Agenda

Basehor City Council
Work Session

September 9, 2013 7:00 p.m.
Basehor City Hall

1. GIS Wastewater System Mapping Discussion
2. Comprehensive Plan Discussion

Per K.S.A. 75-438 the City Council Meeting agenda is available for review at Basehor City Hall, 2620 North 155th

CITY OF BASEHOR
Agenda Item Cover Sheet

Topic: Consideration of GIS Mapping Proposal

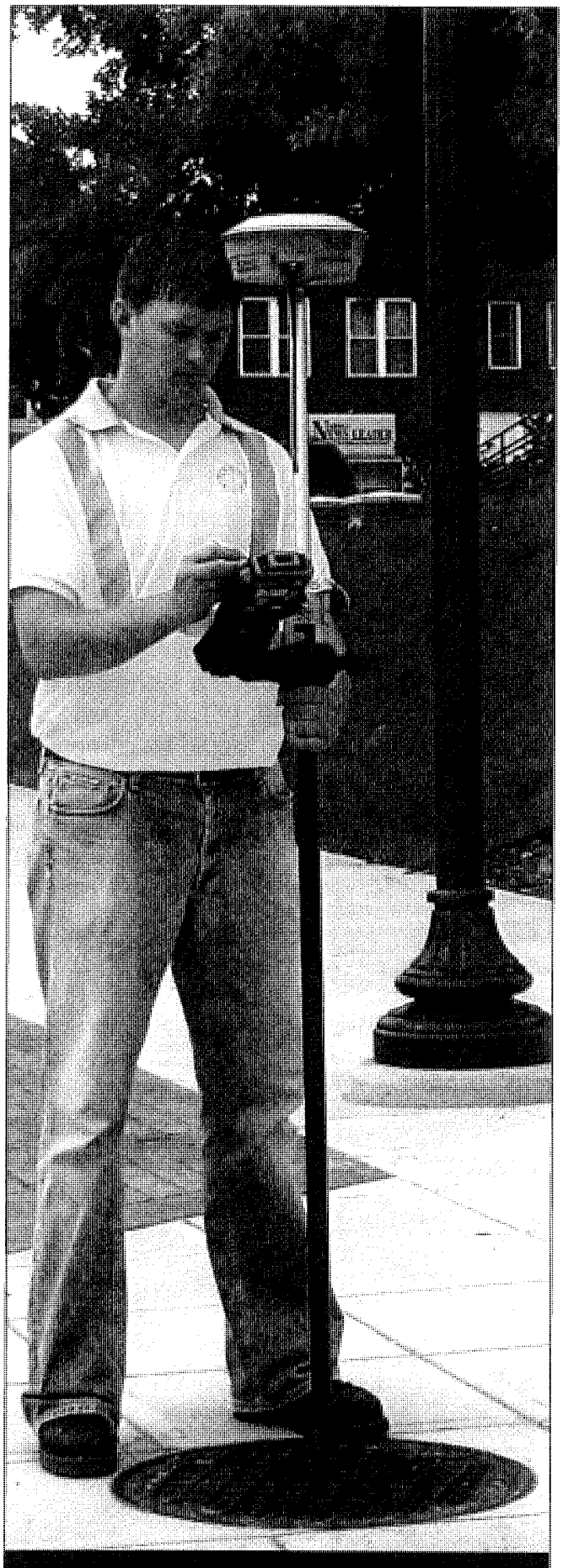
Action Requested: Discuss the options related to GIS mapping of the City's Sewer Infrastructure

Narrative: I have been working with Midland GIS Solutions on the possibilities of providing a data base format of the cities internal sewer infrastructure. This proposal could also provide a system that would allow any or all information being discussed in the comprehensive plan, PMP, PCI, CIP, Trail Systems, as well as any other items we felt deemed necessary to add. This system would be compatible with Leavenworth Counties GIS system as well as the City of Lansing's new system be formatted currently.

Presented by: Gene Myracle, City Superintendent
Erin Allen, Midland GIS Solutions

Attachments: Midland GIS Solutions proposal packet with cost estimate.

Projector needed for this presentation: Yes



MIDLAND GIS Solutions

www.midlandgis.com | Ph: 660.562.0050

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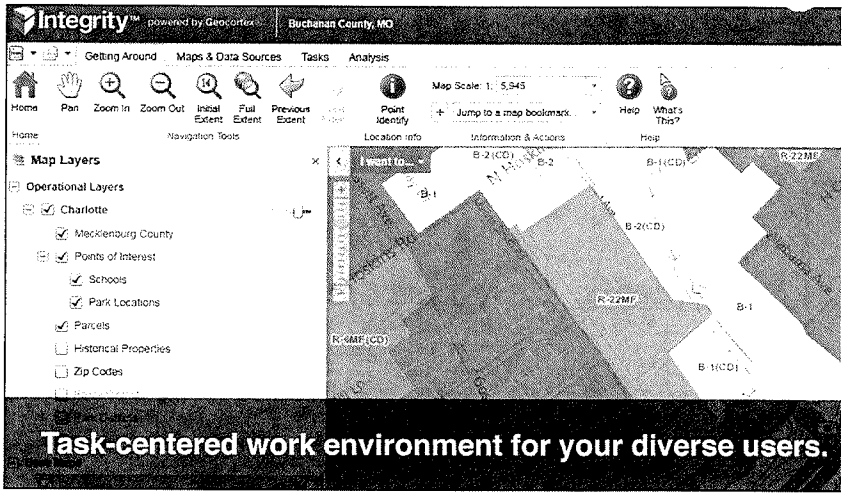
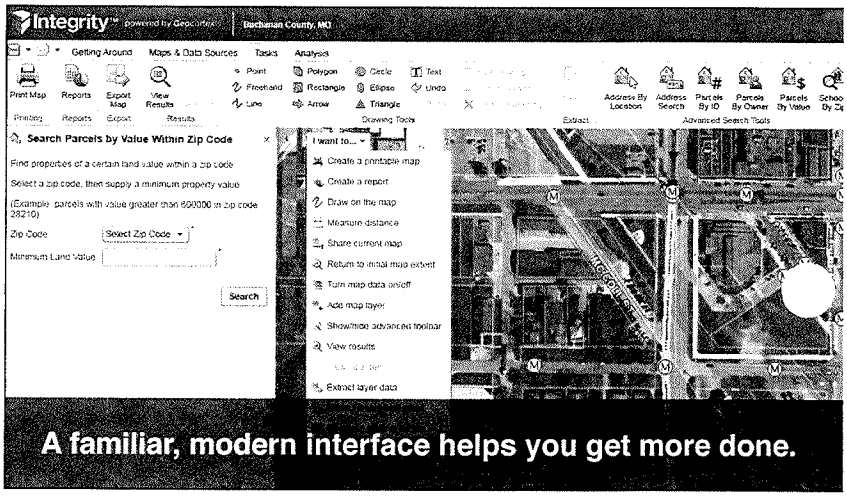
Accurate GIS data management with the power of Esri technology. It's what you would expect from the experts at Midland GIS Solutions.





City of St. Joseph MO
Sanitary Sewer System

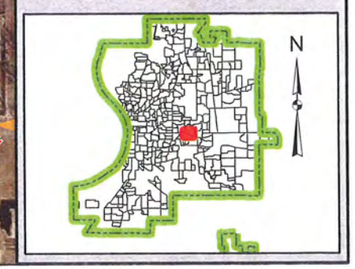
Legend

- Lift Station
- CSO
- Diversion
- Manhole
- Private Manhole
- Storm Inlet Pipe
- Service Wye
- Storm Inlet
- Sewer District
- Parcel
- Creek Crossing
- Creek Entrance

Pipe, Diam (Inches)

6	54
8	60
10	72
12	84
15	96
18	102
21	108
24	120
27	126
30	132
33	144
36	156
42	168
45	180
48	192
51	Private

1 inch = 139 feet



109 160 162 135 122 189 177 178

MITCHELL AVE · ALLEY · PENN ST · 34TH ST · 32ND ST · RENICK ST · 33RD ST · SACRAMENTO ST · NEWH-B11 · NEWH-B10

109-40 109-58 109-49 109-50 109-51 109-48 160-5 160-6 160-7 160-8 160-9 160-15 162-12 162-15 162-14 162-19 162-22 122-41 135-1 135-2 135-3 135-4 135-5 135-6 135-7 122-44 122-42 122-43 177-31 177-32 177-33 177-30 177-29 177-25 177-26 177-27 177-28 177-21 177-24 177-23 177-12 177-13 177-14 177-15 177-16 177-18 177-17 178-16 178-15 178-11 178-10

MIDLAND
GIS Solutions

MUNICIPAL
& UTILITY MAPPING

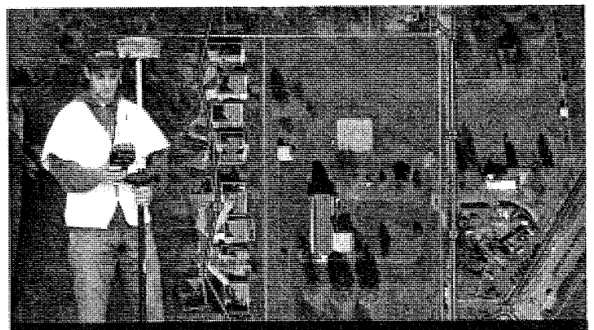
Midland GIS Solutions
501 North Market
Maryville, MO 64468
Ph+ 660.562.0050
www.midlandgis.com

MIDLAND
GIS Solutions

Professional GPS Field Services & Mapping

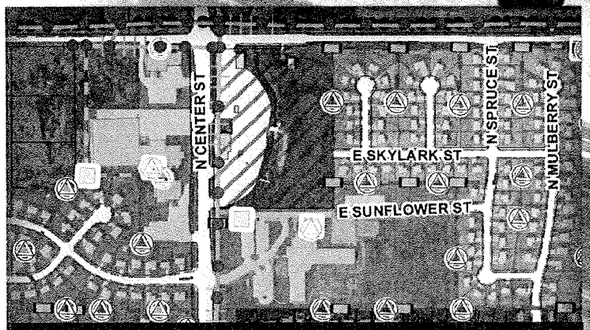
Midland GIS Solutions is here for you.

We exist to empower your staff, improve asset management and help y ir com unity thrive.



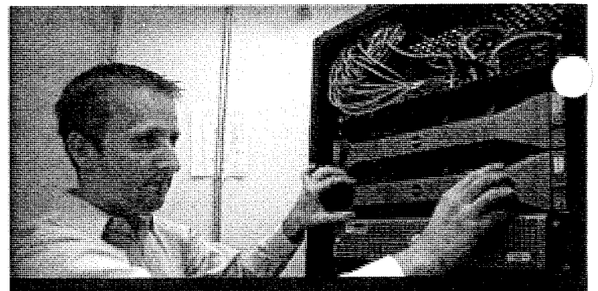
Data Collection
We've GPS located hundreds of thousands of field assets such as sewer manholes, electric poles, and fire hydrants.

Field Inspections
Data collection isn't just finding an asset; its about detailed inspections to record your utility conditions.

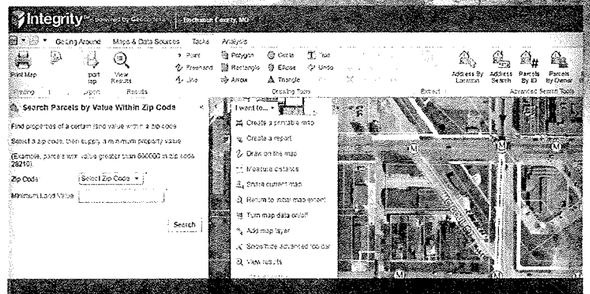


Utility Networks
Through the power of GIS technology, we develop mapping programs for virtually any utility network.

Tech Support & Maintenance
We are always a phone call away to answer questions and provide support - your success is our top priority.



Secure Off-Site Backup
Don't ever worry about losing your data or physical maps. We will always have a backup of your data.



Integrity™ powered by GeoCortex
Manage, analyze and maintain your municipal and utility data through the web with Midland's web GIS software.

Steve Hawkins, Wastewater Superintendent
Centerville, IA had this to say:

> *The City of Centerville is excited to move into the next generation of utility maintenance and reporting with the services that Midland GIS Solutions has provided. The Midland GIS field crews were very efficient and professional and our GIS program was up and running within a few short months of signing the contract.*
>
> ***We are very pleased with the professionalism shown by Midland GIS and would recommend their services to any city looking for an effective utility asset management program.***

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Looking for a better way to manage and utilize your data? Integrity is a web GIS management and mapping tool that is simple, yet robust. Now powered by the superb *Geocortex* engine, Integrity is a perfect fit to meet your GIS mapping needs.

GIS is the key to saving thousands of dollars through preventative maintenance

700

Thro' out the United States there are **an average of 700 water main breaks per day.**

* "What's on Tap" by Hamida Kinge, *Next American City issue 24*

40,000

The EPA estimates that there are at least 40,000 **sanitary sewer overflows each year.**

* From the EPA official website

MIDLAND GIS Solutions

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Business Development Director

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EMAIL: erin.allen@midlandgis.com
OFFICE: 660.562.0050
CELL: 660.254.9960

MIDLAND GIS Solutions

Sanitary Sewer GIS Proposal

City of Basehor, KS

Submitted by: Midland GIS Solutions

Purpose ::: To provide the City of Basehor, KS with GPS data collection, inspection and GIS Services for their sanitary sewer network.

esri

Gene Myracle
City of Basehor
2620 N 155th
Basehor, KS 66007

Dear Gene,

Midland GIS Solutions respectfully submits our qualifications to the City of Basehor, KS to provide professional GPS and GIS mapping services. Midland GIS stands ready to assist the City in their efforts to successfully implement a GIS program for their sanitary sewer utility network.

Midland GIS Solutions proposes developing a comprehensive GIS program for Basehor for use in maintaining and managing their utility infrastructure assets. The following characteristics make Midland GIS Solutions uniquely capable of overseeing this project for Basehor:

- Midland GIS offers complete utility asset management solutions, from accurate GPS data collection and GIS mapping to web-based GIS solutions with editing capabilities for easy and efficient system maintenance.
- Midland GIS Solutions has provided GPS and GIS services to more than 85 cities and utilities in the Midwest. Our dedicated field staff has ***GPS located hundreds of thousands of utility assets*** for seamless GIS integration for use in utility maintenance, daily workflow management and engineering models.
- Midland GIS will dedicate an experienced project team of GPS Field Staff, GIS Technicians, GIS Specialists and Analysts, Programmers, Professional Land Surveyors and ArcGIS Server developers to ensure project efficiency and overall product quality.
- Kirk Larson, Vice President will personally manage and oversee your GIS project, which ensures open and complete communication throughout project development and implementation.

Thank you for the opportunity to present our Company for this very important project for your City. Our team of professionals has the experience and capabilities to make your GIS program successful and stands ready to form a partnership with the City of Basehor in that success.

Respectfully Submitted,
MIDLAND GIS SOLUTIONS

Erin Allen, Business Development

COMPANY OVERVIEW

Midland GIS Solutions is an industry-leader in providing exceptional GIS and GPS mapping services to municipalities, utility companies, counties and private organizations. Our firm offers a wide-range of comprehensive geospatial services, such as GPS data collection and inspections, GIS data development and conversion services, consulting, training and technical support.

Additionally, Midland GIS has developed Integrity™, an intuitive web-based GIS solution to provide our valued clients with the necessary tools to increase efficiency in asset management and maintenance, workflow and overall productivity. We offer our clients a distinct commitment to high-quality, professional standards, and a forward-thinking perspective we believe is unique in this industry.

Corporate Office Address: Midland GIS Solutions, LLC
501 N. Market Street
Maryville, Missouri 64468
Phone: 660.562.0050
Facsimile: 660.582.7173


Corporate Office
Maryville, Missouri

Contact for Proposal: Erin Allen
Office: 660.562.0050
Cell: 660.254.9960
Email: erin.allen@midlandgis.com

Ownership: Midland GIS Solutions is a Missouri-based Corporation owned by Troy Hayes PLS, Matt Sorensen and Kirk Larson

Office Locations: Maryville, MO; Kansas City, MO and Archdale, NC

COMPANY HISTORY

Owned and operated by Professional Land Surveyors, Midland GIS Solutions was established in 2000 under the corporate structure of Midland Engineering, Inc., which existed as a highly-respected mapping, surveying and engineering company in the Midwest for nearly 30 years. In 2000, Midland sold the engineering division of the company and re-organized their professional structure to include the companies of Midland GIS Solutions and Midland Surveying, Inc. The purpose of this

restructure was to establish two firms that provided specialized, yet complimentary services in Geographic Information Systems and land surveying.

Today, Midland GIS Solutions is the most qualified and diverse GIS development company in the Midwest and has developed more successful GIS programs in Iowa, Missouri and Kansas than any other firm. In addition to the longevity of our firm, Midland GIS Solutions maintains a professional staff of project managers, dedicated GPS field staff, GIS technicians, analysts and specialists, programmers and web administrators.

Headquartered in Maryville, Missouri, Midland GIS is the largest full-service GIS firm in the State. Since 2007, the company has operated with state of the art equipment and software in a 7,000 square foot building dedicated solely to GIS program production, utility data collection and web-based application development.

Since 2005, Midland GIS Solutions has been a licensed reseller of Esri software and is an Esri Silver Business Partner. Midland GIS Solutions' personnel have extensive experience with Esri's ArcGIS software, utilize state-of-the-art software and GPS collection equipment, and routinely take advantage of the latest training opportunities, all significant steps towards efficiency in GIS data collection and development.

Midland GIS Solutions was awarded the **2008 Esri Business Partner of the Year** Award at the Worldwide Business Partner Conference in Palm Springs, CA.

From left to right: Kirk Larson, Matt Sorensen, **Jack Dangermond – President and CEO of Esri**, Tylor Hardy and Ryan Schieber.

"[Midland GIS Solutions] brought an innovative product to market, and brought ESRI into a new market with their specialized knowledge and expertise that distinguished them from other partners." **::: Esri**

CAPACITY TO ACCOMPLISH WORK

Unlike many engineering firms, Midland GIS Solutions has teams of full-time, trained GPS field technicians that are dedicated to GPS locating municipal utilities and completing inspections for the sole purpose of GIS data integration.

All GPS Field and Technical Staff at Midland GIS Solutions are highly trained in all areas of GPS field collection, including survey and mapping grade GPS equipment, Esri software, and OSHA and Federal Traffic Safety Regulations. Midland GIS Solutions maintains five (5) field crews and has the ability to mobilize up to three (3) fully-equipped field crews upon a contract award by Basehor. Each field crew is led by a GPS Field Party Chief.

Midland's GPS field crews travel throughout the four state Region of Iowa, Missouri, Kansas, and Nebraska providing GPS utility collection services on a daily basis. Our typical service area extends more than 500 miles from our home office in Maryville, Missouri. Our ability to provide these services with considerable travel while adhering to strict budgets and time constraints is unsurpassed.

Midland GIS Solutions has the capacity to provide technical support to more than 100 clients on an annual basis and manages 15 on-going GIS maintenance contracts that include routine GPS field updates, GIS parcel maintenance and 911/addressing maintenance.

In September 2012, Midland GIS Solutions was awarded a five (5) year Master Agreement with the City of St. Joseph, Missouri to provide on-call GIS consulting and development services for the St. Joseph Department of Public Works and Transportation. This is the third consecutive Master Agreement awarded to Midland GIS Solutions by the City of St. Joseph, Missouri since 2003. These examples further demonstrate our experience and capacity to provide exceptional GIS data collection services to large communities, while providing timely and outstanding technical support to our valued clients.

Midland's professional staff specializes in numerous GIS technologies and performs tasks daily utilizing Esri's ArcView 10.0, ArcEditor and 3-D Analyst, as well as Global Positioning System (GPS) technologies. Personnel are also experienced with ArcEngine, ArcGIS Server, ArcObjects, the latest version(s) of AutoCAD and SQL Server. Our staff has also set up and configured Enterprise GIS programs with ArcSDE for clients. GIS programmers and technicians are skilled in numerous programming languages that include Visual Basic .NET, HTML, Java, JavaScript C# and Silverlight.

PROJECT MANAGEMENT

Midland's experience and successful completion of utility GIS projects has proven that Midland GIS Solutions understands the importance of information exchange and communication during the entire life of the project. As a result of this understanding, Midland GIS Solutions' project management team will synchronize all technical activities and communication with Basehor.

Midland's "client-focused" approach, and experience in project management has been the cornerstone of success for Midland GIS Solutions in a market that does not expect, but rather demands a high level of service.

At the foundation of this approach is Midland GIS Solutions' proactive management philosophy, which anticipates challenges, revolves around listening, and is committed to partnering. On every project, Midland utilizes a team approach and encourages open communication channels with the client and their stakeholders.

Midland GIS Solutions' effective project management procedures are demonstrated in the ability to successfully manage and complete multiple projects simultaneously, while meeting all cost standards and parameters under aggressive schedules. Midland GIS Solutions proposes an experienced and professional team to oversee and execute the utility GIS mapping project for the City.

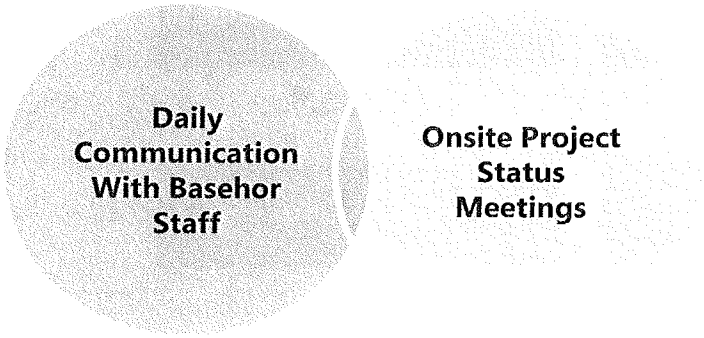
Kirk Larson, Vice President of Operations will serve as Project Manager for the Basehor utility GIS project. All communications will be directed through Kirk for the duration of the project. He will oversee the Midland GIS Solutions team as they work with the City to finalize project specifications. Additionally, Kirk will conduct meetings with appropriate staff to determine final data requirements, finalize all project schedules, and coordinate data delivery requirements.

