

**PY 2017
ROUND 31**

**SCIP
APPLICATION**

for

CITY OF TROTWOOD, OHIO

**OLDE TOWN WATERMAIN REPLACEMENT
PHASE 1A**

August 15, 2016

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State of Ohio
Public Works Commission
Application for Financial Assistance

IMPORTANT: Please consult "Instructions for Financial Assistance for Capital Infrastructure Projects" for guidance in completion of this form.

Applicant

Applicant: _____ Subdivision Code: _____

District Number: _____ County: _____ Date: _____

Contact: _____ Phone: _____
(The individual who will be available during business hours and who can best answer or coordinate the response to questions)

Email: _____ FAX: _____

Project

Project Name: _____ Zip Code: _____

Subdivision Type	Project Type	Funding Request Summary
(Select one)	(Select single largest component by \$)	(Automatically populates from page 2)
1. County	1. Road	Total Project Cost: _____ .00
2. City	2. Bridge/Culvert	1. Grant: _____ .00
3. Township	3. Water Supply	2. Loan: _____ .00
4. Village	4. Wastewater	3. Loan Assistance/ Credit Enhancement: _____ .00
5. Water (6119 Water District)	5. Solid Waste	
	6. Stormwater	Funding Requested: _____ .00

District Recommendation (To be completed by the District Committee)

Funding Type Requested	SCIP Loan - Rate: _____ % Term: _____ Yrs	Amount: _____ .00
(Select one)		
State Capital Improvement Program	RLP Loan - Rate: _____ % Term: _____ Yrs	Amount: _____ .00
Local Transportation Improvement Program	Grant:	Amount: _____ .00
Revolving Loan Program	LTIP:	Amount: _____ .00
Small Government Program		
District SG Priority: _____	Loan Assistance / Credit Enhancement:	Amount: _____ .00

For OPWC Use Only

STATUS	Grant Amount: _____ .00	Loan Type: <input type="checkbox"/> SCIP <input type="checkbox"/> RLP
Project Number: C _____	Loan Amount: _____ .00	Date Construction End: _____
C _____	Total Funding: _____ .00	Date Maturity: _____
Release Date: _____	Local Participation: _____ %	Rate: _____ %
OPWC Approval: _____	OPWC Participation: _____ %	Term: _____ Yrs

1.0 Project Financial Information (All Costs Rounded to Nearest Dollar)

1.1 Project Estimated Costs

Engineering Services

Preliminary Design:	_____	.00	
Final Design:	_____	.00	
Construction Administration:	_____	.00	
Total Engineering Services:	a.) _____	.00	_____ %
Right of Way:	b.) _____	.00	
Construction:	c.) _____	.00	
Materials Purchased Directly:	d.) _____	.00	
Permits, Advertising, Legal:	e.) _____	.00	
Construction Contingencies:	f.) _____	.00	_____ %
Total Estimated Costs:	g.) _____	.00	

1.2 Project Financial Resources

Local Resources

Local In-Kind or Force Account:	a.) _____	.00	
Local Revenues:	b.) _____	.00	
Other Public Revenues:	c.) _____	.00	
ODOT / FHWA PID: _____	d.) _____	.00	
USDA Rural Development:	e.) _____	.00	
OEPA / OWDA:	f.) _____	.00	
CDBG:	g.) _____	.00	
County Entitlement or Community Dev. "Formula"			
Department of Development			
Other: _____	h.) _____	.00	
Subtotal Local Resources:	i.) _____	.00	_____ %

OPWC Funds (Check all requested and enter Amount)

Grant: _____ % of OPWC Funds	j.) _____	.00	
Loan: _____ % of OPWC Funds	k.) _____	.00	
Loan Assistance / Credit Enhancement:	l.) _____	.00	
Subtotal OPWC Funds:	m.) _____	.00	_____ %
Total Financial Resources:	n.) _____	.00	_____ %

1.3 Availability of Local Funds

Attach a statement signed by the Chief Financial Officer listed in section 5.2 certifying all local resources required for the project will be available on or before the earliest date listed in the Project Schedule section. The OPWC Agreement will not be released until the local resources are certified. Failure to meet local share may result in termination of the project. Applicant needs to provide written confirmation for funds coming from other funding sources.

2.0 Repair / Replacement or New / Expansion

2.1 Total Portion of Project Repair / Replacement: _____ .00 _____ %
2.2 Total Portion of Project New / Expansion: _____ .00 _____ %
2.3 Total Project: _____ .00 _____ %

3.0 Project Schedule

3.1 Engineering / Design / Right of Way Begin Date: _____ End Date: _____
3.2 Bid Advertisement and Award Begin Date: _____ End Date: _____
3.3 Construction Begin Date: _____ End Date: _____

Construction cannot begin prior to release of executed Project Agreement and issuance of Notice to Proceed.

Failure to meet project schedule may result in termination of agreement for approved projects. Modification of dates must be requested in writing by project official of record and approved by the Commission once the Project Agreement has been executed.

4.0 Project Information

If the project is multi-jurisdictional, information must be consolidated in this section.

4.1 Useful Life / Cost Estimate / Age of Infrastructure

Project Useful Life: _____ Years Age: _____ (Year built or year of last major improvement)

Attach Registered Professional Engineer's statement, with seal or stamp and signature confirming the project's useful life indicated above and detailed cost estimate.

4.2 User Information

Road or Bridge: Current ADT _____ Year _____ Projected ADT _____ Year _____

Water / Wastewater: Based on monthly usage of 4,500 gallons per household; attach current ordinances.

Residential Water Rate Current \$ _____ Proposed \$ _____

Number of households served: _____

Residential Wastewater Rate Current \$ _____ Proposed \$ _____

Number of households served: _____

Stormwater: Number of households served: _____

4.3 Project Description

A: SPECIFIC LOCATION (Supply a written location description that includes the project termini; a map does not replace this requirement.) 500 character limit.

B: PROJECT COMPONENTS (Describe the specific work to be completed; the engineer's estimate does not replace this requirement) 1,000 character limit.

C: PHYSICAL DIMENSIONS (Describe the physical dimensions of the existing facility and the proposed facility. Include length, width, quantity and sizes, mgd capacity, etc in detail.) 500 character limit.

5.0 Project Officials

Changes in Project Officials must be submitted in writing from an officer of record.

5.1 Chief Executive Officer (Person authorized in legislation to sign project agreements)

Name: _____

Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

FAX: _____

E-Mail: _____

5.2 Chief Financial Officer (Can not also serve as CEO)

Name: _____

Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

FAX: _____

E-Mail: _____

5.3 Project Manager

Name: _____

Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____

FAX: _____

E-Mail: _____

6.0 Attachments / Completeness review

Confirm in the boxes below that each item listed is attached (Check each box)

- ☒ A certified copy of the legislation by the governing body of the applicant authorizing a designated official to sign and submit this application and execute contracts. This individual should sign under 7.0, Applicant Certification, below.
- ☒ A certification signed by the applicant's chief financial officer stating the amount of all local share funds required for the project will be available on or before the dates listed in the Project Schedule section. If the application involves a request for loan (RLP or SCIP), a certification signed by the CFO which identifies a specific revenue source for repaying the loan also must be attached. Both certifications can be accomplished in the same letter.
- ☒ A registered professional engineer's detailed cost estimate and useful life statement, as required in 164-1-13, 164-1-14, and 164-1-16 of the Ohio Administrative Code. Estimates shall contain an engineer's seal or stamp and signature.
- ☐ A cooperative agreement (if the project involves more than one subdivision or district) which identifies the fiscal and administrative responsibilities of each participant.
- ☐ Farmland Preservation Review - The Governor's Executive Order 98-IV, "Ohio Farmland Protection Policy" requires the Commission to establish guidelines on how it will take protection of productive agricultural and grazing land into account in its funding decision making process. Please include a Farm Land Preservation statement for projects that have an impact on farmland.
- ☐ Capital Improvements Report. CIR Required by O.R.C. Chapter 164.06 on standard form.
- ☒ Supporting Documentation: Materials such as additional project description, photographs, economic impact (temporary and/or full time jobs likely to be created as a result of the project), accident reports, impact on school zones, and other information to assist your district committee in ranking your project. Be sure to include supplements which may be required by your local District Public Works Integrating Committee.

7.0 Applicant Certification

The undersigned certifies: (1) he/she is legally authorized to request and accept financial assistance from the Ohio Public Works Commission as identified in the attached legislation; (2) to the best of his/her knowledge and belief, all representations that are part of this application are true and correct; (3) all official documents and commitments of the applicant that are part of this application have been duly authorized by the governing body of the applicant; and, (4) should the requested financial assistance be provided, that in the execution of this project, the applicant will comply with all assurances required by Ohio Law, including those involving Buy Ohio and prevailing wages.

Applicant certifies that physical construction on the project as defined in the application has NOT begun, and will not begin until a Project Agreement for this project has been executed with the Ohio Public Works Commission. Action to the contrary will result in termination of the agreement and withdrawal of Ohio Public Works Commission funding from the project.

Quincy Pope, City Manager

Certifying Representative (Printed form, Type or Print Name and Title)

Original Signature / Date Signed

OHIO PUBLIC WORKS COMMISSION

DISTRICT 4

PY31 Supplemental Questionnaire

Applicant: _____

Project Title: _____

Infrastructure Condition:

Check One:

New/Excellent

Good

Fair

Poor

Critical

Failed

Please describe condition of existing facility condition being repaired and/or replaced. Attach supporting documentation.

Generation of Revenue:

Will new user fees or assessments be assessed as part of this project? (Check One)

Yes

No

What will the new user fees or assessments be used for?

Additional Funding:

Will OPWC match, in part, a committed grant or loan? (Check One)	
Yes	No
If no, was the project submitted to an appropriate agency for funding, but denied due to lack of funding? (Check One)	
Yes – Appropriate Documentation Attached	No

Readiness of Project:

Will this project be <u>substantially</u> underway on or before June 1, 2018? (Check One)	
Yes	No

Health & Safety:

Describe the specific health or safety issue being addressed by this project. What deficiency or condition is causing the health or safety issue?

Addresses District Infrastructure Needs:

Is this project located in more than one community? (Check One)		
Yes	No	
What percentage of the community will be served by this project? (Check One)		
Less than 25%	25% to 40%	More than 40%

Economic Development

How many jobs are being created as a result of this project?	
How many jobs will be retained as a result of this project?	
Why is it necessary to fund this improvement to secure this development?	
What type of industry is proposed in this development?	

Relieve Existing Traffic Congestion:

What is the level of service? (Choose One)	
---	--

Other Factors

What other factors exist that make this project more important than other like projects?

Resolution by the City

Note: The next City Council meeting is scheduled for September 16, 2016. A resolution will be completed and approved at that meeting.

CERTIFICATE OF RECORDING OFFICER

by the City

To be provided with resolution after the September 16, 2016 Council meeting.

OLDE TOWN WATER MAIN REPLACEMENT, PHASE 1A
CHIEF FINANCIAL OFFICER'S CERTIFICATION OF LOCAL FUNDS

As Finance Director for the City of Trotwood, Ohio I hereby certify that a \$243,750.00 will be made available as a local share for the Wolf Creek Sanitary Sewer Replacement Project.

I further certify that although the City Council cannot appropriate funds for future fiscal years, the City should have sufficient capital to undertake this project when funds can lawfully be appropriated.

Note: A signed copy will be submitted with the 2016 Resolution after the September 16, 2016 Council meeting.

Chris Peebles, Finance Director

Date: _____

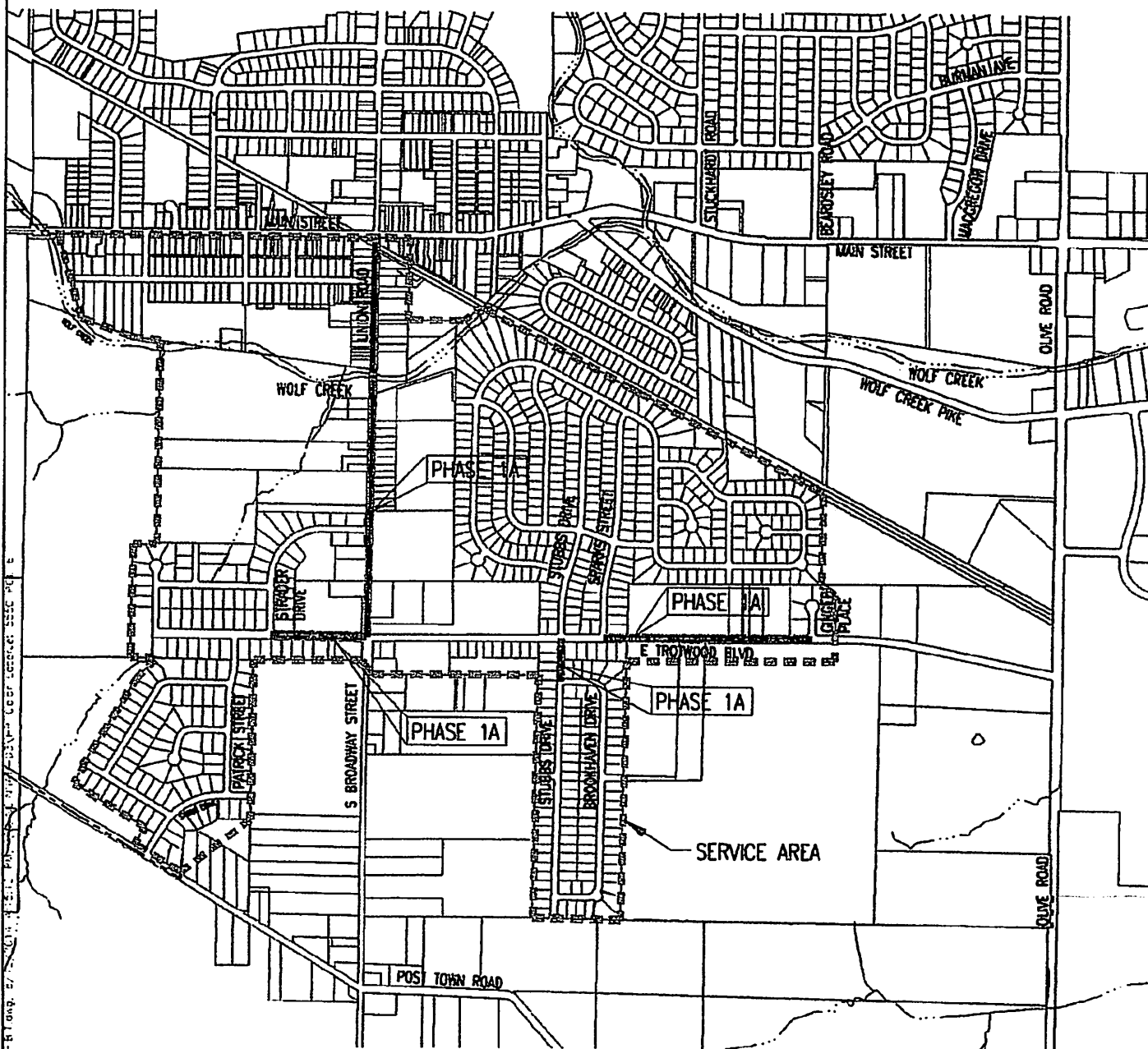
PRELIMINARY OPINION OF PROBABLE COST
 OLDE TOWN WATERMAIN IMPROVEMENTS, PHASE 1A
 CITY OF TROTWOOD, OHIO
 August 8, 2016
 14082

DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL
Mobilization	1	LS @	10,000.00	10,000.00
Maintaining Traffic	1	LS @	10,000.00	10,000.00
Remove Existing Water Valves	6	Each @	200.00	1,200.00
Furnish and Install 8" D.I. Watermain and Fittings	500	Each @	155.00	77,500.00
Furnish and Install 12" D.I. Watermain and Fittings	4,881	Each @	150.00	732,150.00
Furnish and Install 6" D.I. Watermain and Fittings	268	Each @	145.00	38,860.00
Remove Existing Fire Hydrant and Valve	4	Each @	350.00	1,400.00
6" Gate Valve and Box	5	Each @	1,100.00	5,500.00
8" Gate Valve and Box	2	Each @	1,300.00	2,600.00
12" Gate Valve and Box	9	Each @	1,500.00	13,500.00
Concrete Thrust Blocks, Class C	50	CY @	150.00	7,500.00
Concrete Encasement	40	CY @	150.00	6,000.00
Furnish and Install Fire Hydrant	5	Each @	4,000.00	20,000.00
Reconnect Existing Service Branches	48	Each @	1,000.00	48,000.00
Sub-Total				\$ 974,210.00
Round Off				\$ 975,000.00

This is to certify that this project, upon satisfactory completion and normal environmental conditions, will have a useful life in excess of 75 years for the new watermain installation.



8/11/16



VICINITY/ SERVICE AREA MAP



**BRANDSTETTER
CARROLL INC**
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**OLDE TOWN WATERMAIN IMPROVEMENTS
PHASE 1A**
CITY OF TROTWOOD

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County Auditors Page --- Mobile Site

Home Property Search Value Dispute GIS Mapping File Downloads
Address Owner Name Parcel Land Use Codes Advanced Search

- Summary
- Property Description
- Tax Summary
- Payments List
- Levy Distribution
- New Levies
- Special Assessments
- Permits
- Value History
- Rental Registration
- Sketch
- Sales
- Photo
- Tax Detail
- Pay Taxes

PARID: H33 00212 0027

PARCEL LOCATION: 306 TROTWOOD BLVD

NBHD CODE: 63060000

Tax Year 2013

CURRENT RECORD

37 of 208

Return to Search Results

[Click here to view neighborhood map](#)
Owner

Name

HIXSON CYNTHIA A AND KENNETH

Mailing

Name

HIXSON CYNTHIA A AND
KENNETH

Mailing Address

10050 BROKEN WOODS DR

City, State, Zip

MIAMISBURG, OH 45342



Printable Summary

Printable Version

Legal

Legal Description

34 TROTWOOD HTS 1

Land Use Description

R - SINGLE FAMILY DWELLING, PLATTED LOT
0

Acres

Deed

DEED-08-074698

Tax District Name

TROTWOOD-TROTWOOD MADISON CSD

Sales

Date	Sale Price	Deed Reference	Seller	Buyer
30-DEC-02		200200164198	BUCHANAN MANFORD C AND	BUCHANAN CYNTHIA
29-OCT-08		200800074698	BUCHANAN CYNTHIA	HIXSON CYNTHIA A AND
10-FEB-14	\$20,675	201400007337	HIXSON CYNTHIA A AND	EQUITY TRUST COMPANY

Board of Revision

Tax Year	Case Number:	BT/CPC	Result
2014	Informal		Informal review complete

Values

	35%	100%
Land	5,430	15,500
Improvements	16,030	45,810
CAUV	0	0
Total	21,460	61,310

Building

Exterior Wall Material	BRICK
Building Style	RANCH
Number of Stories	1
Year Built	1960
Total Rms/Bedrms/Baths/Half Baths	5/3/1/1
Square Feet of Living Area	1,170
Finished Basemt Living Area (Sq. Ft.)	0
Rec Room (Sq. Ft.)	0
Total Square Footage	1,170
Basement	NONE
Central Heat/Air Cond	CENTRAL HEAT WITH A/C
Heating System Type	HOT AIR
Heating Fuel Type	GAS
Number of Fireplaces(Masonry)	0
Number of Fireplaces(Prefab)	

Current Year Special Assessments



County Auditors Page --- Mobile Site

Home Property Search Value Dispute GIS Mapping File Downloads

Address Owner Name Parcel Land Use Codes Advanced Search

- Summary
- Property Description
- Tax Summary
- Payments List
- Levy Distribution
- New Levies
- Special Assessments
- Permits
- Value History
- Rental Registration
- Sketch
- Sales
- Photo
- Tax Detail
- Pay Taxes

PARID: G27 01604 0054
PARCEL LOCATION: 415 UNION RD S

NBHD CODE: 85000000

Tax Year: 2015

CURRENT RECORD

1 of 1

[Return to Search Results](#)

