar Nayegandhi – Sector Leader | \$7M |
| Mike Meiser – Director of Operations | \$2M |
| Jon Downey – Director of Geospatial Products | \$2M |
| Rick Bennett – Market Director, Woolpert Digital Innovations | \$1M |
| Bob Wood – Market Director, Data Cloud Solutions | \$1M |
| Kristi Norman – Market Director, Energy Geospatial | \$1M |
| Jeff Lovin – Market Director, Government Solutions | \$2M |
| Joseph Palermo – Market Director, National Security | \$2M |
| Dave Neff – Market Director, Maritime | \$2M |
| Brian Nicholls – Market Director, Woolpert APAC | \$2M |
| Leon Kettles – Managing Director, Woolpert Africa | \$2M |
| Vincent Sclafani – Practice Leader, GS Support Services | \$1M |
| Mike Harper – Discipline Director, Global Aircraft Operations Leadership | \$1M |
| Erik Mueller – Discipline Director, Vessel-based Bathymetry Program Management | \$1M |
| John Gerhardt – Program Director, Government Solutions | \$500K |
| Dan Krumiell – Sales Director | \$500K |

INFRASTRUCTURE SECTOR

| | Authority Limit |
|--|------------------------|
| Bryan Dickerson – Sector Leader | \$7M |
| David Kuxhausen – Director of Operations | \$2M |
| Judi Craig – Market Director, Transportation | \$2M |
| Eric Risner – Market Director, Aviation | \$2M |
| Jim Schlaman – Market Director, Water & Energy Utilities | \$2M |
| Sam Talje – Market Director, South Region | \$2M |
| Travis Vallin – Sales Director, Aviation | \$1M |
| Judy Beale – Practice Leader, Transportation | \$1M |

Woolpert - SIGNING AUTHORITY

| | |
|--|--------|
| Nate Fischer – Practice Leader, Transportation | \$1M |
| JP Johns – Practice Leader, Utilities | \$1M |
| Jason Montgomery – Practice Leader, Utilities | \$1M |
| Carla Muscarella – Practice Leader, Utilities | \$1M |
| Zach Shuman – Practice Leader, Aviation | \$1M |
| Jason Virzi – Practice Leader, Aviation | \$1M |
| Jen Kouns – Discipline Leader, Technology Services | \$500K |
| Ian Lesko – Discipline Leader, Construction Engineering & Inspection | \$500K |
| Tom Mackie – Discipline Leader, Survey & Geomatics | \$500K |

EXECUTIVE OFFICERS

Authority Limit

| | |
|--|---|
| Scott Cattran – Executive Chairman | \$25M, No Limit with Second Executive Officer Signature |
| Neil Churman – President/Chief Executive Officer | \$25M, No Limit with Second Executive Officer Signature |
| Salman Rashid – Chief Financial Officer | \$25M, No Limit with Second Executive Officer Signature |

LEGAL DEPARTMENT

Authority Limit


| | |
|---------------------------------|------|
| Jeb Bolton – In-House Counsel | \$7M |
| Oliver Brown – In-House Counsel | \$7M |
| Brian Jansen – In-House Counsel | \$7M |

The President, CEO, CFO, Executive Chairman, and designated In-House Counsel may sign contracts for any Sector, Market, Practice, or for any business function of Woolpert. Contract signing authority may be revoked at any time at the discretion of the President. Notwithstanding, any individual who has contract signing authority may sign a contract for an amount in excess of his or her contract signing authority and/or for another Sector, Market, Practice, or business function provided the individual has written authority (an email is acceptable) to sign the contract from an individual who otherwise has contract signing authority within approved dollar limits for the applicable Sector, Market, Practice, or business function. For clarification, master agreements and indefinite delivery indefinite quantity (IDIQ) agreements, for which task or purchase orders will be issued in connection with such agreement may be signed by any individual with contract signing authority subject to such agreement pertaining to the applicable Sector, Market, or Practice of the individual with contract signing authority. The limits on contract signing authority shall apply to the individual task or purchase orders issued in connection with such master and IDIQ agreements.

