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**Purchasing – Bids, Proposals, and
Specifications**

SHELF

*Statement of Qualifications Package of
James + Associates, Inc.*

for

The Town of Rutledge

for

Preparation of Water and Sewer System Record Drawings

due

September 18, 1997

**Purchasing – Bids, Proposals, and
Specifications**

JAMES + ASSOCIATES, INC. • 796 W. MAIN STREET, 2ND FLOOR • P.O. BOX 6513 • OAK RIDGE, TN 37831

(423) 220-9632 • FAX (423) 220-9633

RE: Statement of Qualifications to Provide Professional Services

James + Associates provides professional mapping and geographic information system (GIS) services, as well as overall utility design, including water, wastewater, and gas design for both public and private clients throughout the Southeast. Our engineers and technicians will work closely with your city officials and utility managers to provide you with a product that is both professional and functional.

We would be pleased to be considered for the preparation of water and sewer system record drawings and any other future mapping projects. We hereby submit this document as our statement of qualifications. Our firm is uniquely qualified for this work for a variety of reasons, including:

- Twenty engineers, technicians, and administrative staff to allow the project to be developed with in-house personnel.
- Specialized capabilities in the use of Computer Aided Design and Drafting (CADD) and aerial photography.
- Personnel experience in the development of projects similar to this work.

Again, we would appreciate the opportunity to be of service and look forward to discussing our capabilities further. If you have any questions or an upcoming job that you would like to discuss, feel free to contact our office at (423) 220-9532.

Sincerely,



Steve Duren

Purchasing— Bids, Proposals and
Specifications

JA Engineers
Planners and
Computer Applications

R. Darrell James, PE
R. Scott Foster, PE
D. Joe Channell

Statement of Qualifications Package of
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City of Loretto - Water Maps



Section I

Project Approach

Project Approach

James + Associates approaches a client not only as a client but also as a friend. With this approach, it is our goal to not only service the client with a product, but to continue a friendship long after our services are rendered. We hope that the client, and friend, can come to us with a particular problem and feel comfortable discussing the options they have. With friendship as the backbone for our relationship, James + Associates approaches each mapping project in the following manner:

Recognizing and Understanding the Need

James + Associates has over seven years of experience in utility mapping. We have developed utility maps for clients as big as Nashville Electric Service and as small as the City of Loretto. But, no matter how big or small the community, each client has a specific need that must be met or a goal they wish to achieve with their utility maps. Over the past seven years, James + Associates has recognized the needs of the communities we have serviced. We work closely with city officials and utility managers to see that their needs and goals are met.

Determination of System Specifics

James + Associates can work closely with the utility manager in determining the location and size of existing utility features. This information can also be provided without the help of James + Associates, depending on the community's existing records.

Determination of Project Presentation

Depending on the needs and goals of the community, this aspect of the project can take many forms. James + Associates can provide anything from wall maps to a full array of functional maps (such as truck maps) to a geographic information system (GIS) allowing the utility manager to update his existing maps and have a wealth of information at his fingertips. Maps can incorporate the use of aerial photography or the use of county tax maps as a base. Regardless of the community's choice in this matter, it can be assured of professional quality and service.

Delivery

James + Associates prides itself on a product that is second to none in quality and function. Projects are completed on time with 100 percent customer satisfaction in mind.

COMPANY PROFILE

Since its inception in July of 1990, James + Reynolds Engineering Group, Inc. has provided a wide spectrum of classical engineering and consulting services with a specialty in computer aided engineering, design, and automation. The company was founded by Professional Engineers, R. Darrell James and James T. Reynolds. In May of 1994, Mr. Reynolds retired from the firm to pursue other interests. Since that time, the company has reorganized as James + Associates, Inc. with Mr. James as the major stockholder and three minor stockholders. The firm is a closely held, employee owned firm. The steady growth of James + Associates during the past several years reflects the quality performance and individual attention to clients by the management team and technical staff. Our staff will consistently help clients become successful in meeting and surpassing their goals.

PROFESSIONAL SERVICES OFFERED

James + Associates offers traditional engineering services, which includes extensive experience in the following areas:

ENGINEERING

- Structural Design including buildings and bridges
- Highway and Road Design
- In-depth Bridge Inspection and Design
- Storm Water Management, Hydraulic and Hydrologic Design
- Utility Design, including Water and Natural Gas System Modeling
- Site Design, including Landfill, Golf Course, Fish Hatchery, Residential, Commercial and Industrial Sites
- Construction Management and Administration

PLANNING

- Economic Development Planning
- Parks and Recreation Planning
- Master Planning for Land Development and Subdivisions
- Master Planning for Industrial Parks
- Transportation and Traffic Planning

James + Associates has developed, and is known for, its expertise in computer and technology related applications in many areas, such as:

COMPUTER AIDED SPECIALTIES

- Digital Mapping
- Computer Aided Design and Drafting (CADD)
- Automated Mapping and Facilities Management (AM/FM)
- Geographic Information Systems (GIS)
- Digital Terrain Modeling (DTM)
- Steady-State Flow Analysis of Pipe Distribution Systems

Due to the sizable investment in computer technologies by our clients, our design professionals are constantly upgrading their computer aided engineering and design skills, through our continuing education program. This allows our firm to focus on a number of technology inspired services that to-date are not classified as traditional engineering services. Our experience has provided opportunities in computer related areas, such as:

- Turnkey System Integration
- Customized Computer Databases
- Software Applications relating to Facilities Management
- Software Applications relating to Geographic Information Systems

CUSTOMERS

At James + Associates, we are dedicated to improving the quality of people's lives in our nation through the implementation of sound engineering practices. To-date we have had the pleasure of working with many interesting clients. Among them are:

Local, State, and Federal Government, such as:

- Tennessee Department of Transportation
- Tennessee Wildlife Resource Agency
- Tennessee Department of Environment and Conservation
- Many Local and Municipal Governments, such as Dickson and Hohenwald

Other Public and Private Clients include:

- Universities, such as Vanderbilt University and Nashville State Technical Institute
- Public and Private Utilities, such as Nashville Gas Company, and Centerville Water and Gas
- Industries, such as DuPont and Ford Motor Company
- Other Engineering and Architectural Firms

JAMES + ASSOCIATES, INC.

Company Profile

Confidence, trust, and mutual understanding characterize our client relationships. Each client will be associated with a principal having expertise in the client's business, having full access to the resources of the company. The entire project team will remain responsive to the client's ever-changing needs.

CUSTOMER NEEDS THAT ARE MET

A Consulting Engineer is an independent, professional engineer engaged in private practice. A consulting engineer possesses the qualifications of education, technical knowledge, experience, and legal registration to practice engineering. He maintains the highest professional and ethical standards and builds his professional reputation on the successful fulfillment of his assignments. What sets James + Associates apart from other consulting engineers offering comparable services? Simply stated, it is the unique relationship we enjoy with our clients. We are much more than a consultant, we are friends and advisors. We are people our clients can talk to in confidence, not just about today's problems, but tomorrow's opportunities. We have met and will continue to meet our client's needs, which are unique and diverse, such as:

- *Complete Engineering Design*, that normally results in construction of the project
- *Complete On-Site Construction Administration*, assuring adherence to design and producing a quality engineered and constructed project
- *Turnkey Applications of Computer Technology in Facilities Management and Geographic Information Systems*, to more effectively manage utilities with enormous physical infrastructures
- *Complete On-Site Set-Up and Training*, allowing our clients to access, manipulate, maintain, and control their own data, and make better uses of their limited resources

On-Going Support is James + Associates key to maintaining long-term relationships with our clients. Business conducted with James + Associates will always be conducted in a fair, honest, and responsible manner.

James + Associates



Engineers, Planners,
Computer Applications



Section II

Similar Projects & References

Similar Projects & References

The following pages contain mapping and other related computer applications from real James + Associates' projects. These drawings have been reduced and are for presentation and display purposes only. The drawings are intended to show you, the proposed client, an abbreviated overview of just a few James + Associates mapping projects. Larger and more detailed drawings of selected James + Associates projects can be seen in Section IV: Examples of Work Product.

James + Associates has proven experience in surveying, engineering, mapping, geographic information systems (GIS), automated mapping and facilities management (AM/FM), network modeling, computer system planning, purchasing, installation and training, and solid experience in pipeline projects. You can depend on James + Associates for your complete pipeline surveying, mapping, engineering, and GIS needs.

Whether surveying, engineering, mapping or developing GIS, our qualified and licensed professionals deliver innovative, top-quality service and products. We provide the latest in state-of-the-art tools and technologies to maximize performance and productivity. We continually try to benefit our clients by increasing the value they receive for the money they spend.

Similar Projects & References



**TOWN OF LINDEN,
TENNESSEE**

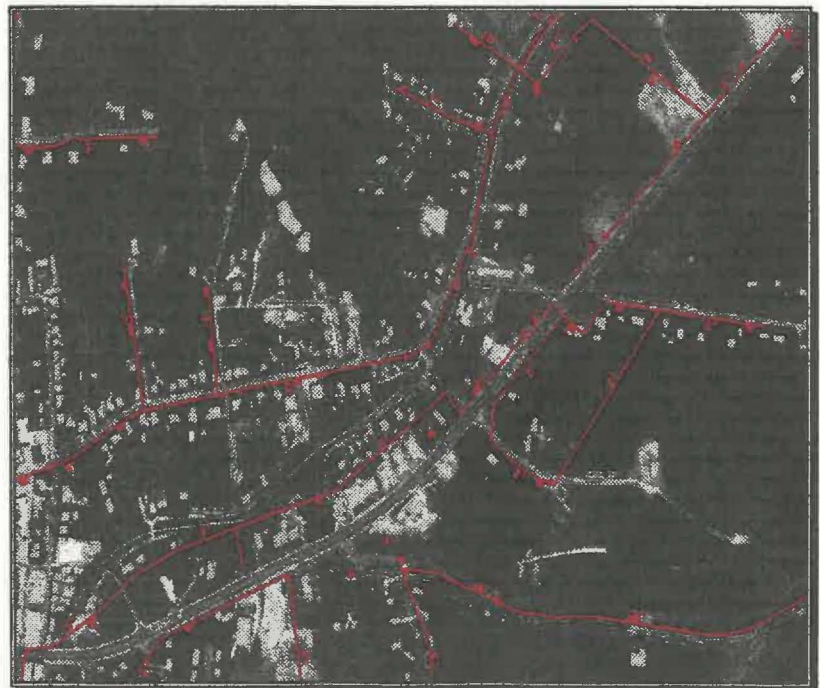
Developed and provided base and utility mapping for water, sewer, and gas for this community of approximately 1000 citizens. Scanned county tax maps were used to develop the base map.