The Midland GIS Development Team proposed for this project will include Kirk Larson, Project Manager, one (1) Municipal Project Supervisor, one (1) GIS Specialist, two (2) GPS Field Party Chiefs and multiple Field Technicians. The proposed team members for this project have a unique combination of experience and skill in project management, data collection, quality control procedures and GIS mapping as well as utility infrastructure knowledge.

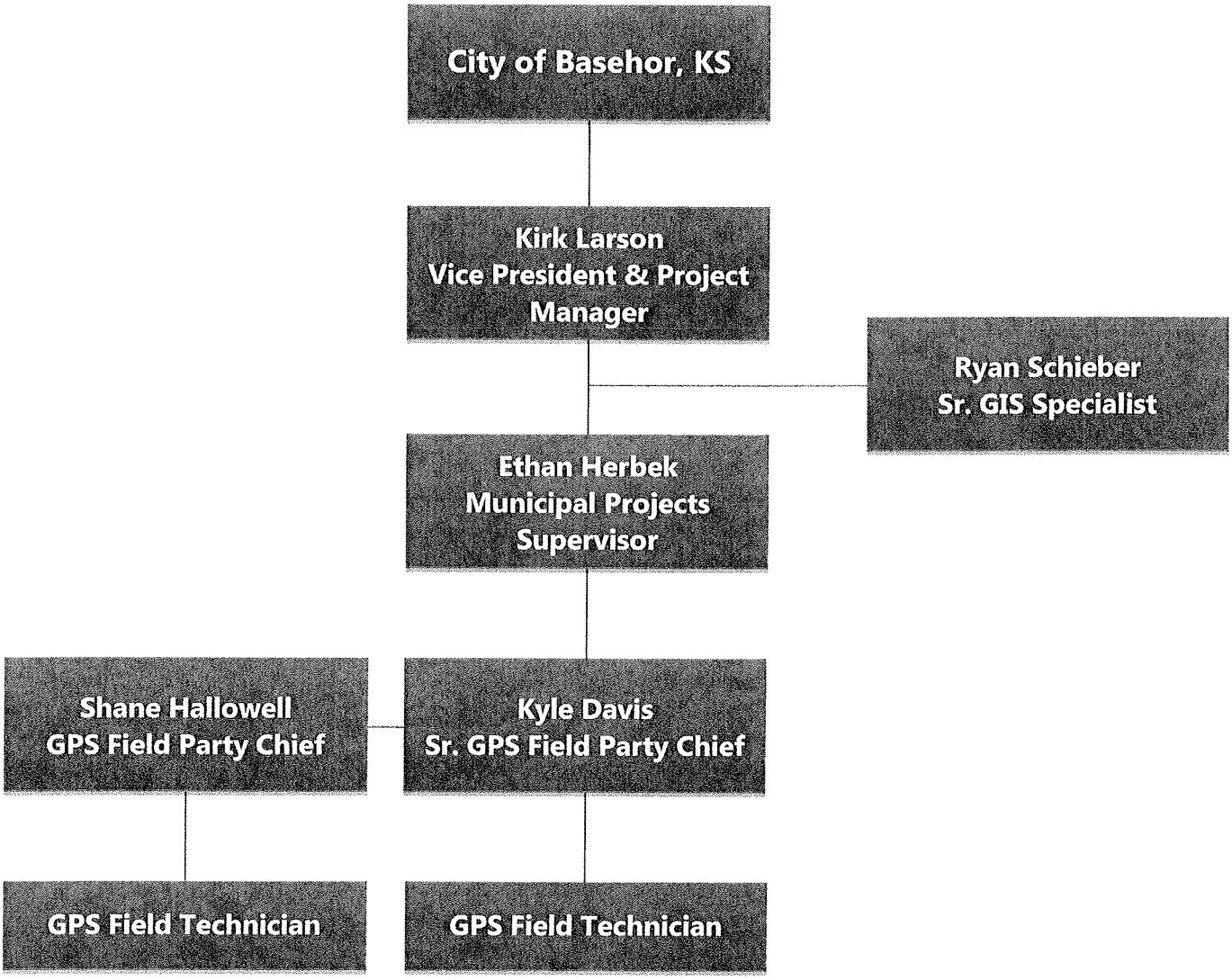
Midland GIS Solutions routinely provides all of the GPS data collection and GIS data development services proposed in this statement of qualifications. All project requirements and specifications will be met by the key personnel identified in this section.

Midland GIS Solutions maintains five (5) field crews and has the ability to mobilize fully-equipped field crews upon a contract award by Basehor. Each field crew is led by a GPS Field Party Chief.

Midland GIS Solutions' project management procedures include a specific and tactical approach to communication amongst City staff and Midland's field and project management personnel. To ensure the successful outcome of any data collection and utility GIS mapping project, our field staff will maintain active communication with Basehor staff through various means, including while conducting GIS data collection in the field, attending onsite project status meetings, and with Midland's interactive GIS website for project management.



Midland GIS Solutions will be available to meet with Basehor staff to review data collection and utility GIS mapping progress upon request by the City at various times throughout the project.
The following organizational chart demonstrates the flow of communication and project management of Midland's proposed Project Development Team for The Basehor GIS project:



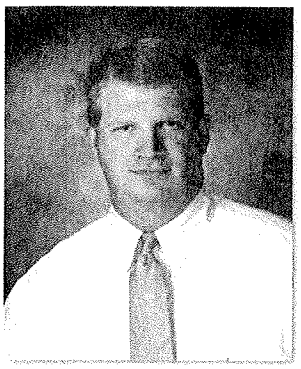
KEY PERSONNEL

Our diversified staff routinely applies innovative mapping solutions to real-world problems through custom program enhancements, specialized data development, efficient program implementation, and comprehensive support and consulting services. ***The integrity and knowledge of our staff is unsurpassed in municipal GIS program development.***

The following pages identify the names and qualifications of the individuals primarily responsible for services to be provided under this proposal. The education of all key personnel involved in project management and field/project supervision includes, at a minimal level, a college degree in geography or other related certification of expertise, from an accredited university.

KIRK LARSON, PROJECT MANAGER

KLARSON@MIDLANDGIS.COM



EDUCATION

Bachelor of Science Degree in Geography & Geographic Information Systems (GIS) – Northwest Missouri State University (Maryville, Missouri)

LENGTH OF SERVICE WITH FIRM

2005 – Present (Midland GIS Solutions - Principal Owner)

As Vice President of Operations at Midland GIS Solutions, Kirk oversees the development of utility GIS programs, GPS Field Collection and web-based GIS applications. While at Midland GIS, Kirk has successfully managed and overseen development of more than 85 municipal and utility GIS programs. Kirk has served in the mapping and GIS industry since 1995, working for five (5) years as a GPS field technician and working in both local government and private sector as a GIS Coordinator. Kirk developed a nationally recognized Enterprise Wide GIS program for the growing county of Sarpy County, Nebraska where he served as GIS Coordinator from 2002 to 2005.

While at Midland GIS, Kirk has successfully managed and overseen development of more than 85 municipal and utility GIS programs. On an annual basis, Kirk typically gives ten or more presentations at regional and statewide water, wastewater and electric utility conferences and training seminars to City Administrators, Public Works Directors, Utility Superintendents and Field Operators. Continuing education credits are typically offered to attendees in his educational presentations. Kirk's unique understanding and knowledge of utility asset management and GPS field collection position him as an expert in those fields.

PROJECT RESPONSIBILITY

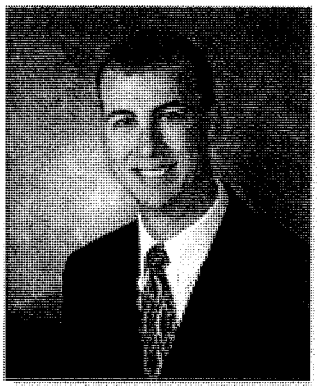
Kirk Larson will serve as the main point of contact throughout the project between Midland GIS Solutions and the City of Basehor. Kirk will be responsible for day to day project management tasks and ensure that all project staff, technical planning, project schedules, budgeting, client communication and quality control expectations are being met and/or exceeded.

PROFESSIONAL TRAINING

- Esri Training Certificates:
  - Intro To ArcGIS I & II, Creating & Editing Parcels with ArcGIS, Creating & Editing Geodatabase Features, Creating & Editing Geodatabase Topology,; Working with Geometric Networks for utilities; Parcel Fabric Workshop
- Autodesk Training Courses: AutoCAD & Autodesk Map 3D

RYAN SCHIEBER, SR. GIS ANALYST

RYAN.SCHIEBER@MIDLANDGIS.COM



EDUCATION

Bachelor of Science Degree in Geography & Geographic Information Systems (GIS) – Northwest Missouri State University (Maryville, Missouri)

LENGTH OF SERVICE WITH FIRM - 2002-Present

Ryan has more than 10 years of GIS experience at Midland GIS Solutions and provides a wide range of GIS development and conversion services, as well as customer support to Midland's valued clients. As Sr. GIS Specialist, Ryan manages the geodatabase design and coordinates the data development of all GIS projects, oversees and assists with quality control procedures and provides technical support for more than fifty (50) GIS and web GIS clients. Ryan is trained in the latest ArcGIS and ArcGIS Server software and applications.

PROJECT RESPONSIBILITY

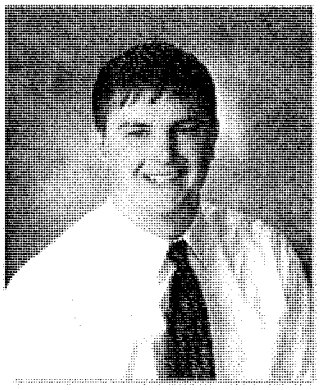
Ryan's experience with GIS data integration and development is extensive. As Project Manager, Ryan will be responsible for overseeing all aspects of GIS program development and will work directly with GIS Technicians to ensure all development schedules and development procedures are adhered to. Ryan will also lead in quality control and quality assurance to ensure that the final project deliverables meet and/or exceed the client's requirements.

PROFESSIONAL TRAINING

- Esri Training Certificates:
  - Creating & Editing Parcels with ArcGIS, Creating & Editing Geodatabase Features, Creating & Editing Geodatabase Topology, Intro to ArcGIS Server, Intro to the Multiuser Geodatabase, Managing Editing Workflows in a Multiuser Geodatabase, Intro to PLTS; Working with Geometric Networks for utilities; Developing Applications with ArcGIS Server Using the Microsoft .NET Framework; Parcel Fabric Workshop
- Autodesk Training Courses: AutoCAD 2002 & Autodesk Map 3D
- Autodesk Training Courses: AutoCAD 2002 and Autodesk Map 3D 2007

ETHAN HERBEK, UTILITY PROJECT SUPERVISOR

EHERBEK@MIDLANDGIS.COM



EDUCATION

Bachelor of Science Degree in Geography, Minor in GIS – Northwest Missouri State University (Maryville, MO)

LENGTH OF SERVICE WITH FIRM

2004-Present

EXPERIENCE

Ethan Herbek has been with Midland GIS Solutions since 2004. Ethan is experienced in GIS data development and GPS field collection, and has served in multiple management roles including Municipal Project Supervisor, Field Supervisor, Utility GIS Specialist and Quality Control Manager. Ethan is capable of supervising all aspects of utility GIS projects, from field data collection and utility inspections to conversion, geodatabase modeling and GIS data integration. As Project Supervisor, Ethan has a vast understanding of water, wastewater, electric, gas, and storm utility operations and management. This knowledge positions our team to successfully apply GIS technology to solve real world utility problems by better understanding the challenges our clients deal with on a daily basis.

KYLE DAVIS, SR. GPS FIELD PARTY CHIEF

EDUCATION

Bachelor of Science in Geographic Information Systems - Northwest MO State University

EXPERIENCE

As Sr. GPS Field Party Chief, Kyle Davis is responsible for collecting utility data, completing inspections and following all procedures for field-based quality control. He is knowledgeable in utilizing all GPS equipment, including survey grade and RTK units, and is trained and experienced with Esri software and OSHA safety regulations. Kyle is also responsible for the equipment and safety training of GPS Field Technicians.

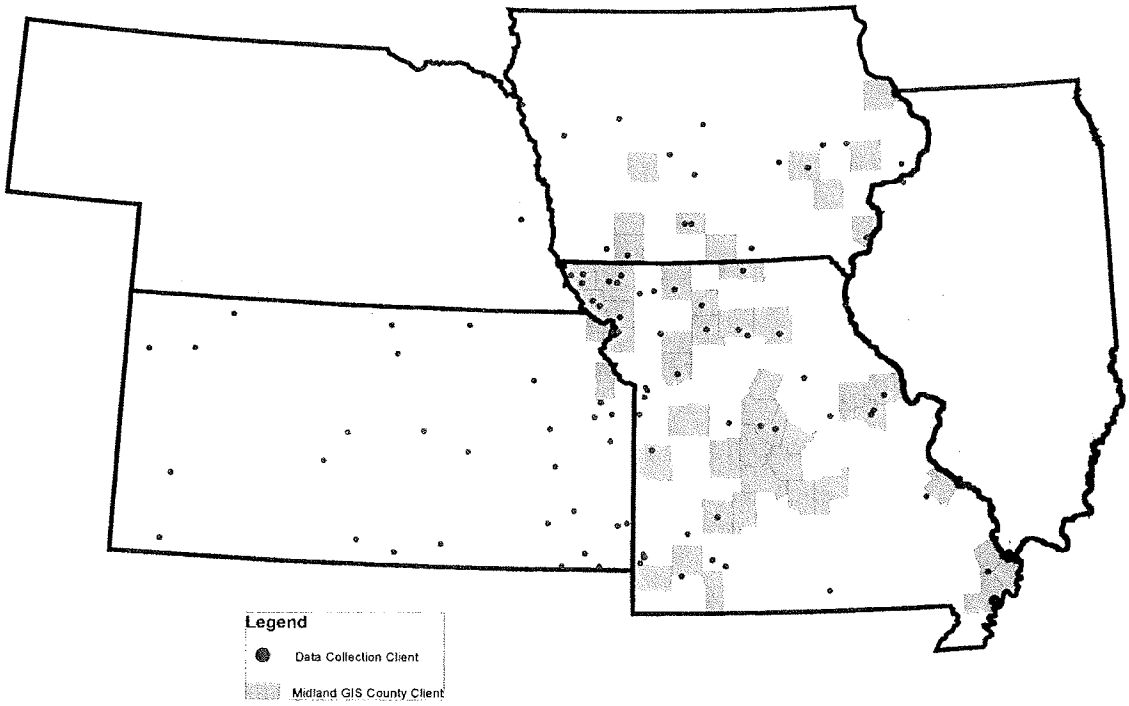
PROJECT RESPONSIBILITY

Kyle will be an active part of the GPS field collection team for Basehor. On a daily basis, he will oversee the actual collection of all GPS field data, as well as field check all inspection and attribute data before it is processed in the office. Kyle will also be responsible for any on-site communication and coordination with Basehor throughout the duration of the project.

PROJECT EXPERIENCE

As a full-service professional GIS firm, Midland GIS Solutions provides a solid geospatial foundation for all of our valued clients to ensure the integrity and longevity of their municipal GIS program. Midland GIS Solutions has the experience and technical knowledge to provide the professional services desired by the City of Basehor for this project. **Midland GIS Solutions' field staff has GPS located hundreds of thousands of utility assets for utility GIS mapping projects.**

The following map demonstrates our level of experience in GIS and GPS mapping, data development and utility asset management solutions throughout the counties and cities in Iowa, Missouri, Kansas and Nebraska. **To date, Midland GIS Solutions has completed more than 85 municipal and utility GPS/GIS projects.**



The successful outcome of any GIS project requires a solid foundation for the program to thrive on and it starts with the accurate collection of field data. Our approach to data collection is to collect complete and accurate GPS locations for utility assets and utilize in-house data collection application to streamline data attribution.

Midland GIS Solutions proposes to GPS locate, attribute and inspect sanitary sewer utility features to create a comprehensive GIS mapping program for Basehor. As the following project examples will demonstrate, Midland has successfully developed utility data for cities throughout the Midwest region. Midland's professional field experience on similar projects is unsurpassed for quality and meeting aggressive project schedules.

SIMILAR PROJECTS

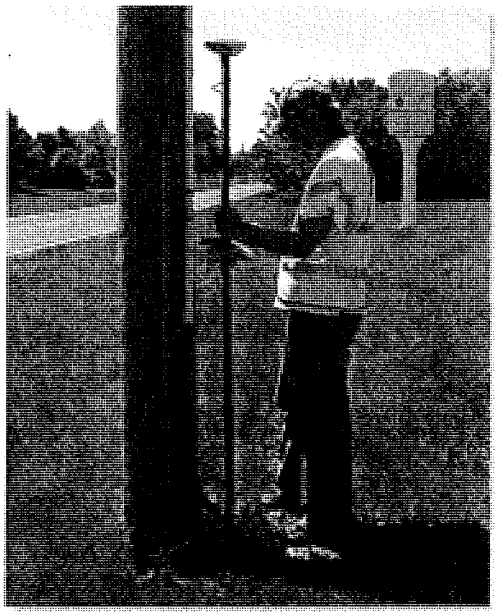
TRENTON MUNICIPAL UTILITIES

Water, Sanitary Sewer & Electric Networks Located & Mapped

SERVICES PROVIDED: 2011-2012

PROBLEM: As the City of Trenton's longtime utility mapper was nearing retirement, the City recognized the need to keep their AutoCad maps up to date. The AutoCad maps had always served as a "good enough" reference for utility locations, however the city wanted spatially accurate data with attribute information that could be managed and maintained in a multi-user environment.

SOLUTION/DELIVERABLES: The City of Trenton selected Midland GIS Solutions to convert their Legacy CAD system over to a GIS program to centrally maintain their utility assets and infrastructure data. This project required a combination of survey grade (RTK) and mapping grade GPS data collection for the water and electric networks, and survey grade GPS locates and full inspections of the City's sanitary sewer network. Midland GIS Solutions developed a geodatabase for the City and integrated all collected utility features, attributes and inspection data into a GIS program.



Midland GIS Solutions also developed an ArcGIS Server-based web platform, or web GIS site for the City of Trenton to analyze, maintain and manage their utility data in a multi-user environment. The City's Integrity™ Web GIS program gives them the ability to easily establish and share flow direction data models and conduct analysis on utility aging and maintenance.

https://trenton.integritygis.com (Closed access site)

ST. JOSEPH, MISSOURI

Sanitary Sewer Network Located & Mapped

SERVICES PROVIDED: 2009

PROBLEM: While under consent by the EPA, the City of St. Joseph needed to obtain accurate locations of their sanitary sewer network. The City of St. Joseph is one (1) of six (6) combined systems in the State and faced increasing pressure to actively evaluate their wastewater infrastructure and make changes.

SOLUTION/DELIVERABLES: In 2009, the City of St. Joseph, Missouri contracted with Midland GIS to GPS locate and inspect nearly 9,000 sanitary sewer manholes, and also locate combined sewer outfalls along the Missouri River. Midland GIS Solutions obtained survey grade horizontal (x,y) and vertical (z) positions on each sanitary sewer manhole. All field attributes were collected using Midland's automated field collection software loaded onto field data collectors.

Attributes that were collected for this project included manhole ID, date located, manhole location, manhole construction, drop manhole, outside drop, steps (material), manhole depth, pipe inverts, size, material, condition rating, indication of infiltration, evidence of surcharge, appearance of flow and depth of flow. Upon completion of the GPS field collection, all data was mapped into the City's comprehensive GIS program and uploaded to the City's web GIS program, developed and hosted by Midland GIS Solutions.

The City's GIS data was sent to Black & Veatch for engineering and modeling to ultimately separate the City's storm water and sanitary sewer systems.

www.stjosephmogis.com (Utility data is closed to public)

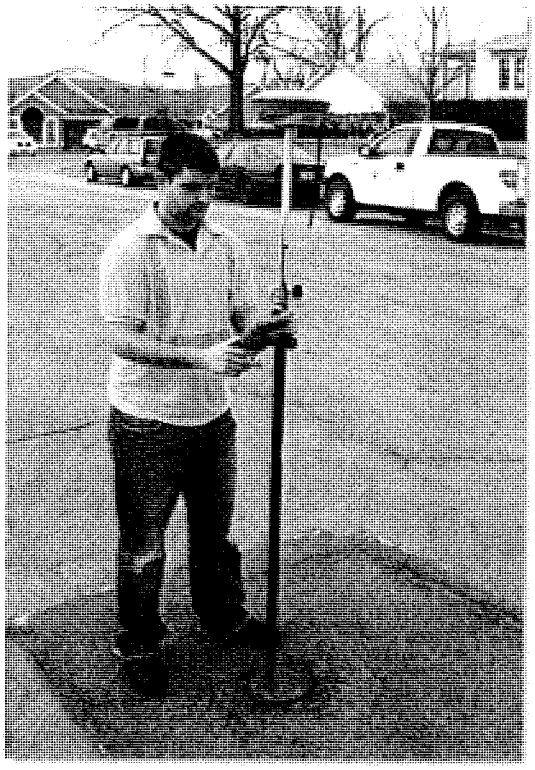
BOLIVAR, MISSOURI

Sanitary Sewer and Waterline Network Located & Mapped

SERVICES PROVIDED: 2008

SCOPE: In 2008, the City of Bolivar, Missouri was faced with meeting requirements established by the Missouri DNR and EPA regarding their sanitary sewer system. The City needed to obtain accurate locations of their sanitary sewer and waterline networks to increase their operational awareness and ultimately eliminate sanitary sewer overflows (SSOs).

SOLUTION/DELIVERABLES: Midland GIS was selected by the City of Bolivar in 2008 to provide the City with survey grade GPS locations of their sanitary sewer and waterline networks. Midland GIS developed custom data collection tools to inspect all manholes and worked with the DNR and the City to develop a manhole rating system for the project.



To further assist the City, Midland GIS Solutions developed a custom ArcEngine application for the City of Bolivar to meet SSO tracking requirements set forth by the MO DNR and EPA. The application was developed using ESRI .NET ArcObjects and deployed in an intuitive ArcEngine application.