Such authority will terminate and expire in the event that the designated individual leaves the employ of the Corporation or is assigned a different position in the Corporation and is not granted new contract signing authority. The authority herein replaces authority previously granted by the President/CEO or the Board prior to the date written above.

With respect to capital or operating expenses (i.e. contracts other than for services), signing authority is restricted and must comply with the Company’s Contract Signing Authority Policy as it relates to capital and operating expenses.

The authority above does not include the right to sign checks or borrow money on behalf of the Company.

Signed by:

 AA45109EFA114EA...

Woolpert

State of Florida Department of State

I certify from the records of this office that WOOLPERT, INC. is an Ohio corporation authorized to transact business in the State of Florida, qualified on September 27, 2004.


The document number of this corporation is F04000005579.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on January 13, 2025, and that its status is active.

I further certify that said corporation has not filed a Certificate of Withdrawal.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Thirteenth day of January,
2025*




Secretary of State

Tracking Number: 426854443CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

Woolpert

| | | | | |
|---|-----------------|---------------|----------------|---------------|
| 1 | | | | |
| WOOLPERT INC | | | | |
| ATTN: TESS CARAWAN 4454 IDEA CENTER BLVD, DAYTON, OH 45430-1500 | | | | |
| Phone: 757-231-3605 Email:tess.carawan@woolpert.com | | | | |
| License Type | License# | Issued | Expires | Status |
| Surveyor Business | LB6777 | 04/14/97 | 02/28/27 | Active |
| Surveyor of Record | LS5994 | 01/31/00 | 02/28/27 | Active |
| 1 | | | | |

LICENSEE DETAILS

9:24:44 AM 6/30/2025

Licensee Information

| | |
|------------------|--|
| Name: | WOOLPERT, INC. (Primary Name) |
| Main Address: | 4454 IDEA CENTER BOULEVARD DAYTON Ohio 45430 |
| License Mailing: | 4454 IDEA CENTER BOULEVARD ATTN: COLINDA SHIELDS DAYTON OH 45430-1500 |

License Information

| | |
|-----------------|--------------------------------------|
| License Type: | Engineering Business Registry |
| Rank: | Registry |
| License Number: | 7685 |
| Status: | Current |
| Licensure Date: | 03/28/1997 |
| Expires: | |

Special Qualifications

Qualification Effective

| | |
|--|--|
| | |
|--|--|

Alternate Names

| | |
|--|--|
| | |
|--|--|

Woolpert



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 17, 2025

WOOLPERT INC
ATTN: TESS CARAWAN 4454 IDEA CENTER BLVD
DAYTON, OH 45430-1500

SUBJECT: Professional Surveyor and Mapper Business Certificate # LB6777

Your application / renewal as a professional surveyor and mapper business as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2027.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB6777**
Expiration Date February 28, 2027

Professional Surveyor and Mapper Business License

Under the provisions of Chapter 472, Florida Statutes

WOOLPERT INC
ATTN: TESS CARAWAN 4454 IDEA CENTER BLVD
DAYTON, OH 45430-1500

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Woolpert

IAM CORPORATE MEMBERSHIP

Corporate Directory

Welcome to the corporate directory - An A-Z of IAM corporate members and contact details

ALL # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

All Locations

All Sectors

Items per page:

< 1 >



Wales & West Utilities

<https://www.linkedin.com/company/wales-&-west-utilities>

Sectors: Energy & Utilities

T: 000



Wannon Water

Sectors: Utilities - Water

T: +61 3 5565 6600 | <https://wannonwater.com.au>




Woolpert, Inc

Sectors:

T: +1 (937) 461-5660 | <https://woolpert.com/>

Woolpert




Florida Department of Agriculture and Consumer Services
 Division of Consumer Services
 Board of Professional Surveyors and Mappers
 2005 Apalachee Pkwy Tallahassee, Florida 32399-6500

License No.: **LS5994**
 Expiration Date February 28, 2027

Professional Surveyor and Mapper License
 Under the provisions of Chapter 472, Florida Statutes

JOHN ANGUS CESTNICK
 4530 NW 49TH CT
 COCONUT CREEK, FL 33073-2943



WILTON SIMPSON
 COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.