Contact Information:
Mayor Douglas Greenway
Town of Linden
P.O. Box 46
Linden, Tennessee 37096
(615) 589-2763

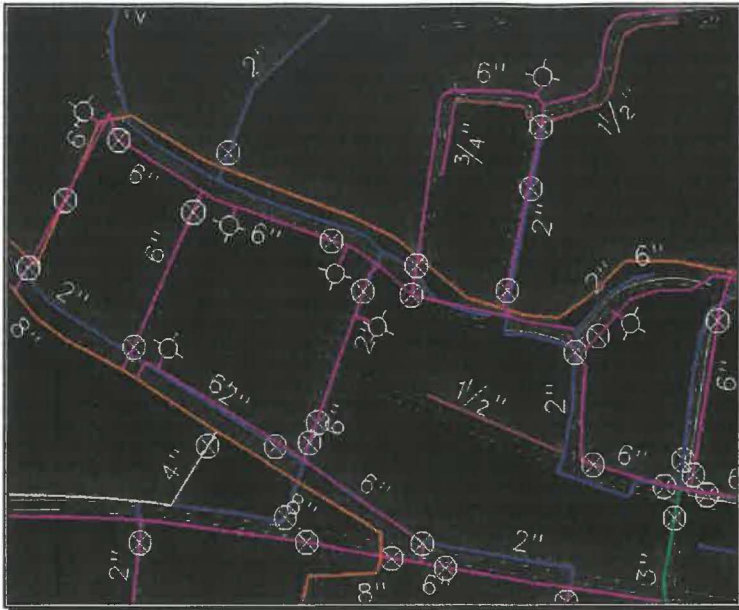
**CITY OF HOHENWALD,
TENNESSEE**

Provided initial base and utility mapping utilizing Census Bureau Tiger data. A later project updated the mapping to utilize USGS DLG data, and last, the mapping was updated with Aerial photography.

Contact Information:
Mayor Guy Nicholson
City of Hohenwald
118 W. Linden Avenue
P.O. Box 40
Hohenwald, TN 38462
615-796-2231



Similar Projects & References



**CITY OF LORETTO,
TENNESSEE**

Developed and provided base and utility mapping for water, sewer, and gas for this community of approximately 1700 citizens. Scanned county tax maps were used to develop the base map.

Contact Information:

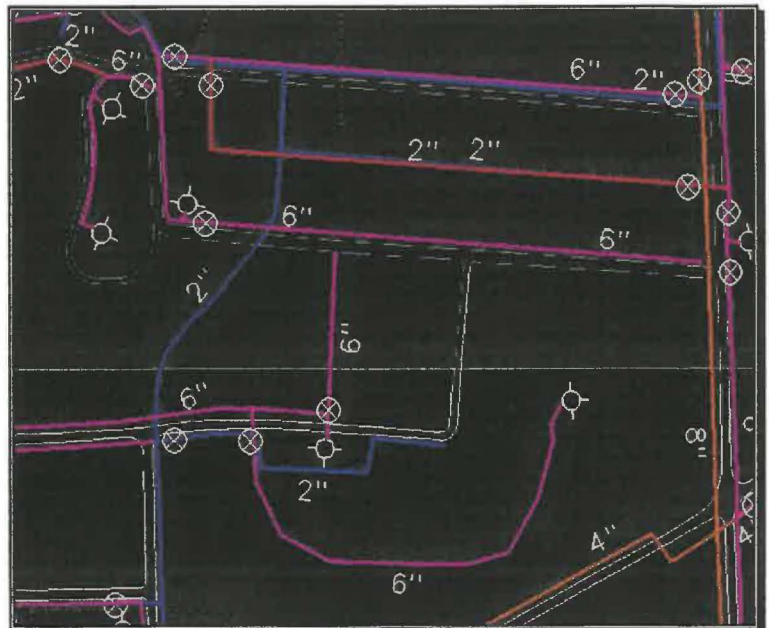
*Mayor Ronnie McMasters
City of Loretto
P.O. Box 176
Loretto, TN 38469-0176
(615) 853-6797*

**TOWN OF CENTERVILLE,
TENNESSEE**

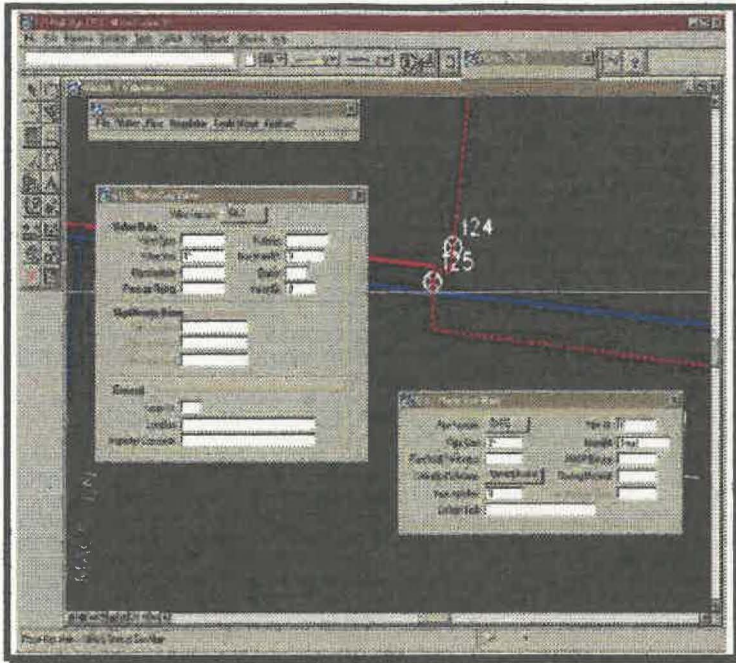
Developed and provided base and utility mapping for water and gas for this community of approximately 3700 citizens. Aerial photography was incorporated in the development of the base map.

Contact Information:

*Mayor Kenneth R. Wright
Town of Centerville
102 East Swan Street
P.O. Box 238
Centerville, TN 37033
(615) 729-4246*



Similar Projects & References



**CITY OF LEBANON, TENNESSEE
GAS SYSTEM**

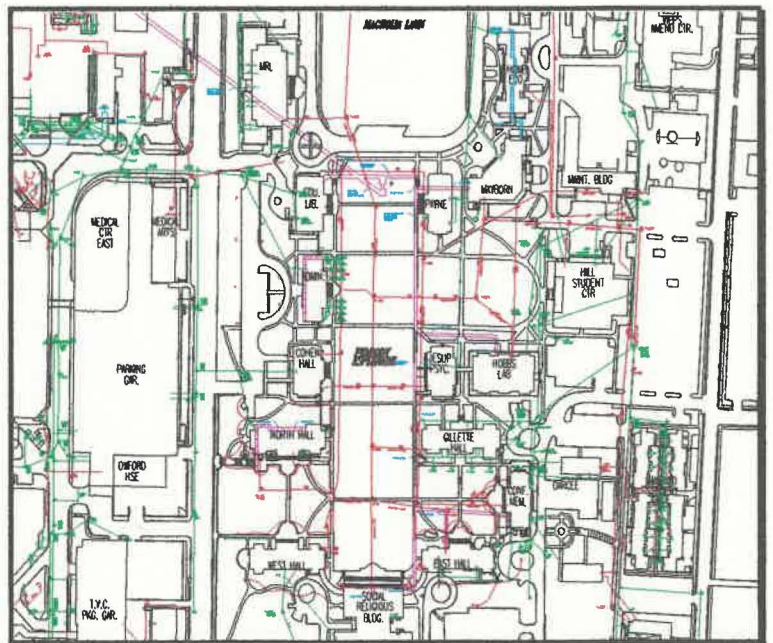
Provided engineering and application development services, including base and utility mapping, to create a GIS for the Gas System for the management of leak histories, maintenance and service. Additionally, the distribution system was modeled utilizing our GasWorx service and integrated with the GIS.

Contact Information:
Mr. Jeff Baines
410 Park Drive
Lebanon, TN 37087
(615) 444-0825

**VANDERBILT UNIVERSITY
SPACE & FACILITIES**

Ongoing development of campus wide mapping and GIS for utilities and Facilities Management. Information managed by the GIS include a tree inventory, acreage, and parking data. Current efforts are focused on integrating Facilities and Asset Management data into the GIS.

Contact Information:
Mrs. Jeannie Rice
Bryan Building - Vanderbilt University
Nashville, TN 37240
(615) 322-2715





Section III

Project Team

The Project Team

James + Associates has a staff of over 20 well trained engineers, CAD/D operators, and administrative personnel ready to help you meet and satisfy your needs. We have offices in Oak Ridge, Nashville, and Dickson, Tennessee so we can be closer and quicker to serve you.

Our staff will work closely with city officials and utility managers, assuring each detail is addressed and met.

JAMES + ASSOCIATES, INC.

Project Team

R. DARRELL JAMES, P.E.
TN License # 12681, 1983
President

EDUCATION:

B.S., with high honors, Engineering, University of Tennessee-Nashville, 1980
Currently pursuing a M.S. from the University of Tennessee

EXPERIENCE OVERVIEW:

As President of James + Associates, Mr. James maintains the overall responsibility for projects done by the firm. Mr. James has been involved in applying computer technology to engineering and facility management problems for nearly 20 years. Over the past few years, he has had the opportunity to manage and participate in the development of several unique and innovative projects combining traditional engineering with computer-related technology.

REPRESENTATIVE PROJECTS UTILIZING COMPUTER TECHNOLOGY:

Mr. James has been involved in applying computer technology to engineering and facility management problems for over ten years. Clients include both the public and private sector - municipal, county, state and federal government as well as private utilities, industrial, A/E firms and other technology companies. In addition, James + Associates, Inc. has developed specific applications that add analytical features to GIS databases. One such project is GasWorx which allows the manager of gas distribution utilities to model the pipe network utilizing GIS information. A summary list of typical projects follow:

Development of computerized facility management and GIS ranging from base maps, aerial photogrammetry and TIGER file conversions, graphic and non-graphic utility databases, and pipe distribution modeling of water and gas systems.

- Gas utility for Smyrna, Tennessee as well as private gas systems such as Nashville Gas Company and United Cities Gas, Inc.
- Site mapping, utilities and development of mapping system interface for casual users for E.I. du Pont de Nemours.
- Outside plant site and utility database as well as inside plant equipment and process layout for Tennessee Eastman and Murray Ohio Manufacturing Company.
- Building layout and utility systems database as well as prototype report for NASA at Marshall Space Flight Center.
- Site and utility GIS for Vanderbilt University.

Expertise developed in the use of computer technology for engineering design has lead to a multitude of applications, not necessarily related to design, but specialized experience involving computer automation.