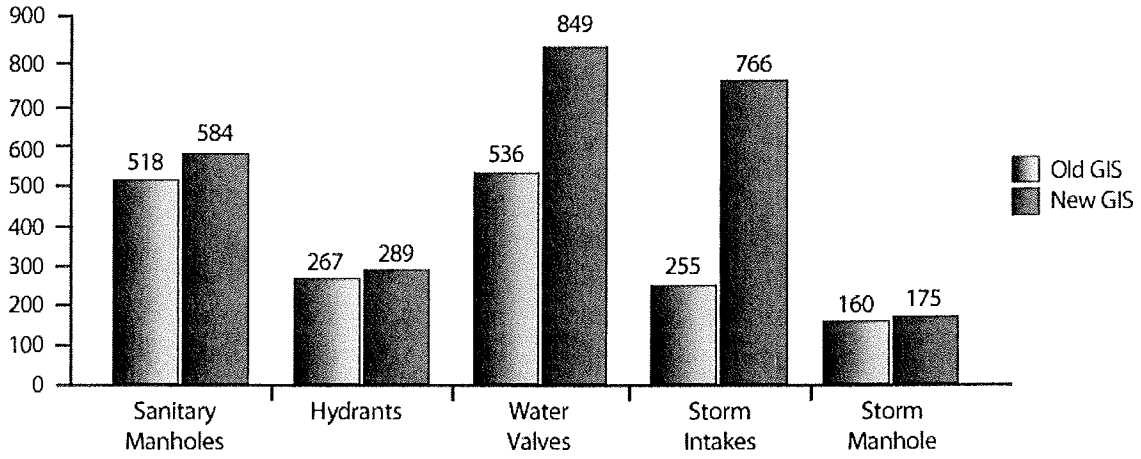
PERRY, IOWA

Water, Sanitary Sewer & Storm Water Networks Located & Mapped

SERVICES PROVIDED: 2011

SCOPE: The City of Perry, Iowa entered into GIS in 2006 with an engineering firm that provided GIS services. The City struggled to utilize the GPS data they received for managing their utilities and years after the initial program was created, Perry learned the data they were provided was not accurate and essentially useless in developing a comprehensive utility management program for their community. In addition to having inaccurate data, the City also had an aging utility staff nearing retirement.

SOLUTION/DELIVERABLES: The City of Perry wanted to take an active role in the re-development of their GIS program and hired Midland GIS Solutions to re-locate all utility assets for water, sanitary sewer and storm water networks utilizing RTK GPS units. Below is a graph demonstrating the disparity of utility features that had initially been included in the City's GIS program (in blue) and the actual number of features after Midland GIS located them (in red). For the first time the City of Perry had a true depiction of their water, sewer and storm water networks.



The goal of the city was to have all of their utility data centrally stored in one virtual location, but exist in a multi-user environment. Midland GIS Solutions developed an Integrity™ web GIS program for the City of Perry so that data could be accessed by multiple, authorized users. Maintenance of the City's GIS program is streamlined with Integrity's editing features.

https://perry.integritygis.com (Closed access site)

SEDALIA, MISSOURI

Sanitary Sewer and Storm Sewer Networks Located & Mapped

SERVICES PROVIDED: 2011

PROBLEM: The City of Sedalia was seeking a GIS services provider to fulfill various mapping and utility management needs to ultimately separate their combined sanitary sewer and storm sewer networks. Sedalia needed accurate locations and inspections of the City's utilities so that they could provide that data to a large engineering firm for modeling and engineering studies regarding the city's combined system infrastructure. Secondly, the City needed up-to-date GIS data to effectively manage their utility infrastructure assets to increase internal efficiencies and for the ability enhance reporting capabilities to regulatory agencies, such as the MO DNR and the EPA.

SOLUTION/DELIVERABLES: The City of Sedalia, MO contracted with Midland GIS Solutions as part of a substantial sanitary sewer project in the city of more than 20,000 residents.

Midland GIS Solutions was selected based on qualifications to GPS locate and inspect the city's sanitary sewer and storm sewer utility networks, including 2,200 manholes and 2,400 storm water features. All survey grade collected data was integrated into a comprehensive GIS program for the city and provided to their engineering firm for full system modeling in preparation for treatment facility combination and combined system separation.

One of the challenges that Midland GIS faced in collecting this utility data for the City was traffic control. The Missouri State Fair in Sedalia overlapped with the project schedule and Midland's professional field staff often worked throughout the night when the highways and roadways could be safely shut down by local law enforcement for our field collection staff.

The City of Sedalia elected to maintain and manage their GIS program with Midland's Integrity™ web GIS solutions. Approximately 60% of the sewer lines in Sedalia had been inspected with video cameras. Midland was able to integrate those videos into the GIS program through Integrity and make them spatially accurate and easily accessible. The City has also classified their sewer lines based on PACP standards and that data was integrated into Integrity as well.

https://sedalia.integritygis.com (Closed access site)

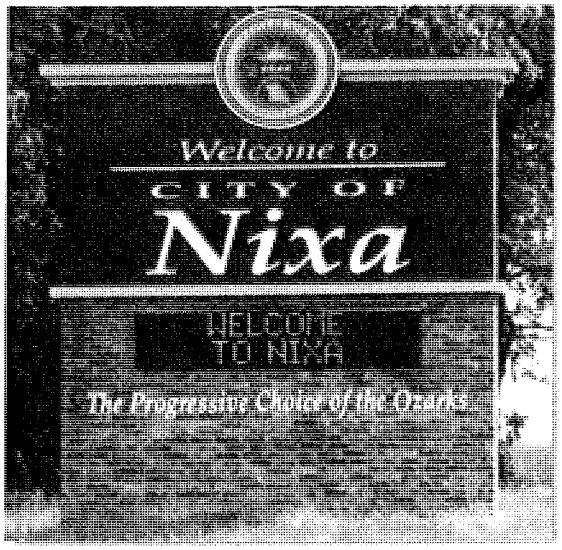
NIXA, MO

Electric Network Utility GIS Project

SERVICES PROVIDED: 2012

PROBLEM: The City of Nixa, Missouri is one of the fastest growing cities in the state. It is located just six (6) miles south of Springfield in Christian County with a population of approximately 19,000. In March 2012, the City of Nixa issued a Request for Qualifications (RFQ) to select a professional GPS and GIS mapping services provider to assist the City in their efforts to develop an advanced mapping grade inventory of their electric utility network and integrate that data into a GIS program. Midland GIS Solutions was selected out of 23 firms that submitted professional qualifications for this project.

SOLUTION/DELIVERABLES: Midland GIS Solutions was selected by the City of Nixa in June 2012 to develop their electric utility GIS program. Midland GIS Solutions incorporated Christian County's existing map data and the City's 3" pixel resolution aerial photography into the GIS program to establish a reliable base map.



Midland GIS Solutions utilized decimeter accurate GPS field equipment to obtain locations of features such as substations, poles, street lights, pad mount transformers, junction cabinets and secondary vaults within the City's electrical distribution network.

Today, the City of Nixa maintains multiple layers of useful data with Midland's Integrity™ web GIS solutions. All of the utility GIS data is in managed and maintained in a centralized, consistent and accurate database of spatial data in an environment that supports multi-user access and editing. Midland GIS Solutions also provides website hosting services to the City. The City of Nixa's Integrity GIS website is not open to the public: https://nixa.integritygis.com.

PROJECT APPROACH

The following explanation outlines the products and services Midland GIS Solutions will provide to The City of Basehor, KS.

KICK-OFF MEETING

Midland GIS Solutions will provide a half (1/2) day "Kick-off" meeting and Geodatabase Design Workshop for Basehor. The Kick-off meeting is essential to developing open communication with the client and will help establish Midland GIS Solutions' guidelines and procedures for coordinating with Basehor staff. The following important topics will be discussed and/or determined at the Kick-off meeting.

COLLECT EXISTING DATA

Midland GIS Solutions will acquire copies of available, relevant GIS data, AutoCAD drawings, hard copy utility maps, as-built information, and historical utility drawings from Basehor for use as reference during the project.

SAFETY AND PROCEDURES

Midland GIS will review safety and field procedures with staff during the Kick-off meeting to ensure the safety of not only our staff and the staff of the City, but the citizens of Basehor as well. Midland GIS follows a strict safety and procedures manual and also requires all field staff to attended OSHA safety classes to obtain confined space certification. All Midland GIS employees are required to attend internal quarterly safety meetings to review procedures and concerns.

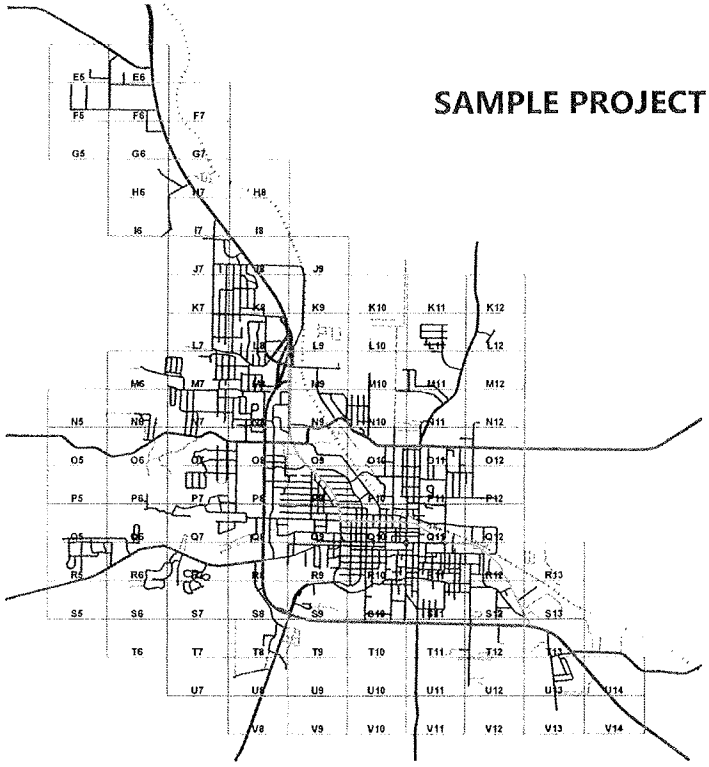
At all times, field staff will be wearing the required Class II traffic safety vests and all field vehicles will be clearly marked with company information and have the required safety lights for operation while in public right-of-way. Proper traffic control signage will be utilized when necessary while operating in public right-of-way. If required, due to traffic concerns, Midland GIS will operate during non-peak hours to obtain field locates and inspections. If Midland GIS staff has concerns about their safety, the appropriate Basehor staff or local law enforcement will be contacted.

PROJECT TIMELINE AND MILESTONES

Midland GIS will review and discuss the anticipated project timeline and milestones with Basehor staff. Any modifications to the project schedule at the request of the city will be discussed during the Kick-off Meeting.

WORK SECTOR DEFINITION

Midland GIS will work with Basehor staff to define a grid and identify work sectors for the entire project area. The creation of these work sectors serves two very distinct and important roles during the project. First, the project sectors will be utilized by Midland GIS field staff as a quality control measure. Field staff will work within each sector and complete all locates and inspections required prior to moving on the next sector. This allows for a very efficient method of data collection and translates into cost saving and quality for the city. The second aspect of working within project sectors is to allow Basehor staff an easy method to track progress and know exactly what part of the City Midland GIS field staff is in. It also allows for pre-planning during morning meetings for traffic control and City staff assistance. The work sectors will be the basis for weekly project reports to Basehor.



SAMPLE PROJECT SECTORS

PUBLIC NOTIFICATION

Midland GIS will work with Basehor staff to ensure proper citizen notification. It has been our experience on similar large scale projects that informing the citizens as best as possible can help to alleviate issues. Notifications at City Hall, utility billing offices and the local newspaper or public access channel (if available) is highly recommended. Midland GIS field staff will carry an informational letter on Basehor letterhead describing the project and the proper contact information at the City. It is also recommended that local law enforcement be notified about the project and that Midland's field staff will be working in town.

TECHNICAL WORK PLAN

GEODATABASE DESIGN

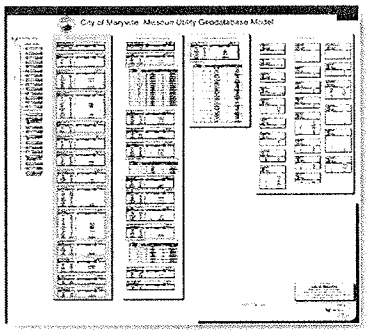
Midland GIS will work with Basehor staff to design a utility geodatabase model to meet the City's current and future utility asset management needs, as well as identify and define the logical structure for the geodatabase model as well as a develop unique and effective nomenclature for the sanitary sewer infrastructure across the city.

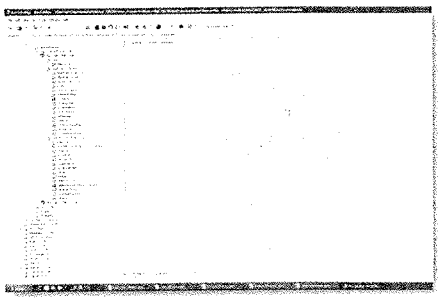
"A geodatabase can be defined as the centralized environment for storing and managing spatial data and is the core component of developing a GIS program."

When creating the overall design of the geodatabase for Basehor, Midland GIS Solutions will take into consideration the best model and structure to meet the needs of the City. The geodatabase will also be based on Midland's previous models, the published Esri utility model and future GIS needs, as identified by Basehor. Developing an accurate and functional geodatabase will allow Basehor to:

- Store all GIS-related data in a centralized location
- Apply rules and relationships to the data
- Create a consistent and accurate database of spatial data
- Define relationship classes and topological enforcement rules
- Work in an environment that supports multi-user access and editing

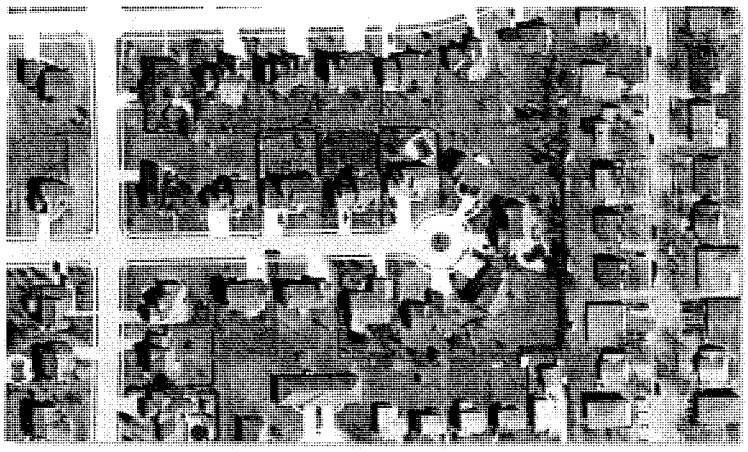
Midland's upfront design process enables field personnel to collect data in a rule-based environment. This minimizes field coding errors by pre-defining the attribute tables that are used in the field and also keeps the data collection process consistent.





Geodatabase Design Workshop → Geodatabase Model → Geodatabase

DIGITAL AERIAL PHOTOGRAPHY INTEGRATION

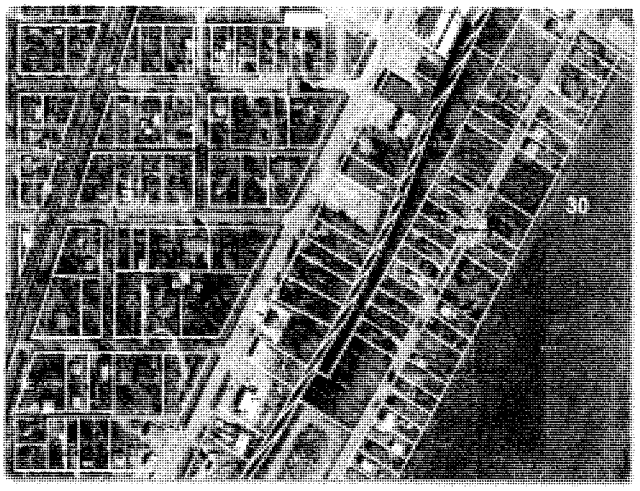


Midland GIS Solutions will integrate digital aerial photography of the City of Basehor (provided by Basehor) into the GIS program. The raster datasets created will be viewed as a seamless image across the entire City.

After the datasets are created, the aerial photography will be adjusted for color and contrast to meet specifications set by Basehor. Midland GIS Solutions will provide Quality Assurance and Control (QA/QC) on the provided aerial photography. This process will involve 'heads-up" on-screen visual inspection of the photography by trained GIS Specialists. Midland GIS Solutions will notify the city if any visual banding, warping, gaps, or distortions are discovered. Unless otherwise requested by Basehor, Midland GIS Solutions will not be performing any additional field ground control checks in relation to the spatial accuracy of the aerial photography.

INCORPORATE COUNTY GIS DATA LAYERS

Midland GIS Solutions will incorporate Leavenworth County, KS cadastral map data layers into the GIS program. Lansing is responsible for any cost associated with acquiring the GIS data from Leavenworth County. As the developer and on-going provider for the Leavenworth County, Kansas web-based GIS site (https://leavenworth.integritygis.com), Midland GIS can effectively assist in developing an inter-agency agreement between both parties for the use of Leavenworth County data. As approved by Leavenworth County, Midland GIS Solutions would create a new web service and link the Leavenworth County GIS website to the City of Basehor's GIS website, allowing for automatic updates and changes that the County makes to their data. Midland GIS Solutions will incorporate Leavenworth County cadastral map data layers into the GIS program upon request. Basehor is responsible for any cost associated with acquiring the GIS data from Leavenworth County.



GPS PROJECT PLANNING

Midland GIS will employ its in-house mission planning process and software for the Basehor Utility GIS project. Mission planning for GPS surveys includes the evaluation of satellite ephemeris data (data showing where GPS satellites are located) for the best satellite coverage and minimizing down time.

SANITARY SEWER GPS FIELD DATA COLLECTION

Through Real-Time Kinematic (RTK) GPS methods, Midland GIS will locate the public sanitary sewer facilities contained within the defined project limits. Captured features through GPS surveys will include all features designated by Basehor during the planning phase of the project.

After thorough investigation by Midland GIS field staff, a report containing all manholes that were not found or that were found to be inaccessible will be submitted to Basehor. Midland GIS will work with staff at the City to acquire those manhole locations during the cleanup phase of the project. This will allow Midland GIS to collect features in a quicker and more efficient manner, translating into cost savings for Basehor and minimizing the impact on your staff.

If Basehor staff is unable to locate portions of the gravity main system during the cleanup phase, Midland GIS will COGO as-built drawings into the GIS. This data will be loaded into the GPS controller and will be used to navigate to the approximate locations of the lost or buried manholes.

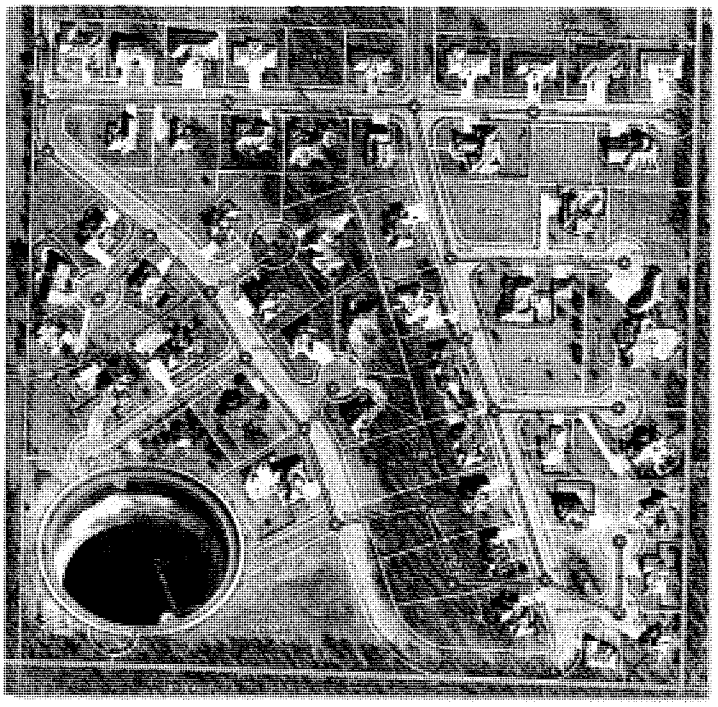
Midland GIS will GPS locate all features associated with Basehor's force main system. Typical features that are collected during this phase of the project include: lift stations, force main valves, air relief valves and pre-located force main locations, and grinder pumps within the southern subdivisions. In the event that Basehor is unable to identify the approximate location of the force main, as-built drawings will be utilized to retrace the location of the force main line.

GPS surveys will be referenced to the Kansas State Plane Coordinate System to allow for direct insertion into the City's GIS program. Horizontal (x,y) coordinates and vertical (z) elevations will be obtained in the field for the sanitary sewer facilities. Features will be collected at a survey grade horizontal and vertical accuracy.

DATA COLLECTION SPECIFICATIONS:

- Midland GIS Solutions will GPS field locate manholes, force main lines, lift stations, ARV's and lamp holes (if present) for the sanitary sewer network within the project limits. (The exact project boundary will be agreed upon before commencement of the project).
- For consistency purposes, the north rim of the manhole will be located during the project.
- Midland GIS will mark each manhole with survey marking paint after each manhole has been identified.
- The sanitary GPS field data will be collected using survey grade RTK methods.
- Midland GIS Solutions will download and process the GPS field data to prepare the data for proper insertion into the GIS mapping program. GPS data collected is verified daily against the existing aerial photography.
- All data collected will be downloaded nightly and transferred via the internet to Midland's home office in Maryville, MO.

- All transferred data is backed up nightly in the Maryville office.



Manholes that are inaccessible by GPS due to tree cover or satellite visibility will be noted and shot utilizing traditional survey methods (total station or level rod). All data will be coded as to the method of collection utilized.

SANITARY SEWER ATTRIBUTE COLLECTION

Midland GIS will perform top-side manhole field inspections to collect manhole attribute data during this phase of the project. Any manholes that require further assistance in opening or gather attribute data will be noted and Midland GIS will work with Basehor staff to gain access to the identified manholes.

Midland proposes to obtain invert elevations for all incoming and outgoing mainlines, manhole depth and pipe size utilizing traditional survey measurement methods. This information will be collected by measuring down from the north rim location where the GPS elevation was acquired. Flow direction will be noted during the field inspection process. If during the inspection process Midland GIS discovers any manholes that need immediate attention (back-ups, cave-ins, major obstructions and overflows), the appropriate staff at the City will be immediately contacted.

