



# **PORT CLINTON'S GIS: A DISTRIBUTION FOREMAN'S**

**OTCO Water Distribution Workshop  
Tuesday, December 10, 2015  
Holiday Inn Worthington, Ohio**

**Eric Petersen – Water Distribution Foreman**



## CITY OF PORT CLINTON, OH

1868 E. Perry Street  
Port Clinton, OH 43452

Ph. 419-734-5522  
Fx. 419-734-1043

- Where the heck is Port Clinton?

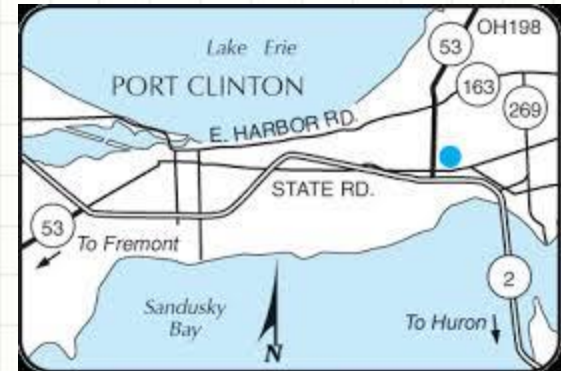


**JET EXPRESS**



# City of Port Clinton Ohio

- Not a wealthy community
  - 2012 Census
    - 6,047: population
    - Average age: 41.5 years
    - Average household income: \$39,716
    - Average home price: \$108,860
    - Average rent: \$697.
- Budget limitation as other cities.



# The Foreman's Story

- September 2005 semiskilled laborer in the Cemetery Department
  - Meaning all duties assigned!



- During that time the administration was looking to create a Service Department



## The Foreman's Story

- 2007-2008 obtained Ohio EPA Water Distribution I & II Certification



- June 2009-2014 Service Department Supervisor
- 2014-Present: Mayor brought on an additional on an additional Supervisor. Saw the importance of G.I.S. Reassigned duties & responsibilities.
- Currently Water Distribution Foreman and GIS technician

# The Foreman's Story

- Official title is Water Distribution Foreman
  - Capital Improvements/ Inspector, water sewer projects
  - Water compliance, sampling, testing
  - Meter system upgrades
  - Implementation of Backflow prevention program
  - Fire Hydrant Maintenance/replacement

# Objective

Show you how a regular worker can not only learn how to spell GIS, but can actually start implementation of a GIS program for his City.



# Water Department

1895 Water Treatment Plant Constructed

1999 Closed the 1895 Water Treatment Plant and began purchasing water from Ottawa County

Allowed To Purchase 1.5 MGD From Ottawa County

- 3157 Service Connections
- 26 Miles of Distribution
- Operating Budget \$1.9 million/year