- Management of the original Nashville Electric Service Distribution Area Service map CAD/D project and Offset Printing effort.

R. Darrell James (cont.)

- Computer systems and network integration for Vanderbilt University, cities such as Springfield and Smyrna, du Pont and Ford Motor Company as well as other consulting firms.
- A computerized document management system for engineering and facility drawings for Bridgestone, USA.
- A product scheduling and "part-by-part" inventory and an updated MRP application for Intercity Products.
- A corporate plan to automate design and facility management functions for Ford Motor Company.
- Development of graphic and non-graphic interface for Spill Operations Systems (SOS) for Marine Spill Response Corporation under contract with Electronic Data Systems.

AFFILIATIONS and TECHNICAL PAPERS :

Registered Professional Engineer in Tennessee
American Society of Civil Engineers
Tennessee Society of Professional Engineers, President (1996)
National Society of Professional Engineers
Consulting Engineers of Tennessee
American Consulting Engineers Council
Engineers Association of Nashville
Member of State of Tennessee Science & Technology Council

- ◆ "Computer Modeling and GIS In Gas Distribution Systems", Tennessee Gas Association Management Conference, February 1993.
- ◆ "Plotting For Results II: Solving the CAD/D Bottleneck", A/E/C Systems, May 1991 and A/E/C Systems, Fall, October 1991.
- ◆ "Scanning, Laser Plotting, Macro-Retrieval Systems and Reprographic Integration", A/E/C Systems, Fall, October 1991.
- ◆ "CAD/D Management", A/E/C Systems, Fall, October 1991.
- ◆ "Current Trends in Automation", DesignVisions '90, September 1990.
- ◆ "Plotting for Results II: Solving the CAD/D Bottleneck", A/E/C Systems, June 1990.
- ◆ "Current Trends in Computer Automation", 1990 Gulf States Region Construction Specification.
- ◆ "Computer Integration in the A/E Firm", DesignVisions, September 1989.
- ◆ "Plotting for Result: Solving the CAD/D Bottleneck", A/E/C Systems, June 1989.
- ◆ "System Integration in the Multidisciplinary Firm", A/E/C Systems, June 1989.
- ◆ "Developing a Facilities Management Database", American Institute of Plant Engineers, Nashville Section, January 1989.
- ◆ "Computer Graphics in Space Planning/Facilities Management", A/E/C Systems, May 1988.
- ◆ "Advanced Production Techniques: Laser Plotting and Color Offset Printing", A/E/C Systems, May 1988.
- ◆ "Selling Computer Mapping to Management", Tennessee Public Works Conference, October 1987.
- ◆ "Automating the Presentation Process", Corps of Engineers Information Technology Symposium, October 1987.
- ◆ "A/E CAD/D Integration - The Nashville Solution", A/E/C Systems, June 1986.

JAMES + ASSOCIATES, INC.

Project Team

R. SCOTT FOSTER, PE
TN License # 101353, 1994
Vice President

EDUCATION:

B.S., Civil Engineering, Tennessee Technological University -Cookeville, TN 1989
Currently pursuing a M.S. from the University of Tennessee

EXPERIENCE OVERVIEW:

Mr. Foster currently manages and participates in the design of utilities, sites, roads, bridges, and. Prior to joining James + Associates, Mr. Foster was a Gas Pipeline Safety Inspector for the Tennessee Public Service Commission where he inspected the design, construction, operation, and maintenance of gas pipelines for compliance with state and federal regulations. While at James + Associates, Mr. Foster has served as Project Engineer on numerous gas utility projects.

REPRESENTATIVE PROJECTS UTILIZING COMPUTER TECHNOLOGY:

Project Engineer for design projects utilizing CAD/D for analytical steady-state systems modeling of **NATURAL GAS FACILITIES** using the company's software for design, feasibility, and construction purposes.

- Utilized existing the geographical information systems, GIS, to build a working distribution model of the entire **Town of Smyrna, TN**, natural gas system. The modeling was prepared using KYPipes and GasWorx. Developed a report for rehabilitation of existing pressure regulator stations and a proposed high pressure tap for the Nissan Motor Company plant expansion based on the system model. Developed field as-builts using CAD of the systems main regulator stations. All work conducted with the assistance of Rich Van Dyke, PE.
- Developed an analytical steady-state system model for the City of Lebanon's entire natural gas system as a management and engineering tool using the GasWorx product. This tool allows the City Engineer, **City of Lebanon, TN**, to leverage his existing CAD/D based geographic information system for engineering type design rather than just planning.
- Participated in the development of a partial gas model ,using GasWorx, for feasibility and design purposes on a large potential industrial client for the **North Hampton County Gas System** in North Carolina for Rivers & Associates.
- Developed partial systems model ,using GasWorx, to study feasibility and compare alternate designs and routes for a gas system expansion in the **City of Erwin, TN**, for Tysinger, Hampton & Partners.

Project Engineer for the design and development of computerized facility management and **Geographic Information Systems** ranging from base maps, aerial photogrammetry and file conversions, graphic and non-graphic utility databases, and pipe distribution modeling of water and gas systems.

- Electric and gas utilities for **City of Lebanon, Tennessee**
- Water, sanitary sewer and gas utilities for **City of Springfield, Tennessee**

JAMES + ASSOCIATES, INC.

Project Team

R. Scott Foster (cont.)

- Gas utility for **Town of Smyrna**, Tennessee as well as private gas systems such as Nashville Gas Company and United Cities Gas, Inc.
- Gas and water systems for small municipalities such as **Centerville** and **Hohenwald**.
- **Tullahoma, Winchester, Manchester, Estill Springs, Decherd, Cowan, and Sewanee**, TN, base mapping and gas utility system mapping for Elk River Public Utility District.

Project Engineer for design projects utilizing CAD/D and **three dimensional modeling** of facilities and manufacturing parts for design and analysis purposes.

- Site, utility and building planning and design of a warm water, 200 acre, fish hatchery at Normandy for **Tennessee Wildlife Resources Agency**.
- Aerial and ground survey as well as digital terrain model (DTM) for **Tennessee Department of Transportation** for approximately 10 miles of I-840.
- Survey and design, including alignment and road widening, of new Stone Door Access Road in **South Cumberland State Park** for the Tennessee Department of Conservation and Environment.
- Prototype, patent and detailed drawings, and catalog cut sheet development of new water utility devices utilizing 3-D modeling for the **Mueller Company**.
- Compilation of survey data and construction of 3-D, digital terrain models for visualization and quantity calculations on a treacherous half mile of mountainside roadway work for F.W. and Associates for TDOT approval.
- Compilation of aerial survey into 3-D, digital terrain models, for visualization and quantity comparisons of the **Lewisburg Municipal Golf Course** for CADDUM, Inc.
- Conversion of survey data and existing engineering drawings for compilation of existing landfill conditions into a 3-D, digital terrain model. From that point proposed phases of future landfill development were developed on top of the existing conditions model to project landfill capacity and life expectancy. This work was conducted on the **Quail Hollow Landfill** for EnSafe, Inc.
- Instructed three 40-hour courses on three dimensional computer aided drafting and design. Classes consisted of approximately 45 Tennessee Department of Transportation employees from all four regions. Classes included the 3D basics and were geared toward survey and design of road and bridge projects.

PROFESSIONAL AFFILIATIONS:

Registered Professional Engineer in Tennessee, License #101353, 1994

American Society of Civil Engineers

Tennessee Society of Professional Engineers

Engineers' Association of Nashville, President, 1995

American Society of Photogrammetry & Remote Sensing

Certified by U.S. Department of Transportation in:

Safety Evaluation of Pipeline Systems

Pipeline Safety Regulation Application and Enforcement Procedures

Gas Pressure Regulation and Overpressure Protection

Pipeline Failure Investigation Techniques

Evaluation of Pipeline Corrosion Control Systems

Tennessee Gas Association

National Association of Corrosion Engineers

ROBERT D. MARONEY, P.E.

TN License #7959

WV License #5791

Civil Engineer

EDUCATION:

Bachelor of Science, Civil Engineering, The University of Tennessee, Knoxville, TN,
1966

EXPERIENCE OVERVIEW:

A native of Lenoir City, Tennessee, Mr. Maroney entered the engineering profession as an engineer for the West Virginia Department of Highways. While in West Virginia, Mr. Maroney was heavily involved in route feasibility studies, traffic analysis, and long range traffic and route location studies. In 1971, Mr. Maroney joined the Tennessee Valley Authority. While at TVA, Mr. Maroney was involved in hydroelectric dam inspection, roadway and parking design, railroad relocation design, design of drainage facilities, as well as barge loading and unloading facilities and truck access to industrial parks. He was instrumental in the preparation and approval of piping support design documents, construction specifications and procedures, as well as rupture evaluation of high pressure steam piping at Watts Bar Nuclear Power Plant. Mr. Maroney also supervised engineers and aides in the evaluation of HVAC duct support systems. He has experience in waterline and water treatment plant construction compliance in Tennessee, Kentucky, Virginia, and Alabama. Mr. Maroney was also instrumental in the design of constructed wetland waste treatment facilities. Mr. Maroney retired from TVA in 1994 to pursue, full time, his own interest in building houses. During this time, Mr. Maroney performed numerous structural inspections for individual contracts. Inspections included structural calculations and recommendations for foundation design, composite timber/steel beam design, and concrete repair. Since joining James + Associates in 1997, Mr. Maroney has been heavily involved in the hydraulic analysis and scour evaluation of bridges, including surveying, field investigations, and computer modeling using HEC 18 guidelines. Mr. Maroney is knowledgeable of MicroStation, Microsoft Word, Excel, BSAWSPRO, and HEC programs.

PROFESSIONAL AFFILIATIONS:

Registered Professional Engineer in Tennessee

Registered Professional Engineer in West Virginia (Inactive)

Lenoir City Rotary Club

Gideons International

STEVEN G. DUREN

Oak Ridge Operations Manager / Engineering Technician

EDUCATION:

Currently pursuing Bachelor of Science, Mechanical Engineering, University of Tennessee, Knoxville, Tennessee

B.S., Restaurant, Hotel and Institutional Management, 1989, Texas Tech University, Lubbock, Texas

EXPERIENCE OVERVIEW:

Mr. Duren currently manages the day to day operations of James + Associates in Oak Ridge, Tennessee. He is responsible for the management and completion of projects in that office. Mr. Duren has also been heavily involved in the hydraulic design and evaluation of bridges for the Tennessee Department of Transportation. He has been instrumental in the leading of survey teams to evaluate bridges for scour. He has developed computer models using BSA WSPRO and survey data to evaluate bridge stability based on theoretical volumetric flow rates, velocities, and water surface elevations. He has also contributed to the design of the natural gas gate and regulating station for the Town of Smyrna, Tennessee. Mr. Duren is also active in the development of utility mapping and geographic information systems (GIS). Mr. Duren has a thorough knowledge of MicroStation, Microsoft Word, Excel, FORTRAN.