[Click here to view neighborhood map](#)

Owner

Name
PARKER ERNEST A



Mailing

Name: ERNEST A PARKER
Mailing Address: 415 S UNION RD
City, State, Zip: DAYTON, OH 45427 1616

Printable Summary

Printable Version

Legal

Legal Description: 5-3-4

Land Use Description: R - SINGLE FAMILY, 0-9.999 AC
Acres: 1
Deed: 1997-00414A005
Tax District Name: JEFFERSON TWP-JEFFERSON LSD

Sales

Date	Sale Price	Deed Reference	Seller	Buyer
20-JUN-97	\$20,000			

Values

	35%	100%
Land	6,580	18,800
Improvements	9,960	28,450
CAUV	0	0
Total	16,540	47,250

Building

Exterior Wall Material	ALUMINUM/VINYL
Building Style	BUNGALOW
Number of Stories	1
Year Built	1920
Total Rms/Bedrms/Baths/Half Baths	4/2/1/0
Square Feet of Living Area	810
Finished Basemt Living Area (Sq. Ft.)	0
Rec Room (Sq. Ft.)	0
Total Square Footage	810
Basement	NONE
Central Heat/Air Cond	CENTRAL HEAT
Heating System Type	
Heating Fuel Type	GAS
Number of Fireplaces(Masonry)	0
Number of Fireplaces(Prefab)	

Current Year Special Assessments

11777-APC FEE	\$21.50
41100-MCD/AP MCD/AQUIFER PRES SUBD	\$1.00

Current Year Rollback Summary

Water Main Breaks 2008 to 2014

	Date	Location	Between/Near
	2008		
	01/28/08	3035 Olive Road	
	02/01/08	830 Ellsworth	
	02/28/08	1 Hillpoint	
	03/04/08	309 Palmwood	
	04/29/08	E. Main	Broadway and N. Sunrise
	07/11/08	104 Oak	W. Worley and W. Sunrise
▶	12/09/08	208 S. Broadway	Park Place and Grand
	12/11/08	5 Hillpoint	W. Sherry and N. Sherry
	12/15/08	224 Glenside	near Burman
	12/31/08	10 Elmore	
	2009		
	02/03/09	MacMillan	Verdon and Palmwood
	02/09/09	Stuckhardt	Main and Burman
▶	06/09/09	N. Union/Broadway	Trotwood Blvd and Main
	06/11/09	W. Sunrise	Broadway and W. Sherry
	10/27/09	Mapleside	Vaniman and Eppington
	11/30/09	Mapleside	
●	11/12/09	Molly	
	12/31/09	E. Worley	Coffman and N. Sunrise
	2010		
	01/01/10	7 Elmore	N. Sherry & W. Sherry
	01/04/10	Vaniman	Burman & MacMillan
	01/12/10	E. Sherry	at N. Sunrise
	01/19/10	Coffman	at E. Worley
	02/18/10	N. Broadway	E. Sherry & E. Sunrise
	02/18/10	Ellsworth	at Bradfield
	02/22/10	Elmore	
	02/22/10	E. Sherry	
	02/22/10	Chandler	
	02/23/10	McNay Court	
●	04/14/10	208 E. Main	
	06/09/10	Fairgrove Way	
	07/29/10	Olive Road	MacMillan & Burman
▶	08/16/10	N. Broadway	Park Place & Grand
●	09/20/10	Greacian Avenue	
●	09/23/10	Brookhaven Ave	
●	10/11/10	Iams Court	
●	10/12/10	Lanyard Avenue	
	12/20/10	107 E. Sunrise	
●	12/21/10	Trotwood Boulevard	Iams Drive

	Date	Location	Between/Near
	12/23/10	N. Sherry	Elmore
	2011		
	01/05/11	Mapleside	Vaniman & Eppington
	01/18/11	627 MacMillan	
	01/25/11	130 Blairwood	
	01/26/11	840 E. Main	
	02/14/11	42 Carma	
	05/25/11	10 Elmore	
	06/06/11	E. Main	S. Sunrise
•	06/08/11	Brookhaven	
	06/21/11	825 MacMillan	
	07/05/11	3038 Olive Road	
	2012		
	04/04/12	E. Worley	at Sunrise & E. Worley
	04/05/12	E. Worley	Coffman & E. Main
	04/23/12	Stuckhardt Rd & E. Main	
	06/26/12	406 W. Sherry	
	08/07/12	208 E. Sunrise	Broadway & Madison
	08/31/12	Olive Rd. & Bradfield Dr.	
	09/12/12	Patrick Street	Chaplin & Sunnybrook
	09/12/12	N. Eppington	Glenview & Rendale
	11/12/12	Olive Road	MacMillan & Burman
	11/13/12	Coffman Road	E. Main & E. Worley
	12/04/12	425 Vaniman	Mapleside & N. Eppington
	2013		
	01/07/13	N. Eppington	Mapleside & Vaniman
	01/10/13	Sunrise Av & Worley Av	
•	01/14/13	Trotwood Blvd.	
►	03/07/13	S. Broadway Ave	at Strader
•	03/13/13	205 E. Main Street	
	05/07/13	Oak Street	
	06/24/13	Sycamore Woods	at Arundel
	07/09/13	Broadmoor II	Warburton Dr, Horrell Rd, Fairgrove Way, Westledge Dr, Glenstone Court, and Dalewood Place
•	08/19/13	E. Main & Wolf Creek	
	10/22/13	Oakes Rd	
	10/23/13	Olive Rd	between Grand Oak & Bradfield
	12/03/13	MacGregor Av	from Burman to Main
	2014		
	1/8/14	Woodcreek Rd	

	Date	Location	Between/Near
	1/8/14	50 Whispering Drive	
	1/8/15	209 Whispering Drive	
	1/9/14	E. Sherry Drive	And between 100 & 147 East Sunrise Ave
	1/9/15	10 Whispering Drive	
	1/9/14	N. Eppington Drive	
	1/10/14	Coleridge	
	1/10/14	Elsworth & Bradfield	
	1/13/14	Grand & End Street	
	1/30/14	47 Soloman Street	
	1/30/14	21-63 E. Sherry Drive	
	2/3/14	Oak Street	
	2/6/14	N. Eppington Dr	Between Vaniman ave & Larona Dr
	2/11/14	Hilgard @ Baker Ct	
	3/11/14	Mario & Rio Grande	
	3/17/14	11 E. Worley	
	5/19/14	428 Stuckhardt	
	5/20/14	4921 Bloomfield	
	6/2/14	214 E. Sunrise	
	6/16/14	328 Carthage	
	7/3/14	MacMillan & Palmwood	
	9/4/14	MacMillan, Coleridge & Palmwood	
	11/18/14	N. Broadway	
	12/15/14	W. Sherry	
▶	within project limits		
●	within general project area		

2016 CITY OF TROTWOOD WATER MAIN BREAKS

4" Worley Ave and Oaks-1 Break: Clamp Repair
8" Rio Grand-1 Break: Split/9' Replacement
4" S. Sunrise-1 Break: Radial/Clamp Repair
4" 20 Carma and 34 Carma -2 Breaks: Clamp Repair
Service Branch-North Broadway: 2-1/2" Repair
Service Branch-Moss Creek: 1" Repair
12" Bradfield and Olive Rd.-3 Breaks: 1 Split replaced w/30' & Valve, Radial Clamp, Replaced 20'
8" Main St. and Olive Rd. 2-Breaks: Intersection Radial Clamp Repair,
8" Olive at 3201 2-Breaks: 2 Clamps Replace and failed then cut out and replaced 18'
16" 1151 Main St. 1-Break: Split, Service line replaced 10' of Pipe
6" Mineola Ct. 1-Break: 6' of Pipe replaced w/service line replaced too
6" 307 Trudy 1-Break: Radial, Clamp repair
6" Whispering Dr. 1-Break: Radial 6' of Pipe Replaced
6" Solomon 1-Break: Radial Clamp Repair
6" Stuckhart and Blairwood 1-Break: Radial Clamp Repair
6" 605 Coleridge Dr. 1-Break: Radial Clamp Repair
6 " 313 W. Main 1-Break: Radial Clamp Repair
8" Trotwood Blvd 1-Break Split 10' Replaced
8" South Broadway @ Trotwood Blvd Clamp Repair
6" Shank Ave Clamp Repair
6" Duncan Ct. Main Valve Hardware Replaced
8" Macmillan @ Palm Wood Clamp Repair
6" 721 Coleridge Clamp Repair
6" 316 VerDon Clamp Repair
6" 755 Ellsworth Clamp Repair
6" 324 Carthage Clamp Repair

DISTRICT 4 PUBLIC WORKS INTEGRATING COMMITTEE APPLICATION

SUMMARY OF WATERMAIN IMPROVEMENTS PLANNING

The City of Trotwood is planning for systematic, long-term improvements to and replacements of its water distribution system to provide an adequate, safe and reliable supply of water for its customers and for firefighting purposes.

Trotwood's distribution system has 243,000 LF of watermain and approximately 3600 service connections. The majority of the system is more than 50 years old. 59% of the waterlines are 4" and 6" diameter, which meets neither the water industry's current minimum standard of 8" nor the City of Trotwood's Subdivision Regulations, which also requires an 8" minimum diameter.

Throughout the system, there are hydraulically isolated areas that need to be looped, dead-end and/or discontinuous mains that need to be connected and larger system mains that are constricted by small diameter segments.

The improvement program will meet the current needs of the City and ensure that the system is capable of meeting the demands of future development as it occurs. It is expected that the program will require at least 20 years to complete.

The planning began with the "City of Trotwood Water Distribution System Evaluation" in March 2009. Based on system modeling that study identified 16 projects to improve the system. The City is proceeding with the next step of the planning process which is to develop a phasing strategy which will incorporate those 16 projects into a plan to improve and/or replace the City's entire water system. The strategy will take into account project need and benefit as well as project size and cost, funding availability and City finances and will be re-evaluated annually.

The City has developed a plan that includes 23 phases to improve the entire water distribution system, which has been included with this application. The first four (4) phases are: Phase 1 – Stubbs Drive area; Phase 2 – Sunrise-Hillpoint area, (funded in Round 25); Phase 3 – Olive Road and Trotwood Blvd. area; and Phase 4 – Olde Town West area. These phases represent the most critical areas in the City, based on available fire flow and watermain size, age, and condition.

These have been divided into subphases and submitted for Round 26 OPWC funding. They are:

Phase 1A – Trotwood Blvd. and Union Road*

Phase 1B – Stubbs Drive and Post Town Road Connection*

Phase 3A – Olive Road

Phase 3B – Olive Road and Trotwood Blvd.

Phase 4A – Sherry Lane, Worley Avenue, Pinewood Circle, and Maple Street

Phase 4B – W. Sherry Lane, Elmore Street, and Carma Drive

*Reapplication(s), submitted in previous rounds.

DISTRICT 4 PUBLIC WORKS INTEGRATING COMMITTEE APPLICATION
SUMMARY OF WATERMAIN IMPROVEMENTS PLANNING

These projects were selected to address the following:

- Inadequate fire flows
- Low/negative residual pressures during firefighting events
- Excessive watermain breaks due to age and condition
- The potential health and safety issues of an inadequate and deteriorated system

The scope of the improvements needed across the system is too large to be accomplished as one project and so must be prioritized and phased over time. The improvements will be divided into separate projects that individually will achieve as much benefit as possible in a particular area. However, as successive projects are completed, the benefits of the improvements will be cumulative and the extent of an individual project's impact on the system will spread.

CITY OF T. WOOD, OHIO
WATERMAIN CAPITAL IMPROVEMENT PROGRAM

2010057

PROJECT	LENGTH	CONSTRUCTION COST	NEW / EXPANSION	ENGINEERING COST	TOTAL COST	LOCAL SHARE	LOCAL SHARE CARRYOVER	OPWC RATING
1A Trotwood Blvd. and Union Road	5185'	\$639,700.00	\$103,000 / 16.1%	\$33,600.00	\$673,300.00	\$168,325.00		39
1B Stubbs Drive - Post Town Connector	2910'	\$353,400.00*	\$92,000 / 24.2%	\$26,000.00	\$379,400.00	\$94,850.00		38
2A Union Road and West Sunrise Avenue	3740'	\$503,400.00		\$27,700.00	\$531,000.00	\$132,775.00		42
2B West Sherry Lane and Hillpoint Street	3710'	\$451,200.00		\$25,900.00	\$477,100.00	\$119,275.00		42
3A Olive Road, north of Wolf Creek Pike	2475'	\$390,000.00	\$70,000 / 17.9%	\$24,000.00	\$414,000.00	\$103,500.00		
3B Olive Road and Trotwood Blvd.	3675'	\$450,000.00	\$168,000 / 37.3%	\$26,000.00	\$476,000.00	\$119,000.00		
4 OLD TOWN WEST								
4A Sherry, Worley, Maple and Pinewood	3600'	\$460,000.00		\$26,000.00	\$486,000.00	\$121,500.00		
4B West Sherry, Elnore, Carmi	3450'	\$440,000.00		\$25,000.00	\$465,000.00	\$116,250.00		
5 OLD TOWN EAST								
5A Sunrise and Worley	3970'	\$500,000.00		\$28,000.00	\$528,000.00	\$132,000.00		
5B Sherry, Pleasant, and Sunrise	2060'	\$270,000.00		\$18,000.00	\$288,000.00	\$72,000.00		
6A Main Street-Carmi to Snyder	3000'	\$400,000.00	\$440,000 / 100%	\$23,000.00	\$423,000.00	\$105,750.00		
6B Sycamore Woods Area Connections (Snyder, Brookston, School)	3420'	\$400,000.00	\$290,000 / 72.5%	\$23,000.00	\$432,000.00	\$105,750.00		
7A Trotwood Blvd.-Connection to Snyder	3650'	\$440,000.00	\$440,000 / 100%	\$25,000.00	\$465,000.00	\$116,250.00		
7B Stubbs Drive and Wolf Creek Pike	5220'	\$610,000.00		\$31,000.00	\$642,000.00	\$160,500.00		
8 BILTMORE OUTER LOOP								
8A West Loop-Molly and Whispering Way	2490'	\$320,000.00		\$20,000.00	\$340,000.00	\$85,000.00		
8B West Loop-Lanyard, Greelan, Trudy	4430'	\$560,000.00		\$29,000.00	\$589,000.00	\$147,250.00		
9 VARNMAN-BRADFIELD LOOP								
9A Bradfield to Stuckhardt	3270'	\$410,000.00		\$24,000.00	\$434,000.00	\$108,500.00		
9B Eppington to Burman	2870'	\$360,000.00		\$21,000.00	\$381,000.00	\$95,250.00		
10 SUNNYBROOK SUBDIVISION								
10A Patrick, Shank, and Post Town	3100'	\$390,000.00		\$23,000.00	\$413,000.00	\$103,250.00		
10B Chaplen, Skinner, Sunnybrook	1975'	\$250,000.00		\$16,000.00	\$266,000.00	\$66,500.00		
11A Warburton - Fairgrove Loop	3170'	\$410,000.00		\$24,000.00	\$434,000.00	\$108,500.00		
11B Blairwood Place Loop	3370'	\$430,000.00		\$25,000.00	\$455,000.00	\$113,750.00		
12 OLDE TOWN - SOUTH								
12A Grand and End	2300'	\$290,000.00		\$19,000.00	\$309,000.00	\$77,250.00		
12B Main Street-Carmi to Wolf Creek Pike	3460'	\$480,000.00		\$28,000.00	\$508,000.00	\$127,000.00		

*Includes Easement Acquisition

CITY OF TROY, OHIO
WATERMAIN CAPITAL IMPROVEMENT PROGRAM

2010057

PROJECT	LENGTH	CONSTRUCTION COST	NEW / EXPANSION	ENGINEERING COST	TOTAL COST	LOCAL SHARE	LOCAL SHARE CARRYOVER	OPWC RATING
13 MADISON PARK AREA								
13A Strader, Iams, Reich and Berry	3260'	\$410,000.00		\$25,000.00	\$435,000.00	\$108,750.00		
13B Brookhaven	2280'	\$290,000.00		\$19,000.00	\$309,000.00	\$77,250.00		
14A Keswick Apartments	3350'	\$420,000.00		\$23,000.00	\$443,000.00	\$113,250.00		
14B Kings Oak Area	1320'	\$170,000.00		\$12,000.00	\$182,000.00	\$45,500.00		
15 BELTMORE - INTERIOR LINES								
15A West of Stubbs	3500'	\$480,000.00		\$28,000.00	\$508,000.00	\$127,000.00		
15B East of Stubbs	3900'	\$490,000.00		\$28,000.00	\$518,000.00	\$129,500.00		
16 SYCAMORE WOODS AREA								
16A Laguna, Palos, Verdes, Colwood	2530'	\$320,000.00		\$20,000.00	\$340,000.00	\$85,000.00		
16B Watertown, Downey, Tolcott, Shavham	3790'	\$480,000.00		\$28,000.00	\$508,000.00	\$127,000.00		
17A Lake Ctr, Shadows, Westwood, Burlingame Tanager Meadows, Springdown, Morning Mist	3990'	\$500,000.00		\$28,000.00	\$528,000.00	\$132,000.00		
17B	2600'	\$325,000.00		\$20,000.00	\$345,000.00	\$86,250.00		
18 TROTWOOD COMMERCE PARK								
18A North Section-Wolf Creek East	2300'	\$290,000.00		\$19,000.00	\$309,000.00	\$77,250.00		
18B South Section-Wolf Creek West	3200'	\$360,000.00		\$22,000.00	\$382,000.00	\$95,500.00		
19 BROADMOOR AREA								
19A North and East Eppington Loop	2550'	\$320,000.00		\$20,000.00	\$340,000.00	\$85,000.00		
19B Burman and East Eppington	3040'	\$380,000.00		\$23,000.00	\$403,000.00	\$100,750.00		
20A McGregor, Beardsley, Carthage, McMillan	4390'	\$550,000.00		\$29,000.00	\$579,000.00	\$144,750.00		
20B Mapleside and Coleridge	5600'	\$450,000.00		\$26,000.00	\$476,000.00	\$119,000.00		
21A Huntsford, Redway, Palmwood, Verdon	2900'	\$377,000.00		\$22,000.00	\$399,000.00	\$99,750.00		
21B Glenside, Rendale, Glenview	3600'	\$450,000.00		\$26,000.00	\$476,000.00	\$119,000.00		
22A Ellsworth and Chandler	4800'	\$600,000.00		\$32,000.00	\$632,000.00	\$158,000.00		
22B Fairgrove Area-Westledge, Dalewood, Glenstone	2130'	\$270,000.00		\$18,000.00	\$288,000.00	\$72,000.00		
23 Belle Meadows	3200'	\$400,000.00		\$23,000.00	\$423,000.00	\$105,750.00		
24 Security Improvements (10 One-Way Valves)		\$500,000.00						