All field data will be predefined during the Geodatabase design to ensure accurate and consistent attribute collection. Field staff will run the custom application on the GPS data collector to allow for quick and easy identification and navigation of the manholes. All data will be downloaded nightly and transferred via the internet to the Maryville office and inserted in to the project geodatabase. All data will be backed up nightly.

The sanitary sewer features to be collected will be defined in preliminary meetings with the City of Basehor. Manholes will be opened, inspected and attribute data will be collected.

TYPICAL FEATURES TO BE COLLECTED, BUT NOT LIMITED TO:

- **Northing, Easting**
- **Rim elevation**
- **Manhole depth**
- **Invert elevation**
- **Manhole material**
- **Manhole type**
- **Pipe type**
- **Pipe size**
- **Location**
- **Grade**
- **Lined Y/N**
- **Access type**
- **Buried (Y/N)**
- **Depth buried**
- **Pipe material**
- **Condition rating**
- **Evidence of infiltration**
- **Drop type**
- **Drop depth**

GIS FEATURE CREATION

Midland GIS Solutions will develop an ESRI ArcDesktop 10.x geodatabase file for the sanitary sewer distribution networks for the City of Basehor. Unique feature class data layers will be created for the layers that are defined during the Geodatabase Design Workshop portion of the project.

Custom domains (pre-defined menus) will be built for each layer during the Geodatabase Design Workshop. These custom domains will be added to Midland GIS Solutions' custom field inspection application to ensure that field staff will collect clean and consistent data throughout the utility survey project. These domains will also be utilized by Basehor staff for future management of the geodatabase to help simplify the editing and data management processes.

Midland GIS will acquire copies of all available existing mapping records for Basehor's sanitary sewer utility infrastructure. These records may include historical maps, as-build records, an existing GIS dataset, and AutoCad drawings. All hard-copy maps will be scanned so that they may be returned to the city in a timely manner.

Sanitary sewer line segments will be created utilizing custom, in-house editing tools developed by the Midland GIS development team. These tools will incorporate inspection data collected by field staff and will auto-generate sanitary sewer line segments illustrating flow direction, slope and exact length measurements. Quality assurance warnings have been built into these tools to verify positive slopes and to check for inconsistencies with pipe material and diameter.

QUALITY ASSURANCE & QUALITY CONTROL

Quality Control and Cost Control issues involved with this project are of paramount importance to Midland GIS Solutions and to the overall integrity of the proposed project. These issues range from GPS accuracy and data development precision to successful database integration, which potentially affect every aspect of the project. Through the combined efforts of our project team, an emphasis on quality control will remain at the highest level of importance during the development and implementation of the City's GIS program. Our efforts to ensure the highest quality products and services to The City of Basehor, KS include:

- Custom QA/QC ArcGIS tools
- "Heads-up" QA/QC against base data or aerial photography
- Digital and hard copy checks against field notes and as-built drawings
- 5% redundancy check of all GPS collected data
- Printed check plots for review by Basehor staff
- Assurance that end product shows complete connectivity

GPS REDUNDANCY CHECK

As part of the quality control process, Midland GIS Solutions will GPS locate five (5) percent of the features previously shot during the project. This process is part of the Midland GIS field protocol and will be employed during the Basehor project. Midland GIS will compile and process the results against the other data set and verify the required accuracy tolerance is being met.

PROJECT STATUS REPORTS & PROJECT WEBGIS SITE

Midland GIS Solutions will issue a "Project Status Map" to Basehor on a bi-weekly basis illustrating the progress accomplished. These maps are also kept on file by the GIS Project Manager for project progress reference. Midland GIS will also set up a project Web GIS site that will reflect the daily progress of the field staff.

DELIVERABLES

After the staff at The City of Basehor, KS has reviewed and approved all GPS located and attributed data, Midland GIS will present a full set of deliverables to the City. Theses deliverables will be both physical and electronic and will give Basehor the full potential to utilize the new GIS as well as maintain it into the future.

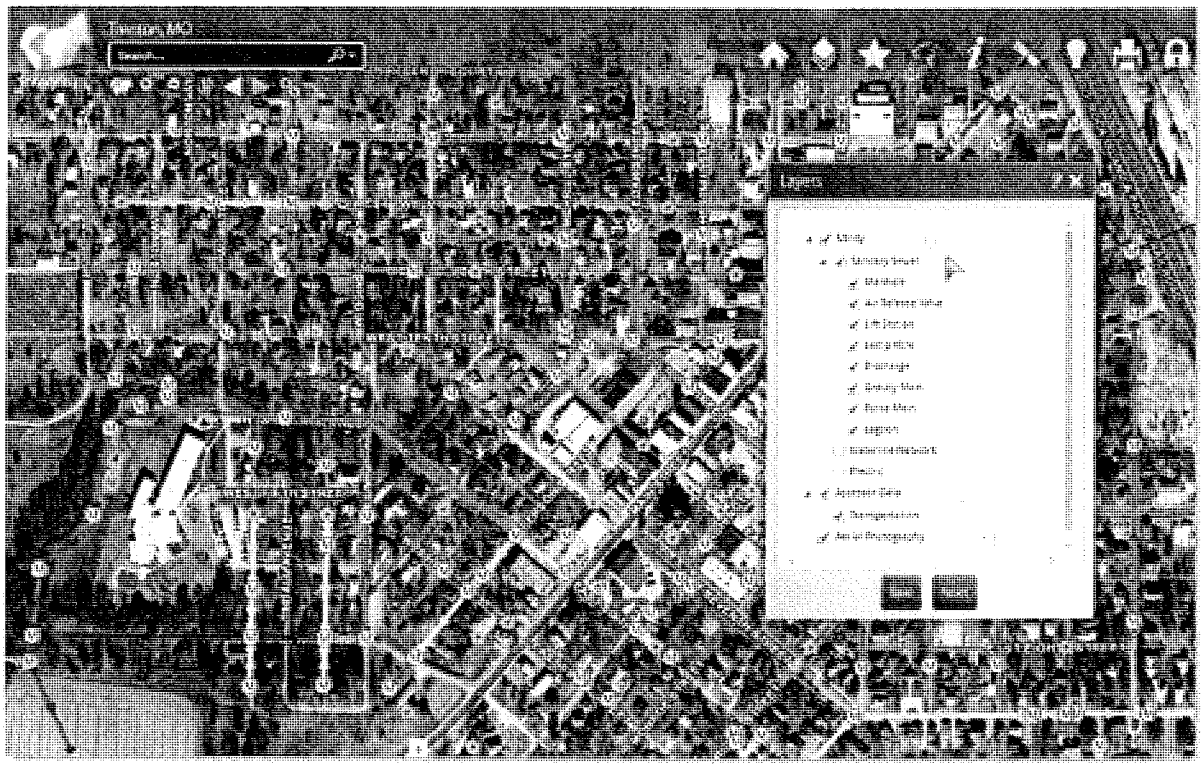
PROPOSED DELIVERABLES INCLUDE:

- ESRI ArcDesktop 10.x Geodatabase containing datasets for the sanitary sewer utility
- ESRI Map Documents (.mxd)
  - 11x17 Truck Book Map Documents
  - 36x36 100-scale Map Documents
- (5) Sets of bound 11x17 Truck Books
- (2) Sets of 36x36 100-scale system maps
- (2) Full system 42" high gloss wall maps
- Training/Users Manuals for:
  - Integrity Web GIS
- (6) Months free Tech Support that includes:
  - Phone Support
  - Remote Web Support
  - Email Response
  - Dedicated Project Contact
- Additional Hardware and Software as chosen by Basehor

INTEGRITY™ WEB GIS

Midland GIS Solutions proposes web-based GIS as a ***software solution*** for managing and maintaining the Basehor GIS program in a multi-user environment. Midland has developed Integrity™, an ArcGIS Server and Silverlight application for municipal clients to manage, analyze and maintain their utility infrastructure data through a secure, user-friendly website that can be tailored to the City's exact specifications.

By increasing operational awareness and daily efficiencies in utility asset management, ***Integrity™ helps more than 20,000 monthly users save valuable time, money, and resources.***
With Integrity™, multiple authorized users can access attributes and other map features directly from their website, allowing for collaboration with colleagues, field crews, and regulatory agencies. Integrity's capabilities include asset management, charting and reporting, sewer analysis features, , sign inventory management, and much more.



Midland GIS Solutions has the ability to set-up a customized Integrity™ Web-based GIS for Basehor. The City's existing aerial photography, GIS data layers, and external databases provided by Basehor will be utilized for the GIS Website development. As approved by Newton County, Midland GIS Solutions will set up a Web Service to link updates on Newton County's Web GIS site to the City's

Web GIS site which will provide automation and instantaneous updates to the county layer's used by the City of Basehor.

The Integrity™ GIS website will include, **but will not be limited to**, the following data layers:

- **Aerial photography**
- **County base map data**
- **City limit boundary**
- **Sanitary sewer data**
- **Section, Township & Range Line**

WEB PAGE DOMAIN NAME REGISTRATION

Midland GIS Solutions will register a domain name for Basehor's Web GIS site through GoDaddy.com. The recommended domain name will be: http://basehor.integritygis.com.

Midland GIS Solutions will route the DNS (Domain Name Service) numbers to route to our Web GIS server located in our office in Maryville, Missouri. Midland GIS Solutions will test the domain name once transferred to our web server for quality control purposes.

WEB GIS HOSTING

Basehor will be responsible for providing Midland GIS with data updates for the web GIS site. The City will determine when new GIS data and imagery is posted to the GIS website. Midland GIS Solutions can set up scheduled batch programs that will automatically copy updated GIS data from a dedicated server at the City to the web GIS site on a regular basis (daily, weekly or monthly) as identified by Basehor.

Midland GIS Solutions maintains a secured, climate controlled server room with a dedicated six (6) Mb upload and download speed fiber Ethernet connection. The server room is also connected to a gas powered generator to keep the web servers up and running in the case of a power outage. Midland GIS Solutions will host and maintain Basehor's GIS website on a Dell PowerEdge R710 web server.

SECURE SOCKETS LAYER (SSL)

Integrity uses 128-bit encryption through Secure Sockets Layer (SSL), which is the industry-standard encryption scheme trusted by thousands of banks and retailers to keep sensitive information such as credit card numbers safe. Your data and account details are encrypted to prevent malicious users on the Internet from eavesdropping or modifying any communication between your computer and our Integrity web servers.

PASSWORD-PROTECTED LAYERS

Basehor can easily change the layers and attributes you see based on login. Public users will only see a subset of your data while your office or subscriber accounts can see more. For example, public users can see parcel boundaries and dimensions while limiting access to owner names, sales and tax history, utility information and mailing addresses.

LOG-IN REQUIRED SITES

If you do not want your data to be publicly available, your Integrity™ site can be configured to require a login. Anyone who accesses the site will be required to login before they can view any GIS data.

WEB GIS PRODUCT TRADEMARK

The proposed web-based GIS application is trademarked under Integrity™, a GIS Software Suite developed by Midland GIS Solutions. The Integrity™ ArcGIS Server code is non-transferrable and shall only run on a web server administered by Midland GIS Solutions.

WEB GIS FUNCTIONALITY

The City of Basehor, KS will have the ability to perform the following functions within the customized Integrity™ web GIS site:

- **SSO Tracking**
- **Facilities management**
- **Reports and Charts**
- **Custom Search**
- **ID Features**
- **Advanced query**
- **Layer control**
- **Auto generate mailing labels**
- **Export search results to Microsoft Excel**
- **Navigation**
- **Mark-up tools**
- **Secure login**
- **Bookmarks**
- **Feature buffering**
- **Map printing**
- **Coordinate display**
- **Measure tools**
- **Thematic mapping**

Midland's Integrity™ interface includes a secure login that can be set up to control access to certain data layers in the web site. The secure access will require a unique username and password to gain access to any number of layers, attributes, or web site functionality. Basehor will have full authority to provide usernames and passwords to any staff or to the general public if they so choose.

A complete description, along with screenshots of Integrity's features can be found in **Attachment A** of this proposal.

WEB GIS HARDWARE/SOFTWARE REQUIREMENTS

Windows System Requirements

- Microsoft Silverlight 5.0 or greater
- Operating System – Windows 7, Windows Vista, Windows XP Service Pack 2
- Processor – 2 GHz processor or better
- Memory – 512MB of RAM
- Browser – Mozilla Firefox, Internet Explorer 7.0 or greater, Google Chrome, Safari, Opera

Macintosh System Requirements

- Microsoft Silverlight 4.0 or greater
- Operating System – Apple Mac OSX 10.4.8 or greater
- Processor – 2 GHz processor or better
- Memory – 512MB of RAM
- Browser – Safari, Opera, Mozilla Firefox, Google Chrome

Monitor Requirements

- Minimum of 1024 x 768 resolution.
- Recommended 1280 x 1024, 1440 x 900, or greater.

Installation Requirements

Integrity™ must be installed on a secure server(s) with a current and active license of Esri's ArcGIS Server 10 and Microsoft .SQL Server. Midland GIS Solutions will host the Integrity™ web GIS application, and therefore maintain the necessary hardware and software licensure to ensure the web site is functional and accessible for Basehor and any external users of the web site.

Network Connection Recommendations

Integrity will work with any internet connection. However, load times and function processing speeds may vary based on the speed of your internet connection. Broadband internet connection (**min. of 512 Kb/s download rate**)

WEB GIS TRAINING & SUPPORT

Midland GIS Solutions provides comprehensive training and support programs for every level of service provided, including training for Midland's Integrity™ web GIS solutions. Standard training can include on-going technical support services, remote technical support, recorded technical support sessions, remote computer diagnostics, computer-to-computer file transfers and software updates.

FEE SCHEDULE

GPS DATA COLLECTION & GIS DEVELOPMENT

Sanitary Sewer Utility Network _____ $52,621.00

Fees are based on the number of utility features as provided to Midland GIS Solutions by The City of Basehor, KS.

Optional Software

INTEGRITY WEB GIS DEVELOPMENT

Integrity Web-GIS Development*_____ *$2,500.00

Annual Web Hosting*_____ *$3,000.00

Integrity™ users that have Midland GIS Solutions host their web GIS site will automatically receive Integrity™ source code, versioning updates and additional integration of GIS-ready layers.

REFERENCES

TRENTON MUNICIPAL UTILITIES

Chad Davis, Utility Director
1100 Main Street
PO Box 108
Trenton, MO 64683
(660) 359-2281 x27
utildirector@trentonmo.com

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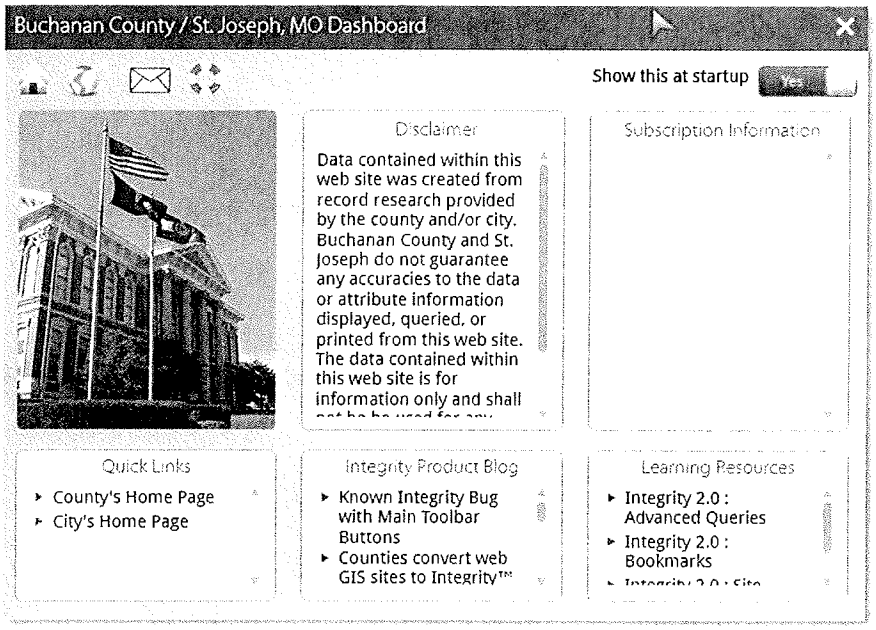
msullivan@gardnerkansas.gov

ATTACHMENT A

INTEGRITY™ WEB GIS FUNCTIONALITY

Website Dashboard

Information specified by the client, including a standard disclaimer, hyperlink to an ftp site, contact information, hyperlink to the client's homepage and easy access to the help menu is conveniently located in the Integrity™ "Dashboard".

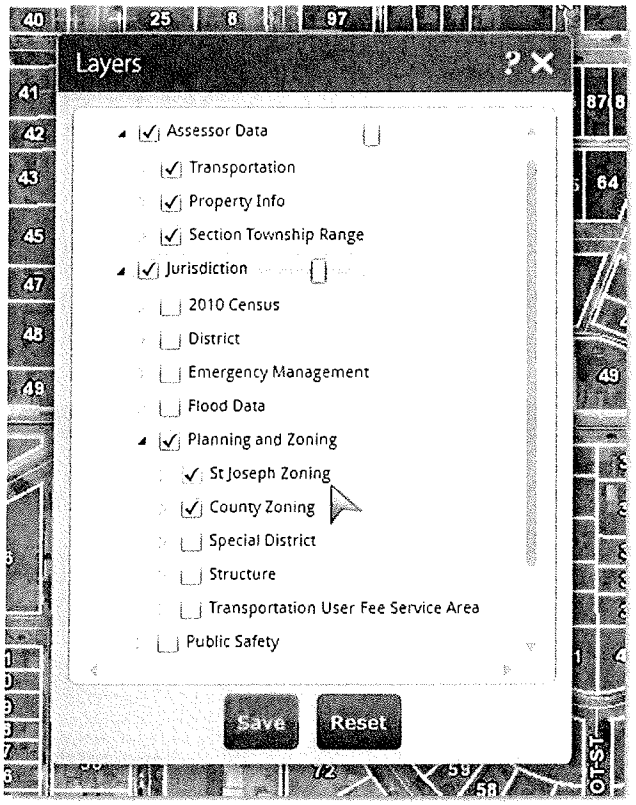


Basic Navigation Tools

Integrity™ has a basic navigation tool bar containing pan, zoom in, zoom out, full extent, quick search, and coordinates, as well as a higher-level tool bar with buttons to access the following features: website dashboard, layers, bookmarks, advanced query, identify, drawing and measure, map tips, print and login.

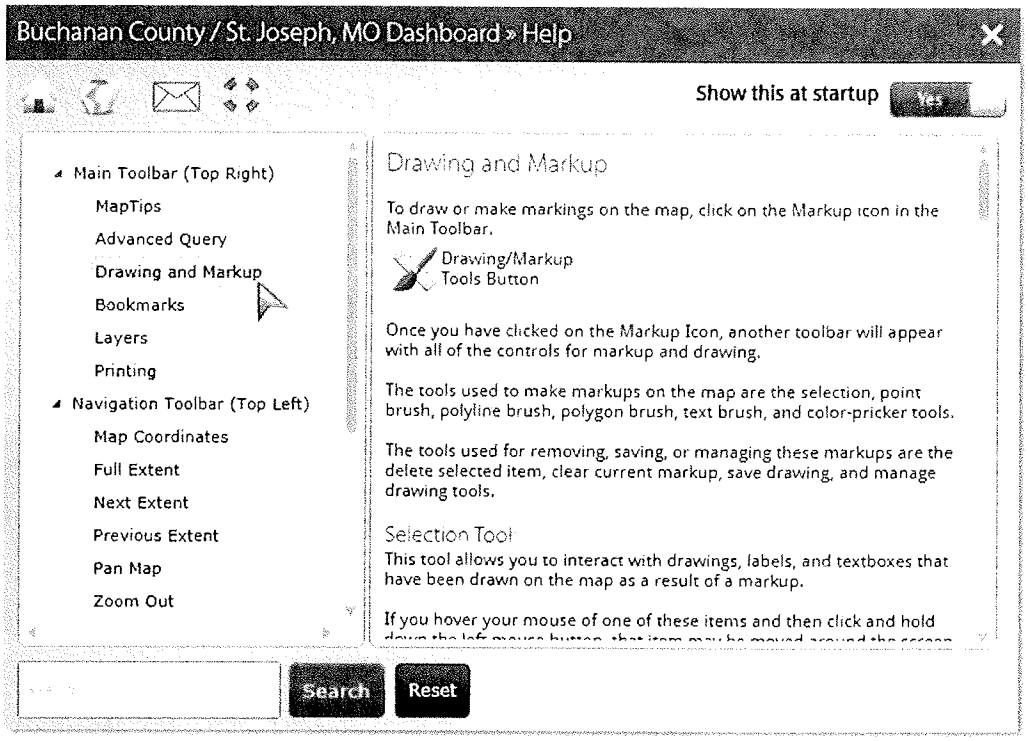
Layers Menu

The layers menu in Integrity™ can easily be turned on and off and is accessible from the main toolbar. The layers menu can also be reset to default settings (layers on and off) and can also be saved on a local machine to maintain layer settings for future website viewing sessions. *(Right)*



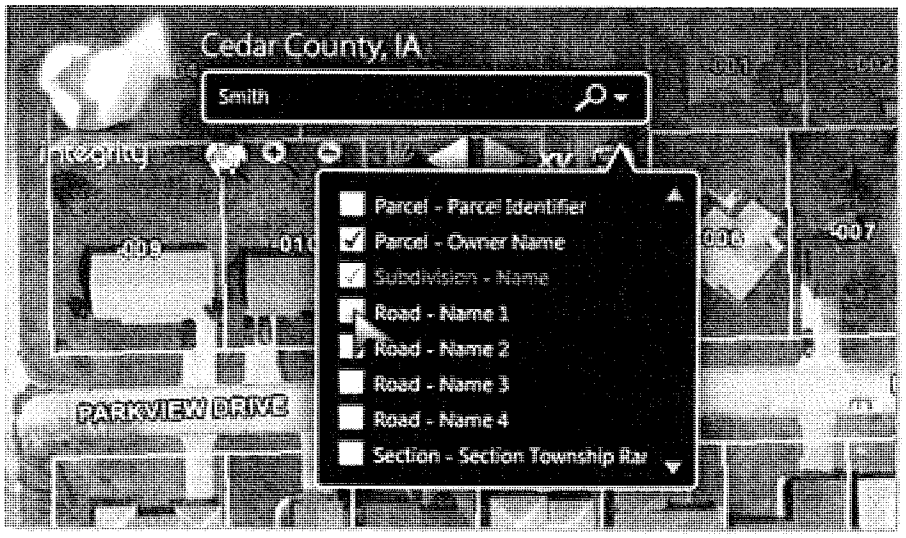
Help Documentation

All Integrity™ sites include a detailed help menu within the website, and all clients also receive a PDF training manual for easy distribution to all users. The help menu, as well as the training manual, include a table of contents for easy navigation and the help menu within the Integrity™ site as a built in search feature. *(Below)*



Quick Search & Filtering

This feature allows users to search for layer attributes (i.e. street name, property owner name, 911 address, subdivision, utility information, etc.) and apply search filters to narrow results.