Green River Hardwoods, Waynesboro, TN

Mr. Duren contributed to the development of a family owned hardwood lumber dry kiln operation. During this time, Mr. Duren regulated moisture content and took daily samples of lumber to ensure proper drying process. Mr. Duren also developed drying schedule and inventory control standards as well as performing sales tasks.

PROFESSIONAL AFFILIATIONS:

American Society of Mechanical Engineers

Society of Automotive Engineers

American Institute of Aeronautics and Astronautics

JERRY MASSIE
CADD Designer

EDUCATION:

Mechanical Drafting Diploma, Dickson Area State Technical School, 1985

EXPERIENCE OVERVIEW:

Mr. Massie is a seasoned CADD Designer with approximately 10 years of 3-D and 2-D design and layout experience. His extensive experience can be attributed to his work with Inter-City Products, Inc., Amana Refrigeration, Inc. and Cummings Signs, Inc. He currently uses CADD, PC and Digitizing experience in producing layouts and drawings for bridge repair projects, scour analysis reports, subdivision projects, State recreational projects and advanced transportation planning reports. Mr. Massie also assists in conducting field work such as surveying.

COMMUNITY INVOLVEMENT:

Activity Director, Church Youth Group
Softball Coach, Church League
Softball Coach, Industrial League

PRESTON M. SMITH
Senior CADD Designer

EDUCATION:

Associates in Science, Civil Engineering Technology, Nashville State Technical Institute, 1990

Associates in Science, Business Administration, Ferrum College, Ferrum, Virginia, 1982

Currently pursuing B.S. in Civil Engineering

EXPERIENCE OVERVIEW:

Mr. Smith has a diverse background in civil/utility/environmental engineering CADD design. He has worked on a variety of projects including water and sewer design and plant layout, gas line layouts, bridge and roadway layout, parking areas, and park design and layout.

Mr. Smith is a veteran CADD Designer with a variety of computer experience including the setup and executing of computer models for gas, water, and sewer systems for both private and public utilities. He has also been involved in many types of mapping projects that include water, sewer, gas, electrical and communications for industrial sites, universities, city and county governments.

PROFESSIONAL AFFILIATIONS:

Member of the Adjunct Teaching Staff, Nashville State Technical Institute

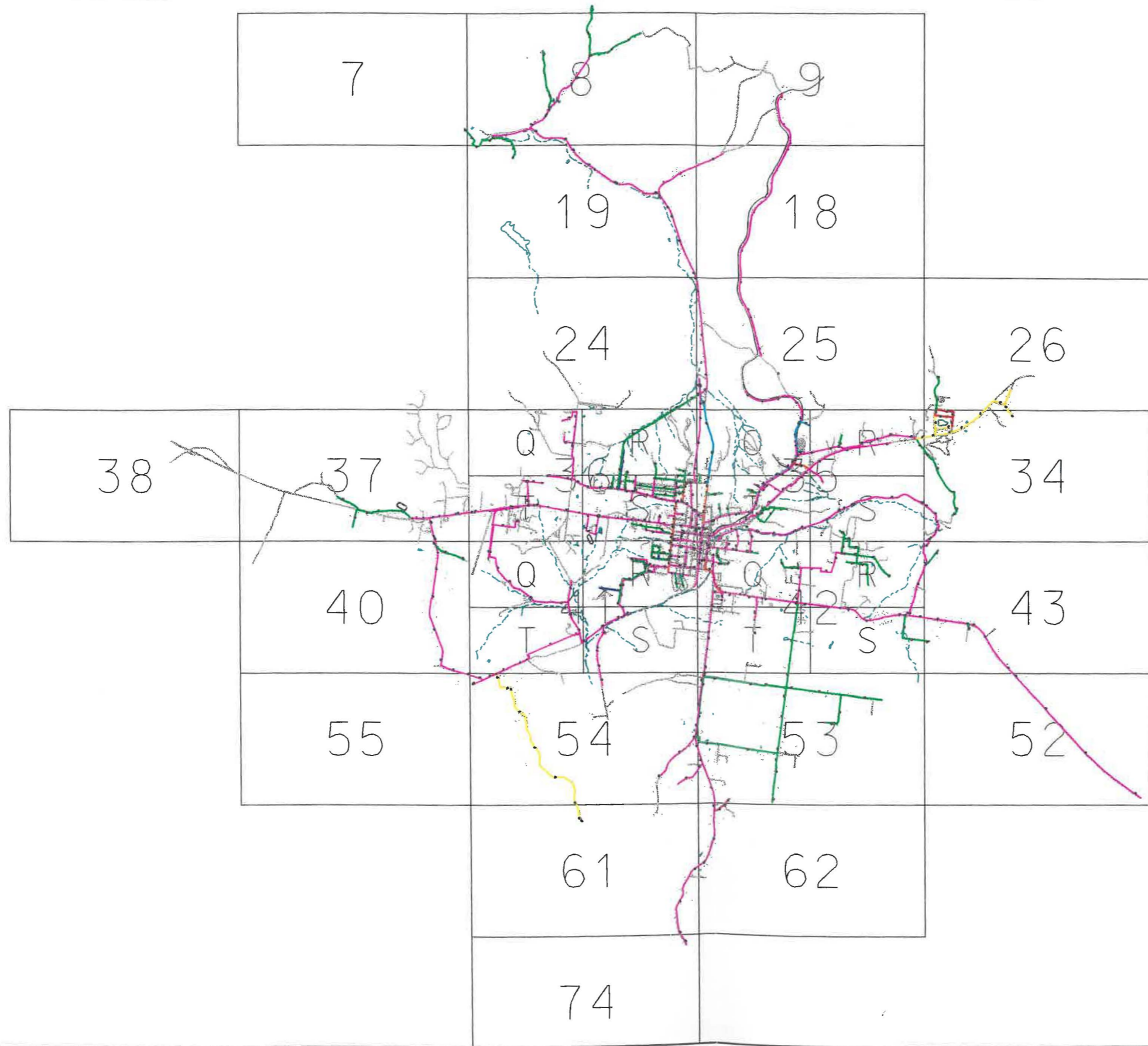


Section IV

Examples of Work Product

WATER MAPS
FOR
CITY OF HOHENWALD WATER DEPARTMENT

GUY J. NICHOLSON, MAYOR
JERRY HENSLEY, WATER MANAGER



SYMBOL LEGEND

	PVC	VCP	ROP
6" SERVICE MAIN	—	—	—
8" SERVICE MAIN	—	—	—
10" SERVICE MAIN	—	—	—
12" SERVICE MAIN	—	—	—
18" SERVICE MAIN	—	—	—
FORGE MAIN	—	—	—

7	8	9
	18	19
	24	25
38	37	34
40		43
55	54	53
	61	62
	74	

DR.	DATE	CHK.	DESCRIPTION

CITY OF HOHENWALD
LEWIS COUNTY, TENNESSEE

WATER DISTRIBUTION SYSTEM
LEWIS COUNTY

NOTE: THESE MAPPING DOCUMENTS ARE PROVIDED FOR INFORMATION PURPOSES ONLY AND THE UTILITY LINE AS SHOWN IN REGARD TO SIZE, TYPE, LOCATION, ETC. DO NOT REFLECT ACTUAL AS-BUILT CONDITIONS. THE INFORMATION CONTAINED IN THESE DRAWINGS WAS GATHERED FROM THE MOST CURRENT EXISTING RECORDS AVAILABLE BUT NO FIELD INVESTIGATION WAS CONDUCTED TO DETERMINE THE ACCURACY OF THESE RECORDS. FOR ADDITIONAL INFORMATION, CONTACT THE UTILITY OWNER.

One Vantage Way, Suite A-10 • Nashville, Tennessee 37228-6701/728-4844

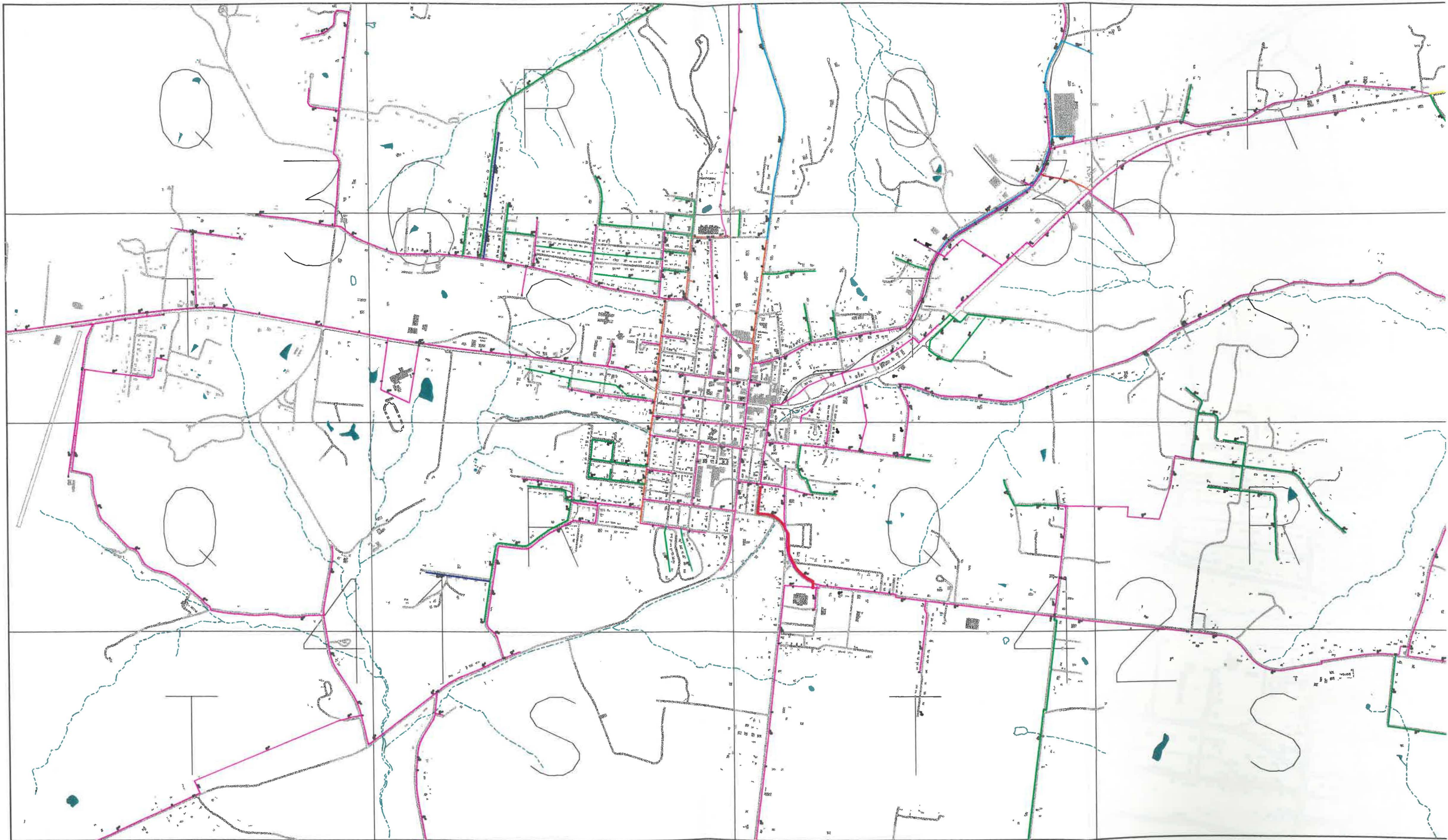
JAMES + ASSOCIATES, INC.
Engineers
Planners and
Computer Applications