Certificate
in Asset Management

This is to certify that

John Cestnick

IAM Registration Number: 1032109

was awarded the Institute of Asset Management Certificate in Asset Management, having achieved the pass mark by examination on 13th February 2016



Chris Knowles
 Chair, IAM Examinations Board



Richard Edwards
 IAM President



To verify this certificate or for further information please visit www.theIAM.org/Quals



59424151

Craven Thompson and Associates

State of Florida Department of State

I certify from the records of this office that CRAVEN, THOMPSON & ASSOCIATES, INC. is a corporation organized under the laws of the State of Florida, filed on January 1, 1962.


The document number of this corporation is 254407.

I further certify that said corporation has paid all fees due this office through December 31, 2025, that its most recent annual report/uniform business report was filed on January 7, 2025, and that its status is active.

I further certify that said corporation has not filed Articles of Dissolution.

*Given under my hand and the
Great Seal of the State of Florida
at Tallahassee, the Capital, this
the Seventh day of January, 2025*



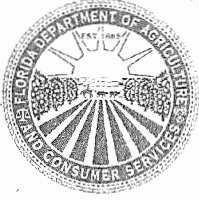

Secretary of State

Tracking Number: 1369007223CC

To authenticate this certificate, visit the following site, enter this number, and then follow the instructions displayed.

<https://services.sunbiz.org/Filings/CertificateOfStatus/CertificateAuthentication>

Craven Thompson and Associates



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 30, 2025

CRAVEN-THOMPSON & ASSOC, INC
3563 NW 53RD ST
FT LAUDERDALE, FL 33309-6311

SUBJECT: Professional Surveyor and Mapper Business Certificate # LB271

Your application / renewal as a professional surveyor and mapper business as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2027.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LB271**
Expiration Date February 28, 2027

Professional Surveyor and Mapper Business License

Under the provisions of Chapter 472, Florida Statutes

CRAVEN-THOMPSON & ASSOC, INC
3563 NW 53RD ST
FT LAUDERDALE, FL 33309-6311

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Craven Thompson and Associates



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkwy Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

December 17, 2024

RAYMOND YOUNG
2661 NW 63RD AVE
MARGATE, FL 33063-1721

SUBJECT: Professional Surveyor and Mapper License # LS5799

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2027.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



Florida Department of Agriculture and Consumer Services
Board of Professional Surveyors and Mappers

LS5799

Professional Surveyor and Mapper
RAYMOND YOUNG

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2027

Detach Here



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkwy Tallahassee, Florida 32399-6500

License No.: LS5799
Expiration Date February 28, 2027

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

RAYMOND YOUNG
2661 NW 63RD AVE
MARGATE, FL 33063-1721

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Craven Thompson and Associates



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

February 17, 2025

DANEIL CAMPBELL
1950 SW 60TH TERRACE
NORTH LAUDERDALE, FL 33068

SUBJECT: Professional Surveyor and Mapper License # LS7606

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2027.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



**Florida Department of Agriculture
and Consumer Services
Board of Professional Surveyors
and Mappers**

LS7606

**Professional Surveyor and Mapper
DANEIL CAMPBELL**

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2027

Detach Here



**Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500**

License No.: **LS7606**
Expiration Date February 28, 2027

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

**DANEIL CAMPBELL
1950 SW 60TH TERRACE
NORTH LAUDERDALE, FL 33068**

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Craven Thompson and Associates



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500
800HELPFLA(435-7352) or (850) 488-2221

January 4, 2025

JOHN PRYCE
1031 SW 127TH TER
DAVIE, FL 33325-5558

SUBJECT: Professional Surveyor and Mapper License # LS7412

Your application / renewal as a professional surveyor and mapper as required by Chapter 472, Florida Statutes, has been received and processed.