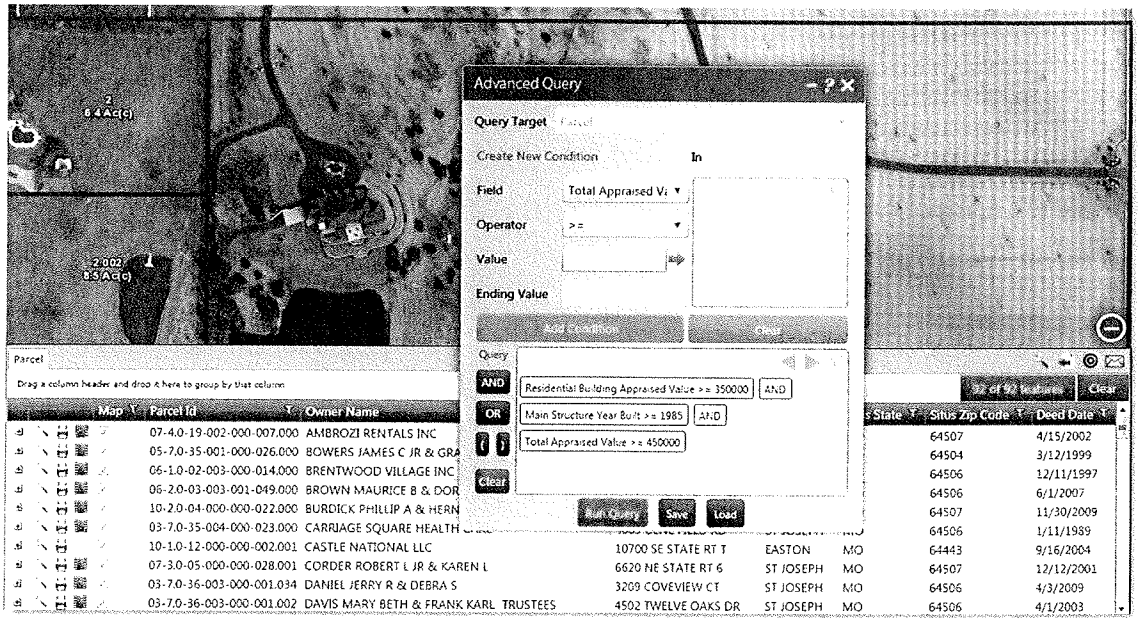


Map Tips

Integrity™ provides users with a "quick identify" tool. Map tips can be easily filtered to select what attribute information about a feature is displayed. Users can turn this feature on and off and "pin" as many map tips to the map as they would like.

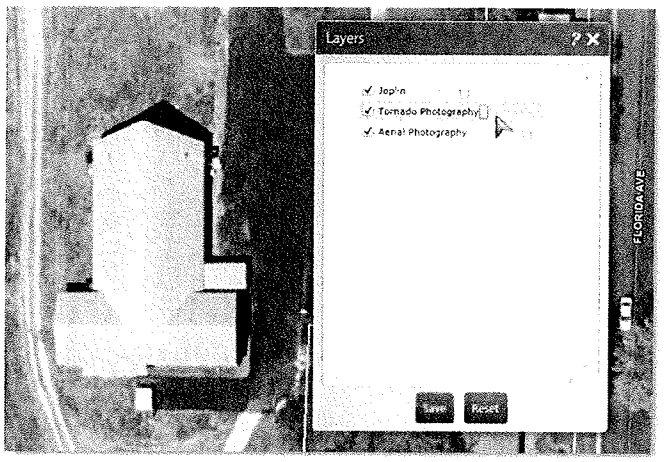
Custom/Spatial Queries

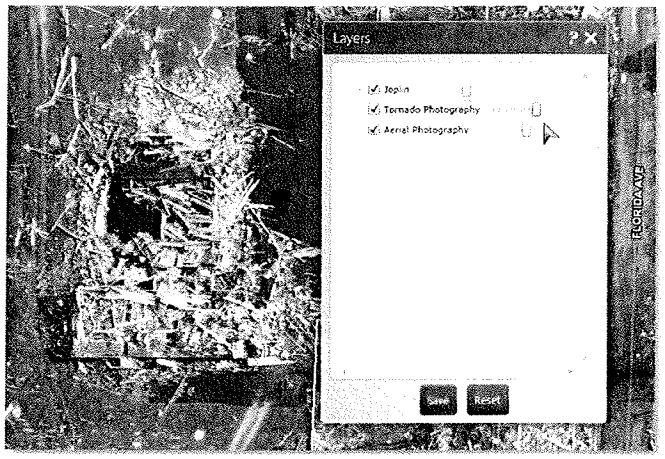
With the Advanced Query feature, Integrity™ users can easily build detailed queries with multiple levels of criteria. These queries can be saved and opened again to save time and also to share with associates or customers. All query results can be exported to an excel file.



Aerial Photography

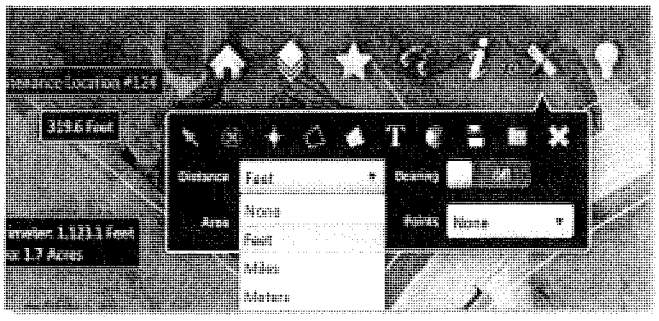
All layers in the geodatabase, including the base map and all aerial photography can be displayed as layers in the web GIS site. Integrity™ also has a "sliding" bar for imagery so that the base map or photography layer(s) can be faded in and out.





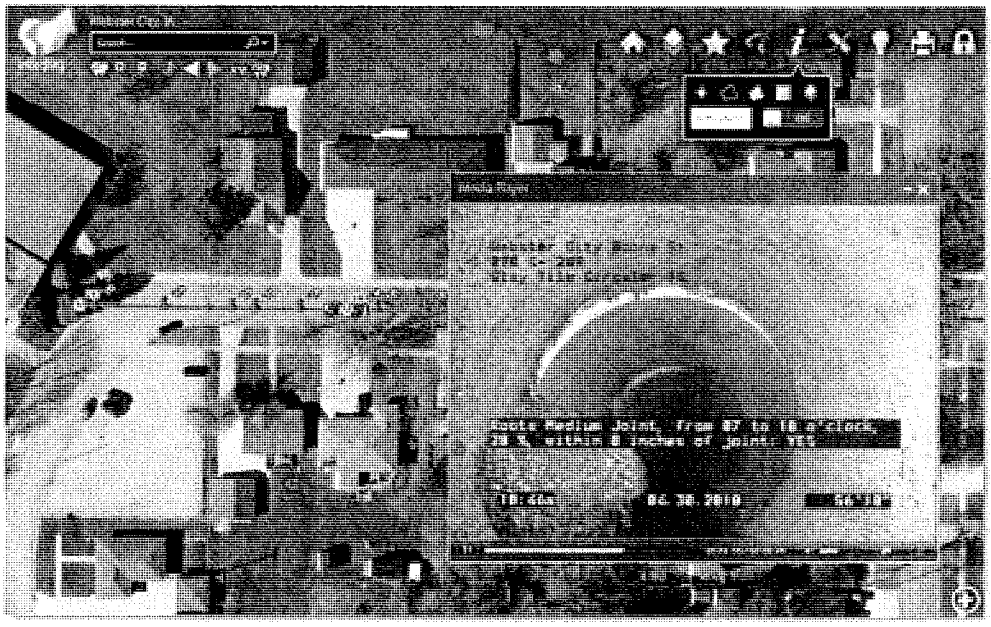
Mark Up Tools

With our user-friendly mark-up tools, Integrity™ users have the ability to draw polygons, points, lines, add text, and utilize various measurement settings. Users have the ability to move drawings once complete and also utilize the color wheel for all drawings and text. All drawings can be saved, or bookmarked, and exported via email or printed within the Integrity™ map viewer.



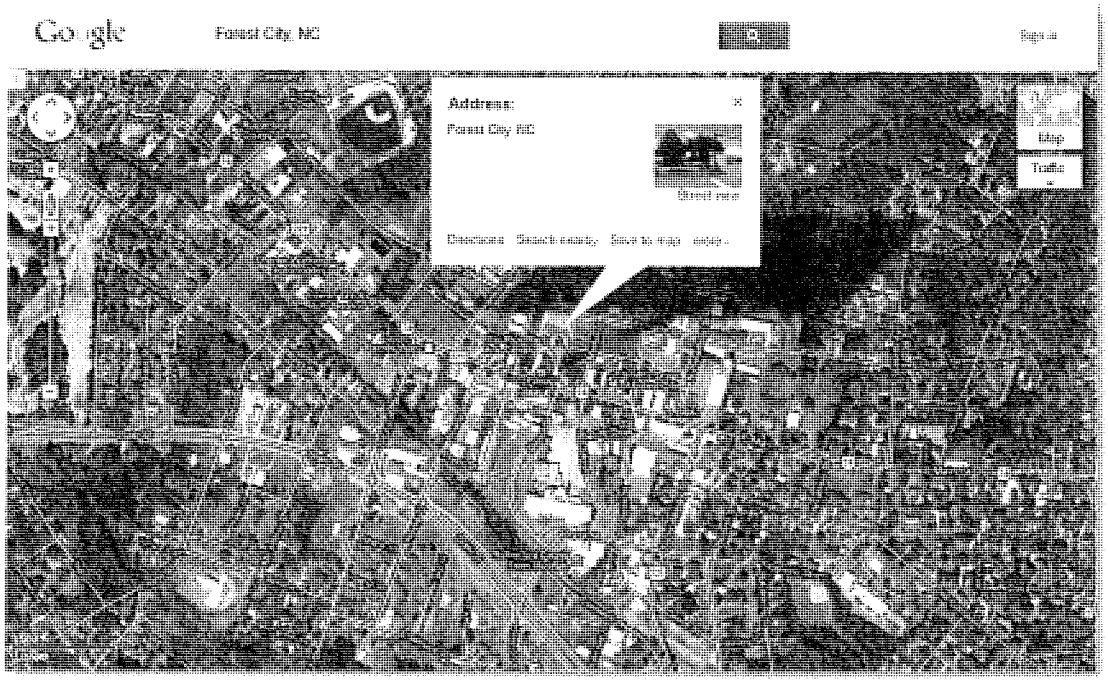
Hyperlink Media & Documents

Users can hyperlink media (videos and pictures), documents, external websites and database tables in Integrity™ for easy access to geographically referenced information relating to parcels, roads, utilities, or any other data layer.



Internal & External Map Services (Google Maps/Bing Birds Eye)

Integrity™ is capable of consuming all kinds of map and web services from internal and external sources. For example, aerial photography from another source can be accessed and displayed within the application.

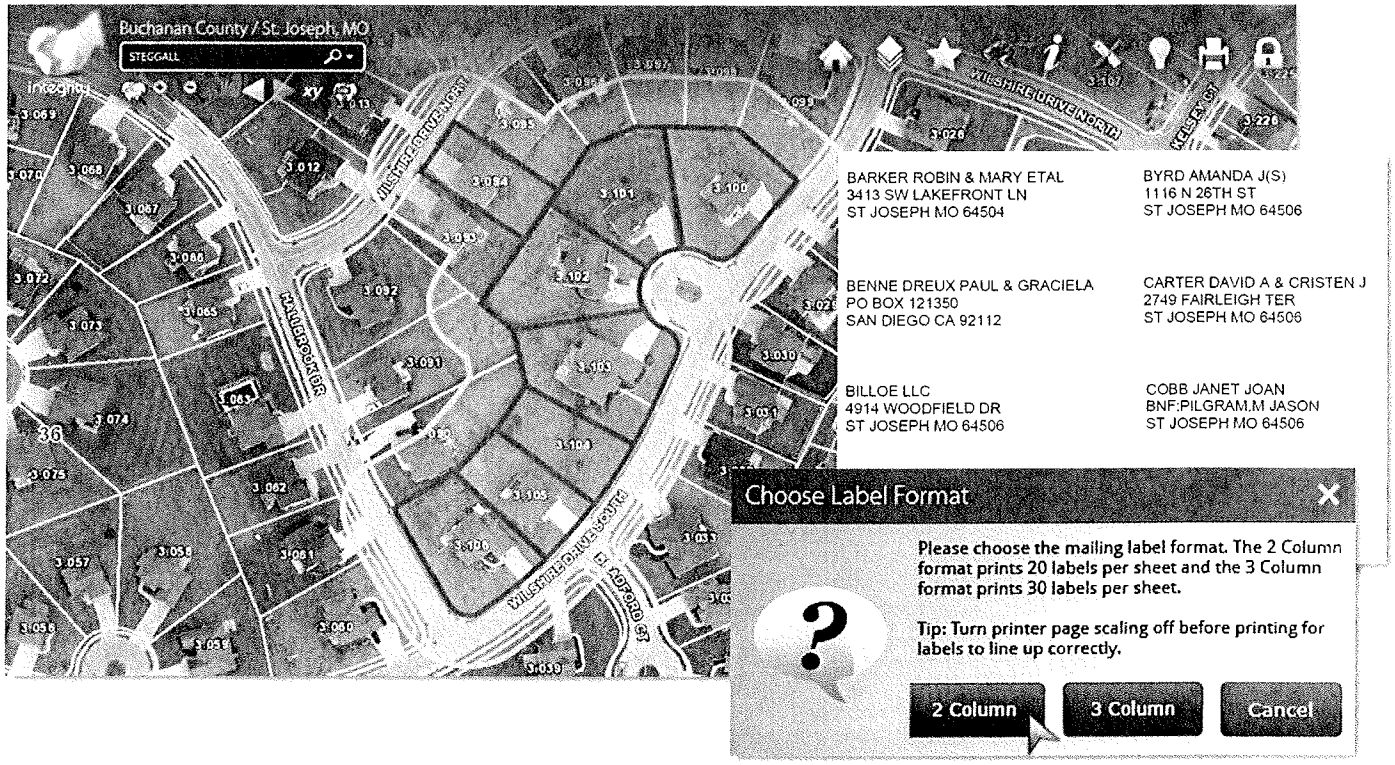


Bookmarking

With Integrity™ any map, query or drawing can be saved, or bookmarked. The bookmark feature allows users to name their saved map or query and easily recall it in the same or future viewing session. Saved maps can also be exported and emailed to others to open independently of the Integrity™ website.

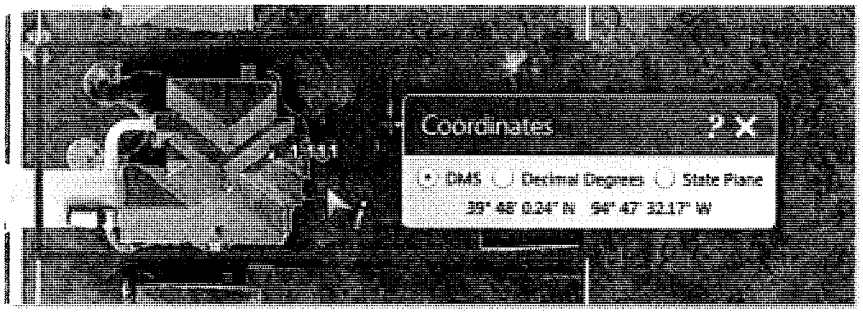
Buffering & Mail Labels

A buffer can be used to identify features that are within a specified distance from your selection. If you've selected a feature, you can buffer off of it and create an excel spreadsheet or Avery mailing labels from your results.



Coordinates

The Integrity™ drawing and graphics tool gives the user the ability to display a user defined coordinate directly on the map. There is also a running coordinate window that can be turned on or off. The coordinate systems are Lat/Long DMS, Lat/Long decimal degrees, and State Plane.

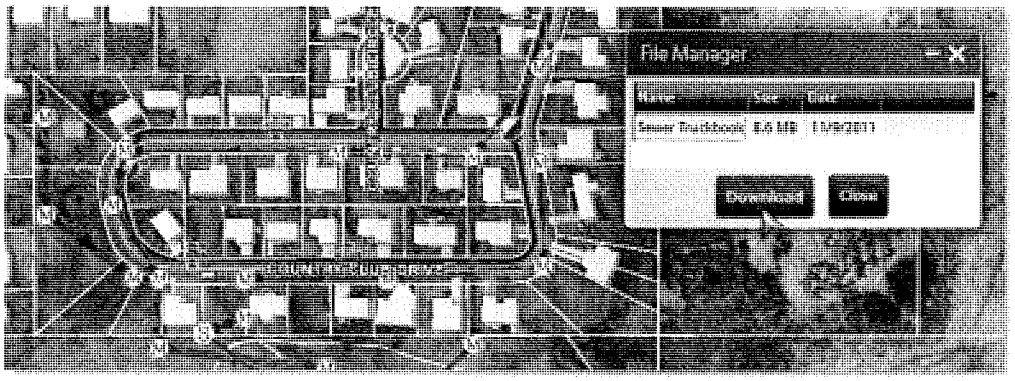


Map Printing & Export

Integrity™ users can print all maps at a standard size of 8 ½ x 11". All maps can be exported to a PDF from the print map view and resized accordingly for printing in various sizes. Users have the options of designating printing settings for a "template", or customized look. Reports can be printed and exported as well with no map.

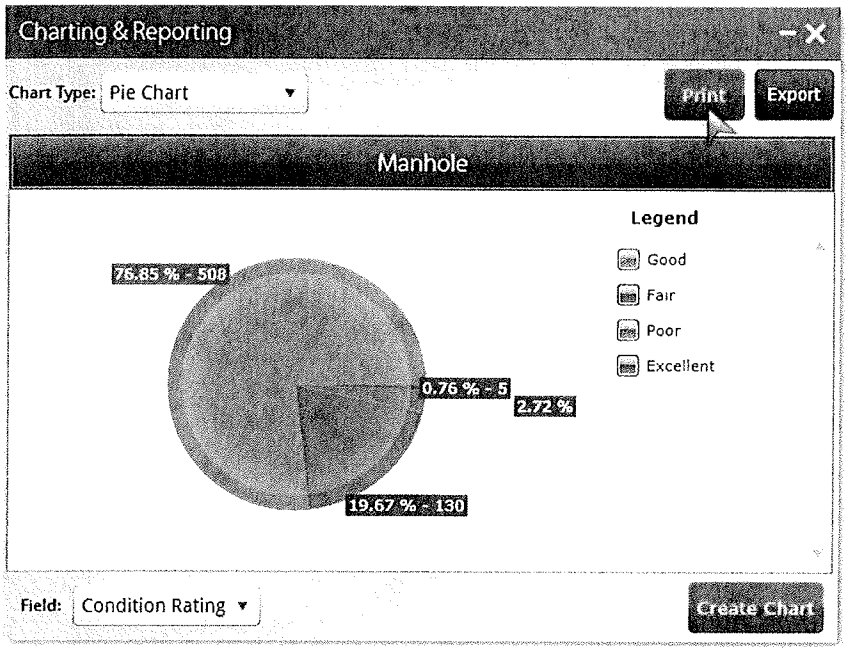
File Manager

File Manger acts as a download portal within the Integrity™ site so that users have the ability to download and view different file formats, including shapefiles, zip files, PDF documents, etc. Users can select the desired file to download and save it locally on their computer.



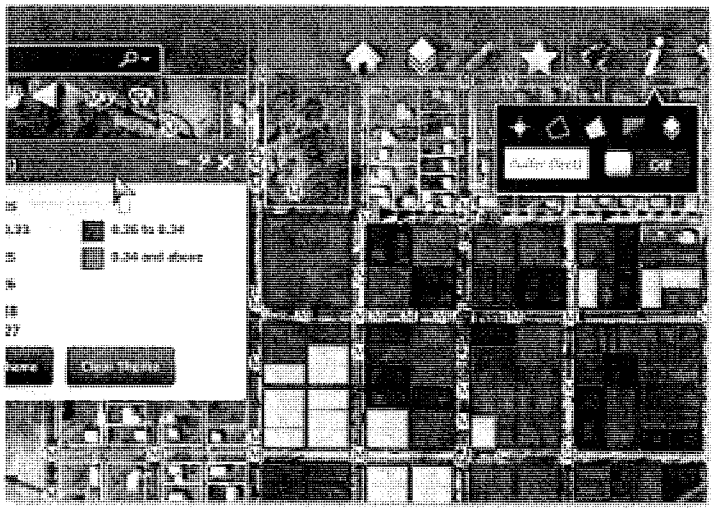
Charts & Reports

Charts and reports are excellent graphical representations that assist with budget forecasting and Capital Improvement Project planning. Integrity™ has advanced reporting and charting capabilities that allow you to instantly analyze data and generate reports that might otherwise take days, weeks or even longer to create. All results can be exported to Excel format.