MAP NUMBER

W-Inde

3200 0 3200 640

SCALE



SYMBOL LEGEND

	PVC	VCP	ROP
8" SEWER MAIN	—	—	—
10" SEWER MAIN	—	—	—
12" SEWER MAIN	—	—	—
FORCE MAIN	—	—	—
MANHOLE	•		
PUMP STATION	■		

	7	8	9	
		19	18	
		24	25	26
36	37	38	39	34
	40	41	42	43
	55	54	53	52
		61	62	
		74		

DR.	DATE	CHK.	DESCRIPTION

CITY OF HOHENWALD
 LEWIS COUNTY, TENNESSEE

WATER DISTRIBUTION SYSTEM
 LEWIS COUNTY

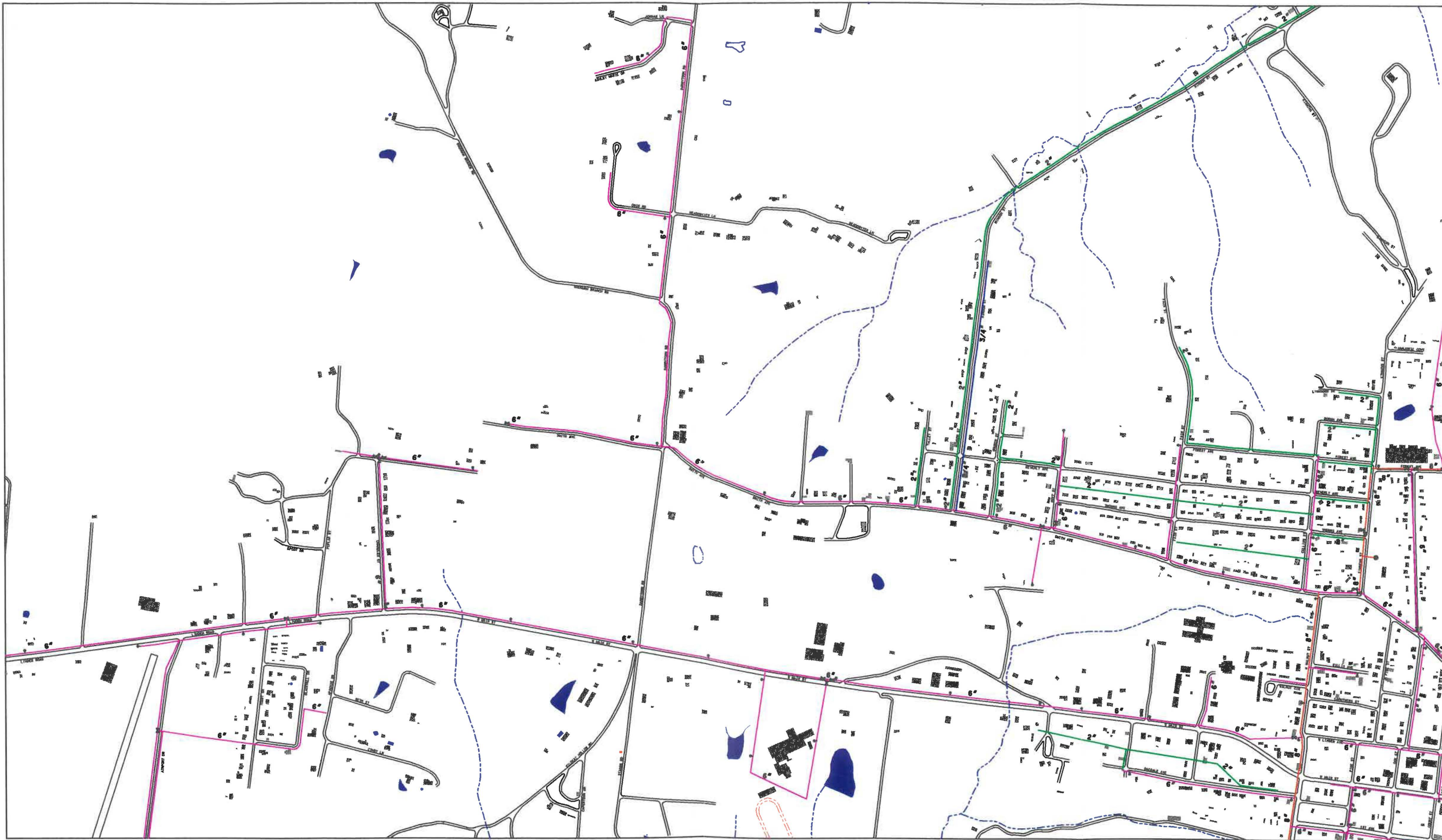
NOTE: THESE MAPPING DOCUMENTS ARE PROVIDED FOR INFORMATION PURPOSES ONLY AND THE UTILITY LINE AS SHOWN IN REGARD TO SIZE, TYPE, LOCATION, ETC. DO NOT REFLECT ACTUAL AS-BUILT CONDITIONS. THE INFORMATION CONTAINED IN THESE DRAWINGS WAS GATHERED FROM THE MOST CURRENT EXISTING RECORDS AVAILABLE BUT NO FIELD INVESTIGATION WAS CONDUCTED TO DETERMINE THE ACCURACY OF THESE RECORDS. FOR ADDITIONAL INFORMATION, CONTACT THE UTILITY OWNER.

J One Vantage Way, Suite A-10 • Nashville, Tennessee 37203-0577/615-251-1414
 Engineers
 Planners and
 Computer Applications

MAP NUMBER

W-Index
City

600 0 800 1000



SYMBOL LEGEND

	PVC	VCP	ROP
6" SEWER MAIN	-----	-----	-----
8" SEWER MAIN	-----	-----	-----
10" SEWER MAIN	-----	-----	-----
12" SEWER MAIN	-----	-----	-----
FORCE MAIN	-----	-----	-----
MANHOLE	●		
PUMP STATION	■		

7	8	9	
	19	18	
	24	25	26
38	37	36	34
	40	39	43
	55	54	52
		61	62
		74	

DR.	DATE	CHK.	DESCRIPTION

CITY OF HOHENWALD
 LEWIS COUNTY, TENNESSEE
WATER DISTRIBUTION SYSTEM
LEWIS COUNTY

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JA One Vantage Way, Suite A-10 • Hohenwald, Tennessee 37756-0205/729-4848
 Engineers
 Planners and
 Computer Applications
JAMES + ASSOCIATES, INC.

MAP NUMBER

W-36

400 0 400 800
SCALE FEET



SYMBOL LEGEND

2" WATER MAIN	6" WATER MAIN	SEWER MAIN
2" WATER MAIN	6" WATER MAIN	SEWER MAIN
2" WATER MAIN	6" WATER MAIN	SEWER MAIN
2" WATER MAIN	6" WATER MAIN	SEWER MAIN
FORCE MAIN		