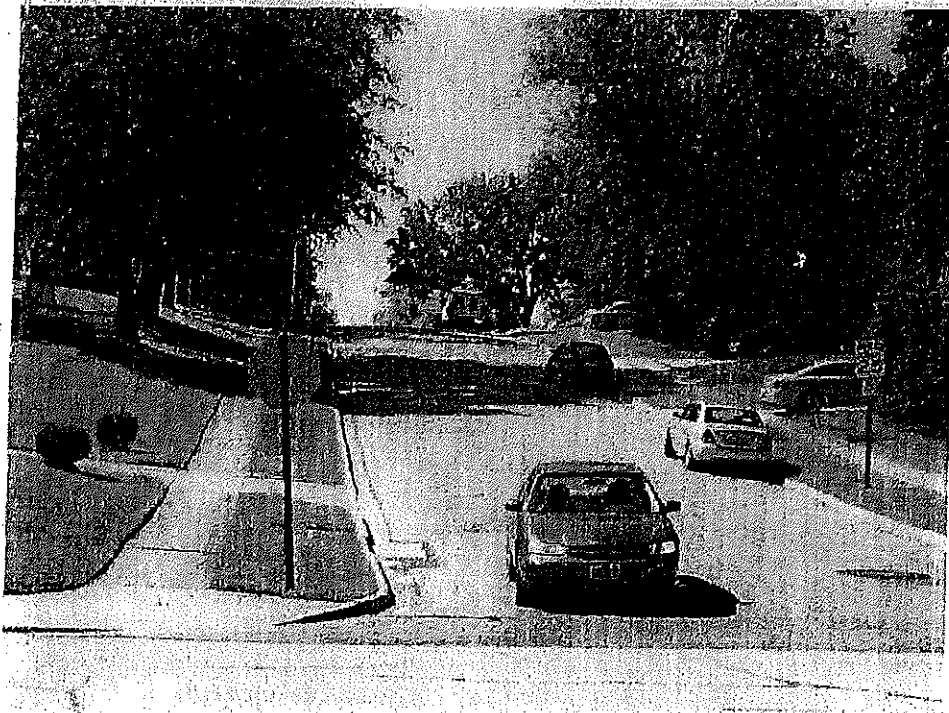
*Incl. - current Acquisition

GW2010057-000 2011 05 20 Phale

**Olde Town Watermain Improvements, Phase 1A
Trotwood, Ohio**

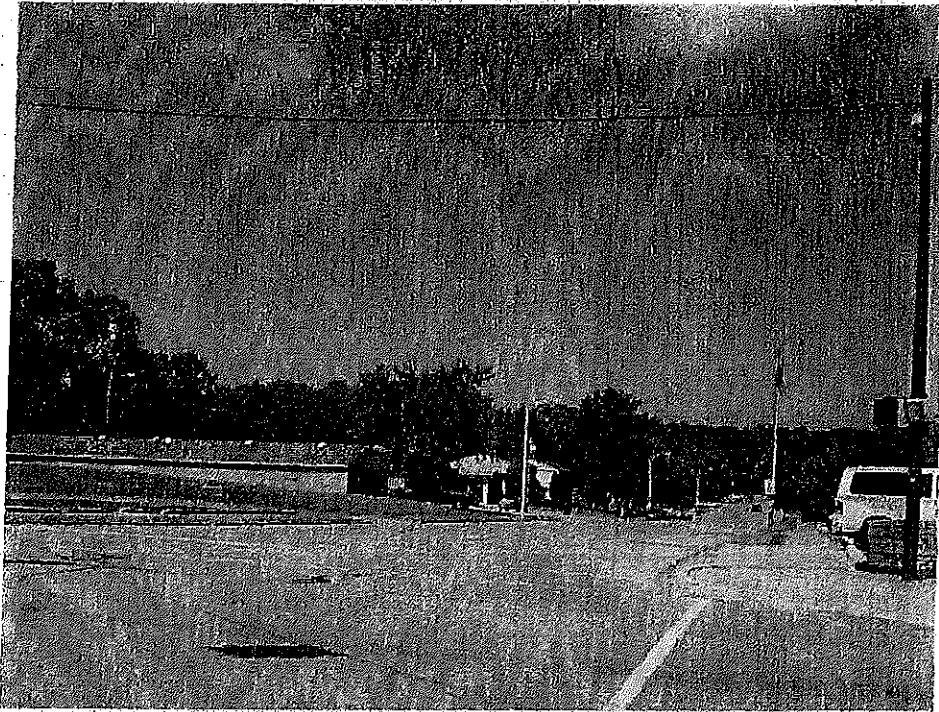


Trotwood Boulevard, looking east toward Sparks



Stubbs Drive, looking south from Trotwood Boulevard.

Olde Town Watermain Improvements, Phase 1A
Trotwood, Ohio



Trotwood Boulevard looking west from Union Road.



Union Road looking north from Trotwood Boulevard.

8 FIRE PROTECTION

Table 1-3 Factor for Communications (P_f)*

Protection of Passageway Openings	Fire-Resistive, Noncombustible, or Slow-Burning Communications				Communications With Combustible Construction					
	Open		Enclosed		Open			Enclosed		
	Any length	10 ft or less	11 to 20 ft	21 to 50 ft†	10 ft or less	11 to 20 ft	21 to 50 ft†	10 ft or less	11 to 20 ft	21 to 50 ft†
Unprotected	0	‡	0.30	0.20	0.30	0.20	0.10	‡	‡	0.30
Single class A fire door at one end of passageway	0	0.20	0.10	0	0.20	0.15	0	0.30	0.20	0.10
Single class B fire door at one end of passageway	0	0.30	0.20	0.10	0.25	0.20	0.10	0.35	0.25	0.15
Single class A fire door at each end or double class A fire doors at one end of passageway	0	0	0	0	0	0	0	0	0	0
Single class B fire door at each end or double class B fire doors at one end of passageway	0	0.10	0.05	0	0	0	0	0.15	0.10	0

Source: Copyright, ISO Commercial Risk Services, Inc., 1980.

Notes: 1. The reader should refer to the 1980 *Fire Suppression Rating Schedule*, published by ISO Commercial Risk Services, New York (1980), for complete information regarding factors for communication.

2. When a party wall has communicating openings protected by a single automatic or self-closing class B fire door, it qualifies as a division wall for reduction of area.

3. Where communications are protected by a recognized water curtain, the value of P_f is 0.

*The factor for P_f depends on the protection for communicating party wall openings and the length and construction of communications between fire divisions. P_f shall be selected from this table. When more than one communication type exists in any one side, wall, apply only the largest factor P_f for that side. When there is no communication on a side, $P_f = 0$. (Party wall means a division wall rated 1 hour or more with labeled class B fire doors on openings.)

†For over 50 ft, $P_f = 0$.

‡For unprotected passageways of this length, consider the two buildings as a single fire division.

Table 1-4 Needed Fire Flow for One- and Two-Family Dwellings*

Distance Between Buildings R	Needed Fire Flow gpm.
Over 100	500
81-100	750
11-30	1000
Less than 11	1500

*Dwellings not to exceed two stories in height.

REF ID: A50100
6/13/07

**MONTGOMERY COUNTY
SANITARY ENGINEERING SPECIFICATIONS
RULES AND REGULATIONS**

Approved by: Board of County Commissioners


Resolution: 07-1197 Dated June 13th 2007

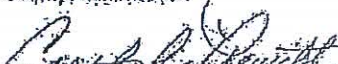
Effective: August 1, 2007

Commissioner Deborah A. Lieberman Date

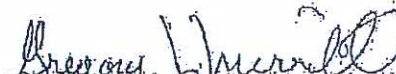
Commissioner Dan Foley Date

Commissioner Judy Dodge Date


Deborah A. Feldman Date
County Administrator


Carol Prayit, Commission Clerk Date

Prepared by: Sanitary Engineering Department


Gregory J. Merrill, J.E., Director Date
Sanitary Engineering Department

3.1.06

A list of all current charges, fees, and rates for the various water services performed are on file in the Sanitary Engineering Department office. These charges, fees and rates are subject to amendment by the County Commission of Montgomery County, Ohio and are not to be construed as being fixed for an indefinite period of time.

3.1.07

All water mains must be a minimum of ten feet (10') from any structure or a distance equal to the depth one foot (1') below the bottom of the water main, whichever is greater. Building and Structures are not to be constructed within water and/or sanitary sewer easements.

3.1.08

The Sanitary Engineering Department recommends minimizing the running of water mains between lots. If not possible, the water main must be centered in a minimum twenty-foot (20') wide easement. If the bottom of the trench exceeds ten feet (10'), an additional two feet (2') of easement width is required for each additional foot of depth, as a minimum.

3.1.09

All taps on concrete water mains will be made by Price Brothers Company or a company approved by the Sanitary Engineering Department.

3.1.10

Water mains should be located outside pavement (in dedicated public right-of-ways) whenever possible unless approved by Montgomery County Sanitary Engineering Department.

3.1.11

Large (three-inch (3") or larger) domestic and fire line valves (OS&Y) in pits or buildings allow use of left or right hand open valves as long as all valves operate in the same direction and are clearly marked as to their operation.

3.1.12

Retainer glands, Field-Lok gaskets, or approved equivalent are allowable for use with mechanical joint/push-on pipe in lieu of restrained joint pipe on private development projects (excluding hydrant branches). All joints utilizing Field-Lok gaskets shall be properly identified with white tape.

3.1.13

▶ The minimum water main size shall be eight inches (8").

921.06 SHUTTING OFF WATER SUPPLY DURING EMERGENCY.

In the event of a break in mains, services, pumping machinery, reservoirs or other water works equipment, or for the purpose of tapping, extending, repairing, replacing or cleaning mains, the water supply may be shut off without notice and no responsibility for any damage resulting from that action will or can be recognized.

(1987 Code 50.06)

921.07 WATER FUND.

All income and revenue derived from or obtained in the course of the operation of the Division of Utilities of the City shall be placed to the credit of the Water Fund, out of which all the costs and expenses of the operation of the Division of Utilities shall be paid, and annually there shall be paid from the Fund into the Sinking Fund of the City, an amount sufficient to pay the interest and Sinking Fund charges on bonds which have been or may be issued under authority of ordinances which provide that the interest and Sinking Fund charges on those bonds shall be paid out of the income or revenues of the Division of Utilities. There shall also be paid out of the Funds any other and further items as may be properly charged pursuant to law against the income and revenue of the Division of Utilities.

(1987 Code 50.08)

921.08 ENDORSEMENT OF DAYTON AREA FACILITIES PLAN.

Endorsement of the findings set forth in the Dayton Area Facilities Plan, and the pledged support in implementing the program for water pollution control as addressed in the Plan, is hereby rendered.

(1987 Code 50.15)

921.09 CONSTRUCTION, REPAIRS, INSTALLATION, REQUIREMENTS.

(a) All persons, before commencing or proceeding with the installation, construction, alteration, repair or addition to the water system in any of the streets and alleys in the City, shall first obtain a permit from the Service Department and shall post a bond in the sum of one hundred percent (100%) of the estimated cost of construction as approved by the Director of Public Service before a permit will be issued.

(b) Prior to commencing construction of any work on water line, sewer mains, lift stations or appurtenances, the owner, whether an individual, corporation, partnership or otherwise, shall furnish to the City Engineer two complete sets of plans of the proposed development or construction. Application for water service, accompanied by drawings showing points of entry to each system, shall be made upon the form authorized by the City. Applications shall be directed to the City Engineer.

(c) Any applicant, before making application to the City for water service, shall obtain approval by the City Engineer of the plans and specifications of any appropriate board or agency having jurisdiction thereof. The approval shall be evidenced by writing, signed by an authorized representative thereof. All water line construction and installation of service lines and taps are subject to the rules and regulations of the City of Dayton Water Department, effective July 1, 1959, as amended.

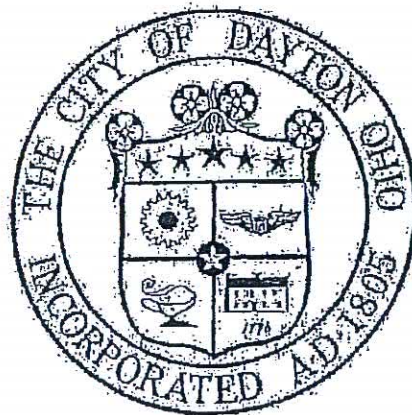
ENGINEERING DESIGN STANDARDS

FOR

PUBLIC IMPROVEMENTS TO THE
WATER DISTRIBUTION SYSTEM,
SANITARY COLLECTION SYSTEM AND
STORM WATER COLLECTION SYSTEM

AND

REQUIREMENTS FOR STORM WATER MANAGEMENT
AND EROSION CONTROL



City of Dayton
Department of Water
Division of Water Engineering
320 West Monument Avenue
Dayton, Ohio 45402
(937) 333-3725

September 2009

September 2009

SECTION 3 – Water Distribution System Requirements

All proposed water distribution system projects (including modifications to the existing system) require Water Department review/approval and signature. All water main installation shall be consistent with the current City of Dayton Water Master Plan.

The Department of Water requires that hydraulic calculations within new plans (or as Department of Water deems necessary) be submitted by the Developer/Engineer to determine if adequate pressures and flows can support both domestic and fire demands. All planned uses shall meet City of Dayton, Fire Department specifications for required fire flows.

The following requirements should be used when designing water distribution facilities within the City of Dayton:

- ▶ • Main line extensions shall be sized to provide the required fire flow, but in no case shall be less than 8-inches in diameter.
- Water main shall be designed to limit vertical bends and horizontal bends (as much as practical given certain project constraints).
- All public water mains located outside the public "Right-of-Way" limits shall be included within a *minimum* 20-ft wide easement. The water main must be centered in the easement. Wider easements may be necessary on water mains exceeding 10-ft in depth. See Appendix A for example Deed of Easement.
- Water mains shall be installed across the entire frontage of the parcel affected/developed.
- All structures shall be a minimum distance of 10 ft from water mains. No structures shall be permitted within water main easements. Water mains shall have a minimum of 10 feet horizontal separation (out-to-out) from any storm or sanitary sewer.
- Fire Hydrants shall be connected only to water mains adequately sized to carry fire flows.
 - a. All fire hydrants shall be located not less than 3 feet from the back of curb (as shown within the standard drawing).
 - b. The maximum distance permitted on a fire hydrant branch is 50 feet.
 - c. No domestic service shall be connected to a fire hydrant branch.
 - d. Spacing between fire hydrants shall not exceed 500 feet in single-family residential development and shall not exceed 300 feet in multi-family residential, industrial, and commercial areas.
 - e. The City of Dayton, Department of Fire should be contacted to determine required fire flows or if additional requirements may be necessary.
- The design engineer should provide details for thrust block and/or restrained joints as required by design and individual project constraints. Standard Drawings located within the appendix of this document should be used as *minimum* requirements for restrained joint lengths and thrust blocking.

Trotwood Fire & Rescue
1 Strader Drive • Trotwood, Ohio • 45426-3433
Phone: (937) 837-7771 • Fax: (937) 854-0220
www.trotwood.org

Stephen H. Milliken, Fire Chief
Protecting Your Brighter Future

Quincy E. Pope, Sr., M.P.A., CLEE, CPM, City Manager
Stephanie Kellum, Human Resource Director/Deputy City Manager
Brenda K. Blauser, Assistant to the City Manager

Trotwood City Council
Mary A. McDonald, Mayor
Bettye L. Gales, Vice-Mayor, Ward 1
Rhonda C. Finley, At-Large
Robert L. Kelley, Jr., At-Large
Rap Hankins, Ward 2
Charles Ron Vaughn, Ward 3
Scotty Sly, Ward 4
Sandy Riege, CMC, Clerk of Council

To whom it may concern,

This is a letter to address concerns with the inadequate water distribution system in the City of Trotwood Ohio, specifically the area of "Old Town" section of the city. This area is bordered by North Broadway to the west and Main Street to the south.

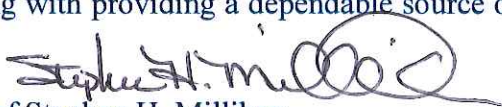
As the name implies, this section of the city was established in the late 1950's and early 1960's as a residential and neighborhood type business district. The systems installed at that time are still in use today. They have been the sites of many waterline breaks, valve repair and so forth during the ensuing 50+ years of service. As with all infrastructure systems, they have become more frequent in their need of repair along with the system becoming more susceptible to damage from weather and hydrant testing stresses. Each year they demonstrate further inadequacy in dependability and needed water flow. This is directly related to the age of the system, scaling, sediment deposits, along with current line size inadequacies.

The section of the city being discussed consists of single story, 1000 Sq. Ft. residential brick homes, multi-story wood frame (balloon) construction residential with square footage between 2000 - 3000 Sq. Ft. various combination business/residential units in the area along with several businesses.

During our recently completed ISO (insurance service office) inspection/evaluation done this past April 2016. It was noted that this area did not meet a needed average fire flow of 2500 gpm (gallons per minute), but demonstrate a flow of 1000 gpm, less than 50% of the needed flow to provide adequate fire protection to this area. Age, line size, dead end hydrants, scale, and sediment all contribute to this well below average rating. The proposed project would eliminate these inadequacies by replacing and updating all the above noted underperforming water lines.

As the Fire Chief for the City of Trotwood, I would encourage your consideration and ultimately, your approval of the entire scope of this proposed project. With this replace/upgrade, it will not only provide for adequate fire protection for this part of our city, but also allow for additional expansion of this part of our city should that opportunity arise in the future. This could not be considered with the current system that is currently in service.

Adequate water supply is the number 1 factor in a fire department's ability to provide protection to the citizens of the community. This project would provide my department, and the entire area being discussed a great benefit in our ability in providing protection to both life and property to our citizens living within the project's boundaries along with providing a dependable source of water for current and future residents.



Sincerely, Fire Chief Stephen H. Milliken

Department Directors & Managers

Eric G. Baxter, Public Works Operations Manager ♦ Stephanie Kellum, Human Resources Manager ♦ Steve Milliken, Fire Chief
Chris A. Peoples, Finance Director ♦ Jeannie Peyton, Planning & Zoning Administrator
Shawn Tucker, Parks & Recreation Program Manager

INSURANCE SERVICES OFFICE, INC.
HYDRANT FLOW DATA SUMMARY

City: Trotwood State: Ohio Date: December 1, 2010
County: Montgomery Witnessed by: Insurance Services Office, Inc.

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q = (29.83(Cd^2 p^{-0.5}))$		PRESSURE PSI		FLOW - AT 20 PSI		REMARKS***
				INDIVIDUAL	TOTAL	STATIC	RESID.	NEEDED **	AVAIL.	
1	Res	Moss Creek La. north of Club Dr.	Montgomery County Water Services, Northwest Super High	1300	0	0	82	80	1000	8300
2	Comm	MacDuff Dr. south of Westbrook Rd.	Montgomery County Water Services, Northwest Super High	1420	0	0	92	89	3000	7900
3	Comm	Salem Ave. south of Olive Rd.	Montgomery County Water Services, North High	1320	0	0	87	74	5500	3200
3A	Comm	Salem Ave. south of Olive Rd.	Montgomery County Water Services, North High	1320	0	0	87	74	3500	3200
4	Comm	Shiloh Springs Rd. 1st hydrant west of Olive Rd.	Montgomery County Water Services, North High	860	0	0	110	98	3500	2600
5	Comm	Salem Ave. 1st hydrant south of Shiloh Springs Rd.	Montgomery County Water Services, North High	1280	0	0	87	74	5500	3100
5A	Comm	Salem Ave. 1st hydrant south of Shiloh Springs Rd.	Montgomery County Water Services, North High	1280	0	0	87	74	3000	3100
6	Comm	Denlinger Rd. south of Old Denlinger Rd.	Montgomery County Water Services, North Super High	1130	0	0	56	46	3500	2300
7	Comm	Shiloh Springs Rd. 1st hydrant west of Wolf Rd.	Montgomery County Water Services, North Super High	1090	0	0	58	52	5000	3000
7A	Comm	Shiloh Springs Rd. 1st hydrant west of Wolf Rd.	Montgomery County Water Services, North Super High	1090	0	0	58	52	1750	3000
8	Comm	Salem Ave. south of Turner Rd. @ Highland Plaza	Montgomery County Water Services, North High	750	0	0	56	52	5000	2500
8A	Comm	Salem Ave. south of Turner Rd. @ Highland Plaza	Montgomery County Water Services, North High	750	0	0	56	52	3500	2500
9	Res	Heatherton Dr. @ Northbrook St.	Montgomery County Water Services, North High	950	0	0	100	46	1000	1200
10	Comm	Denlinger Rd. @ Glencross Dr.	Montgomery County Water Services, North High	860	0	0	103	47	1750	1100
11	Comm	Wolf Creek Pike east of Olive Rd.	Montgomery County Water Services, North High	810	0	0	100	98	4000	5900
11A	Comm	Wolf Creek Pike east of Olive Rd.	Montgomery County Water Services, North High	810	0	0	100	98	3500	5900

THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION. THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.