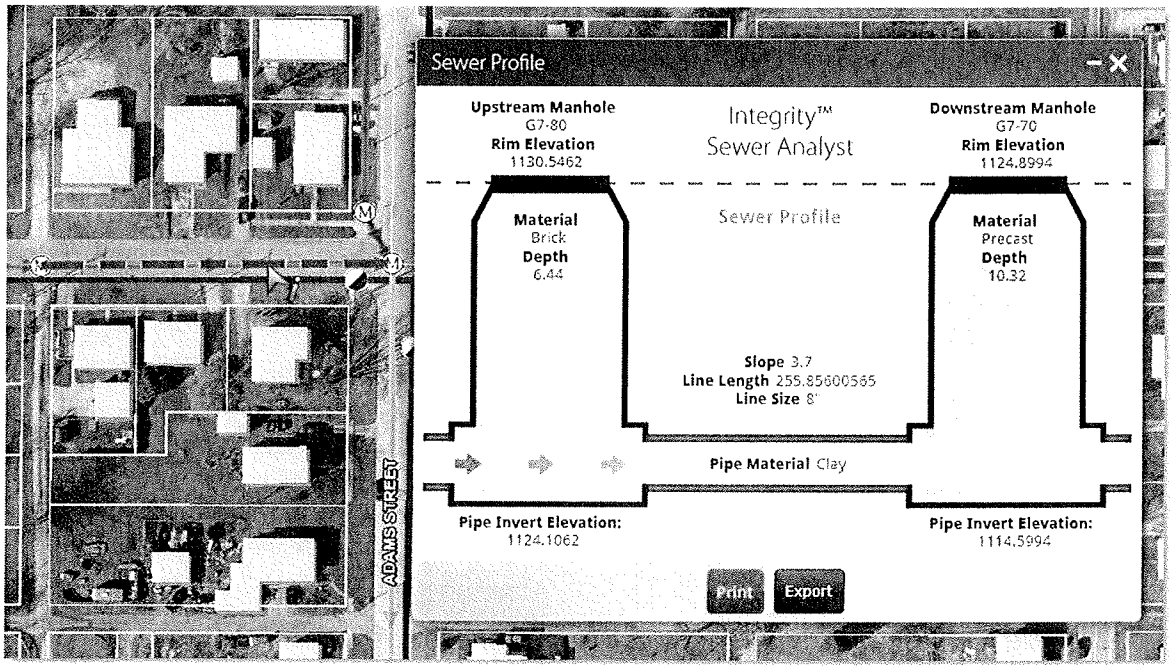
Thematic Mapping

Integrity™ users can easily create thematic maps to show how a particular theme is connected to a specific geographic area. The thematic mapping tool creates themes by applying colors to features and creating a legend in which the selected feature's attributes fall into.



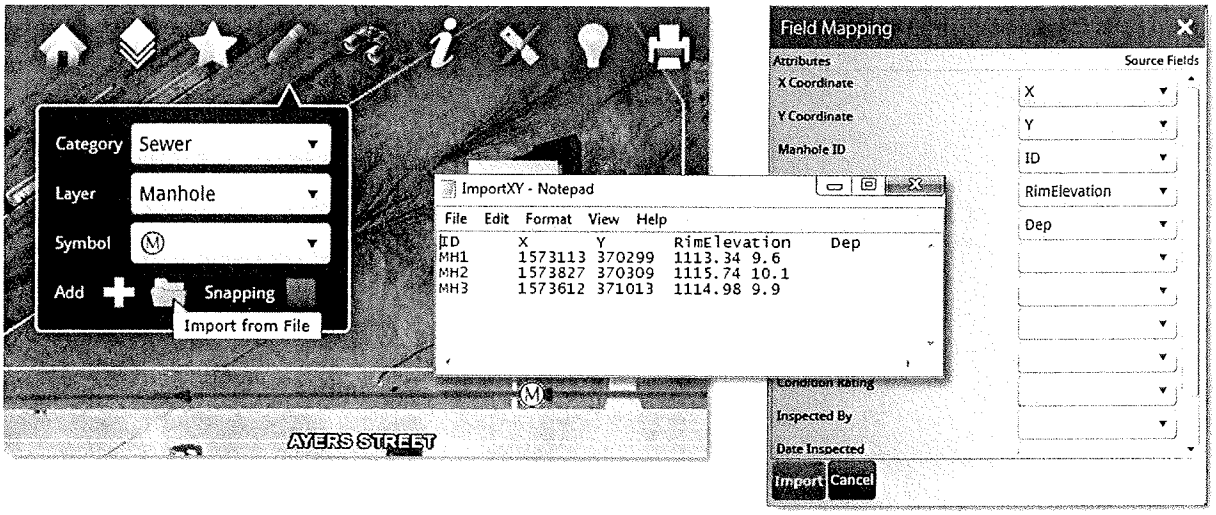
Sewer Profile

With Integrity™, users can select, or identify a gravity main and instantly generate a detailed Sewer Profile report identifying each manhole flow direction of the pipe, manhole material, rim elevation and pipe invert elevation. This graphic profile can also be exported to a .PNG file and a .PDF if desired.



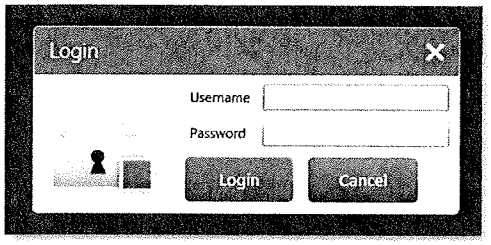
Upload X,Y Coordinates (GPS Coordinates)

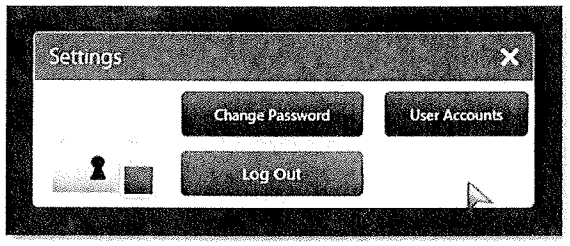
Integrity™ offers the ability to batch import GPS points, or X,Y coordinates, from an Excel or .CSV file. All features with an X,Y coordinate can be mapped to a specific field in the GIS database within Integrity™. Features will be created from the coordinate file, along with the associated attributes.

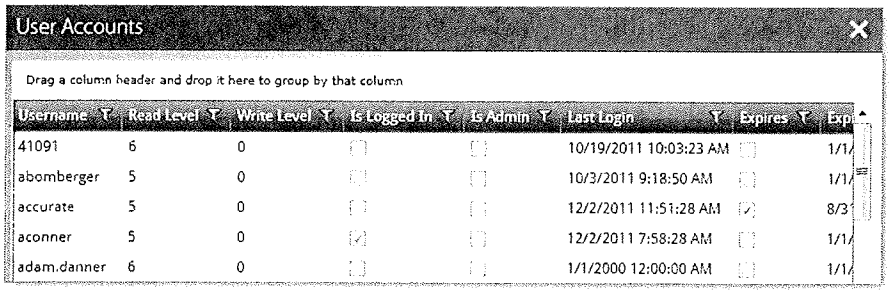


Secure Login

The Integrity™ web GIS interface includes a secure login feature that can be set up to control access to certain data layers in the web site. The secure access will require a unique username and password to gain access to any number of layers, attributes, or web site functionality. The designated Administrator(s) has full control to provide usernames and passwords to authorized staff.







QUALITY ASSURANCE & QUALITY CONTROL

Quality Control and Cost Control issues involved with this project are of paramount importance to Midland GIS Solutions and to the overall integrity of the proposed project. These issues range from GPS accuracy and data development precision to successful database integration, which potentially affect every aspect of the project. Through the combined efforts of our project team, an emphasis on quality control will remain at the highest level of importance during the development and implementation of the City's GIS program. Our efforts to ensure the highest quality products and services to The City of Basehor, KS include:

- Custom QA/QC ArcGIS tools
- "Heads-up" QA/QC against base data or aerial photography
- Digital and hard copy checks against field notes and as-built drawings
- 5% redundancy check of all GPS collected data
- Printed check plots for review by Basehor staff
- Assurance that end product shows complete connectivity

GPS REDUNDANCY CHECK

As part of the quality control process, Midland GIS Solutions will GPS locate five (5) percent of the features previously shot during the project. This process is part of the Midland GIS field protocol and will be employed during the Basehor project. Midland GIS will compile and process the results against the other data set and verify the required accuracy tolerance is being met.

PROJECT STATUS REPORTS & PROJECT WEBGIS SITE

Midland GIS Solutions will issue a "Project Status Map" to Basehor on a bi-weekly basis illustrating the progress accomplished. These maps are also kept on file by the GIS Project Manager for project progress reference. Midland GIS will also set up a project Web GIS site that will reflect the daily progress of the field staff.

DELIVERABLES

After the staff at The City of Basehor, KS has reviewed and approved all GPS located and attributed data, Midland GIS will present a full set of deliverables to the City. Theses deliverables will be both physical and electronic and will give Basehor the full potential to utilize the new GIS as well as maintain it into the future.

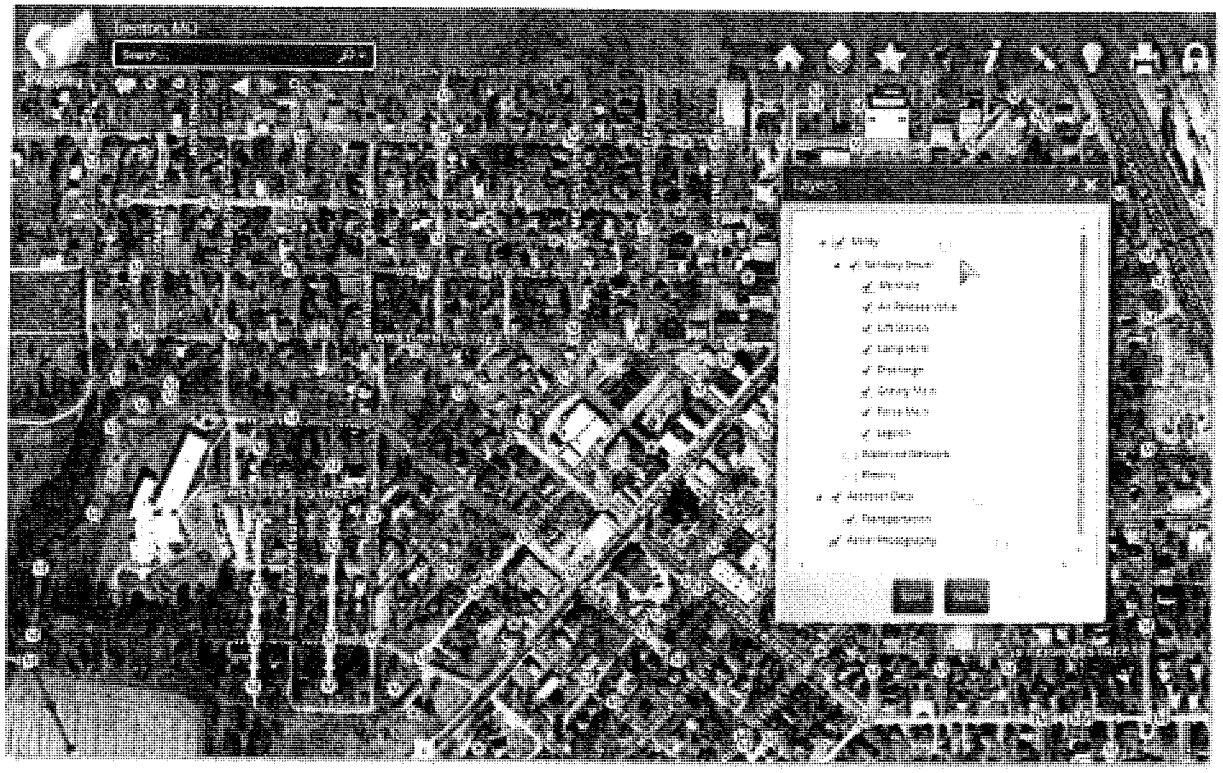
PROPOSED DELIVERABLES INCLUDE:

- ESRI ArcDesktop 10.x Geodatabase containing datasets for the sanitary sewer utility
- ESRI Map Documents (.mxd)
  - 11x17 Truck Book Map Documents
  - 36x36 100-scale Map Documents
- (5) Sets of bound 11x17 Truck Books
- (2) Sets of 36x36 100-scale system maps
- (2) Full system 42" high gloss wall maps
- Training/Users Manuals for:
  - Integrity Web GIS
- (6) Months free Tech Support that includes:
  - Phone Support
  - Remote Web Support
  - Email Response
  - Dedicated Project Contact
- Additional Hardware and Software as chosen by Basehor

INTEGRITY™ WEB GIS

Midland GIS Solutions proposes web-based GIS as a ***software solution*** for managing and maintaining the Basehor GIS program in a multi-user environment. Midland has developed Integrity™, an ArcGIS Server and Silverlight application for municipal clients to manage, analyze and maintain their utility infrastructure data through a secure, user-friendly website that can be tailored to the City's exact specifications.

By increasing operational awareness and daily efficiencies in utility asset management, ***Integrity™ helps more than 20,000 monthly users save valuable time, money, and resources.***
With Integrity™, multiple authorized users can access attributes and other map features directly from their website, allowing for collaboration with colleagues, field crews, and regulatory agencies. Integrity's capabilities include asset management, charting and reporting, sewer analysis features, , sign inventory management, and much more.



Midland GIS Solutions has the ability to set-up a customized Integrity™ Web-based GIS for Basehor. The City's existing aerial photography, GIS data layers, and external databases provided by Basehor will be utilized for the GIS Website development. As approved by Newton County, Midland GIS Solutions will set up a Web Service to link updates on Newton County's Web GIS site to the City's

Web GIS site which will provide automation and instantaneous updates to the county layer's used by the City of Basehor.

The Integrity™ GIS website will include, **but will not be limited to**, the following data layers:

- **Aerial photography**
- **County base map data**
- **City limit boundary**
- **Sanitary sewer data**
- **Section, Township & Range Line**

WEB PAGE DOMAIN NAME REGISTRATION

Midland GIS Solutions will register a domain name for Basehor's Web GIS site through GoDaddy.com. The recommended domain name will be: http://basehor.integritygis.com.

Midland GIS Solutions will route the DNS (Domain Name Service) numbers to route to our Web GIS server located in our office in Maryville, Missouri. Midland GIS Solutions will test the domain name once transferred to our web server for quality control purposes.

WEB GIS HOSTING

Basehor will be responsible for providing Midland GIS with data updates for the web GIS site. The City will determine when new GIS data and imagery is posted to the GIS website. Midland GIS Solutions can set up scheduled batch programs that will automatically copy updated GIS data from a dedicated server at the City to the web GIS site on a regular basis (daily, weekly or monthly) as identified by Basehor.

Midland GIS Solutions maintains a secured, climate controlled server room with a dedicated six (6) Mb upload and download speed fiber Ethernet connection. The server room is also connected to a gas powered generator to keep the web servers up and running in the case of a power outage. Midland GIS Solutions will host and maintain Basehor's GIS website on a Dell PowerEdge R710 web server.

SECURE SOCKETS LAYER (SSL)

Integrity uses 128-bit encryption through Secure Sockets Layer (SSL), which is the industry-standard encryption scheme trusted by thousands of banks and retailers to keep sensitive information such as credit card numbers safe. Your data and account details are encrypted to prevent malicious users on the Internet from eavesdropping or modifying any communication between your computer and our Integrity web servers.

PASSWORD-PROTECTED LAYERS

Basehor can easily change the layers and attributes you see based on login. Public users will only see a subset of your data while your office or subscriber accounts can see more. For example, public users can see parcel boundaries and dimensions while limiting access to owner names, sales and tax history, utility information and mailing addresses.

LOG-IN REQUIRED SITES

If you do not want your data to be publicly available, your Integrity™ site can be configured to require a login. Anyone who accesses the site will be required to login before they can view any GIS data.

WEB GIS PRODUCT TRADEMARK

The proposed web-based GIS application is trademarked under Integrity™, a GIS Software Suite developed by Midland GIS Solutions. The Integrity™ ArcGIS Server code is non-transferrable and shall only run on a web server administered by Midland GIS Solutions.

WEB GIS FUNCTIONALITY

The City of Basehor, KS will have the ability to perform the following functions within the customized Integrity™ web GIS site:

- **SSO Tracking**
- **Facilities management**
- **Reports and Charts**
- **Custom Search**
- **ID Features**
- **Advanced query**
- **Layer control**
- **Auto generate mailing labels**
- **Export search results to Microsoft Excel**
- **Navigation**
- **Mark-up tools**
- **Secure login**
- **Bookmarks**
- **Feature buffering**
- **Map printing**
- **Coordinate display**
- **Measure tools**
- **Thematic mapping**

Midland's Integrity™ interface includes a secure login that can be set up to control access to certain data layers in the web site. The secure access will require a unique username and password to gain access to any number of layers, attributes, or web site functionality. Basehor will have full authority to provide usernames and passwords to any staff or to the general public if they so choose.

A complete description, along with screenshots of Integrity's features can be found in **Attachment A** of this proposal.

WEB GIS HARDWARE/SOFTWARE REQUIREMENTS

Windows System Requirements

- Microsoft Silverlight 5.0 or greater
- Operating System – Windows 7, Windows Vista, Windows XP Service Pack 2
- Processor – 2 GHz processor or better
- Memory – 512MB of RAM
- Browser – Mozilla Firefox, Internet Explorer 7.0 or greater, Google Chrome, Safari, Opera

Macintosh System Requirements

- Microsoft Silverlight 4.0 or greater
- Operating System – Apple Mac OSX 10.4.8 or greater
- Processor – 2 GHz processor or better
- Memory – 512MB of RAM
- Browser – Safari, Opera, Mozilla Firefox, Google Chrome

Monitor Requirements

- Minimum of 1024 x 768 resolution.
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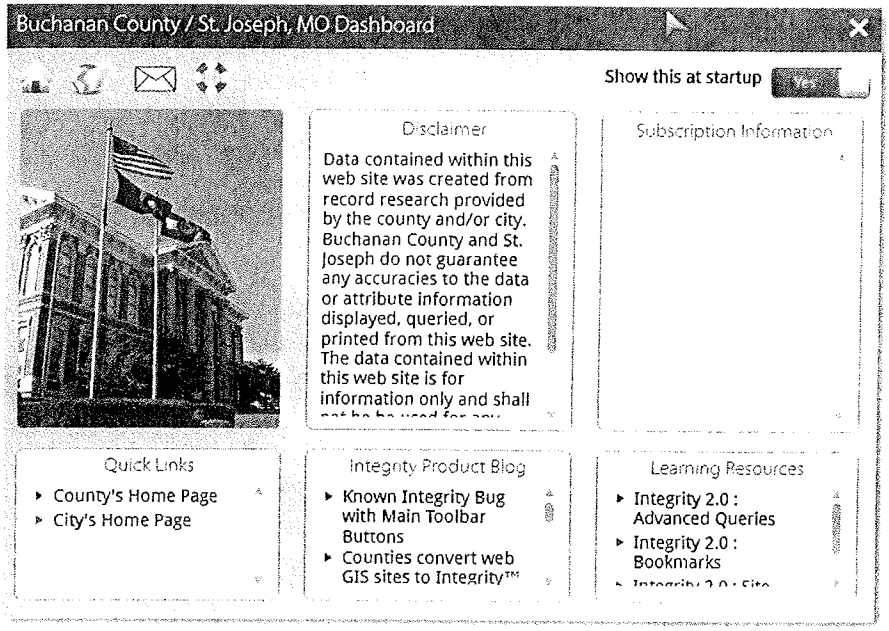
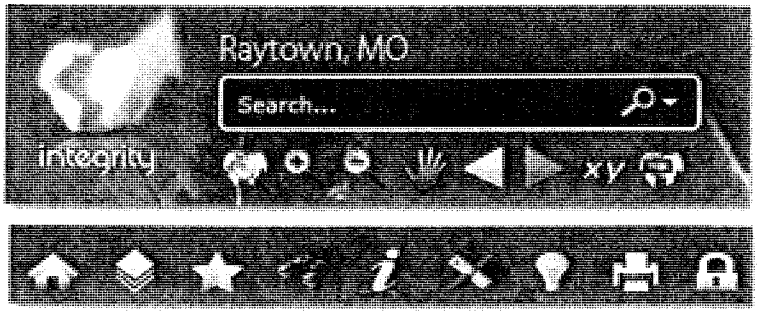
Website Dashboard

Information specified by the client, including a standard disclaimer, hyperlink to an ftp site, contact information, hyperlink to the client's homepage and easy access to the help menu is conveniently located in the Integrity™ "Dashboard".



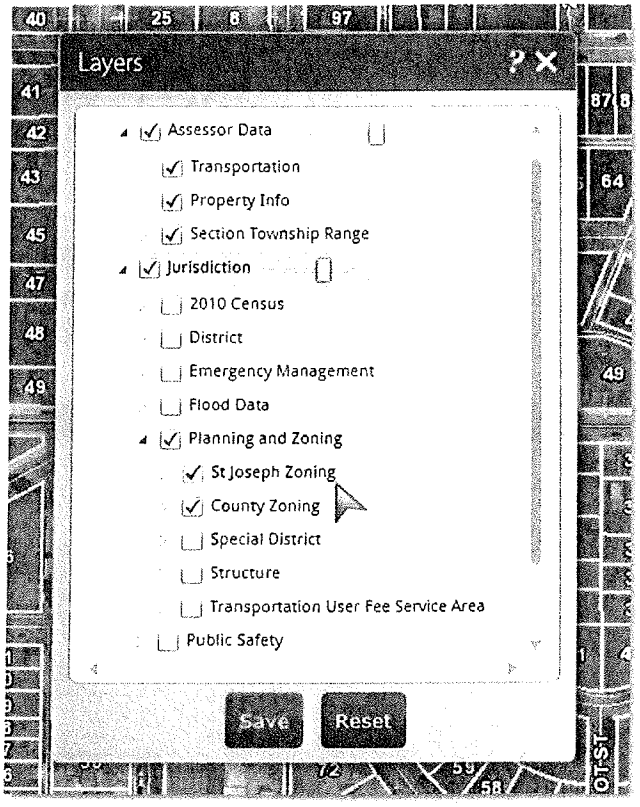
Basic Navigation Tools

Integrity™ has a basic navigation tool bar containing pan, zoom in, zoom out, full extent, quick search, and coordinates, as well as a higher-level tool bar with buttons to access the following features: website dashboard, layers, bookmarks, advanced query, identify, drawing and measure, map tips, print and login.