MANHOLE ROAD STATION

7	8	9
	19	18
	24	25
38	37	34
	40	43
	55	52
	54	53
	61	62

DR.	DATE	CHK.	DESCRIPTION

CITY OF HOHENWALD
LEWIS COUNTY, TENNESSEE

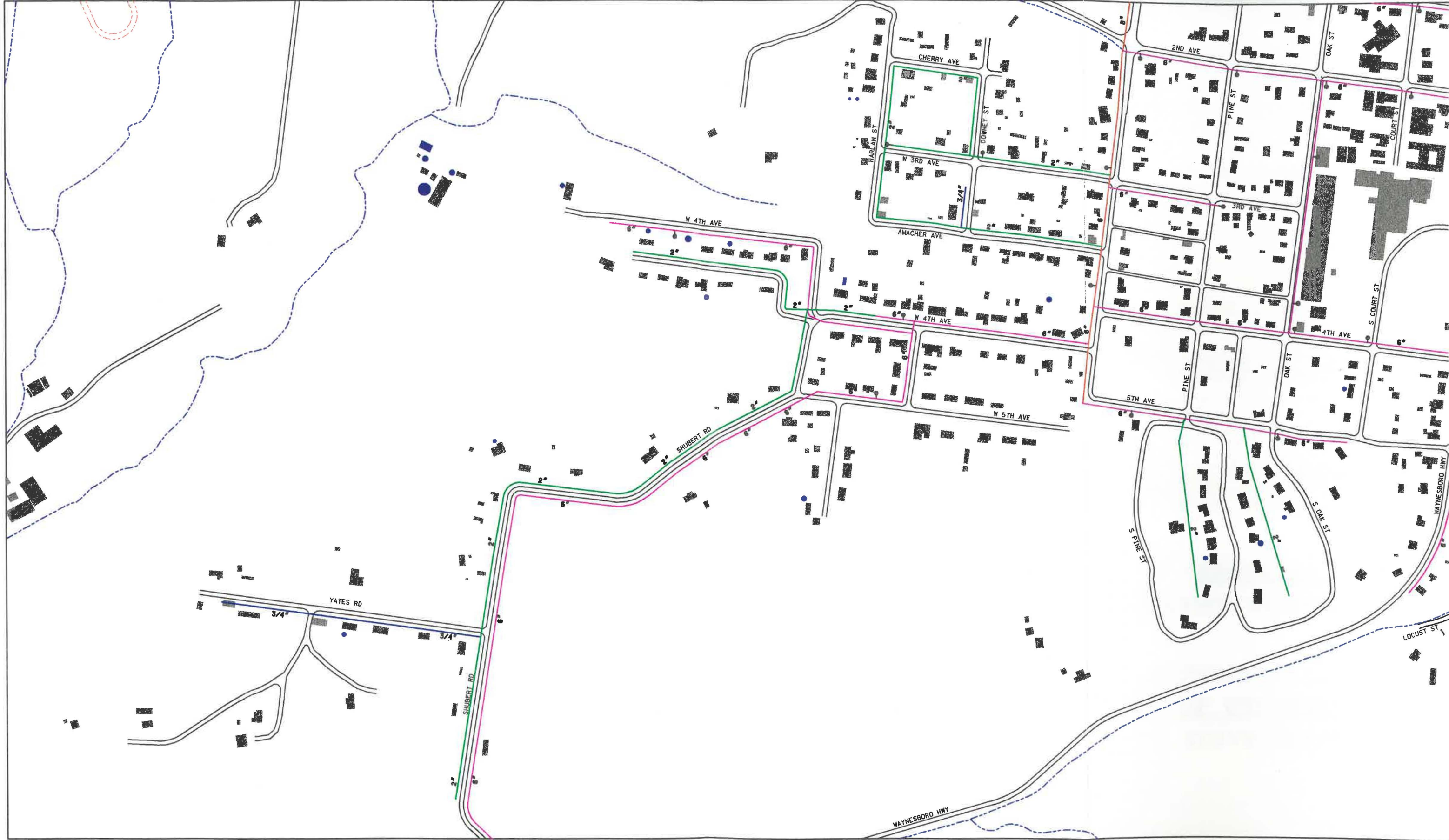
WATER DISTRIBUTION SYSTEM
LEWIS COUNTY

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JAMES + ASSOCIATES, INC.
One Vantage Way, Suite A-110 • Nashville, Tennessee 37228-6911/738-4848
Engineers
Planners and
Computer Applications

MAP NUMBER
W-365

SCALE
0 200 400
FEET



SYMBOL LEGEND

6" SEWER MAIN	4" SEWER MAIN	3" SEWER MAIN	2" SEWER MAIN	3/4" SEWER MAIN	FORCE MAIN
VALVE	PUMP STATION				

7	8	9
	19	18
	24	25
38	37	34
	40	43
	55	52
	61	62
	74	

DR.	DATE	CHK.	DESCRIPTION

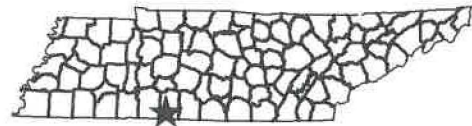
CITY OF HOHENWALD
 LEWIS COUNTY, TENNESSEE
WATER DISTRIBUTION SYSTEM
LEWIS COUNTY

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 One Vantage Way, Suite A-10 • Nashville, Tennessee 37203-6107/728-4646
JAMES + ASSOCIATES, INC.
 Engineers, Planners and Computer Applications

MAP NUMBER
W-41R
 SCALE: 1" = 400'

WATER MAPS

CITY OF LORETTO



CITY OF LORETTO

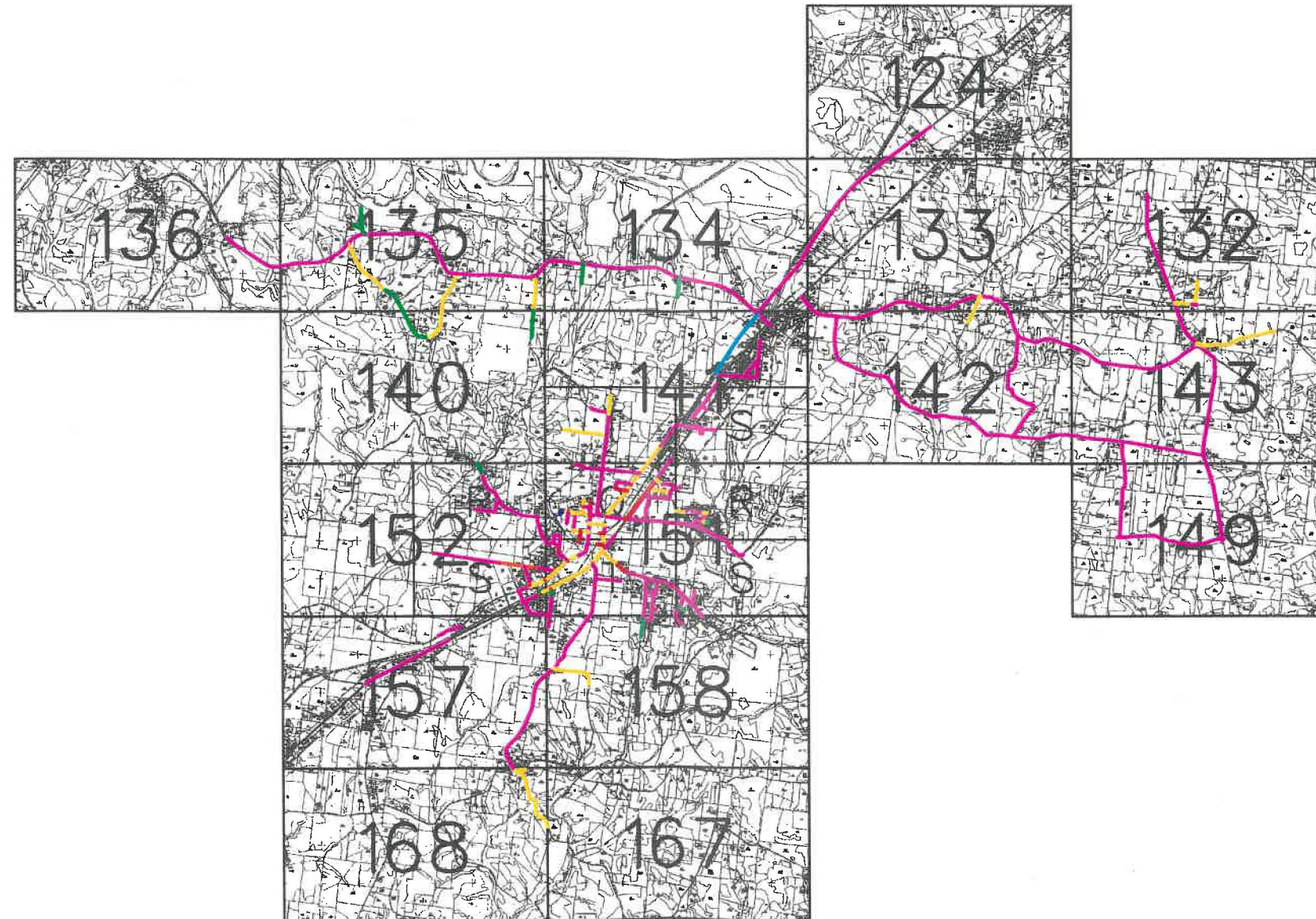
REQUIRED LOCATION REQUEST INFORMATION

NAME OF CALLER
TELEPHONE NUMBER
BEST TIME TO CALL
COUNTY
TOWN
STREET ADDRESS
START DATE START TIME
TYPE OF WORK
BLASTING ?
WORK BEING DONE BY
WORK BEING DONE FOR

CALL THREE WORKING DAYS
BEFORE YOU DIG
1-800-351-1111
IN NASHVILLE : 366-1987



SYSTEM INCORPORATED



MAYOR
RONALD J McMASTERS

CITY MANAGER
KEITH L. SMITH

ALDERPERSON
RUTH REEVES

ALDERWOMAN
KAY DODSON

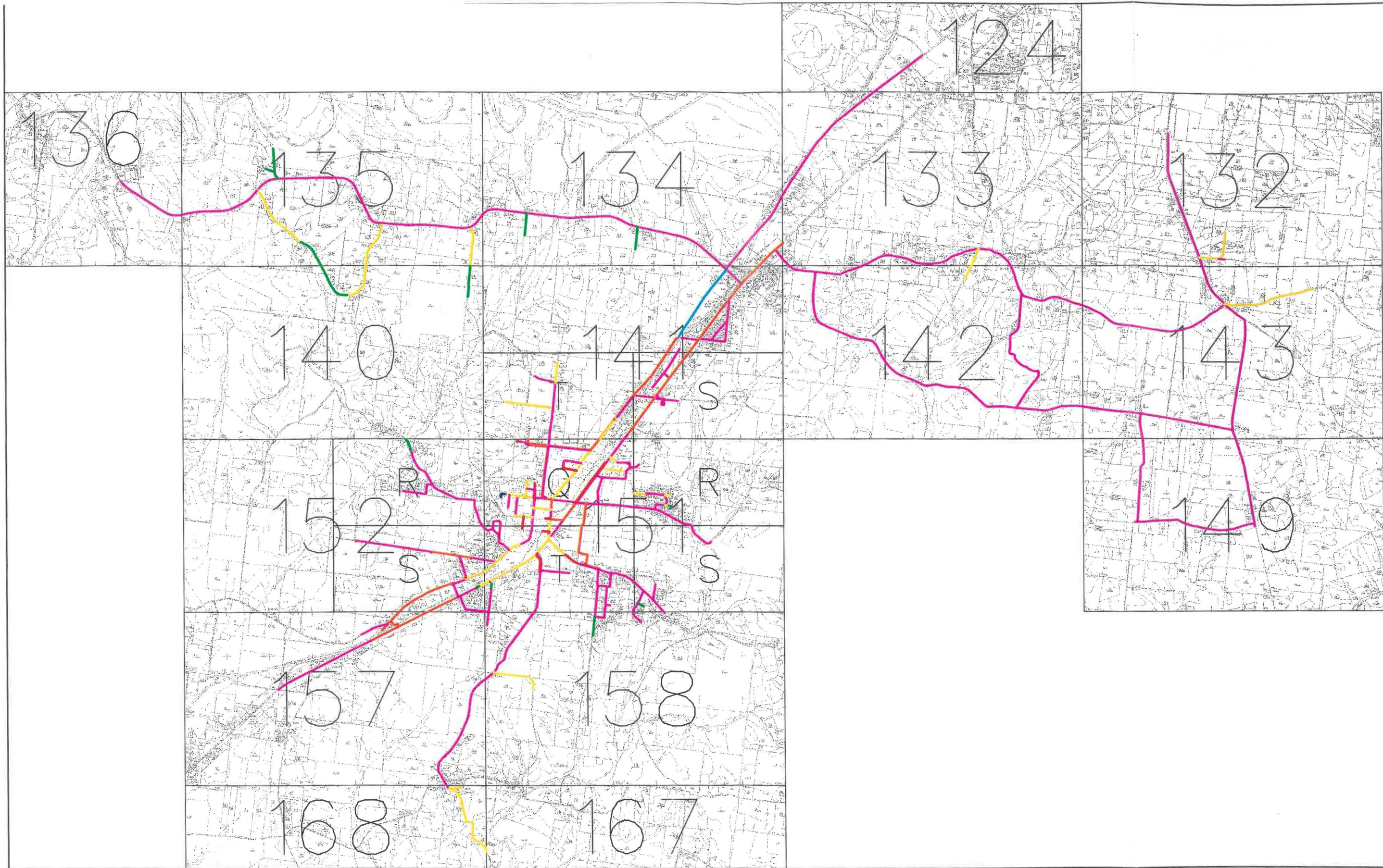
RECORDER
KATHY WEATHERS

SUPERINTENDENT
OF UTILITIES
STEVE ELLIS

JA Engineers
Planners and
Computer Applications
JAMES + ASSOCIATES, INC.