*Comm = Commercial; Res = Residential.
 **Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.
 *** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus correction for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

INSURANCE SERVICES OFFICE, INC.

HYDRANT FLOW DATA SUMMARY

City Troywood State Ohio Witnessed by: Insurance Services Office, Inc. Date December 1, 2010
 County Montgomery

TEST NO.	TYPE DIST.*	TEST LOCATION	SERVICE	FLOW - GPM $Q = 29.83(C(d^2)^{0.5})$		PRESSURE PSI		FLOW - AT 20 PSI		REMARKS***
				INDIVIDUAL	TOTAL	STATIC	RESID.	NEEDED **	AVAIL.	
12	Comm	E. Main St. east of Beardsley Rd.	Montgomery County Water Services, North High	920	0	0	115	100	4500	2500
12A	Comm	E. Main St. east of Beardsley Rd.	Montgomery County Water Services, North High	920	0	0	115	100	2500	2500
13	Res	Ellsworth Dr. east of Larona Dr.	Montgomery County Water Services, North High	650	0	0	99	97	1000	4700
14	Comm	Broadway Ave. north of Main St.	Montgomery County Water Services, North High	920	0	0	106	65	3500	1400
15	Res	Sherry Dr. @ Ellmore St.	Montgomery County Water Services, North High	210	0	0	95	80	1000	500
16	Comm	Berry Dr. @ Reich St.	Montgomery County Water Services, North High	650	0	0	95	61	2500	1000
16A	Res	Berry Dr. @ Reich St.	Montgomery County Water Services, North High	650	0	0	95	61	1000	1000
17	Comm	Snyder Rd. 2nd hydrant north of Wolf Creek Rd.	Montgomery County Water Services, North High	980	0	0	86	46	3500	1300
18	Comm	Wolf Creek Rd. east of Diamond Mill Rd.	Montgomery County Water Services, North High	630	0	0	48	16	1250	600
19	Comm	Union Rd. @ Little Richmond Rd.	Montgomery County Water Services, North High	950	0	0	53	36	1750	1400
20	Comm	Wolf Creek Pike south of Hollister Ave.	Montgomery County Water Services, North High	1740	0	0	120	115	5000	8800
20A	Comm	Wolf Creek Pike south of Hollister Ave.	Montgomery County Water Services, North High	1740	0	0	120	115	3500	8800
21	Comm	Gardendale Ave. @ Abell Ave.	Montgomery County Water Services, North High	1420	0	0	113	72	1750	2200
22	Comm	Olive Rd. @ Hoover Ave.	Montgomery County Water Services, North High	1090	0	0	51	25	2250	1200
23	Comm	Third St. @ Iona Ave.	Montgomery County Water Services, Drexel Dayton NW Super High	1030	0	0	58	51	2500	2600
24	Res	Victory Dr. @ Lome Ave.	Montgomery County Water Services, North High	630	0	0	60	20	1000	650

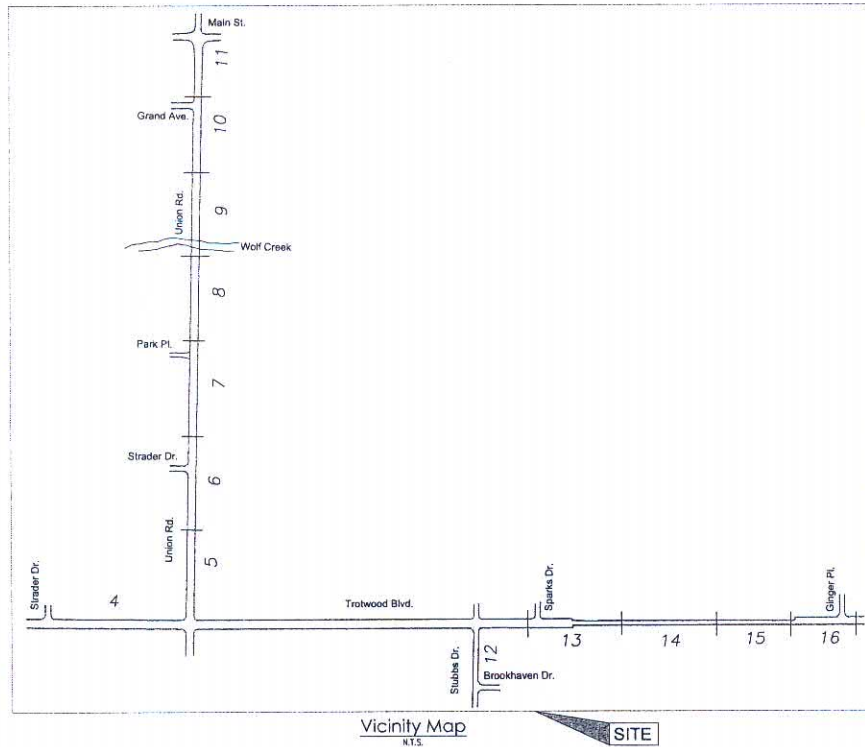
THE ABOVE LISTED NEEDED FIRE FLOWS ARE FOR PROPERTY INSURANCE PREMIUM CALCULATIONS ONLY AND ARE NOT INTENDED TO PREDICT THE MAXIMUM AMOUNT OF WATER REQUIRED FOR A LARGE SCALE FIRE CONDITION.
 THE AVAILABLE FLOWS ONLY INDICATE THE CONDITIONS THAT EXISTED AT THE TIME AND AT THE LOCATION WHERE TESTS WERE WITNESSED.
 *Comm = Commercial; Res = Residential.
 **Needed is the rate of flow for a specific duration for a full credit condition. Needed Fire Flows greater than 3,500 gpm are not considered in determining the classification of the city when using the Fire Suppression Rating Schedule.
 *** (A)-Limited by available hydrants to gpm shown. Available facilities limit flow to gpm shown plus con. on for the needed duration of (B)-2 hours, (C)-3 hours or (D)-4 hours.

Olde Town Watermain Improvements

Trotwood Blvd. Union Rd. and Stubbs Dr.

City of Trotwood
Ohio

August 2015



**BRANDSTETTER
CARROLL INC**
ARCHITECTS-ENGINEERS-PLANNERS
308 East 8th Street,
Cincinnati, OH 45202

BCI. Project No. 15057

15057

General Notes Con'td

WATER MAIN NOTES

1. ALL EXISTING UTILITIES ARE SHOWN IN THEIR APPROXIMATE LOCATION ACCORDING TO THE BEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL BE REQUIRED TO FIELD LOCATE EXACT LOCATIONS AND ELEVATIONS OF EXISTING UNDERGROUND UTILITIES PRIOR TO SETTING GRADE AND ALIGNMENT OF PROPOSED WATER MAINS. THE CITY OF TROTWOOD ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OR DEPTH OF THE UNDERGROUND FACILITIES SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS. IF DAMAGE IS CAUSED, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF THE SAME AND FOR ANY RESULTING CONTINGENT DAMAGE. THE CONTRACTOR SHALL ASSUME RESPONSIBILITY FOR PROTECTION OF ALL EXISTING UTILITIES DURING CONSTRUCTION. ALL COSTS FOR LOCATING, REMOVING AND REPLACING OR RELOCATING THESE UTILITIES SHALL BE INCIDENTAL TO CONSTRUCTION. ALL UTILITIES DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE UTILITY OWNER'S SATISFACTION. THE EXACT LOCATION OF EXISTING UTILITIES SHALL BE DETERMINED BY HAND DIGGING.
2. LOCATION, SUPPORT, PROTECTION, AND RESTORATION OF ALL EXISTING UTILITIES AND APPURTENANCES, WHETHER OR NOT SHOWN ON THE APPROVED CONSTRUCTION DRAWINGS, SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. WHEN UNKNOWN OR INCORRECTLY LOCATED UNDERGROUND UTILITIES ARE ENCOUNTERED DURING CONSTRUCTION, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE UTILITY OWNER AND THE CITY OF TROTWOOD.
4. ALL WORK SHALL CONFORM TO THE CITY OF DAYTON CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST EDITION) UNLESS OTHERWISE SPECIFIED.
5. ALL PROJECT ORDERS (FIELD OR OFFICE) REQUESTS, CHANGES, ADDITIONS OR DELETIONS PERTAINING TO PUBLIC WATER MAIN, STORM SEWER, AND SANITARY SEWER FACILITIES SHALL BE ONLY BY DIRECTION OR REQUEST OF THE DEPARTMENT OF WATER.
6. THE CONTRACTOR SHALL NOTIFY RESIDENTS AND BUSINESSES AFFECTED BY STREET CLOSURES A MINIMUM OF 48 HOURS IN ADVANCE OF ACTUAL STREET CLOSURE.
7. ROADWAY RESTORATION WITHIN THE CITY OF TROTWOOD CORPORATION LIMITS SHALL BE DONE IN COMPLIANCE WITH THE DEPARTMENT OF PUBLIC WORKS "RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WAY", (LATEST EDITION).
8. 48 HOURS PRIOR TO ANY CONSTRUCTION, EXCAVATION OR DIGGING, THE CONTRACTOR SHALL CALL AND NOTIFY THE OHIO UTILITY PROTECTION SERVICE (OUPS) AT 1-800-362-2764. ALL OTHER AGENCIES, WHICH MAY HAVE UNDERGROUND UTILITIES IN THIS AREA AND ARE NOT MEMBERS OF OUPS, MUST BE NOTIFIED DIRECTLY BY THE CONTRACTOR.
9. ALL FILLS (INCLUDING TRENCH BEDDING AND BACKFILL) INTENDED TO SUPPORT A WATER MAIN, SANITARY SEWER, STORM SEWER, OR DRAINAGE CHANNEL, SHALL BE COMPACTED TO NOT LESS THAN 90% MAXIMUM DENSITY (MODIFIED PROCTOR TEST ASTM D1557). UNLESS OTHERWISE NOTED, FIELD VERIFICATION AND FORMAL RESULT SUBMITTALS MAY BE REQUESTED (AS NECESSARY) BY THE CITY OF TROTWOOD.
10. IN ADDITION TO THE NOTES ON THIS SHEET, THE CONTRACTOR'S ATTENTION SHALL BE DIRECTED TO THE NOTES ON THE ATTACHED SHEETS AS WELL.

WATER DISTRIBUTION SYSTEM NOTES

1. WATER MAINS, BENDS AND OTHER FITTINGS SHALL BE DUCTILE CAST IRON PIPE AND CONFORM TO ANSI A-21.51 (AWWA C151), CLASS 51 (UNLESS OTHERWISE NOTED).
2. THRUST BLOCKING IS REQUIRED AT ALL FITTINGS.
3. THE LENGTH OF RESTRAINED JOINT REQUIREMENTS ARE INDICATED ON EACH PLAN AND PROFILE SHEET.
4. WELDING OF PIPE AND/OR APPURTENANCES IS NOT PERMITTED WITHOUT WRITTEN APPROVAL OF THE CITY OF TROTWOOD.
5. ALL WATER MAINS SHALL HAVE A MINIMUM COVER OF 4 FEET. WATER MAINS SHALL HAVE A MINIMUM OF 10 FEET HORIZONTAL SEPARATION (OUT TO OUT) FROM ANY STORM OR SANITARY SEWER.
6. WATER MAINS CROSSING ANY AND ALL SEWERS SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 18 INCHES BETWEEN THE OUTSIDES OF THE PIPES (OUT TO OUT). ALSO, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED AT THE POINT OF CROSSING SUCH THAT BOTH JOINTS WILL BE OF EQUAL DISTANCE AND AS FAR FROM THE SEWER AS POSSIBLE.
7. ONLY CITY OF TROTWOOD PERSONNEL SHALL OPERATE MAIN LINE WATER VALVES WITHIN THE TROTWOOD CORPORATION LIMITS.
8. ALL VALVE OPERATING NUTS SHALL BE SET AT A MAXIMUM DEPTH OF 6 FEET. THE CONTRACTOR SHALL FURNISH AND INSTALL APPROVED EXTENSIONS AS REQUIRED.
9. THE CONTRACTOR SHALL BE ADVISED THAT ANY CLOSURE PIECES OR SLEEVES REQUIRED TO MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED WATER MAINS, OTHER THAN THOSE SPECIFICALLY SHOWN ON THE CONSTRUCTION DRAWINGS, SHALL BE AT HIS EXPENSE.
10. SERVICE CONNECTIONS SHALL NOT BE MADE TO THE WATER MAIN UNTIL THE MAIN LINE HAS BEEN INSPECTED, TESTED, DISINFECTED AND RELEASED FOR TAPS. ALL WATER SERVICE CONNECTIONS SHALL CONFORM TO THE CITY OF DAYTON STANDARDS.
11. NO WATER SERVICE BRANCH SHALL BE LAID IN THE SAME TRENCH AS A SANITARY SEWER LATERAL.
12. FIRE HYDRANTS SHALL BE LOCATED 3 FEET FROM THE FACE OF THE CURB OR EDGE OF THE PAVEMENT UNLESS OTHERWISE NOTED ON THE PLANS WITHIN THE 4' OPENING TO FACE THE STREET. FIRE HYDRANTS LOCATED WITHIN SIDEWALKS MUST COMPLY WITH ADA REGULATIONS.
13. NO ADDITIONS, DELETIONS, OR REVISIONS TO THE WATER MAIN PLANS ARE TO BE MADE WITHOUT THE WRITTEN APPROVAL OF THE CITY OF TROTWOOD.
14. THE CITY OF TROTWOOD PERSONNEL SHALL INSPECT THE WATER MAIN INSTALLATION.
15. ALL WATER MAIN CONSTRUCTION AND MATERIAL, INCLUDING BEDDING, BACKFILL, AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE CITY OF DAYTON CONSTRUCTION AND MATERIAL SPECIFICATIONS (LATEST ADDITION) AND DEPARTMENT OF WATER ENGINEERING STANDARDS FOR WATER, SANITARY SEWER, AND STORM SEWER FACILITIES (LATEST ADDITION), UNLESS OTHERWISE SPECIFIED HEREIN.
16. WHERE WATER MAIN VALVES ARE LOCATED OUTSIDE OF THE PAVEMENT, A CONCRETE SLAB MUST BE PROVIDED AT FINAL GRADE AROUND THE VALVE BOX. THE SLABS MUST BE EIGHTEEN INCHES (18") SQUARE / CIRCLE AND SIX INCHES (6") THICK. PRE-CAST SLABS SHALL NOT BE ALLOWED. PAYMENT SHALL BE MADE AT THE UNIT BID PRICE FOR FURNISHING AND INSTALLING VALVE BOX AND SHALL INCLUDE ALL NECESSARY LABOR, EQUIPMENT AND MATERIALS.



BRANDSTETTER
CARROLL, INC.
ARCHITECTS-ENGINEERS-PLANNERS
150 West 5th Street, Cincinnati, OH 45202
616.513.0100 www.brandstettercarroll.com

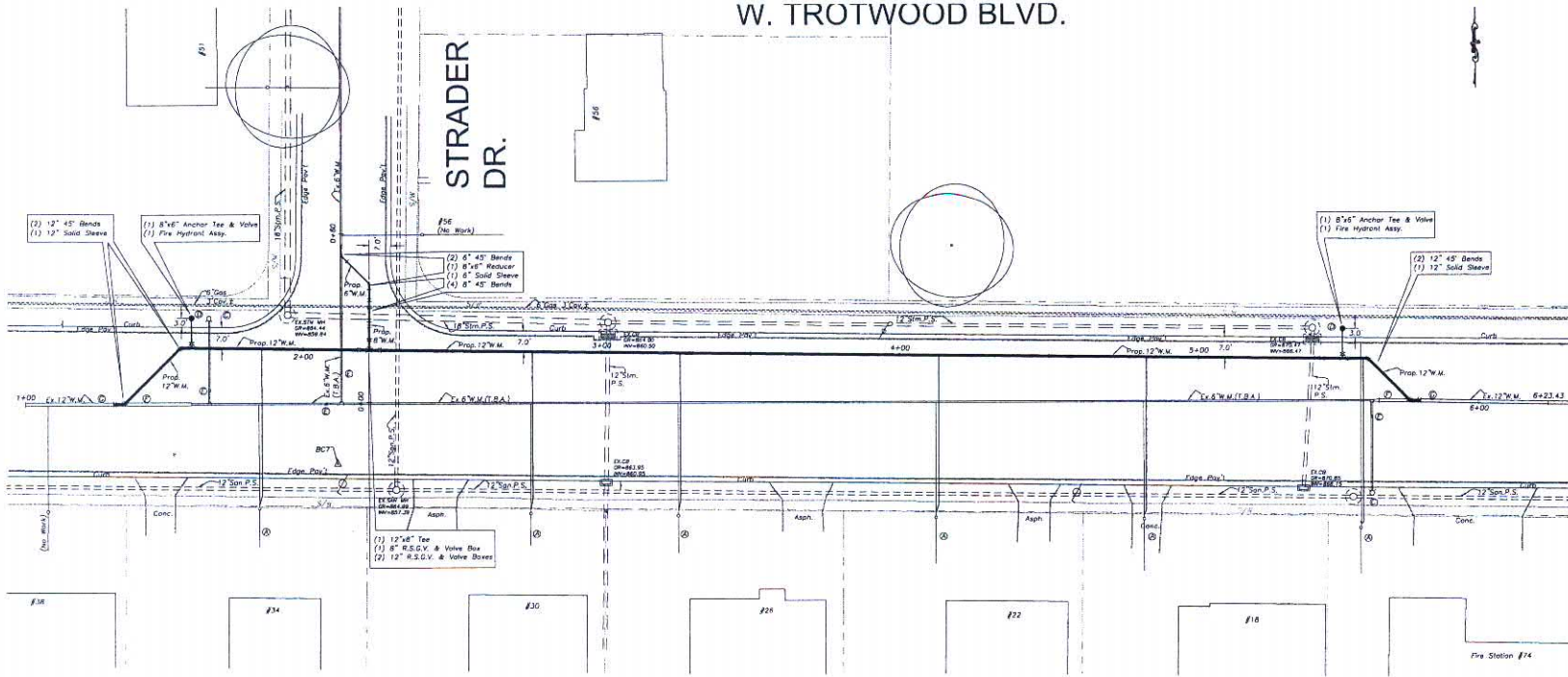


Revisions:
Issue Date:

OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A
Sturbridge Drive to Dearwester Drive
City Of Trotwood, Ohio

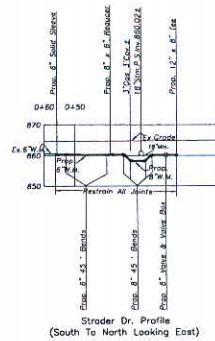
GENERAL NOTES

Project No.	3
15057	

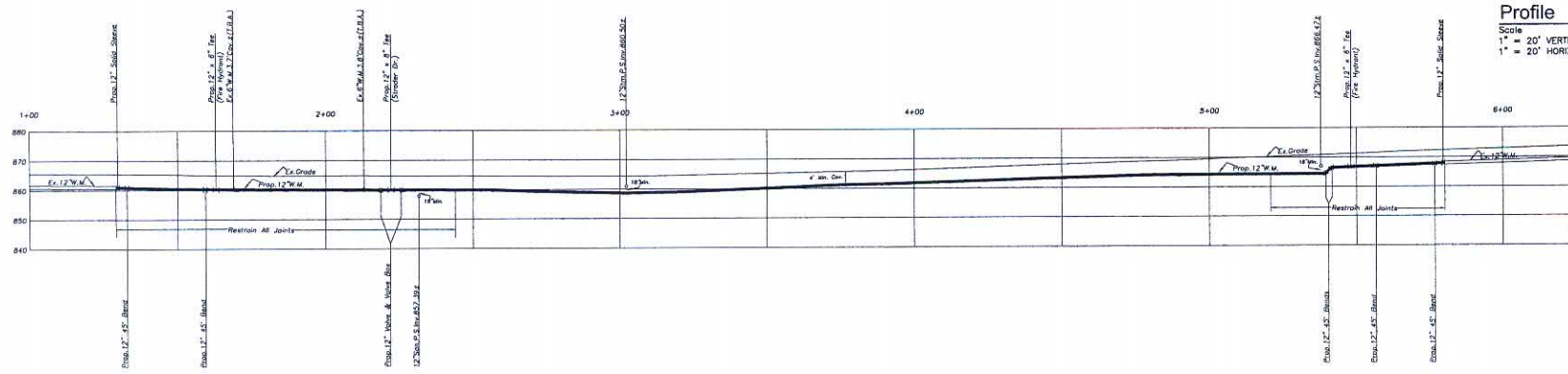


Plan
Scale: 1" = 20'

1. Replace Service Line (3/4" thru 3") To Existing Water Mains Or Curb Box With Type "X" Clapper.
2. Service Location Is Unknown. Contractor Shall Locate Meter And/or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
3. Remove Existing Fire Hydrant And Return Fire Hydrant To City Of Trotwood.
4. Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood (City Of Dayton Specifications).
5. Remove Existing Water Valve Box.
6. Abandon Existing Water Main And Plug All Ties-In Points To Be Determined By City Of Trotwood.
7. Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.