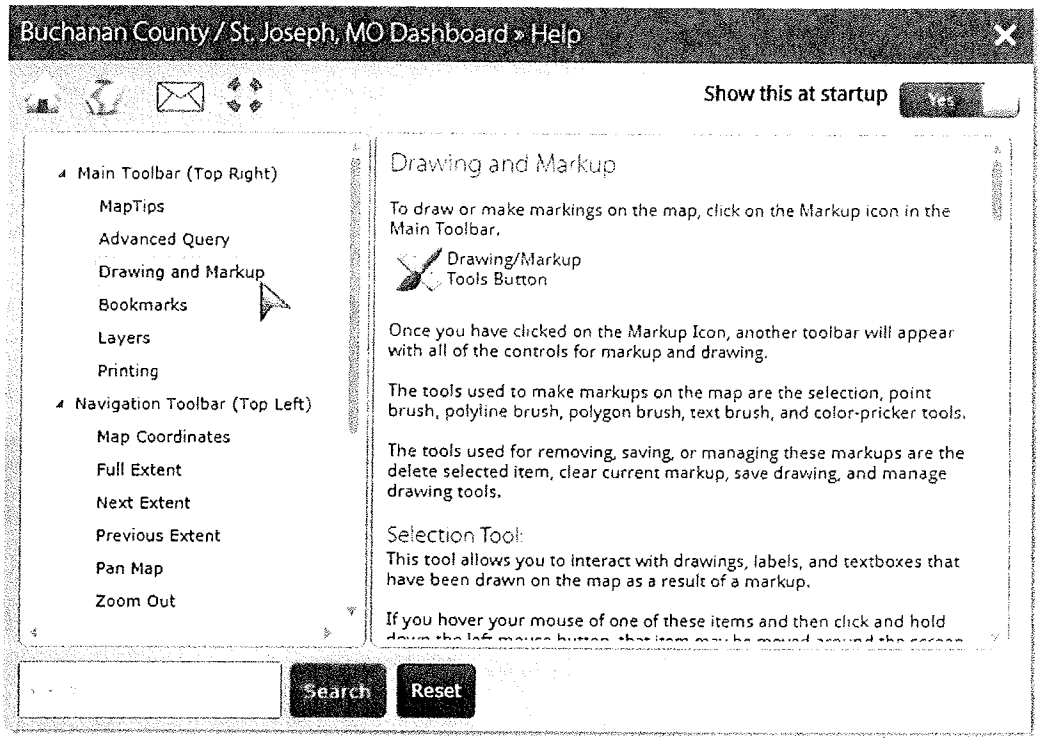
Layers Menu

The layers menu in Integrity™ can easily be turned on and off and is accessible from the main toolbar. The layers menu can also be reset to default settings (layers on and off) and can also be saved on a local machine to maintain layer settings for future website viewing sessions. *(Right)*



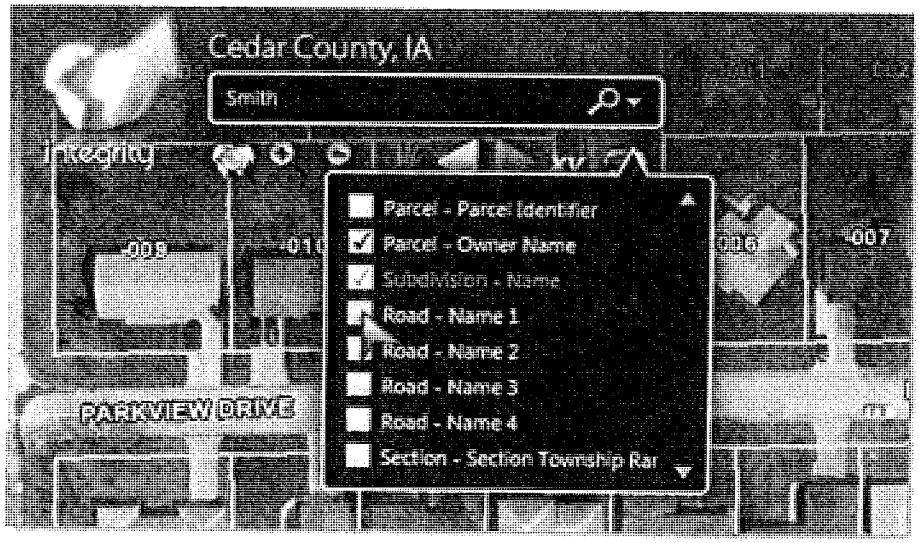
Help Documentation

All Integrity™ sites include a detailed help menu within the website, and all clients also receive a PDF training manual for easy distribution to all users. The help menu, as well as the training manual, include a table of contents for easy navigation and the help menu within the Integrity™ site as a built in search feature. *(Below)*



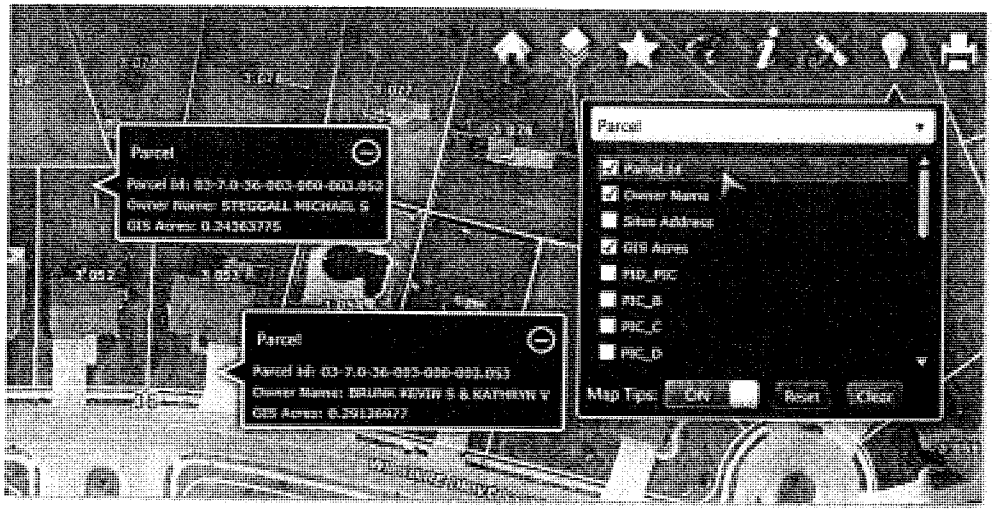
Quick Search & Filtering

This feature allows users to search for layer attributes (i.e. street name, property owner name, 911 address, subdivision, utility information, etc.) and apply search filters to narrow results.



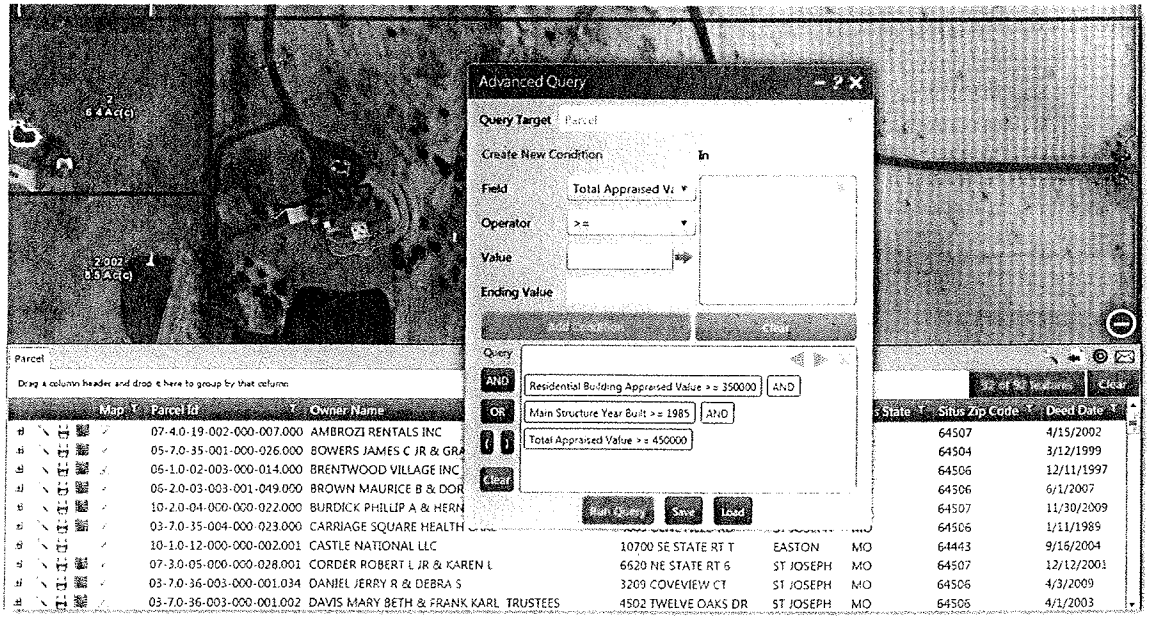
Map Tips

Integrity™ provides users with a "quick identify" tool. Map tips can be easily filtered to select what attribute information about a feature is displayed. Users can turn this feature on and off and "pin" as many map tips to the map as they would like.



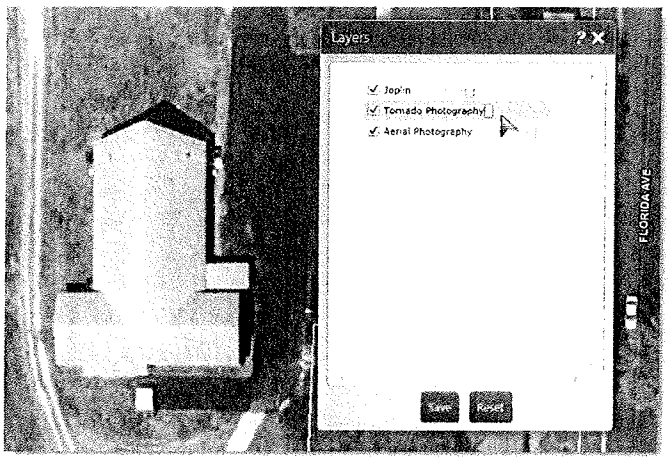
Custom/Spatial Queries

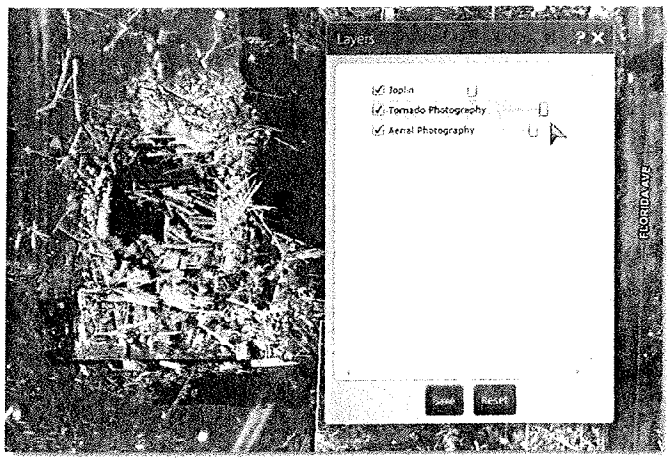
With the Advanced Query feature, Integrity™ users can easily build detailed queries with multiple levels of criteria. These queries can be saved and opened again to save time and also to share with associates or customers. All query results can be exported to an excel file.



Aerial Photography

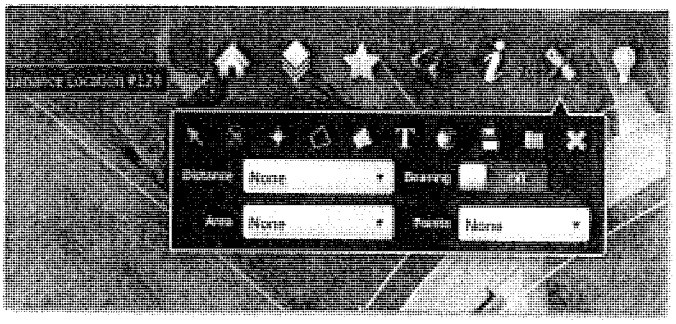
All layers in the geodatabase, including the base map and all aerial photography can be displayed as layers in the web GIS site. Integrity™ also has a "sliding" bar for imagery so that the base map or photography layer(s) can be faded in and out.

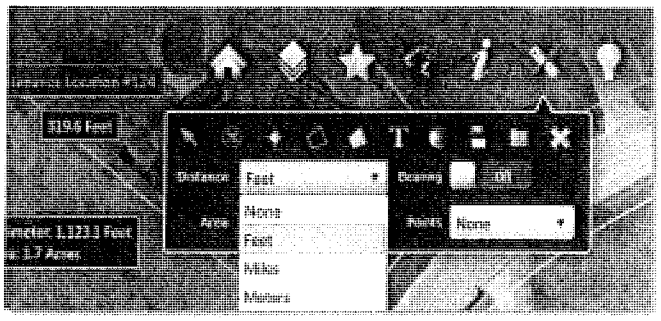




Mark Up Tools

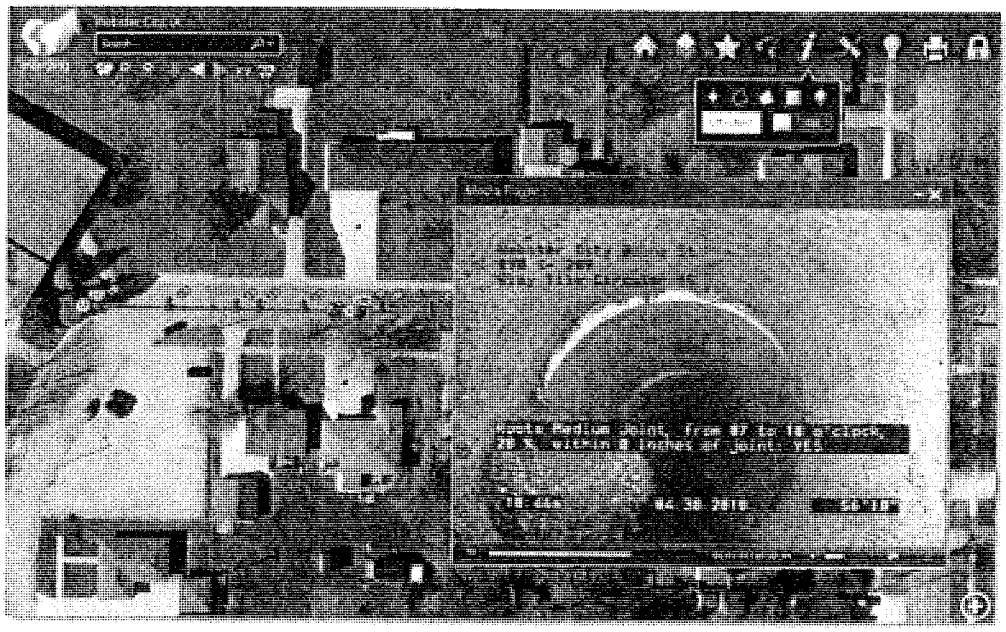
With our user-friendly mark-up tools, Integrity™ users have the ability to draw polygons, points, lines, add text, and utilize various measurement settings. Users have the ability to move drawings once complete and also utilize the color wheel for all drawings and text. All drawings can be saved, or bookmarked, and exported via email or printed within the Integrity™ map viewer.





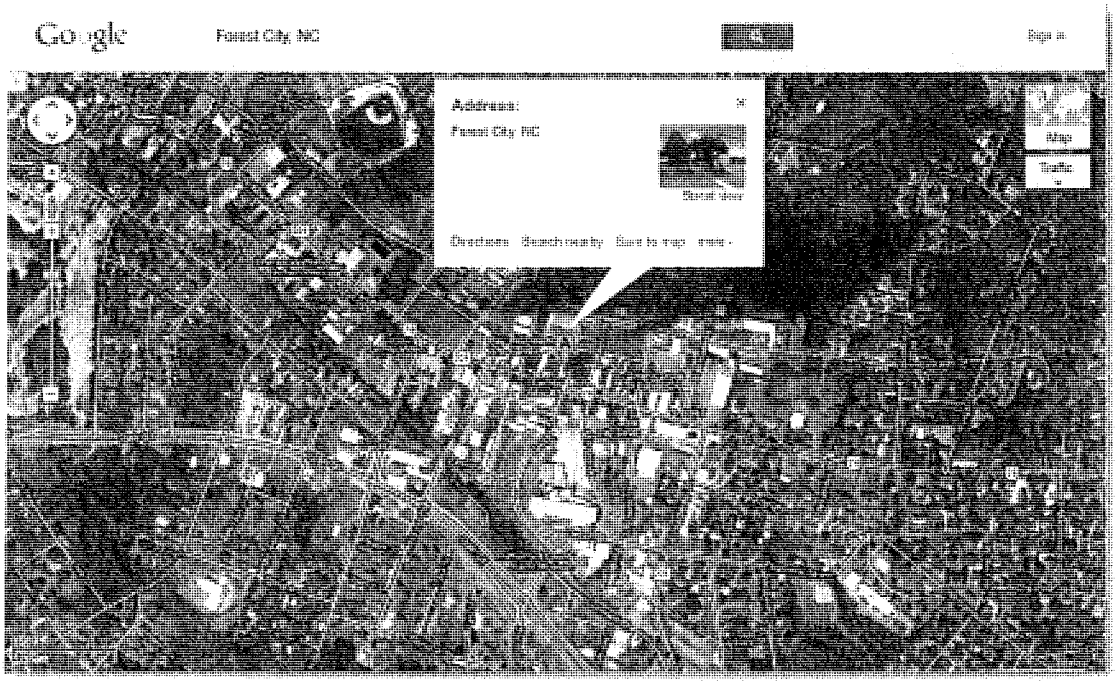
Hyperlink Media & Documents

Users can hyperlink media (videos and pictures), documents, external websites and database tables in Integrity™ for easy access to geographically referenced information relating to parcels, roads, utilities, or any other data layer.



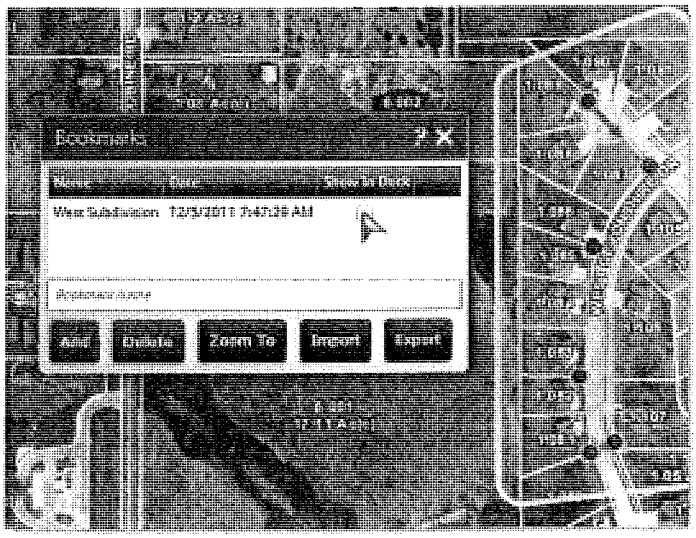
Internal & External Map Services (Google Maps/Bing Birds Eye)

Integrity™ is capable of consuming all kinds of map and web services from internal and external sources. For example, aerial photography from another source can be accessed and displayed within the application.



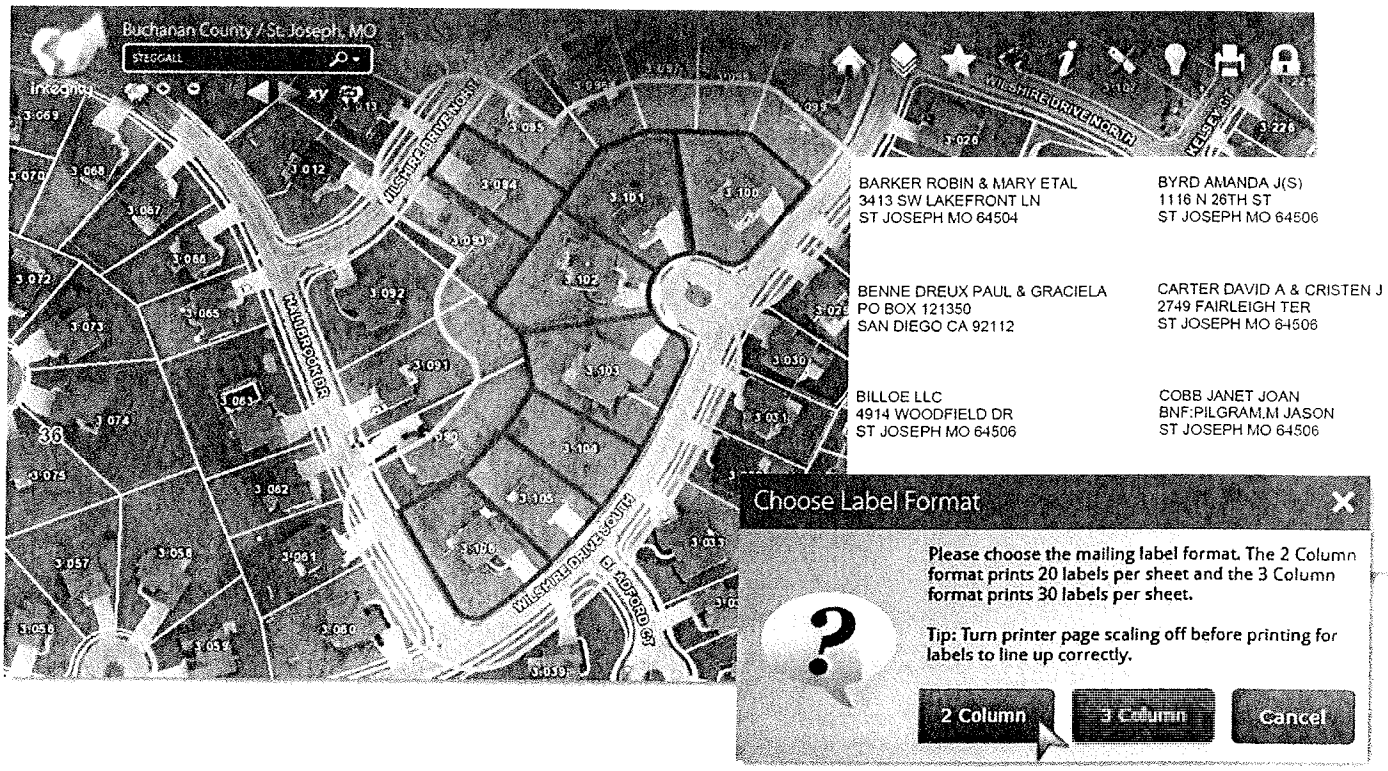
Bookmarking

With Integrity™ any map, query or drawing can be saved, or bookmarked. The bookmark feature allows users to name their saved map or query and easily recall it in the same or future viewing session. Saved maps can also be exported and emailed to others to open independently of the Integrity™ website.