NASHVILLE • DICKSON • OAK RIDGE

JOB NO. 128201
DATE : MARCH 1, 1997
SET NO. : _____



SYMBOL LEGEND

1/2" WATER LINE	.....	PUMP STATION	☐
1" WATER LINE	.....	VALVE	⊕
2" WATER LINE	.....	FLUSHING HYDRANT	⊕
3" WATER LINE	.....	FIRE HYDRANT	⊕
4" WATER LINE	.....	WATER TANK	⊕
6" WATER LINE	.....	BLOW OFF	⊕
8" WATER LINE	.....	
10" WATER LINE	.....	
12" WATER LINE	.....	

			184	
136	135	134	133	132
	140	141	142	143
	152	151		
	157	158		
	168	167		

DR.	DATE	CHK.	DESCRIPTION

CITY OF LORETTO
 LAWRENCE COUNTY, TENNESSEE

WATER DISTRIBUTION SYSTEM
 LAWRENCE COUNTY

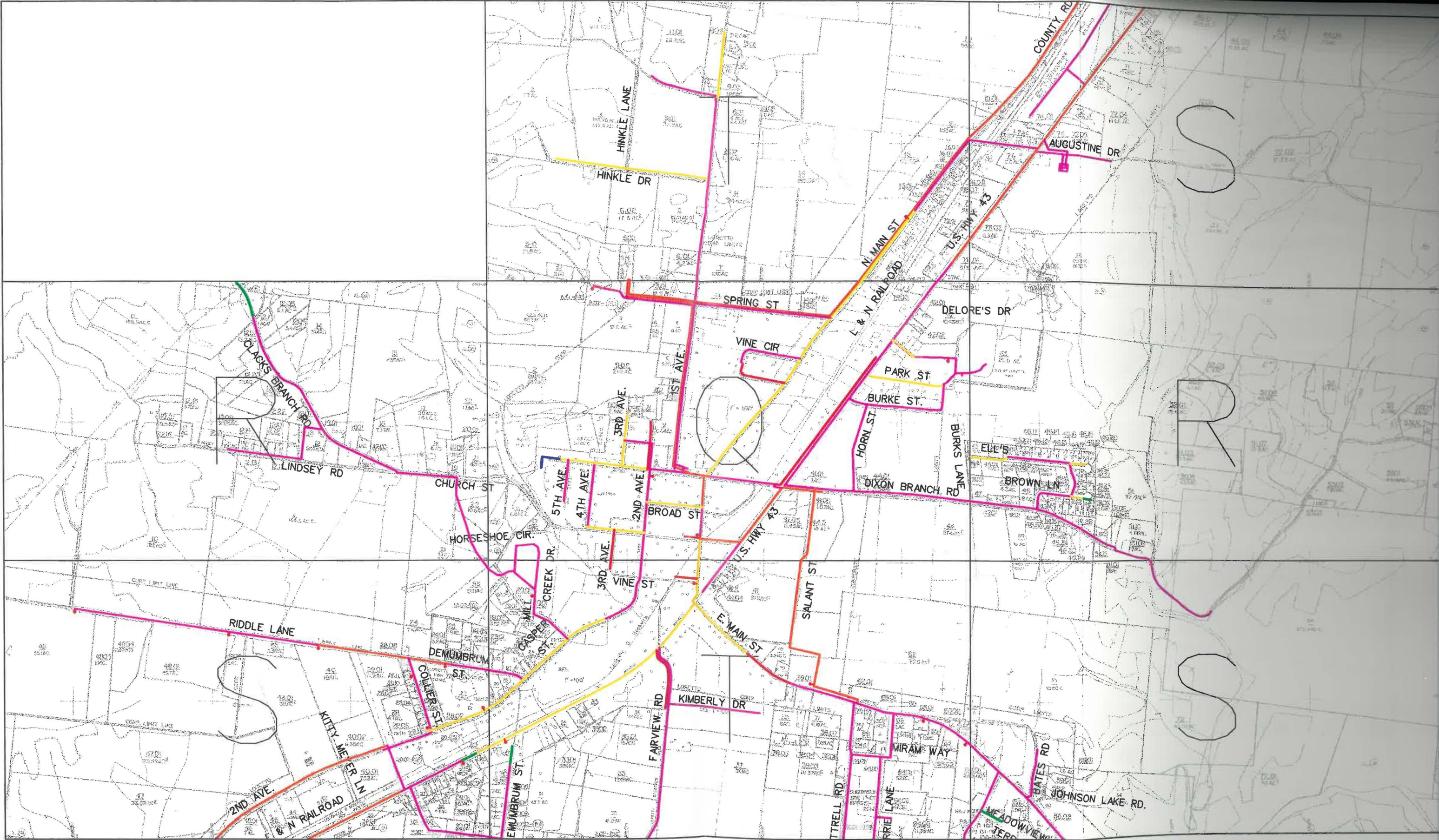
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JA One Venture Way, Suite A-10 • Nashville, Tennessee 37228-0210/732-4618
 Engineers and Computer Applications
JAMES & ASSOCIATES, INC.

MAP NUMBER

W
INDEX

4000' 0 4000' 8000'



SYMBOL LEGEND

1/2" WATER LINE	.....	PUMP STATION	☐
2" WATER LINE	.....	VALVE	⊕
3" WATER LINE	.....	FLUSHING HYDRANT	⊕
4" WATER LINE	.....	FIRE HYDRANT	⊕
6" WATER LINE	.....	WATER TANK	⊕
8" WATER LINE	.....	BLOW OFF	⊕
10" WATER LINE	.....	
12" WATER LINE	.....	

					124
136	135	134	133	132	
	140		142	143	
					149

DR.	DATE	CHK.	DESCRIPTION

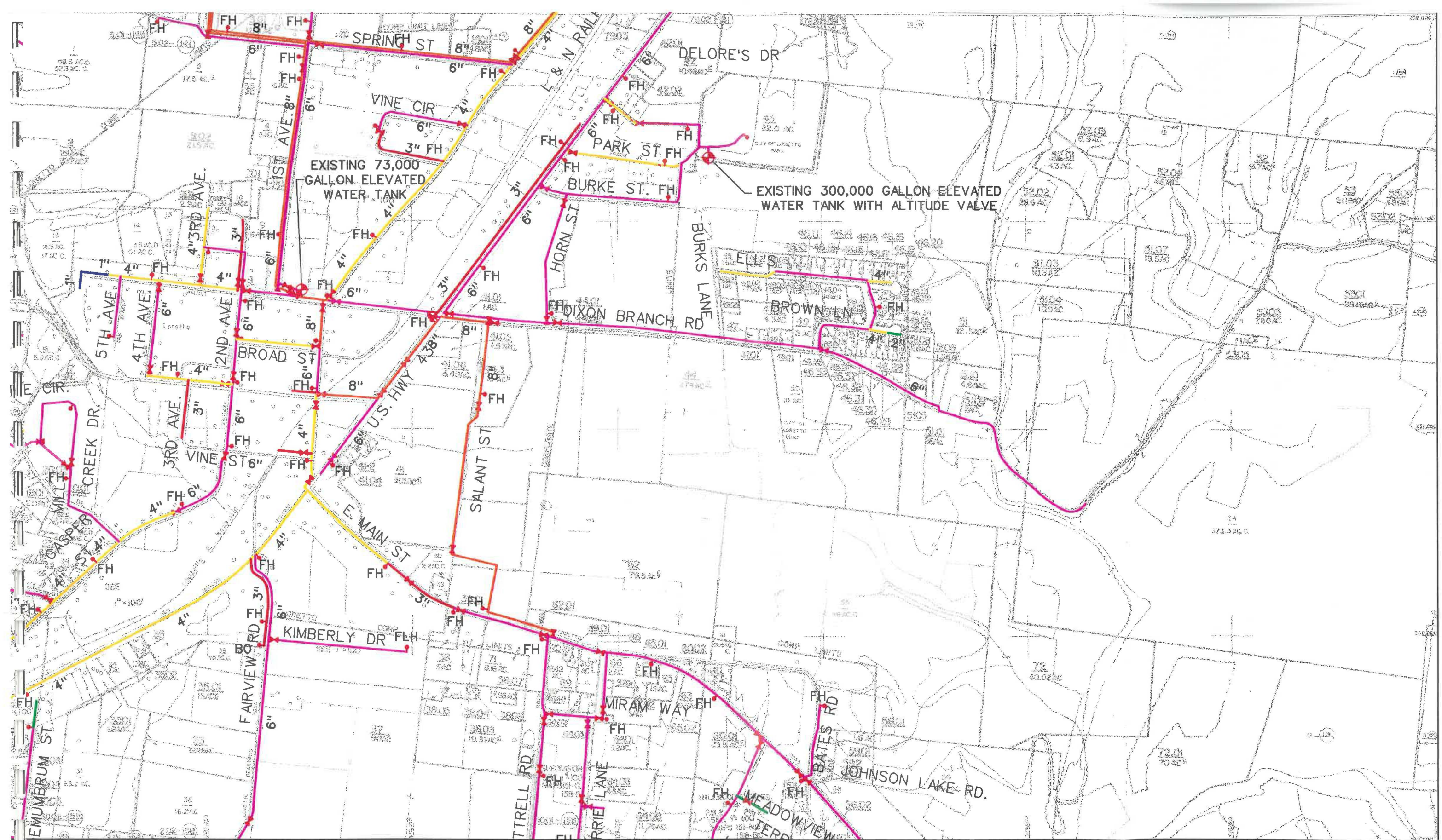
CITY OF LORETTO
 LAWRENCE COUNTY, TENNESSEE
WATER DISTRIBUTION SYSTEM
 LAWRENCE COUNTY

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One Village Way, Suite A-10 • Nashville, Tennessee 37238-6887/726-6848
JAMES + ASSOCIATES, INC.
 Engineers, Planners and Computer Applications

MAP NUMBER
W INDEX CITY

SCALE 1" = 100'