Profile
Scale:
1" = 20' VERTICAL
1" = 20' HORIZONTAL



Revisions:
Issue Date:

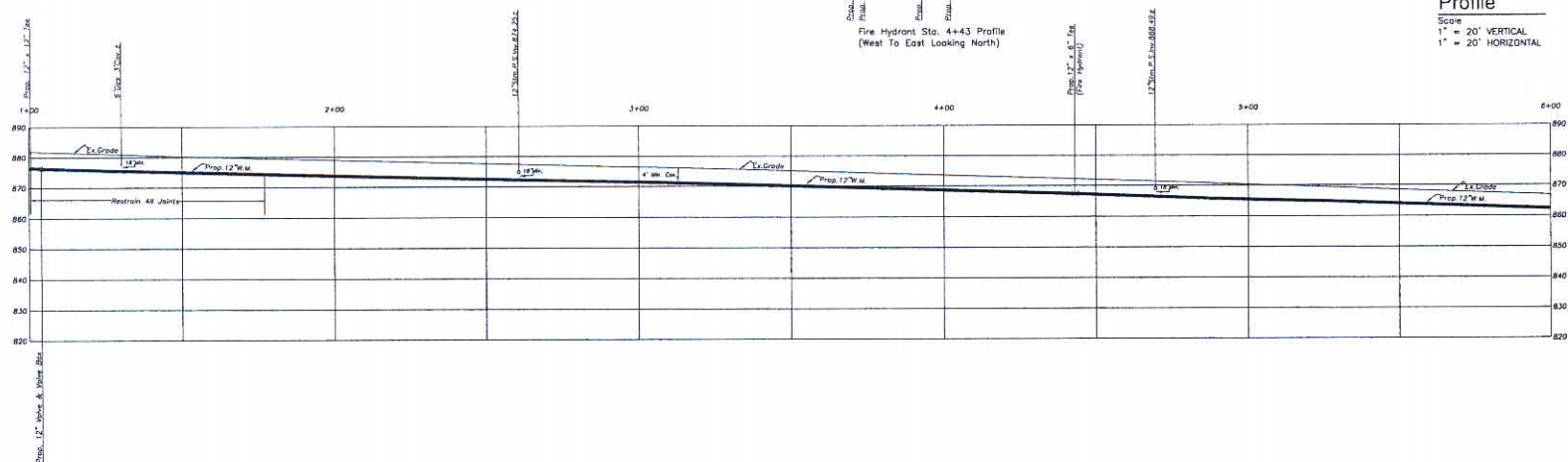
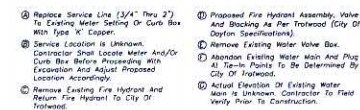
OLDE TOWN WATER MAIN IMPROVEMENTS PHASE 1 A

City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

15057



Revisions:
Issue Date:

OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A

City Of Trotwood, Ohio

PLAN & PROFILE

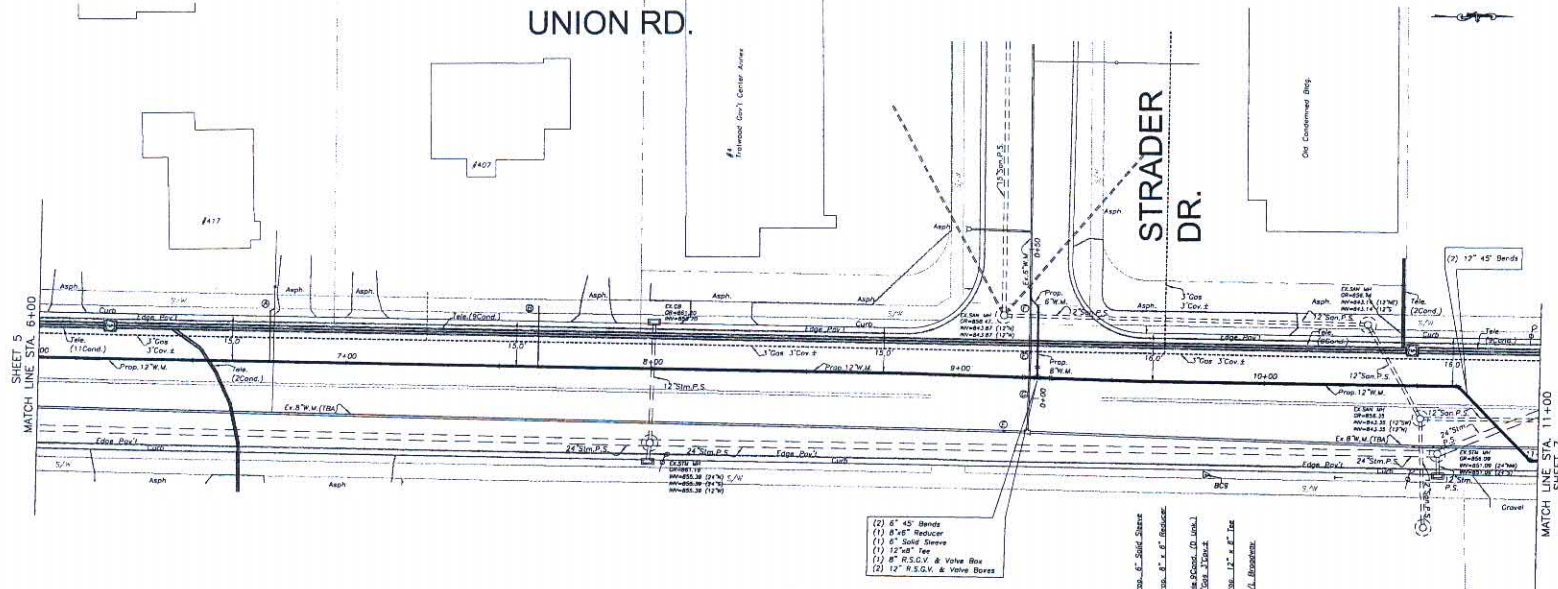
Project No. _____

15057

5

UNION RD.

STRADER DR.

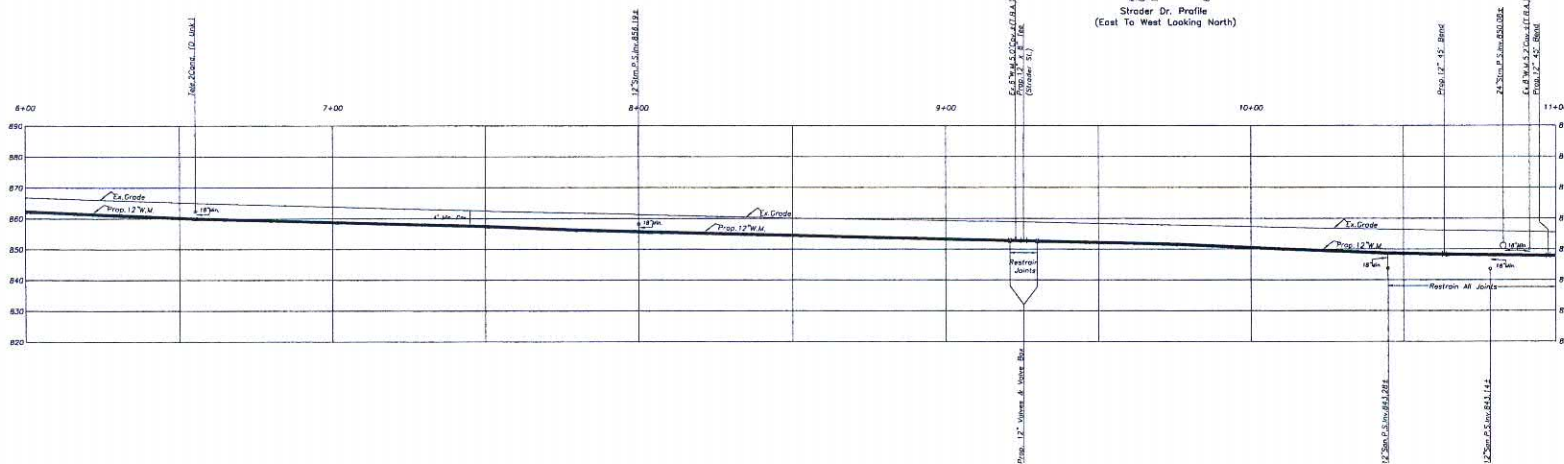


- ④ Replace Service Line (3/4" Thru 2") To Existing Meter Setting Or Curb Box With Type "K" Copper.
- ⑤ Service Location is Unknown. Contractor Shall Locate Meter And/or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ⑥ Remove Existing Fire Hydrant And Return Fire Hydrant to City Of Trotwood.
- ⑦ Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood (City Of Dayton Specifications).
- ⑧ Remove Existing Water Valve Box.
- ⑨ Abandon Existing Water Main And Plug At Termination Points To Be Determined By City Of Trotwood.
- ⑩ Actual Elevation Of Existing Water Main is Unknown. Contractor To Verify Prior To Construction.

Plan
Scale 1" = 20'

Profile
Scale
1" = 20' VERTICAL
1" = 20' HORIZONTAL

Strader Dr. Profile
(East To West Looking North)



Revisions:
Issue Date:

**OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A**

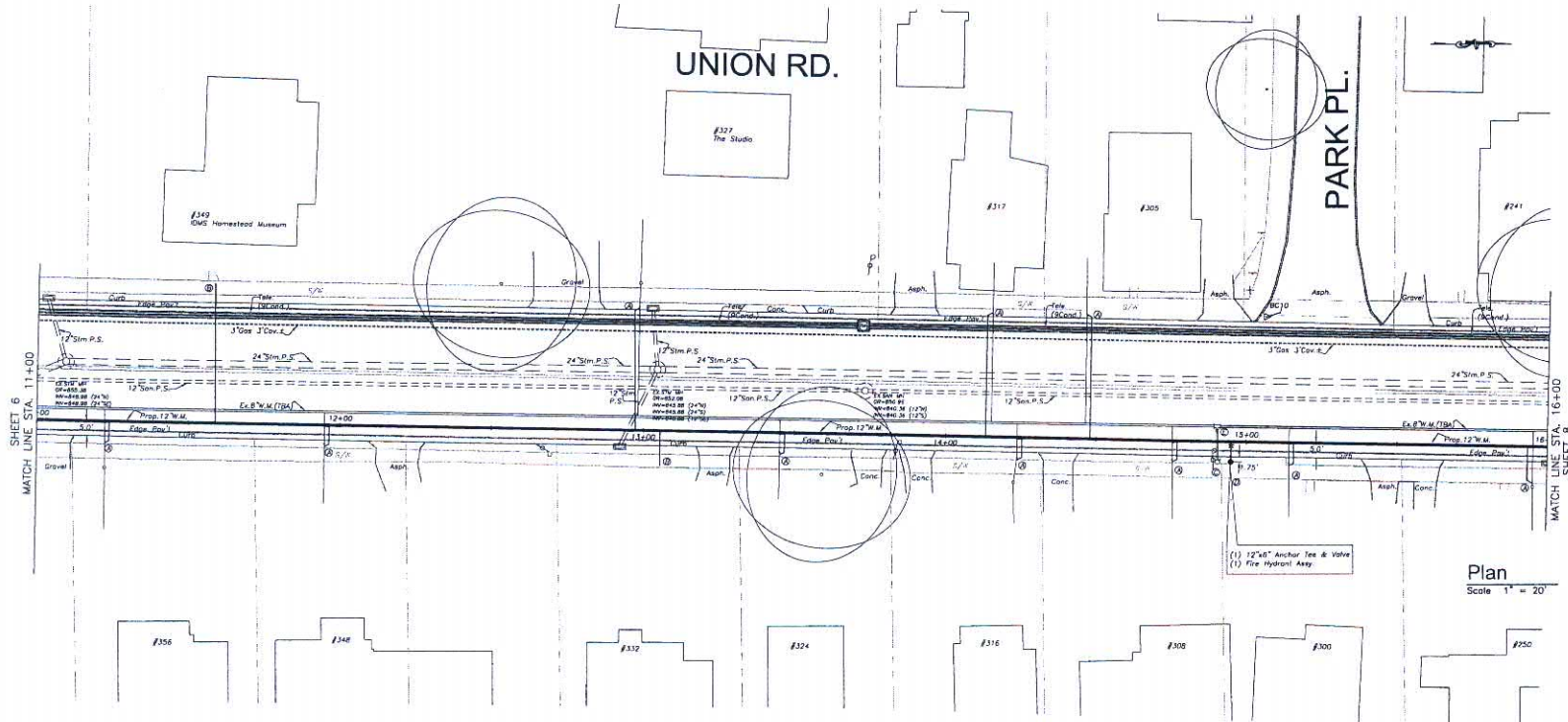
City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

6

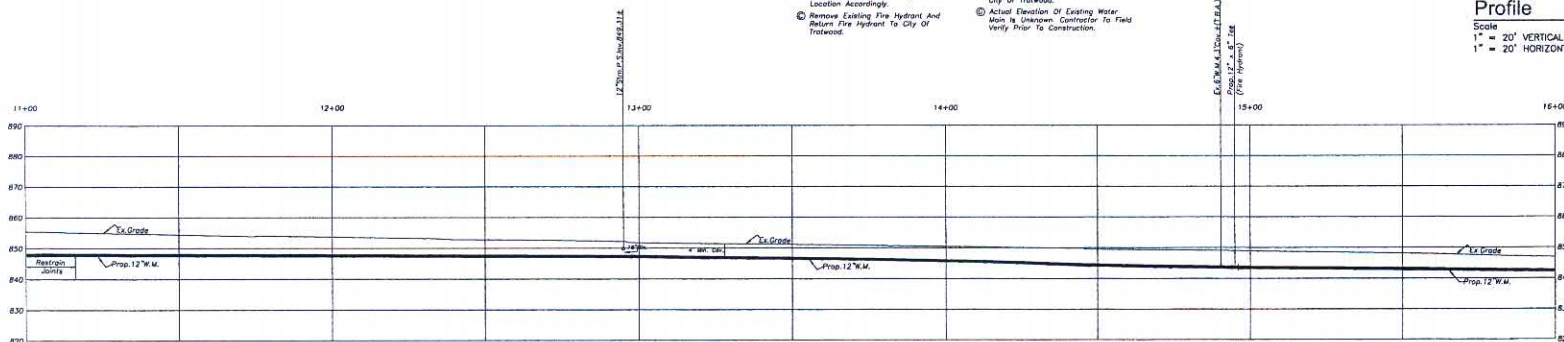
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Plan
Scale 1" = 20'

- ④ Replace Service Line (3/4" Thru 2" To Existing Meter Setting Or Curb Box With Type "X" Copper.
- ⑤ Service Location Is Unknown. Contractor Shall Locate Meter And/Or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ⑥ Remove Existing Fire Hydrant And Return Fire Hydrant To City Of Trotwood.
- ⑦ Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood (City Of Dayton Specifications).
- ⑧ Remove Existing Water Main Box.
- ⑨ Abandon Existing Water Main And Plug At Tie-In Points To Be Determined By City Of Trotwood.
- ⑩ Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.

Profile
Scale
1" = 20' VERTICAL
1" = 20' HORIZONTAL



Revisions:
Issue Date:

OLDE TOWN WATER MAIN IMPROVEMENTS PHASE 1 A

City Of Trotwood, Ohio

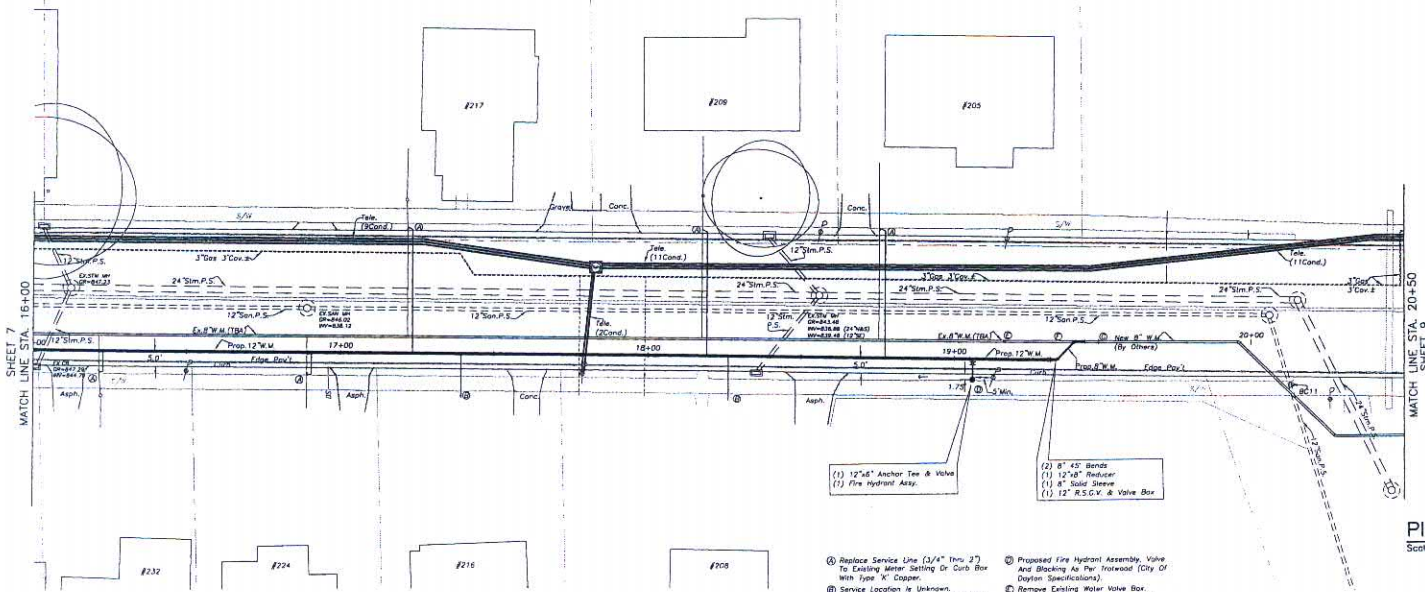
PLAN & PROFILE

Project No.