The license appears below and is valid through February 28, 2027.

You are required to keep your information with the Board current. Please visit our website at www.800helpfla.com/psm to create your online account. If you have already created your online account, you can use the website to maintain your license. You can also find other valuable information on the website.

If you have any questions, please do not hesitate to call the Division of Consumer Services, Board of Professional Surveyors and Mappers at 800-435-7352 or 850-488-2221.

Detach Here



Florida Department of Agriculture and Consumer Services
Board of Professional Surveyors and Mappers

LS7412

**Professional Surveyor and Mapper
JOHN PRYCE**

IS LICENSED under the provisions of Ch. 472 FS
Expiration date: February 28, 2027

Detach Here



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS7412**

Expiration Date February 28, 2027

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

JOHN PRYCE
1031 SW 127TH TER
DAVIE, FL 33325-5558

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.

Craven Thompson and Associates



Florida Department of Agriculture and Consumer Services
Division of Consumer Services
Board of Professional Surveyors and Mappers
2005 Apalachee Pkway Tallahassee, Florida 32399-6500

License No.: **LS5371**
Expiration Date February 28, 2027

Professional Surveyor and Mapper License

Under the provisions of Chapter 472, Florida Statutes

RICHARD G CRAWFORD JR
12780 NW 15TH ST
SUNRISE, FL 33323-3101

WILTON SIMPSON
COMMISSIONER OF AGRICULTURE

This is to certify that the professional surveyor and mapper whose name and address are shown above is licensed as required by Chapter 472, Florida Statutes.



CITY OF FORT LAUDERDALE BUSINESS TAX YEAR 2024-25



Business Tax Division
700 NW 19TH AVE. | FORT LAUDERDALE, FL 33311 | (954) 828 - 5195

Business ID: BT-SLP-24020093 **Business Name:** CRAWFORD JR, RICHARDS G
Business Address: 3563 NW 53 ST

RICHARD G CRAWFORD JR
CRAVEN, THOMPSON & ASSOCIATES, INC.
3563 NW 53 ST
FORT LAUDERDALE FLORIDA 33309

TAX CATEGORIES
421601 SURVEYOR (EA LIC INDIVIDUALLY) LAND

Contact: RICHARD G CRAWFORD JR
Business Email: Tamcdonald@Craventhompson.Com

- This Receipt is issued for the period commencing October 1st and ending September 30th of the years shown above.
- If you have closed or moved out of the city, please email businesstax@fortlauderdale.gov and include the Business ID #.
- A transfer of business location within city limits is subject to zoning approval. Complete a Business Tax Transfer Application online to obtain the necessary approval. A transfer fee of 10% of the Business Tax fee applies, not less than \$3.00, no more than \$25.00.
- If you have sold your business, please email a copy of the Bill of Sale to businesstax@fortlauderdale.gov and include the Business ID #. A transfer of ownership will incur a transfer fee of 10% of the Business Tax fee, not less than \$3.00, no more than \$25.00.

Please be advised that this issuance of a Business Tax Receipt establishes that the business you intend to conduct is a use permitted by the City Zoning Code for the location at which you intend to operate. The issuance of a Business Tax Receipt in no way certifies that the property located at this address is in compliance with other provisions of the City Code of Ordinances.

700 NW 19TH AVE.
Fort Lauderdale, FL 33311
TEL 954 828 5195
WWW.FORTLAUDERDALE.GOV

Cultivate Geospatial Solutions

State of Indiana Office of the Secretary of State

CERTIFICATE OF EXISTENCE

To Whom These Presents Come, Greeting:

I, DIEGO MORALES, Secretary of State of Indiana, do hereby certify that I am, by virtue of the laws of the State of Indiana, the custodian of the corporate records and the proper official to execute this certificate.