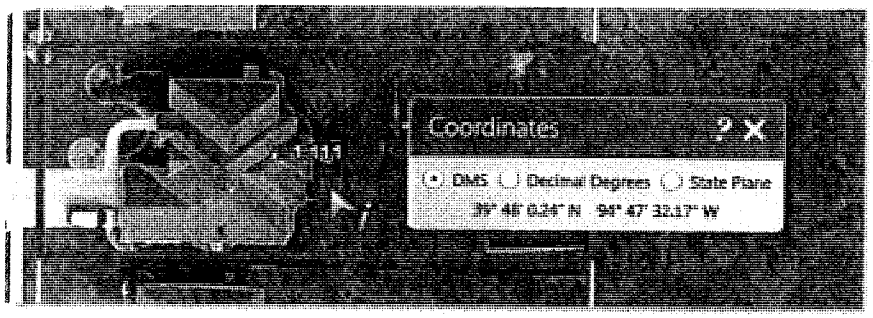
Buffering & Mail Labels

A buffer can be used to identify features that are within a specified distance from your selection. If you've selected a feature, you can buffer off of it and create an excel spreadsheet or Avery mailing labels from your results.



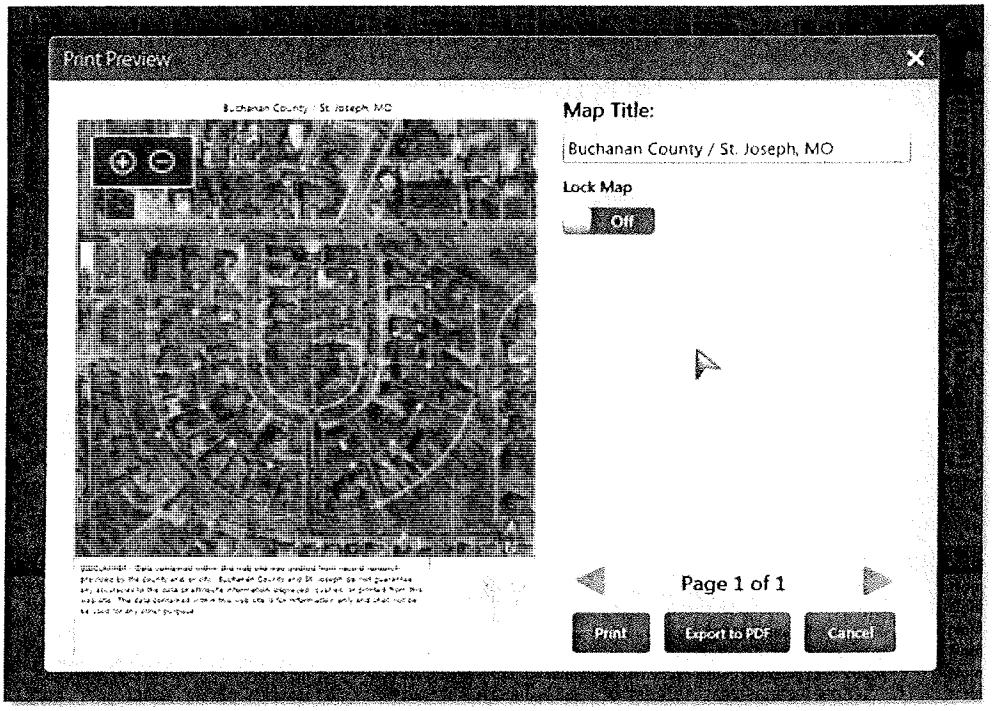
Coordinates

The Integrity™ drawing and graphics tool gives the user the ability to display a user defined coordinate directly on the map. There is also a running coordinate window that can be turned on or off. The coordinate systems are Lat/Long DMS, Lat/Long decimal degrees, and State Plane.



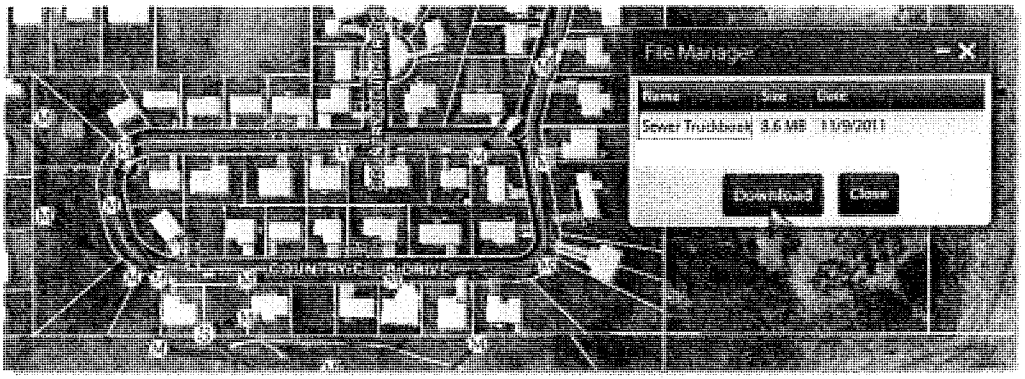
Map Printing & Export

Integrity™ users can print all maps at a standard size of 8 ½ x 11". All maps can be exported to a PDF from the print map view and resized accordingly for printing in various sizes. Users have the options of designating printing settings for a "template", or customized look. Reports can be printed and exported as well with no map.



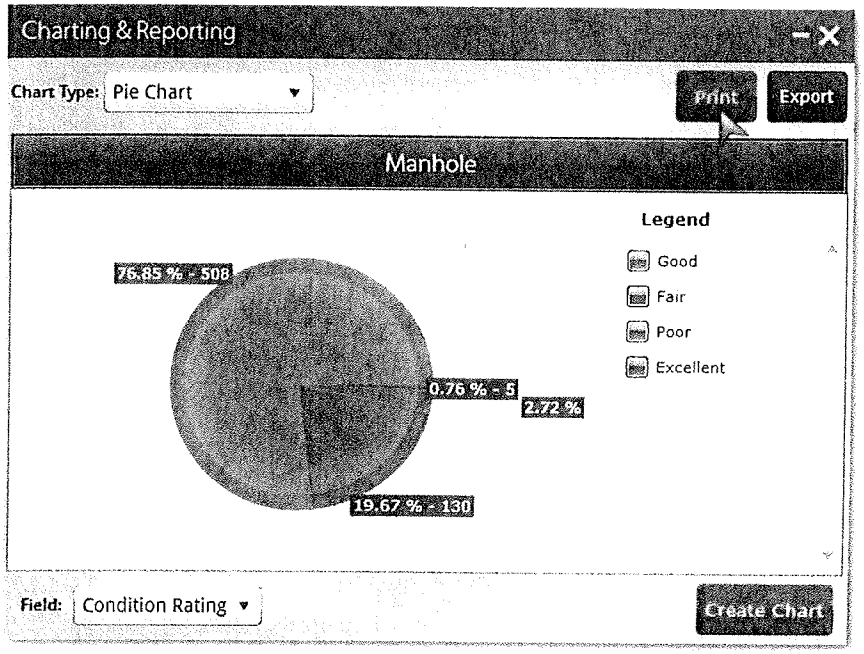
File Manager

File Manger acts as a download portal within the Integrity™ site so that users have the ability to download and view different file formats, including shapefiles, zip files, PDF documents, etc. Users can select the desired file to download and save it locally on their computer.



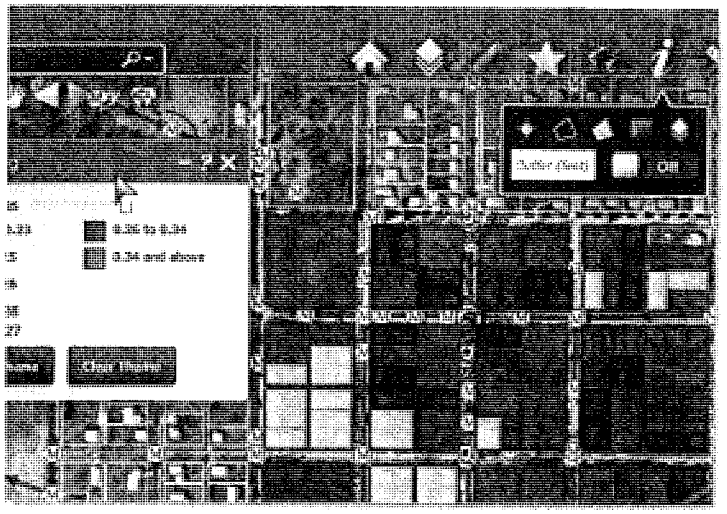
Charts & Reports

Charts and reports are excellent graphical representations that assist with budget forecasting and Capital Improvement Project planning. Integrity™ has advanced reporting and charting capabilities that allow you to instantly analyze data and generate reports that might otherwise take days, weeks or even longer to create. All results can be exported to Excel format.



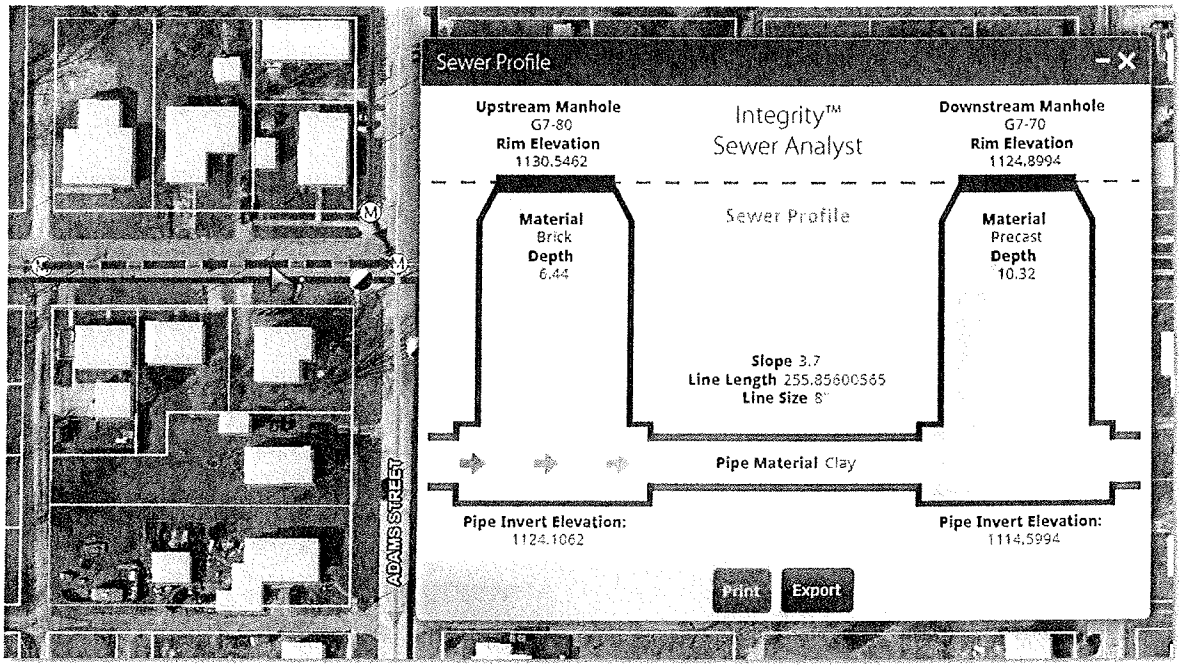
Thematic Mapping

Integrity™ users can easily create thematic maps to show how a particular theme is connected to a specific geographic area. The thematic mapping tool creates themes by applying colors to features and creating a legend in which the selected feature's attributes fall into.



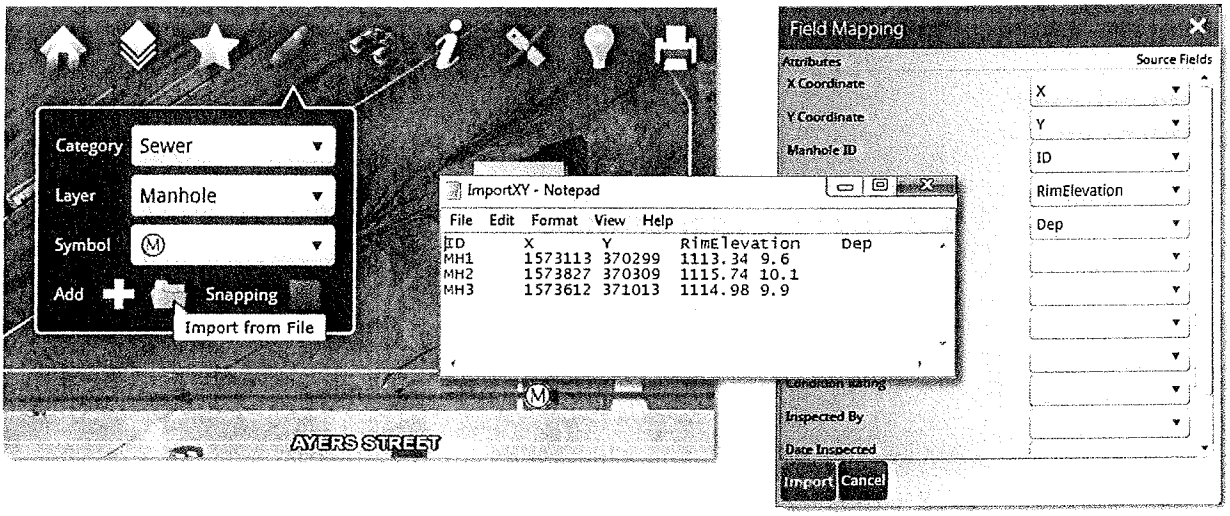
Sewer Profile

With Integrity™, users can select, or identify a gravity main and instantly generate a detailed Sewer Profile report identifying each manhole flow direction of the pipe, manhole material, rim elevation and pipe invert elevation. This graphic profile can also be exported to a .PNG file and a .PDF if desired.



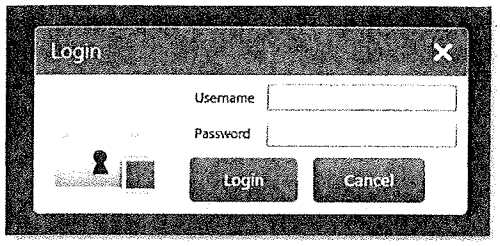
Upload X,Y Coordinates (GPS Coordinates)

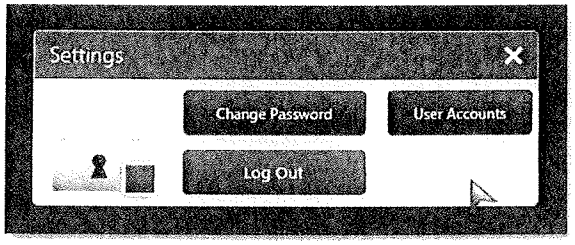
Integrity™ offers the ability to batch import GPS points, or X,Y coordinates, from an Excel or .CSV file. All features with an X,Y coordinate can be mapped to a specific field in the GIS database within Integrity™. Features will be created from the coordinate file, along with the associated attributes.

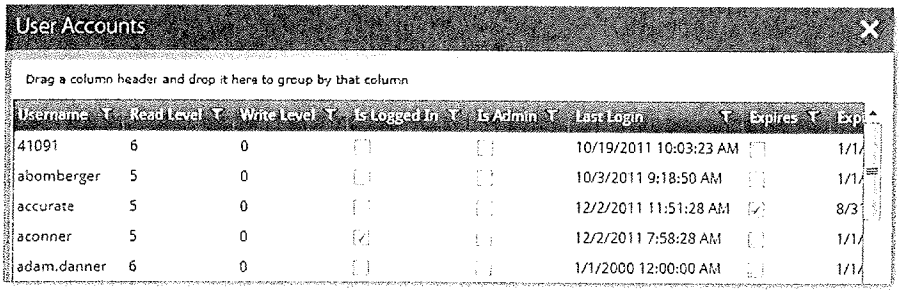


Secure Login

The Integrity™ web GIS interface includes a secure login feature that can be set up to control access to certain data layers in the web site. The secure access will require a unique username and password to gain access to any number of layers, attributes, or web site functionality. The designated Administrator(s) has full control to provide usernames and passwords to authorized staff.







City of Basehor

Agenda Item Cover Sheet

Agenda Item No. 2

Topic:
Comprehensive Plan Update

Action Requested:
Consider the adoption of the Comprehensive Plan Update.

Narrative:
In 2012, the City Council directed Staff and the Planning Commission to update the Comprehensive Plan. In October of 2012, a citizen survey was set to all residents. Referencing the recent citizen survey, the existing Comprehensive Plan, a study of the surrounding areas as well as research by the Planning Commission, the Planning Commission complied an updated Comprehensive Plan.

April 12, Staff presented the Comprehensive Plan update to the City Council for review.

June 10, the Planning Commission and City Council held a joint meeting to review the Comprehensive Plan update. During the meeting, the City Council advised Staff to move the Comprehensive Plan to a Public Hearing.

August 6, Planning Commission conducted the Comprehensive Plan Public Hearing and approved the plan for adoption.

Presented by:
Mitch Pleak, City Engineer

Administration Recommendation:
Adopt the Comprehensive Plan Update.

Committee Recommendation:

Attachments:
Memo 9.3.13 (2 pages)
Public Hearing Notice (1 page)
Comprehensive Plan Update (68 pages) - City Website

Projector needed for this item?
No

Memorandum

To: Mr. Mayor and City Council

CC: Lloyd Martley

From: Mitch Pleak

Date: 9.3.13

Re: Comprehensive Plan Update

In 2012, the City Council directed staff and the Planning Commission to update the Comprehensive Plan. In October of 2012, a citizen survey was sent to all residents (4,692). Approximately, 1,710 citizens participated in the community survey (36% of the population). The survey provided an opportunity for residents to recommend the prioritization of public services, community development, and investment opportunities. Referencing the recent citizen survey, the existing Comprehensive Plan and a study of the neighboring communities, the Planning Commission has authored a revised Comprehensive Plan.

The purpose of the Comprehensive Plan is to establish a vision for the community and proactively prepare for the future. The Comprehensive Plan dictates public policy in terms of transportation, utilities, land use, recreation, and housing. Comprehensive plans typically encompass large geographical areas, a broad range of topics, and cover a long-term time horizon. It is estimated the plan will be a guiding tool for Basehor over the next 10-20 years.

The importance of the Comprehensive Plan is brought home when our current growth rate is extrapolated into the future. Basehor's growth from 2000 to 2010 is at a rate of 106.1%. The 2010 census reported Basehor's population to be 4,613 with an area of 6.7 square miles. The average population density for surrounding communities is near 1,000 residents per square mile. Basehor has the potential to grow to 15,000 or more in the next 20 years with a footprint of 15 square miles. This is three times the City's current size and places Basehor between the size of Ottawa and Pittsburg. Such growth will bring with it significant new infrastructure investment.

With growth on the horizon, the Planning Commission has identified topics of importance. These include goals, strategies, and action steps for today's concerns illustrated by the citizen survey and the long-term well being of the City. These topics include:

- Annexation
- Zoning and Physical Image
- Infrastructure
- Streets/Transportation
- Public Safety
- City Center
- Parks and Recreation
- Education
- Economic Development

April 12, Staff presented the Comprehensive Plan update to the City Council for review.

June 10, the Planning Commission and City Council held a joint meeting to review the Comprehensive Plan update. During the meeting, the City Council advised staff to move the Comprehensive Plan to a Public Hearing.

August 6, Planning Commission conducted the Comprehensive Plan Public Hearing and approved the plan for adoption.

Affidavit in Proof of Publication

STATE OF KANSAS
Leavenworth County

Tammy Sabol of the Legal Dept. of the Basehor Sentinel being first duly sworn, deposes and says:

That this weekly newspaper printed in the State of Kansas, and published in and of general circulation in Leavenworth County, Kansas, with a general paid circulation on a weekly basis in Leavenworth County, Kansas, and that said newspaper is not a trade, religious or fraternal publication, and which newspaper has been admitted to the mails as periodicals class matter in said County, and that a notice of which is hereto attached, was published in the regular and entire issue of the Basehor Sentinel

Said newspaper is published weekly 52 weeks a year; has been so published continuously and uninterruptedly in said county and state for a period of more than one year prior to the first publication of said notice and been admitted at the post office of Basehor in said County as second class matter.

That the attached notice is a true copy thereof and was published in the regular and entire issue of said newspaper for 1 consecutive weeks the first publication thereof being made as aforesaid on 07/11/2013 with publications being made on the following dates:

07/11/2013

Subscribed and sworn to before me this

Notary Public

My Appointment expires: March 15, 2015

Notary And Affidavit	$0.00
Additional Copies	$0.00
Publication Charges	$25.44
	$25.44

HEIDI L. STEIN
NOTARY PUBLIC
My Appt. Expires
STATE OF KANSAS

(Published in the Basehor Sentinel, Thursday, July 11, 2013)

PUBLIC HEARING NOTICE
CITY OF BASEHOR
PLANNING COMMISSION

Notice is hereby given that the Planning Commission of the City of Basehor, Kansas, will hold the following Public Hearing on Tuesday, August 6, 2013, at 7:00 PM in the meeting room of City Hall, located at 2620 N. 155th Street, to consider the following item:

1.Comprehensive Plan (2013)

All persons who desire to comment for or against said item are invited to appear at the time and place mentioned above. Copies of the proposed document are available for review during normal business hours at Basehor City Hall or at our website www.cityofbasehor.org. Any questions regarding items to this matter may be directed to Mitch Pleak, City Engineer at 913-724-1370.

PLANNING COMMISSION
CITY OF BASEHOR, KANSAS

COPY