15057

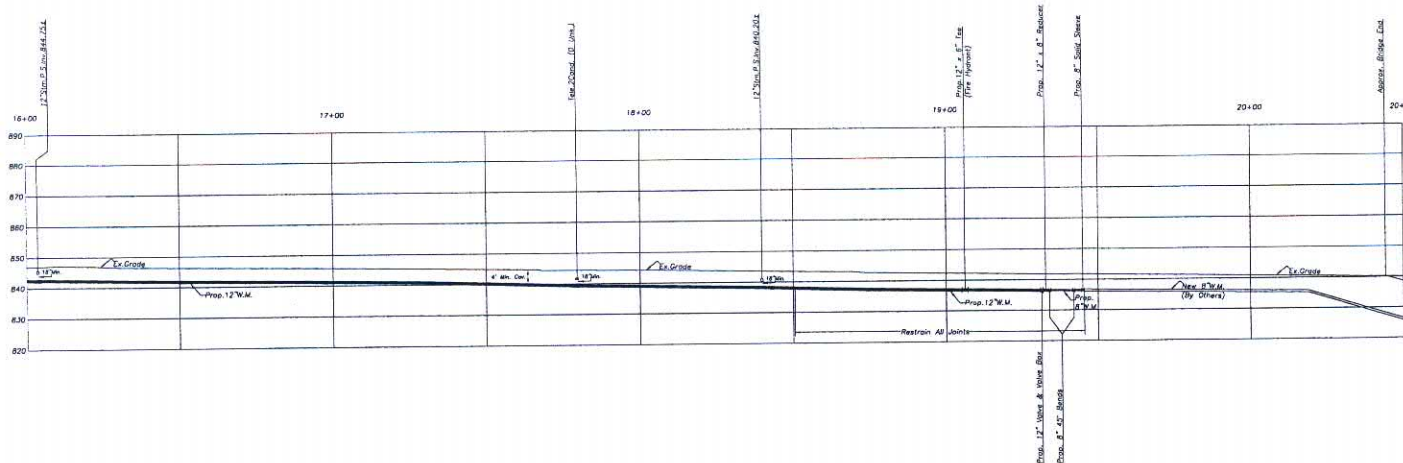
7

UNION RD.



Plan
Scale 1" = 20'

Profile
Scale
1" = 20' VERTICAL
1" = 20' HORIZONTAL



Revisions:
Issue Date:

OLDE TOWN WATER MAIN IMPROVEMENTS PHASE I A

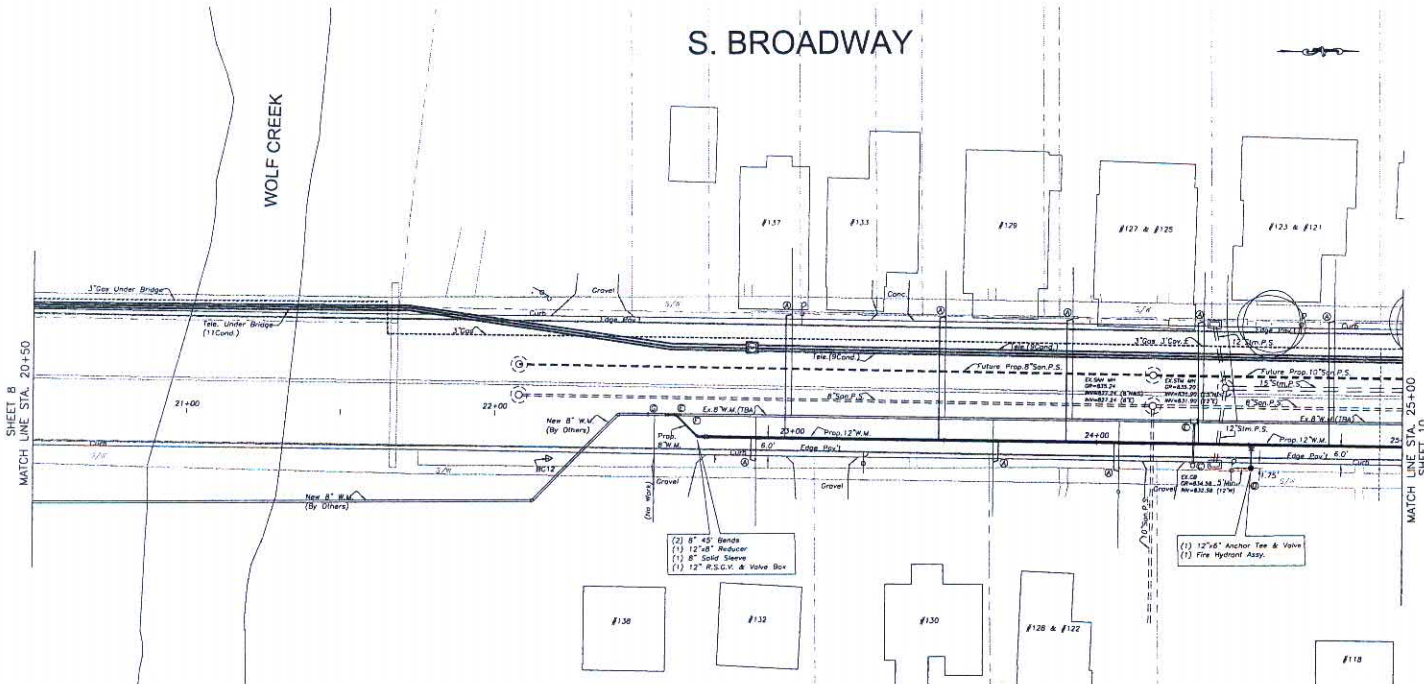
City Of Trotwood, Ohio

PLAN & PROFILE

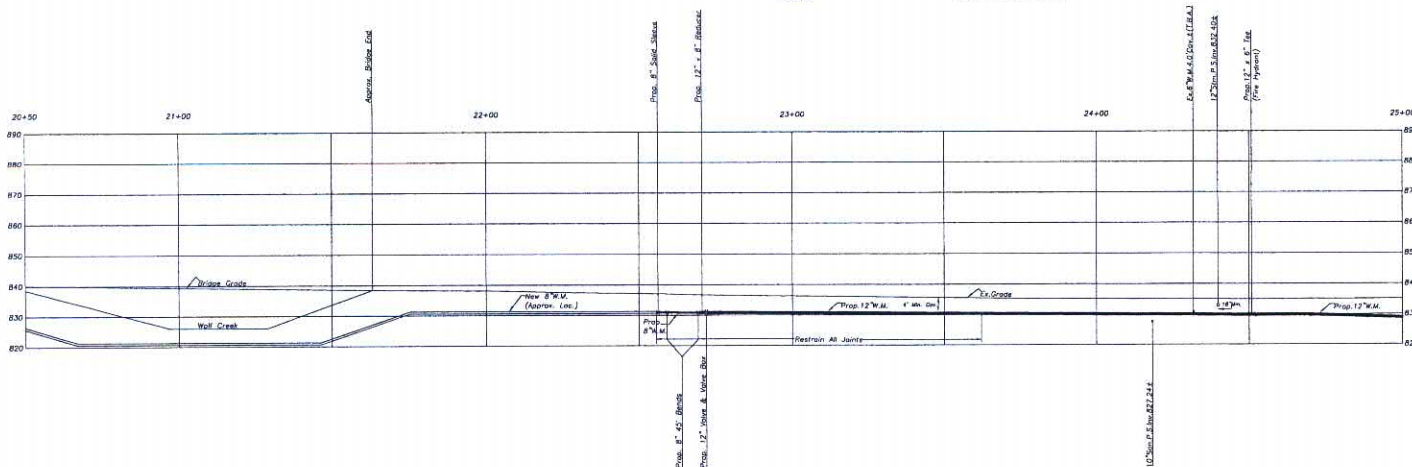
Project No.

8

15057



- ④ Replace Service Line (1/4" Thru 2") To Existing Meter Setting Or Curb Box With Type W Copper.
- ⑤ Service Location Is Unknown. Contractor Shall Locate Meter And/or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ⑥ Remove Existing Fire Hydrant And Return Fire Hydrant To City Of Trotwood.
- ⑦ Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood (City Of Dayton Specifications).
- ⑧ Remove Existing Water Valve Box.
- ⑨ Abandon Existing Water Main And Plug At Tie-in Points To Be Determined By City Of Trotwood.
- ⑩ Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.



Revisions:
Issue Date:

**OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A**

City Of Trotwood, Ohio

PLAN & PROFILE

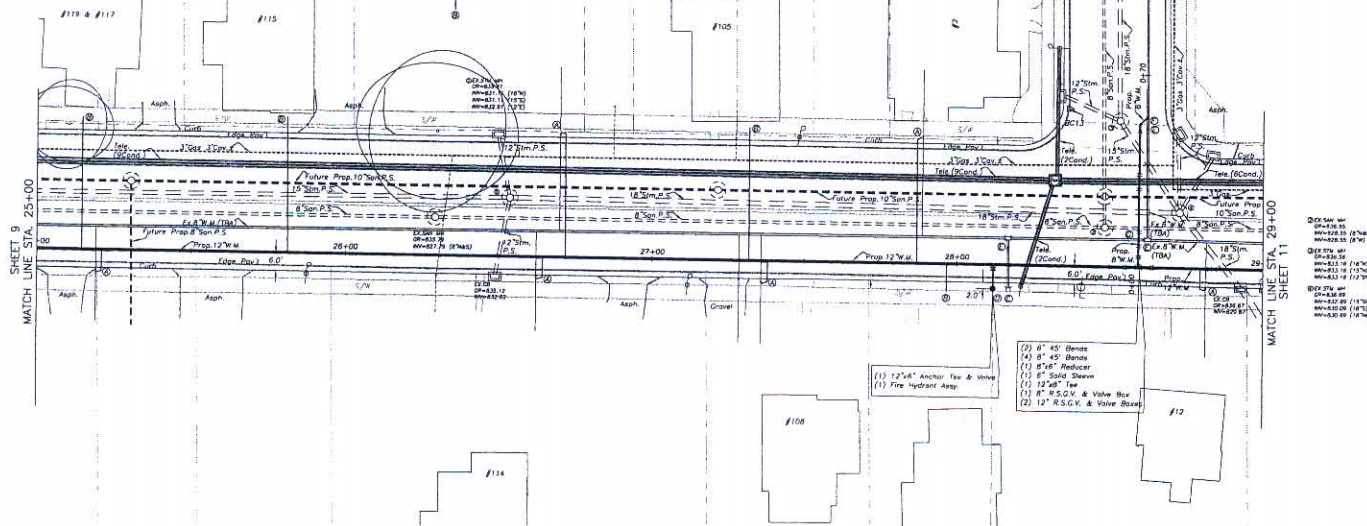
Project No.

15057

9

S. BROADWAY

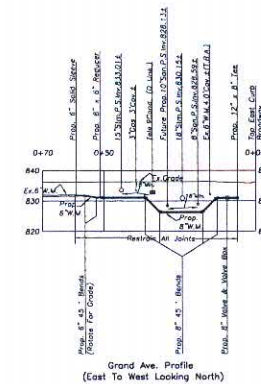
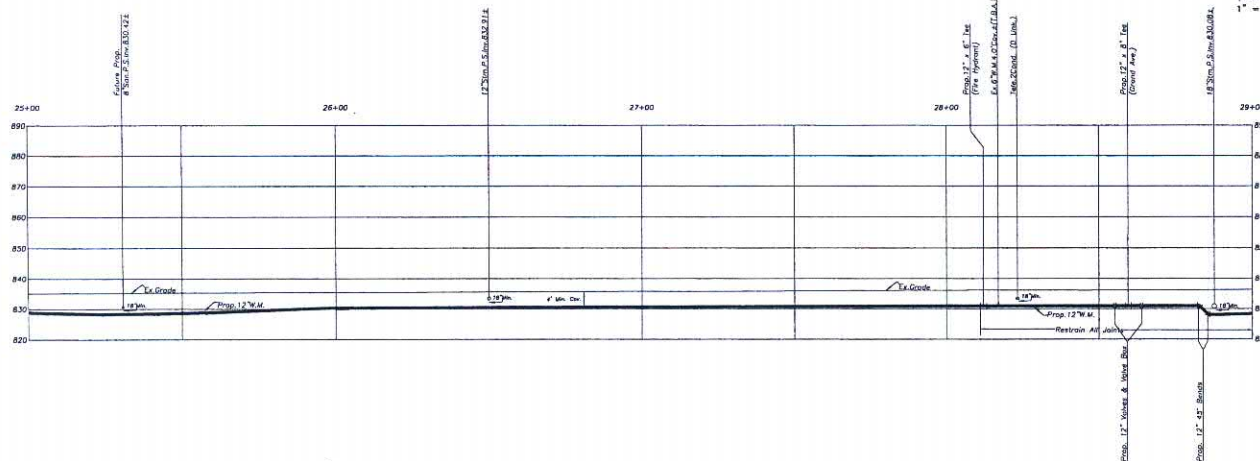
GRAND
AVE.



- ① Replace Service Line (3/4\"/>

Plan
Scale 1\"/>

Profile
Scale
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Revisions:
Issue Date:

OLDE TOWN WATER MAIN IMPROVEMENTS PHASE 1 A

City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

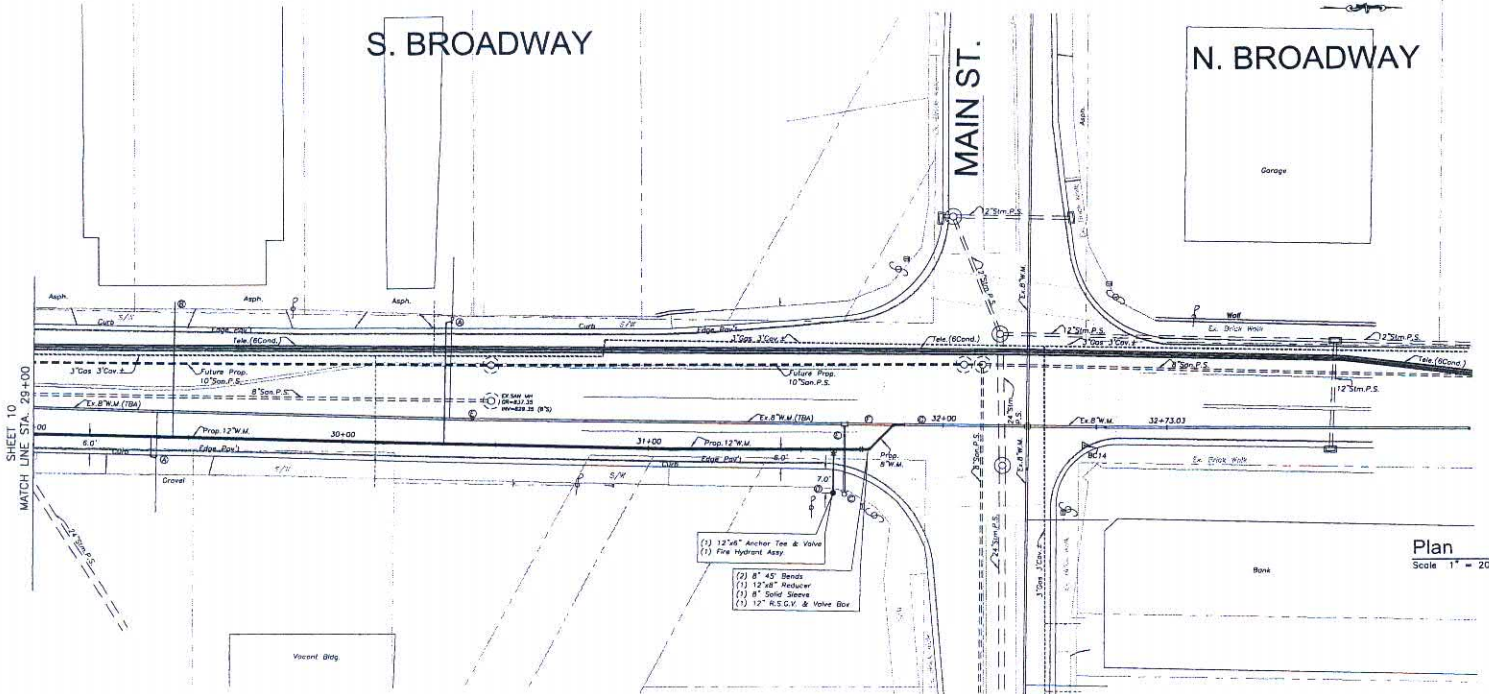
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10

S. BROADWAY

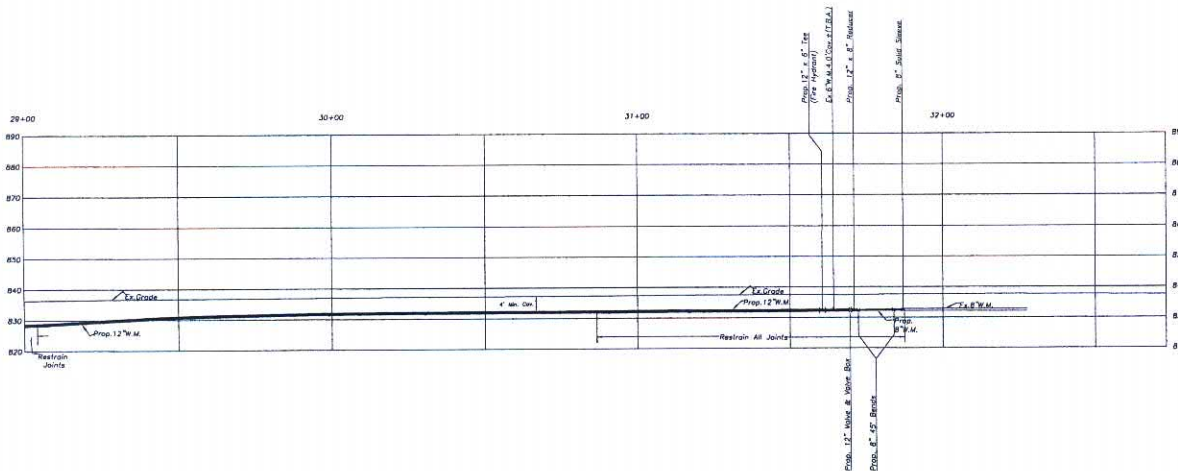
N. BROADWAY

MAIN ST.