I further certify that records of this office disclose that

CULTIVATE GEOSPATIAL SOLUTIONS, LLC

duly filed the requisite documents to commence business activities under the laws of the State of Indiana on August 19, 2020, and was in existence or authorized to transact business in the State of Indiana on April 05, 2023.

I further certify this Domestic Limited Liability Company has filed its most recent report required by Indiana law with the Secretary of State, or is not yet required to file such report, and that no notice of withdrawal, dissolution, or expiration has been filed or taken place. All fees, taxes, interest, and penalties owed to Indiana by the domestic or foreign entity and collected by the Secretary of State have been paid.



In Witness Whereof, I have caused to be affixed my signature and the seal of the State of Indiana, at the City of Indianapolis, April 05, 2023

Diego Morales

DIEGO MORALES
SECRETARY OF STATE

202205031588995 / 20233113508

All certificates should be validated here: <https://bsd.sos.in.gov/ValidateCertificate>

Expires on May 05, 2023.

Cultivate Geospatial Solutions

**State of Indiana
Office of the Secretary of State**

Certificate of Domestication
of
CULTIVATE GEOSPATIAL SOLUTIONS, LLC

I, HOLLI SULLIVAN, Secretary of State, hereby certify that Articles of Domestication of the above Foreign Limited Liability Company have been presented to me at my office, accompanied by the fees prescribed by law and that the documentation presented conforms to law as prescribed by the provisions of the Indiana Code.

NOW, THEREFORE, with this document I certify that said transaction will become effective Tuesday, May 03, 2022.



In Witness Whereof, I have caused to be affixed my signature and the seal of the State of Indiana, at the City of Indianapolis, May 04, 2022.

A handwritten signature in cursive script that reads "Holli Sullivan".

HOLLI SULLIVAN
SECRETARY OF STATE

202205031588995 / 9402801

To ensure the certificate's validity, go to <https://bsd.sos.in.gov/PublicBusinessSearch>

Cultivate Geospatial Solutions

APPROVED AND FILED
 HOLLI SULLIVAN
 INDIANA SECRETARY OF STATE
 05/04/2022 08:52 AM

ARTICLES OF DOMESTICATION

Formed pursuant to the provisions of the Indiana Law.

ARTICLE I - NAME AND PRINCIPAL OFFICE ADDRESS

| | |
|--------------------------|---|
| BUSINESS ID | 202205031588995 |
| BUSINESS TYPE | Domestic Limited Liability Company |
| BUSINESS NAME | Cultivate Geospatial Solutions, LLC |
| PRINCIPAL OFFICE ADDRESS | 3500 Depauw Blvd, Suite 10807, Indianapolis, IN, 46062, USA |

ARTICLE II - REGISTERED OFFICE AND ADDRESS

| | |
|-----------------------|--|
| REGISTERED AGENT TYPE | Individual |
| NAME | Tom Brenneman |
| ADDRESS | 249 Roxbury Ln., Noblesville, IN, 46062, USA |

ARTICLE III - PERIOD OF DURATION AND EFFECTIVE DATE

| | |
|--------------------|------------|
| PERIOD OF DURATION | Perpetual |
| EFFECTIVE DATE | 05/03/2022 |
| EFFECTIVE TIME | 08:22AM |

ARTICLE IV - GOVERNING PERSON INFORMATION

| | |
|---------|--|
| TITLE | Member |
| NAME | Tom Brenneman |
| ADDRESS | 249 Roxbury Ln., Noblesville, IN, 46062, USA |

ARTICLE V - INCORPORATOR(S)