EXISTING 300,000 GALLON ELEVATED WATER TANK WITH ALTITUDE VALVE

EXISTING 73,000 GALLON ELEVATED WATER TANK

SYMBOL LEGEND

1" WATER LINE	.....	PUMP STATION	☐
2" WATER LINE	.....	VALVE	⊕
3" WATER LINE	.....	FLUSHING HYDRANT	⊕
4" WATER LINE	.....	FIRE HYDRANT	⊕
6" WATER LINE	.....	WATER TANK	⊕
8" WATER LINE	.....	BLOW OFF	⊕

136	135	134	133	132
140	139	138	137	136
157	156	155	154	153
168	167	166	165	164

DR.	DATE	CHK.	DESCRIPTION

CITY OF LORETTO
LAWRENCE COUNTY, TENNESSEE

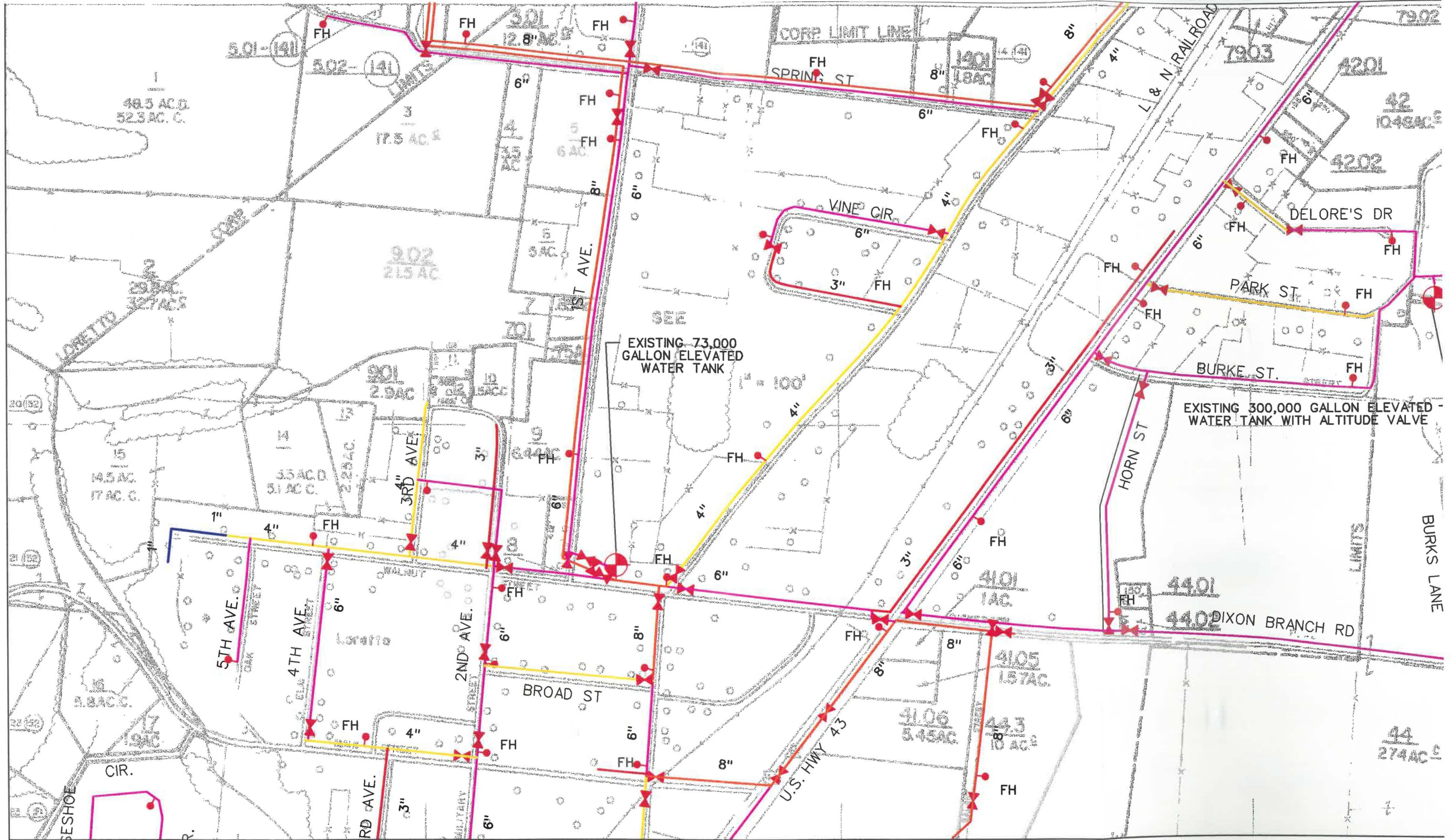
WATER DISTRIBUTION SYSTEM
LAWRENCE COUNTY

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One Vantage Way, Suite A-110 • Nashville, Tennessee 37203-6151/726/4646
Engineers
Planners and
Computer Applications
JAMES + ASSOCIATES, INC.

MAP NUMBER
151

SCALE
0 400 800
FEET



SYMBOL LEGEND	
1/4" WATER LINE	.....
1" WATER LINE	.....
2" WATER LINE	.....
3" WATER LINE	.....
4" WATER LINE	.....
6" WATER LINE	.....
8" WATER LINE	.....
10" WATER LINE	.....
12" WATER LINE	.....
PUMP STATION	[]
VALVE	[X]
FLUSHING HYDRANT	[FH]
FIRE HYDRANT	[FH]
WATER TANK	[T]
BLOW OFF	[BO]

136	135	134	133	132
140	139	138	142	143
145	144	143	142	141
157	156			149
168	167			

DR.	DATE	CHK.	DESCRIPTION

CITY OF LORETTO
LAWRENCE COUNTY, TENNESSEE

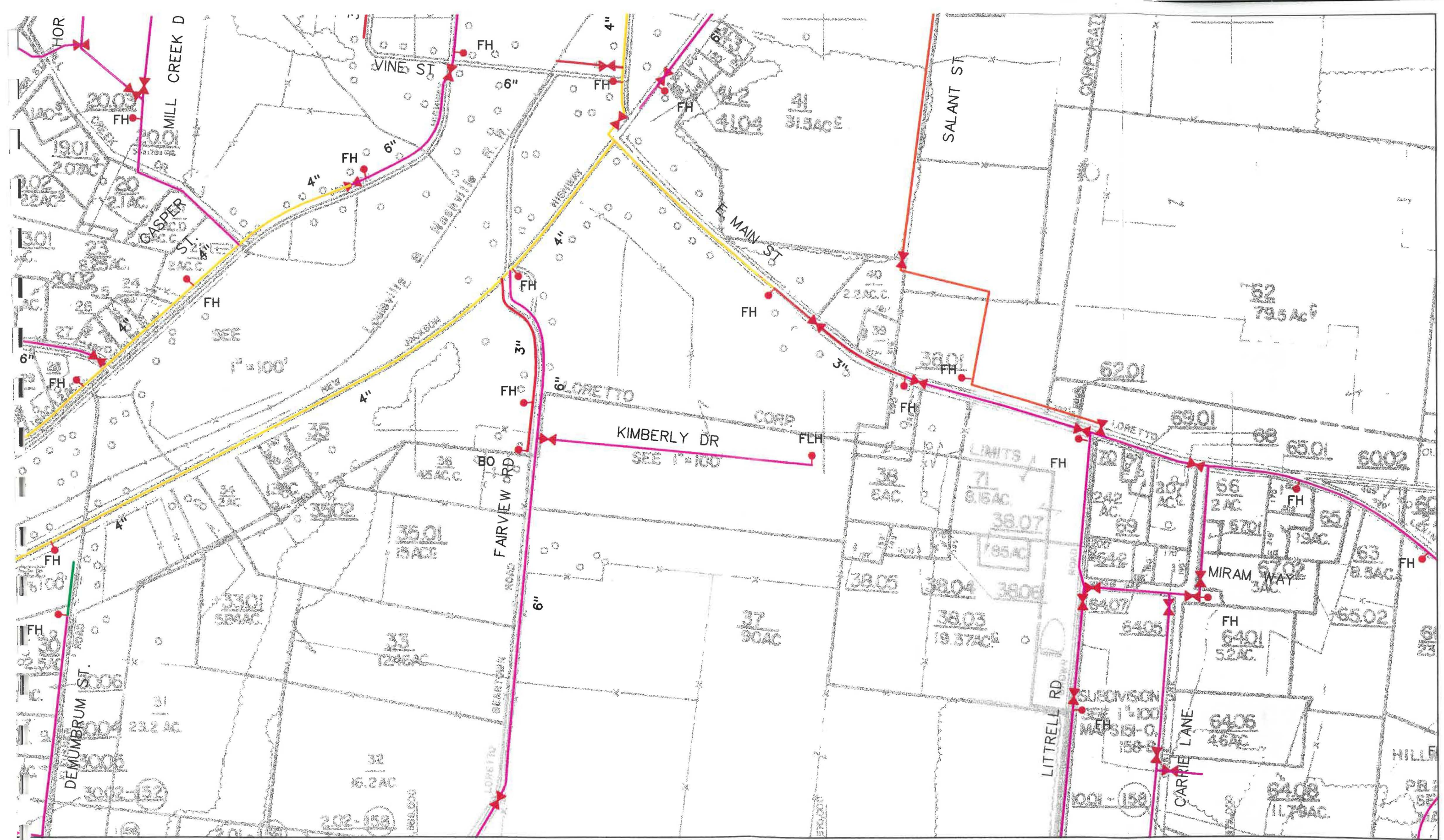
WATER DISTRIBUTION SYSTEM
LAWRENCE COUNTY

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One Venture Way, Suite A-110 • Nashville, Tennessee 37228-9918/738-4548
Engineers, Planners and Computer Applications
JAMES + ASSOCIATES, INC.

MAP NUMBER
151C

SCALE: 1" = 400'



SYMBOL LEGEND

1" WATER LINE		PUMP STATION	
2" WATER LINE		VALVE	
4" WATER LINE		FLUSHING HYDRANT	
6" WATER LINE		FIRE HYDRANT	
8" WATER LINE		WATER TANK	
12" WATER LINE		BLOW OFF	

136	135	134	133	132
140		142	143	
144		146	147	148
157	158			
168	167			

DR.	DATE	CHK.	DESCRIPTION

CITY OF LORETTO
 LAWRENCE COUNTY, TENNESSEE

WATER DISTRIBUTION SYSTEM
 LAWRENCE COUNTY

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One Vantage Way, Suite A-110 • Nashville, Tennessee 37238-0151/726/4048
 Engineers
 Planners and
 Computer Applications
JAMES + ASSOCIATES, INC.

 SCALE 	MAP NUMBER 151T
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