Profile

Scale
1" = 20' VERTICAL
1" = 20' HORIZONTAL



Revisions:
Issue Date:

**OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A**

City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

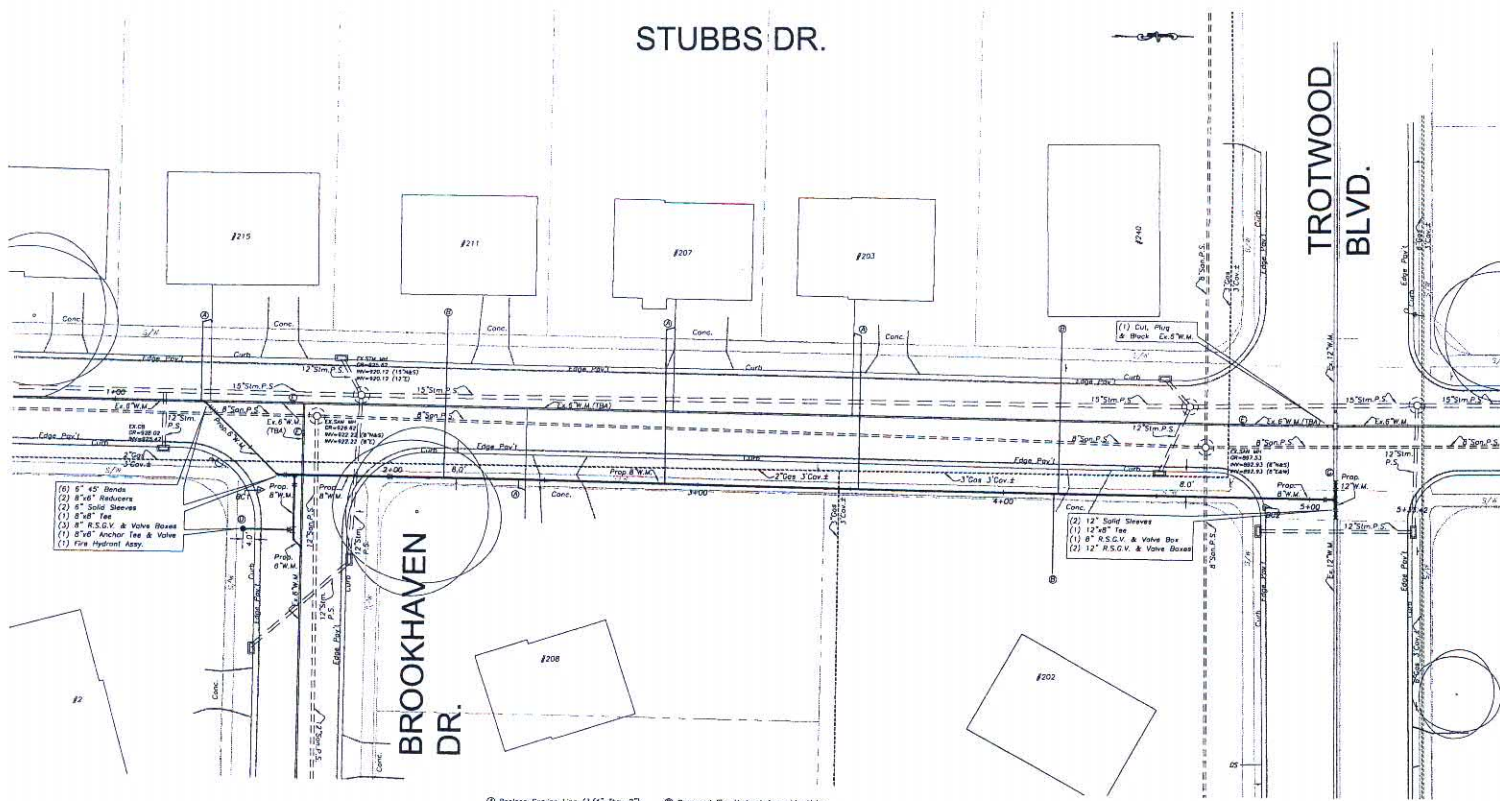
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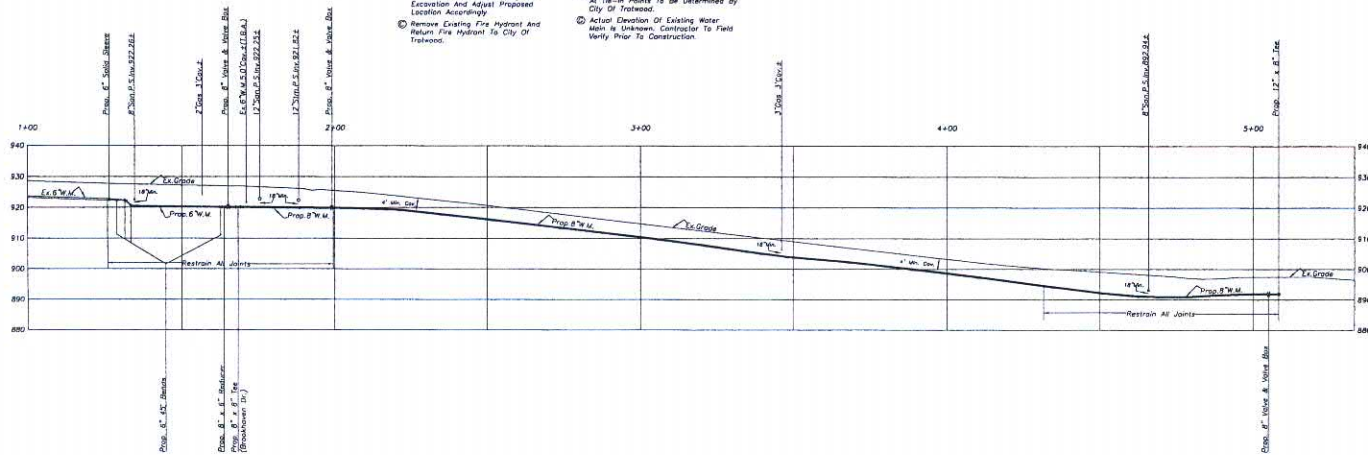
STUBBS DR.

TROTWOOD
BLVD.

BROOKHAVEN
DR.



- ④ Replace Service Line (1/4" thru 2") To Existing Meter Setting Or Curb Box With Type 'X' Copper.
- ⑤ Service Location Is Unknown. Contractor Shall Locate Meter And/Or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ⑥ Remove Existing Fire Hydrant And Return Fire Hydrant To City Of Trotwood.
- ⑦ Proposed Fire Hydrant Assembly, Valve And Bleeding Air Pipe (Trotwood City Of Dayton Specifications).
- ⑧ Remove Existing Water Valve Box. Contractor Shall Locate Meter And/Or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ⑨ Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.



Revisions:
Issue Date:

**OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE I A**

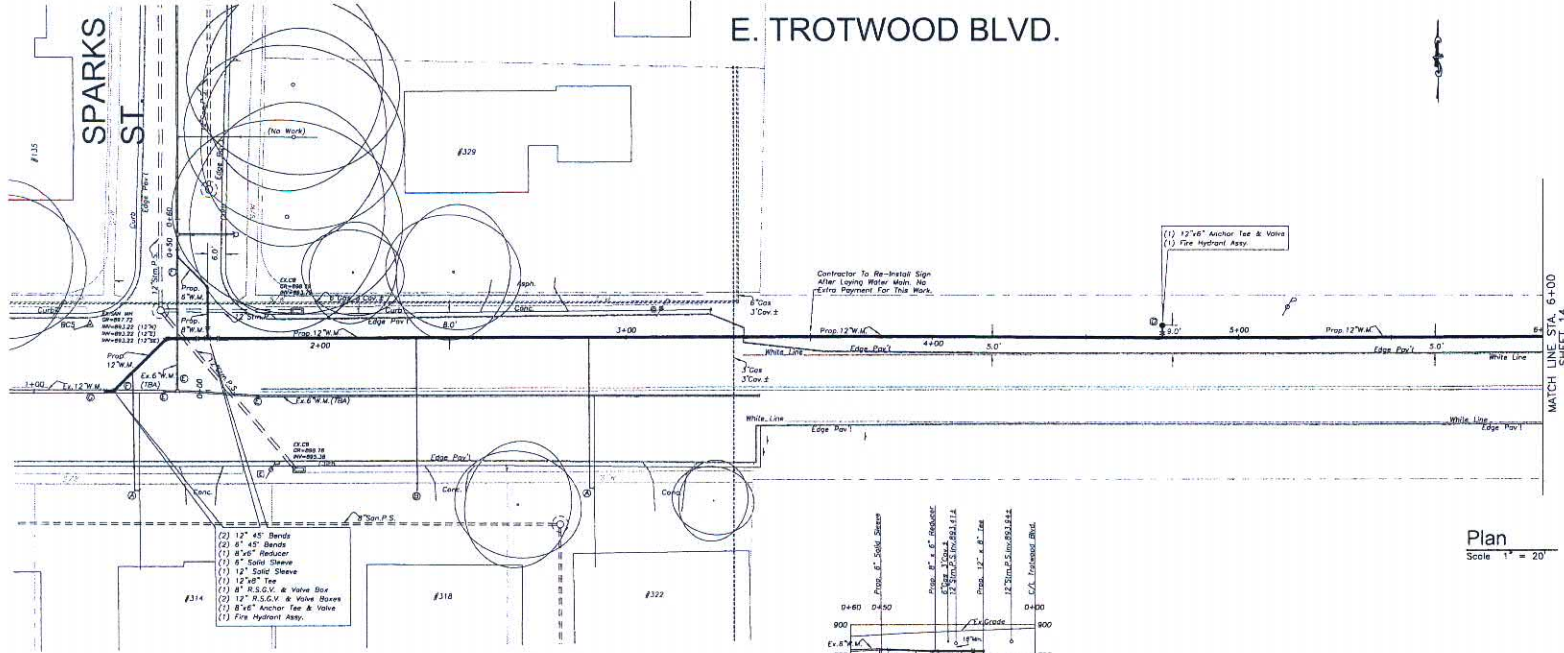
City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

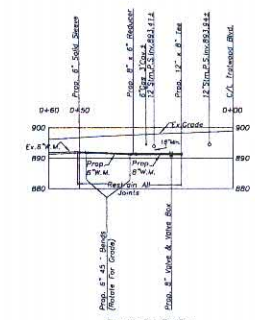
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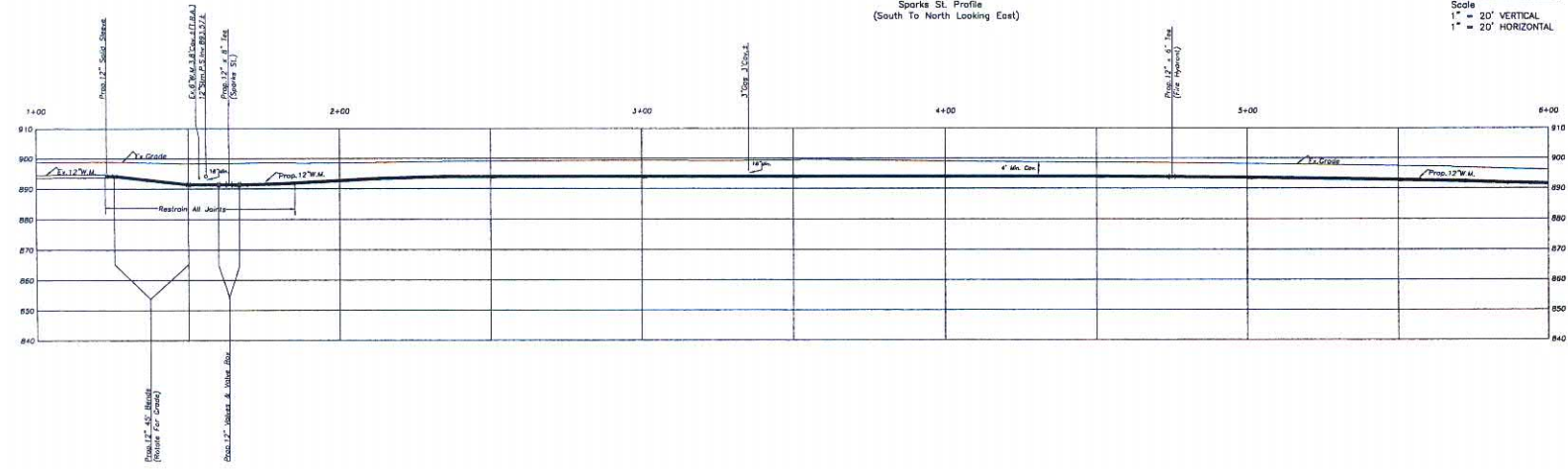


Plan
Scale 1" = 20'

- ① Replace Service Line (1/4" Thru 2") To Existing Meter Setting Or Curb Box With Type "X" Crossover.
- ② Service Location Is Unknown. Contractor Shall Locate Meter And/OR Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- ③ Remove Existing Fire Hydrant And Return Fire Hydrant To City Of Trotwood.
- ④ Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood City Of Dayton Specifications.
- ⑤ Remove Existing Water Valve Box.
- ⑥ Abandon Existing Water Main And Plug All Tie-In Points To Be Determined By City Of Trotwood.
- ⑦ Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.

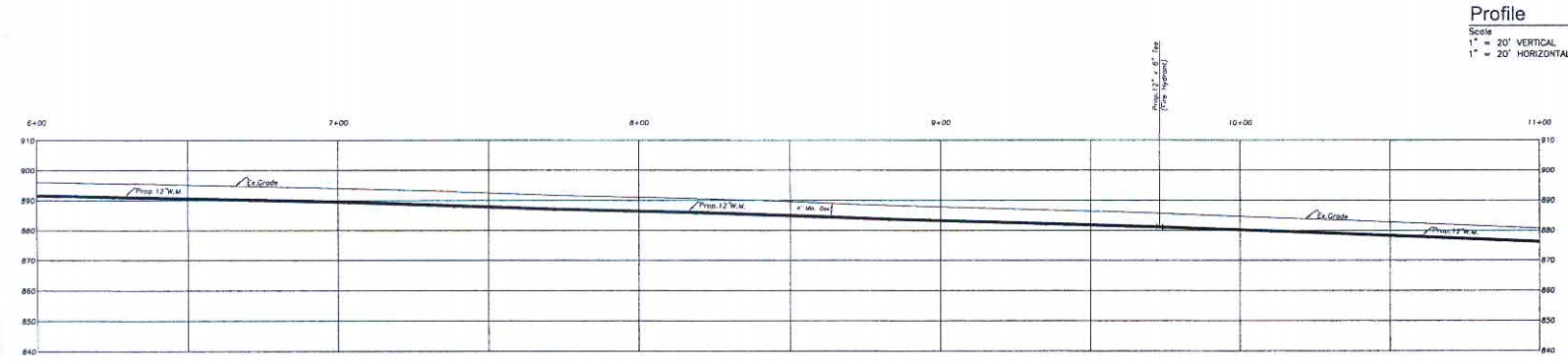
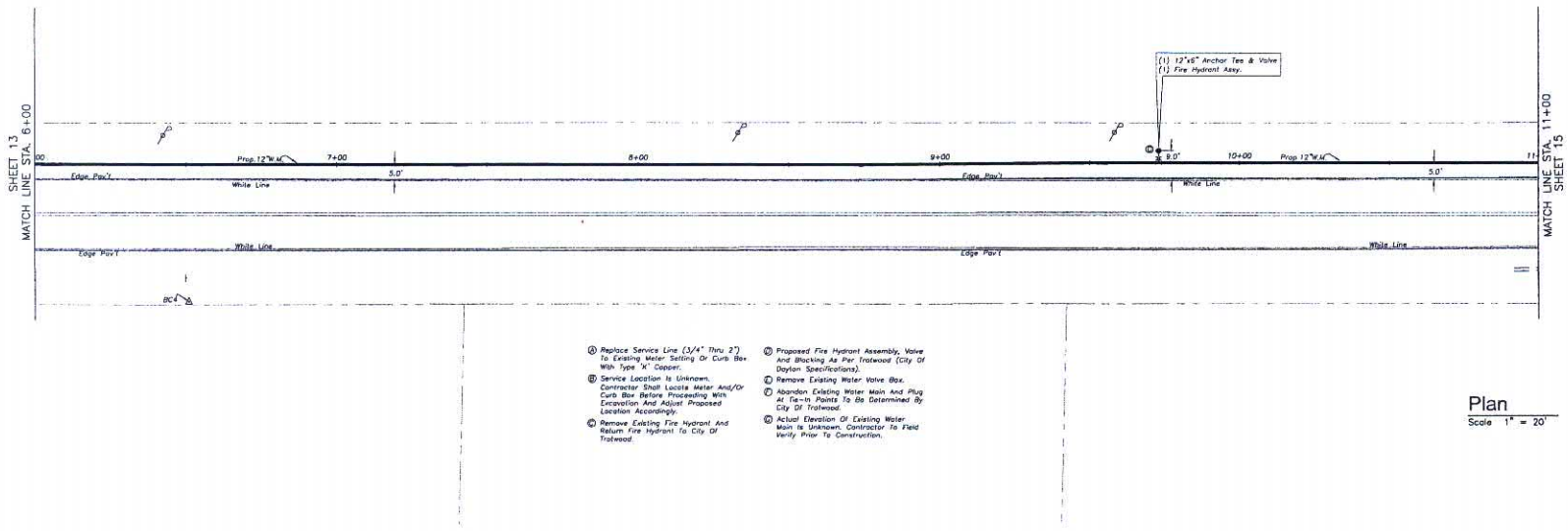


Profile
Scale
1" = 20' VERTICAL
1" = 20' HORIZONTAL



Revisions:	
Issue Date:	
OLDE TOWN WATER MAIN IMPROVEMENTS PHASE 1 A	
City Of Trotwood, Ohio	
PLAN & PROFILE	
Project No.	13
15057	

E. TROTWOOD BLVD.



- 1. Replace Service Line (3/4" Thru 2") to Existing Meter Setting Or Curb Box With Type "M" Capped.
- 2. Service Location Is Unknown. Contractor Shall Locate Meter And/Or Curb Box Before Proceeding With Excavation And Adjust Proposed Location Accordingly.
- 3. Remove Existing Fire Hydrant And Return Fire Hydrant to City Of Trotwood.
- 4. Proposed Fire Hydrant Assembly, Valve And Blocking As Per Trotwood (City Of Dayton Specifications).
- 5. Remove Existing Water Valve Box.
- 6. Abandon Existing Water Main And Plug At 16-in Points To Be Determined By City Of Trotwood.
- 7. Actual Elevation Of Existing Water Main Is Unknown. Contractor To Field Verify Prior To Construction.

Revisions:
Issue Date:

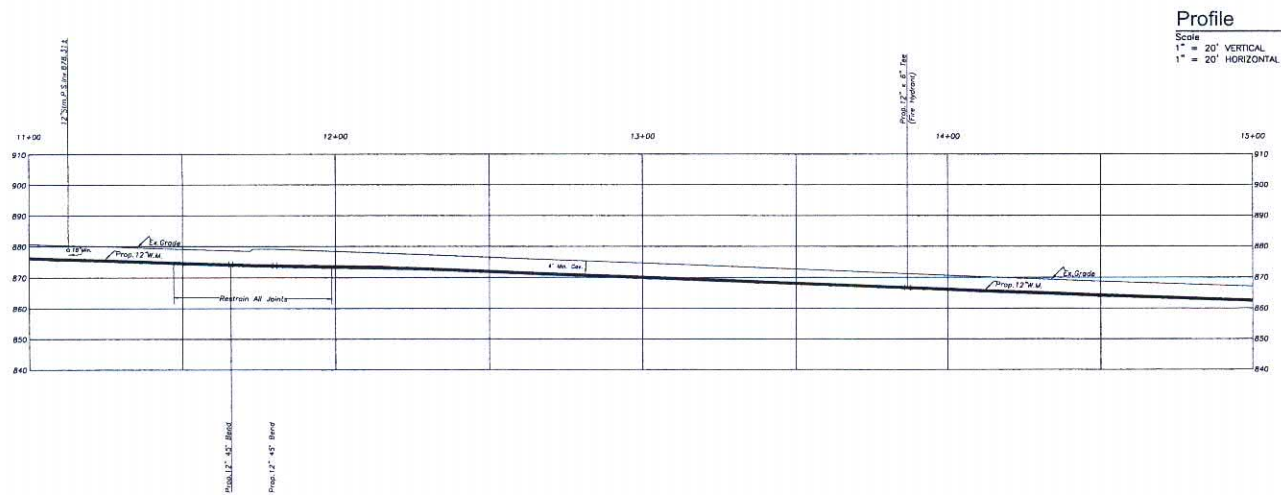
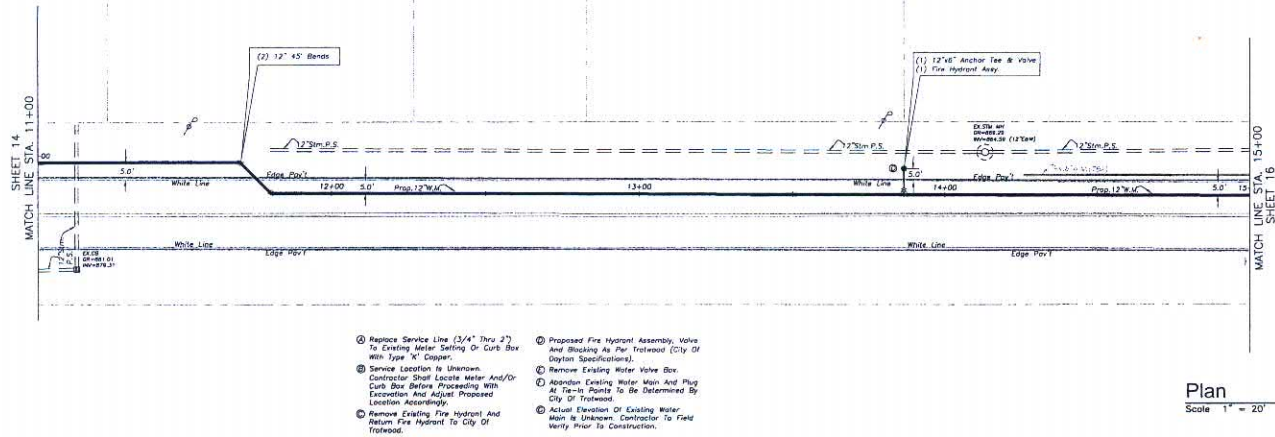
OLDE TOWN WATER MAIN IMPROVEMENTS
PHASE 1 A