ARTICLE VI - GENERAL INFORMATION

| | |
|---|----|
| JURISDICTION PRIOR TO FILING DOMESTICATION | FL |
|---|----|

Cultivate Geospatial Solutions

APPROVED AND FILED
 DIEGO MORALES
 INDIANA SECRETARY OF STATE
 06/07/2024 09:54 AM

BUSINESS ENTITY REPORT

NAME AND PRINCIPAL OFFICE ADDRESS

| | |
|----------------------------------|---|
| BUSINESS ID | 202205031588995 |
| BUSINESS TYPE | Domestic Limited Liability Company |
| BUSINESS NAME | CULTIVATE GEOSPATIAL SOLUTIONS, LLC |
| ENTITY CREATION DATE | 08/19/2020 |
| JURISDICTION OF FORMATION | Indiana |
| PRINCIPAL OFFICE ADDRESS | 3500 Depauw Blvd, Suite 10807, Indianapolis, IN, 46268, USA |

YEARS FILED

| | |
|--------------|-----------|
| YEARS | 2024/2025 |
|--------------|-----------|

EFFECTIVE DATE

| | |
|-----------------------|------------|
| EFFECTIVE DATE | 06/07/2024 |
| EFFECTIVE TIME | 9:51 AM |

REGISTERED OFFICE AND ADDRESS

| | |
|---------------------------------|---|
| REGISTERED AGENT TYPE | Individual |
| NAME | Tom Brenneman |
| ADDRESS | 249 Roxbury Lane, Noblesville, IN, 46062, USA |
| SERVICE OF PROCESS EMAIL | bbockenhauer@cultivategeospatial.com |

I acknowledge that the Service of Process email provided above is the email address at which electronic service of process may be accepted.

GOVERNING PERSON INFORMATION

| | |
|----------------|--|
| TITLE | Member |
| NAME | Tom Brenneman |
| ADDRESS | 249 Roxbury Ln., Noblesville, IN, 46062, USA |

Cultivate Geospatial Solutions

APPROVED AND FILED
DIEGO MORALES
INDIANA SECRETARY OF STATE
06/07/2024 09:54 AM

SIGNATURE

THE SIGNATOR(S) REPRESENTS THAT THE REGISTERED AGENT NAMED IN THE APPLICATION HAS CONSENTED TO THE APPOINTMENT OF REGISTERED AGENT.

IN WITNESS WHEREOF, THE UNDERSIGNED HEREBY VERIFIES, SUBJECT TO THE PENALTIES OF PERJURY, THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE, THIS DAY **June 7, 2024**.

THE UNDERSIGNED ACKNOWLEDGES THAT A PERSON COMMITS A CLASS A MISDEMEANOR BY SIGNING A DOCUMENT THAT THE PERSON KNOWS IS FALSE IN A MATERIAL RESPECT WITH THE INTENT THAT THE DOCUMENT BE DELIVERED TO THE SECRETARY OF STATE FOR FILING.

SIGNATURE

Beth Bockenbauer

TITLE

Authorized Agent

Business ID : 202205031588995

Filing No. : 10367427

Cultivate Geospatial Solutions



This document certifies that

Ryen Tarbet

was admitted to membership of
The Institute of Asset Management
in the class of

Fellow

and is entitled to the benefits and rights explained in our constitution
and voluntarily agrees to abide by our Code of Conduct.

Whilst membership of the Institute remains current this Member is entitled
to use the post-nominal letters FIAM and the membership mark shown.



Signed: _____

Chief Executive

Member Number: 1025972

Date of Issue: 30th June 2025

This certificate remains the property of the IAM and must be returned
on cessation of membership or on the request of the Institute.

www.theIAM.org



Please note that an authorised certificate
bears the imprint of our seal

Cultivate Geospatial Solutions



contact us

Woolpert, Inc.
900 SE 3rd Ave, Fort
Lauderdale, FL, 33316, US
Tel: 305.351.2936
www.woolpert.com



WOOLPERT