City Of Trotwood, Ohio

PLAN & PROFILE

Project No.	14
15057	

E. TROTWOOD BLVD.



Revisions:
Issue Date:

OLDE TOWN WATER MAIN IMPROVEMENTS PHASE 1 A

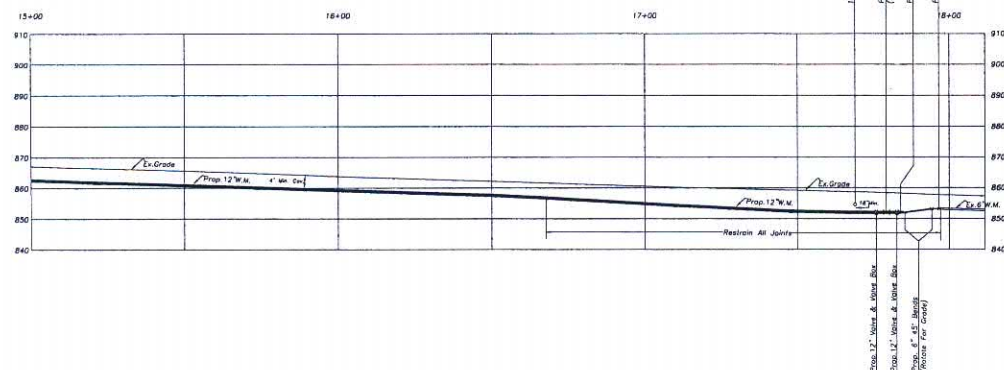
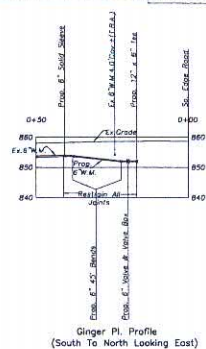
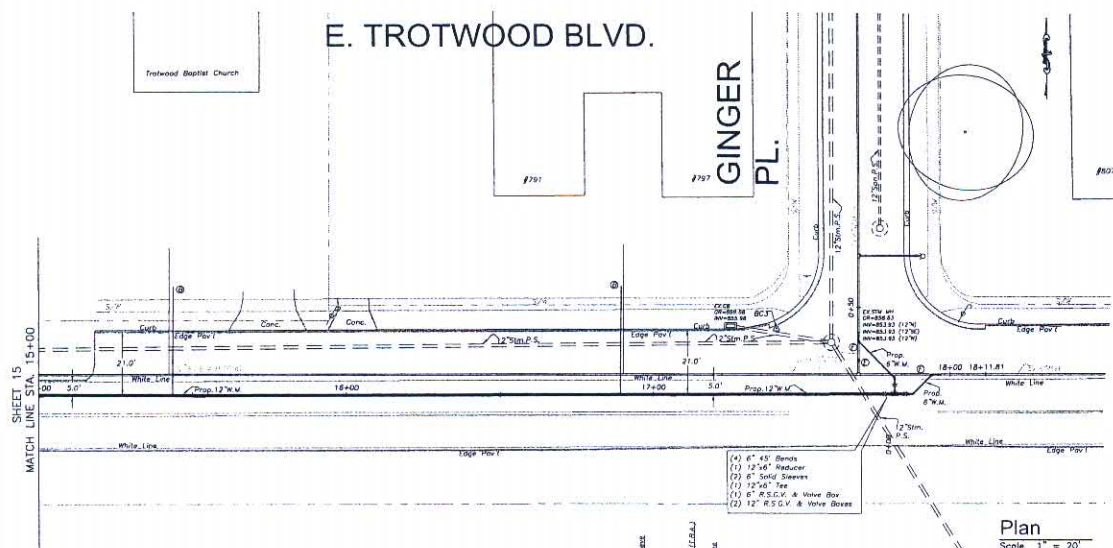
City Of Trotwood, Ohio

PLAN & PROFILE

Project No.

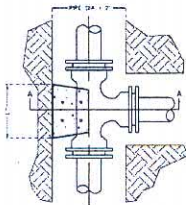
15057

15

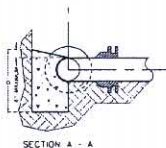


SPACING											
1"	2"	3"	4"	5"	6"	8"	10"	12"	16"	20"	24"
1'	5.0	2.5	1.7	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.2
2'	10.0	5.0	3.3	2.6	2.0	1.6	1.2	1.0	0.8	0.6	0.4
3'	15.0	7.5	5.0	4.0	3.0	2.4	1.8	1.5	1.2	0.9	0.6
4'	20.0	10.0	6.7	5.3	4.0	3.2	2.4	2.0	1.6	1.2	0.8
5'	25.0	12.5	8.3	6.7	5.0	4.0	3.0	2.5	2.0	1.6	1.0
6'	30.0	15.0	10.0	8.0	6.0	4.8	3.6	3.0	2.4	1.8	1.2
7'	35.0	17.5	11.7	9.3	7.0	5.6	4.2	3.5	2.8	2.1	1.4
8'	40.0	20.0	13.3	10.7	8.0	6.4	4.8	4.0	3.2	2.4	1.6
9'	45.0	22.5	15.0	12.0	9.0	7.2	5.4	4.5	3.6	2.7	1.8
10'	50.0	25.0	16.7	13.3	10.0	8.0	6.0	5.0	4.0	3.0	2.0
12'	60.0	30.0	20.0	16.0	12.0	9.6	7.2	6.0	4.8	3.6	2.4
14'	70.0	35.0	23.3	18.7	14.0	11.2	8.4	7.0	5.6	4.2	2.8
16'	80.0	40.0	26.7	21.3	16.0	12.8	9.6	8.0	6.4	4.8	3.2
18'	90.0	45.0	30.0	24.0	18.0	14.4	10.8	9.0	7.2	5.4	3.6
20'	100.0	50.0	33.3	26.7	20.0	16.0	12.0	10.0	8.0	6.0	4.0
24'	120.0	60.0	40.0	32.0	24.0	19.2	14.4	12.0	9.6	7.2	4.8

STEEL WILL BE USED AS REQUIRED BY THE ENGINEER



PLAN VIEW



SECTION A - A

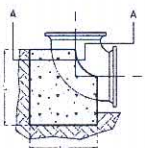
1. BACKER DESIGN FOR 3000 PSI SOIL BEARING
2. CONCRETE TO BE PLACED HORIZONTAL
3. REINFORCEMENT FOR MINIMUM OF 30" DIA.

NO. 1011 REVISION
THRUST BLOCKING FOR TEES
DRAWING NO. W-1
SCALE: NOT TO SCALE
DRAWN: JANUARY 2001 BY: JBS

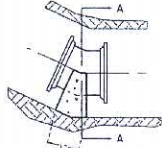
330 W. MONUMENT AVE
DAYTON, OHIO 45402
CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING

SPACING TO BEND											
1"	2"	3"	4"	5"	6"	8"	10"	12"	16"	20"	24"
1'	5.0	2.5	1.7	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.2
2'	10.0	5.0	3.3	2.6	2.0	1.6	1.2	1.0	0.8	0.6	0.4
3'	15.0	7.5	5.0	4.0	3.0	2.4	1.8	1.5	1.2	0.9	0.6
4'	20.0	10.0	6.7	5.3	4.0	3.2	2.4	2.0	1.6	1.2	0.8
5'	25.0	12.5	8.3	6.7	5.0	4.0	3.0	2.5	2.0	1.6	1.0
6'	30.0	15.0	10.0	8.0	6.0	4.8	3.6	3.0	2.4	1.8	1.2
7'	35.0	17.5	11.7	9.3	7.0	5.6	4.2	3.5	2.8	2.1	1.4
8'	40.0	20.0	13.3	10.7	8.0	6.4	4.8	4.0	3.2	2.4	1.6
9'	45.0	22.5	15.0	12.0	9.0	7.2	5.4	4.5	3.6	2.7	1.8
10'	50.0	25.0	16.7	13.3	10.0	8.0	6.0	5.0	4.0	3.0	2.0
12'	60.0	30.0	20.0	16.0	12.0	9.6	7.2	6.0	4.8	3.6	2.4
14'	70.0	35.0	23.3	18.7	14.0	11.2	8.4	7.0	5.6	4.2	2.8
16'	80.0	40.0	26.7	21.3	16.0	12.8	9.6	8.0	6.4	4.8	3.2
18'	90.0	45.0	30.0	24.0	18.0	14.4	10.8	9.0	7.2	5.4	3.6
20'	100.0	50.0	33.3	26.7	20.0	16.0	12.0	10.0	8.0	6.0	4.0
24'	120.0	60.0	40.0	32.0	24.0	19.2	14.4	12.0	9.6	7.2	4.8

STEEL WILL BE USED AS REQUIRED BY THE ENGINEER



90° BENDS



BENDS LESS THAN 90°

NOTE

1. BACKER DESIGN FOR 3000 PSI SOIL BEARING
2. CONCRETE TO BE PLACED HORIZONTAL
3. REINFORCEMENT FOR MINIMUM OF 30" DIA.



SECTION A - A

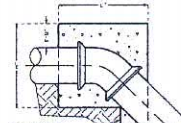
NO. 1011 REVISION
THRUST BLOCKING FOR BENDS
DRAWING NO. W-2
SCALE: NOT TO SCALE
DRAWN: JANUARY 2001 BY: JBS

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DAYTON, OHIO 45402
CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING

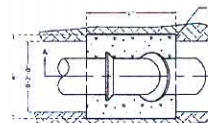
SPACING TO BEND											
1"	2"	3"	4"	5"	6"	8"	10"	12"	16"	20"	24"
1'	5.0	2.5	1.7	1.3	1.0	0.8	0.6	0.5	0.4	0.3	0.2
2'	10.0	5.0	3.3	2.6	2.0	1.6	1.2	1.0	0.8	0.6	0.4
3'	15.0	7.5	5.0	4.0	3.0	2.4	1.8	1.5	1.2	0.9	0.6
4'	20.0	10.0	6.7	5.3	4.0	3.2	2.4	2.0	1.6	1.2	0.8
5'	25.0	12.5	8.3	6.7	5.0	4.0	3.0	2.5	2.0	1.6	1.0
6'	30.0	15.0	10.0	8.0	6.0	4.8	3.6	3.0	2.4	1.8	1.2
7'	35.0	17.5	11.7	9.3	7.0	5.6	4.2	3.5	2.8	2.1	1.4
8'	40.0	20.0	13.3	10.7	8.0	6.4	4.8	4.0	3.2	2.4	1.6
9'	45.0	22.5	15.0	12.0	9.0	7.2	5.4	4.5	3.6	2.7	1.8
10'	50.0	25.0	16.7	13.3	10.0	8.0	6.0	5.0	4.0	3.0	2.0
12'	60.0	30.0	20.0	16.0	12.0	9.6	7.2	6.0	4.8	3.6	2.4
14'	70.0	35.0	23.3	18.7	14.0	11.2	8.4	7.0	5.6	4.2	2.8
16'	80.0	40.0	26.7	21.3	16.0	12.8	9.6	8.0	6.4	4.8	3.2
18'	90.0	45.0	30.0	24.0	18.0	14.4	10.8	9.0	7.2	5.4	3.6
20'	100.0	50.0	33.3	26.7	20.0	16.0	12.0	10.0	8.0	6.0	4.0
24'	120.0	60.0	40.0	32.0	24.0	19.2	14.4	12.0	9.6	7.2	4.8

NOTE

1. VOLUMES GIVEN IN CUBIC FEET
2. BACKER TO BE CENTERED HORIZONTAL ON BEND
3. STEEL WILL BE USED AS REQUIRED BY ENGINEER



SECTION A - A

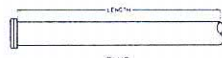


BENDS LESS THAN 90°

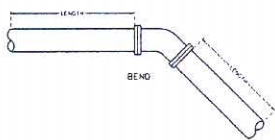
NO. 1011 REVISION
THRUST BLOCKING FOR OVER VERTICAL BENDS (ONLY)
DRAWING NO. W-3
SCALE: NOT TO SCALE
DRAWN: JANUARY 2001 BY: JBS

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CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING

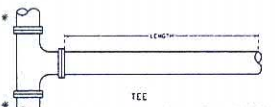
1"	2"	3"	4"	5"	6"	8"	10"	12"	16"	LARGER THAN 30"
194"	2"	3"	4"	5"	6"	8"	10"	12"	16"	CONSULT
227"	5"	7"	9"	11"	13"	16"	20"	25"	33"	WATER
45"	10"	14"	19"	25"	33"	44"	55"	66"	98"	ENGINEERING
90"	24"	33"	44"	55"	66"	98"	120"	150"	198"	FOR
TEE										RESTRAINED
PLUG										LENGTHS



PLUG



BEND

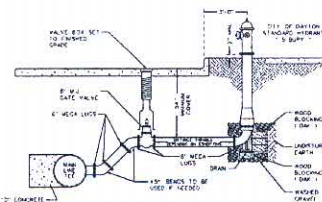


TEE

* RESTRAIN 1 FULL LENGTH EACH DIRECTION

NO. 1011 REVISION
RESTRAIN JOINT LENGTHS FOR WATER MAINS
DRAWING NO. W-4
SCALE: NOT TO SCALE
DRAWN: JANUARY 2001 BY: JBS

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DAYTON, OHIO 45402
CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING



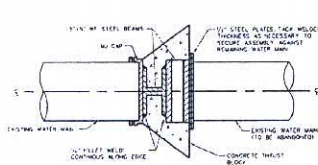
TYPICAL FIRE HYDRANT DETAIL
NO SCALE

NOTES

1. 6" BRANCH LINE TO BE RESTRAINED FULL LENGTH
2. CONCRETE THRUST BLOCK TO BE INSTALLED AT 90° TO THE TEE
3. WOOD TOMB THRUST BLOCK TO BE INSTALLED BEHIND PILE OF FIRE HYDRANT
4. WOODS GRAVEL 12" OR LARGER TO BE PUT AROUND DRAIN OF FIRE HYDRANT
5. FOR DEPTH GREATER THAN 34" WOODEN CIDER TO THE TOP OF FIRE HYDRANT BRANCH, IF BENDER AND FITTING SHALL BE USED TO BEND THE BRANCH TO THE EXISTING DRAIN, NOT BE REQUIRED
6. RESTRAIN MAIN RUN ON THE TEE, ONE FULL LENGTH EACH DIRECTION
7. PAINT HYDRANT ABOVE GRADE WITH RED ENAMEL YELLOW OR POSTLUMINOUS YELLOW PINK

NO. 1011 REVISION
FIRE HYDRANT
DRAWING NO. W-5
SCALE: NOT TO SCALE
DRAWN: JANUARY 2001 BY: JBS

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DAYTON, OHIO 45402
CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING



NO. 1011 REVISION
WATER MAIN CUT & PLUG
DRAWING NO. W-6
SCALE: NOT TO SCALE
DRAWN: MAY 2003 BY: JBS

330 W. MONUMENT AVE
DAYTON, OHIO 45402
CITY OF DAYTON
DEPARTMENT OF WATER
DIVISION OF WATER ENGINEERING

Revisions:
Issue Date:

**OLDE TOWN WATER MAIN
IMPROVEMENTS
PHASE 1 A**

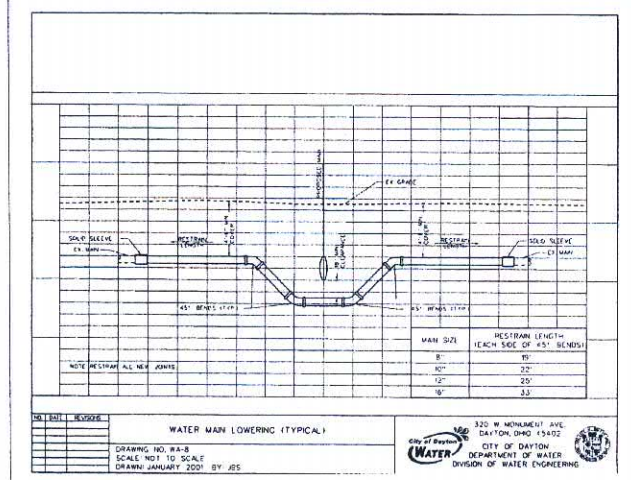
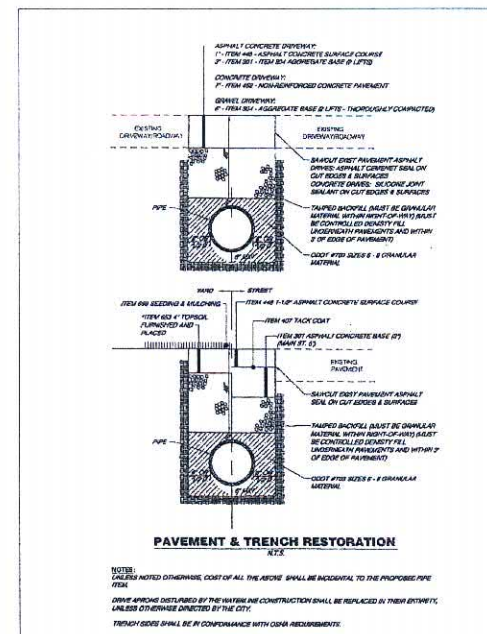
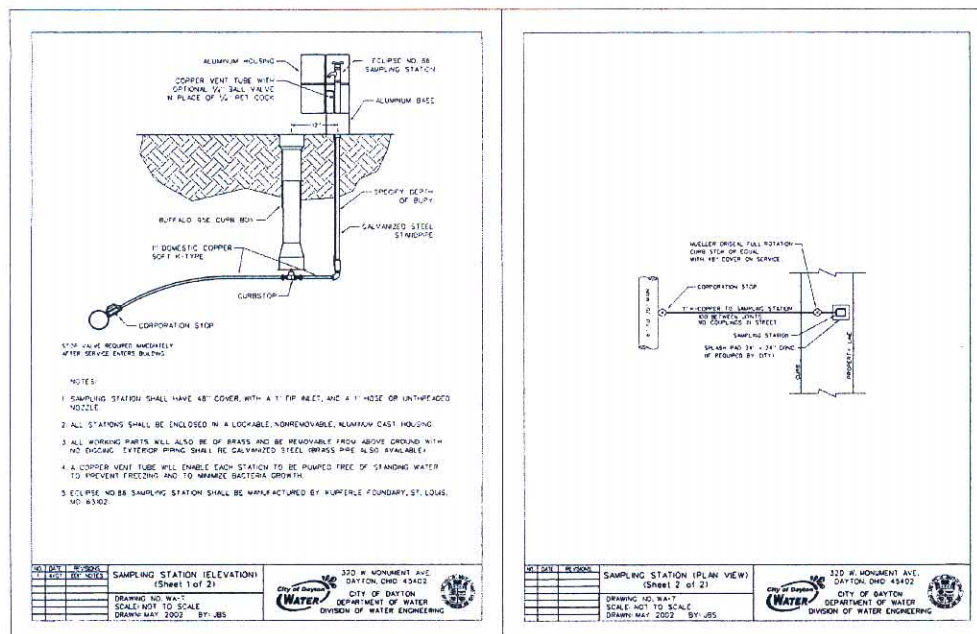
City Of Trotwood, Ohio

DETAILS

Project No.

15057

17



Revisions:
Issue Date:

OLDE TOWN WATER MAIN IMPROVEMENTS PHASE I A

City Of Trotwood, Ohio

DETAILS

Project No.

15057

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