# Where Is My Office



# 2009 Map Room



# 2009 Map Room





# 2009 Map Room





# 2010 Map Room



# 2010 Map Room



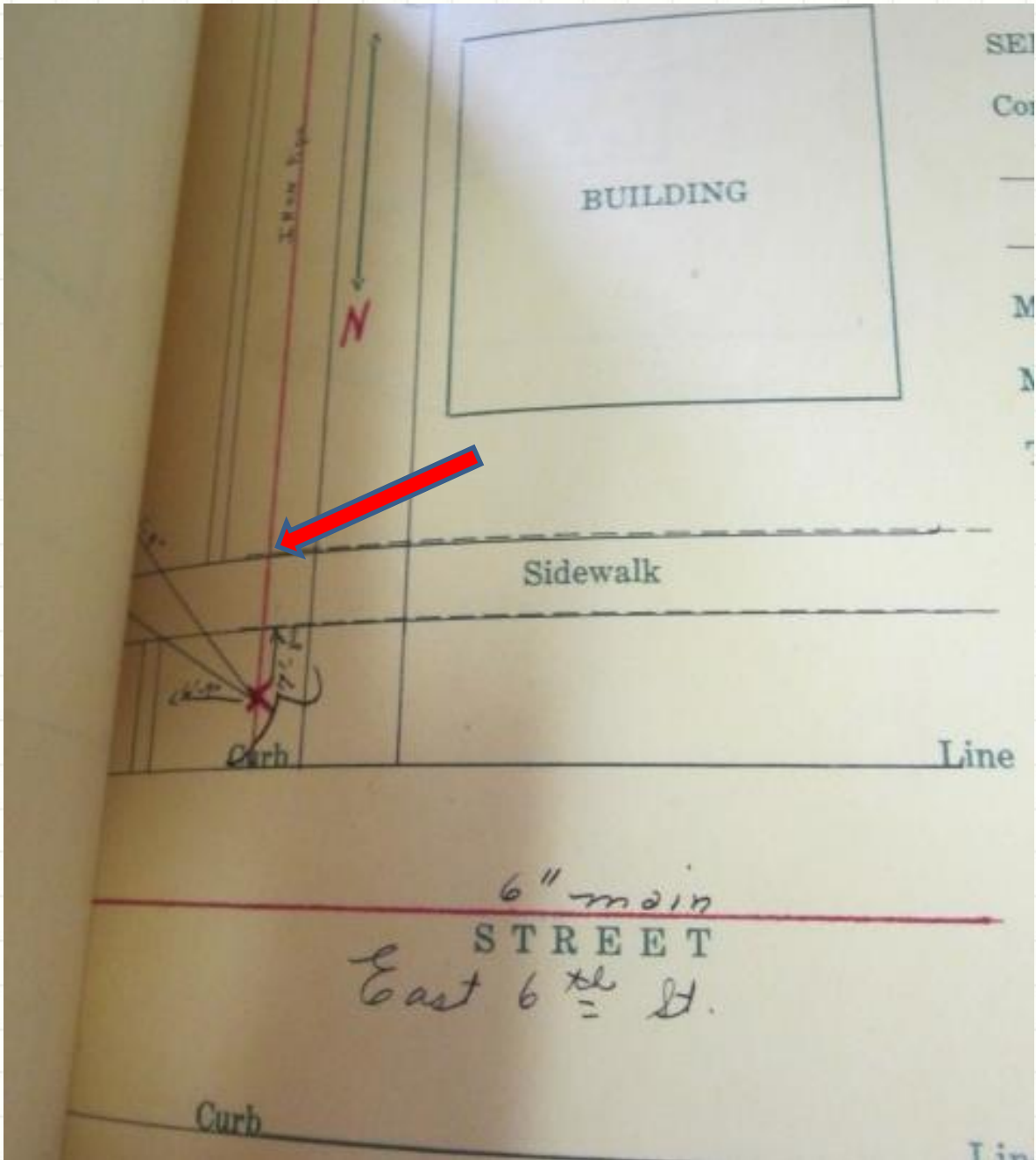


**IRON LINE  
1948**







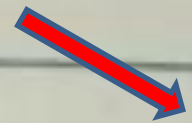


\_\_\_\_\_ in. copper pipe, Main to curb cock

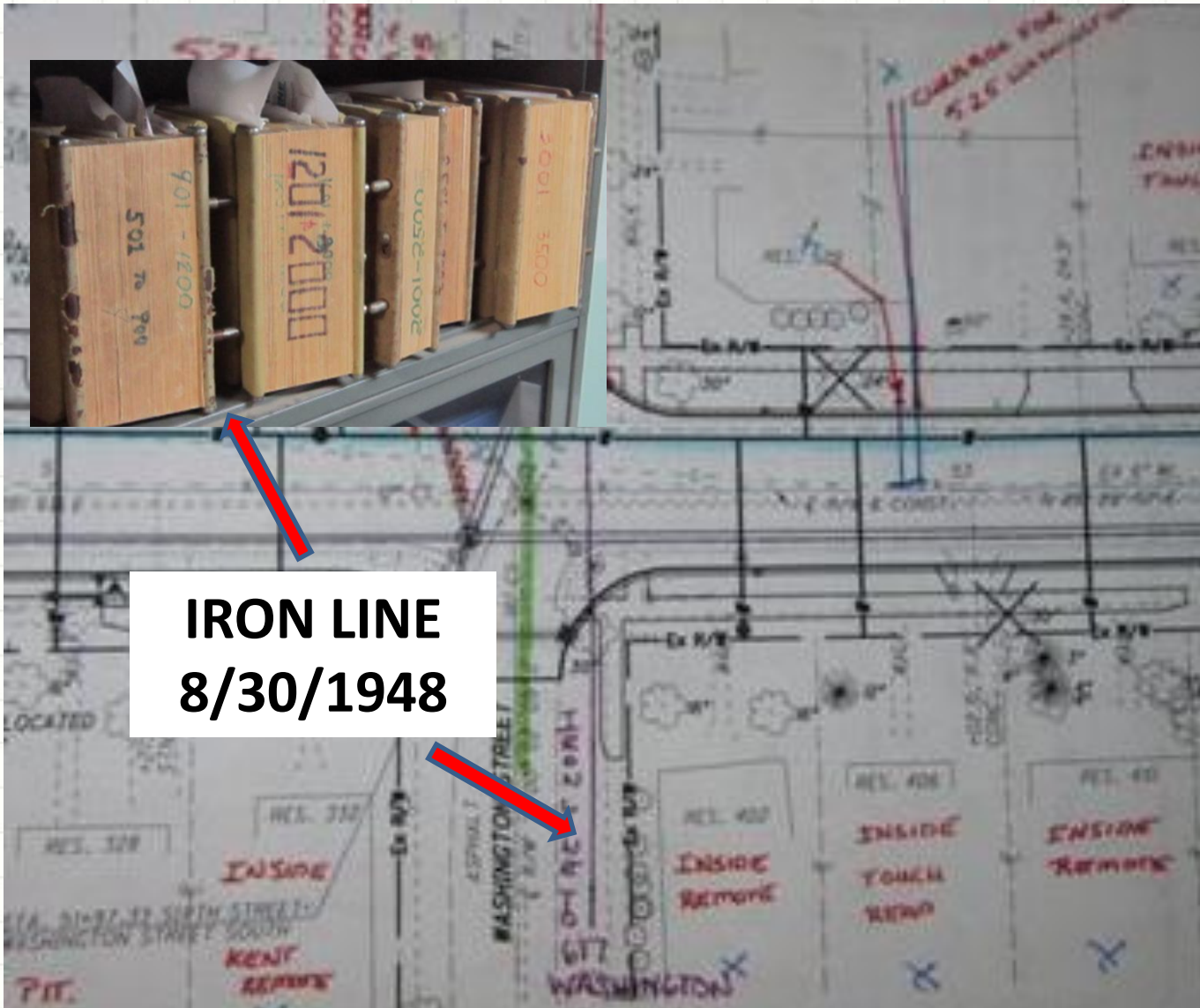
\_\_\_\_\_ in. copper pipe, Curb cock to meter

Date installed \_\_\_\_\_

Size 5/8 Serial No. 8104559 8/20/48



# Preliminary Drawings



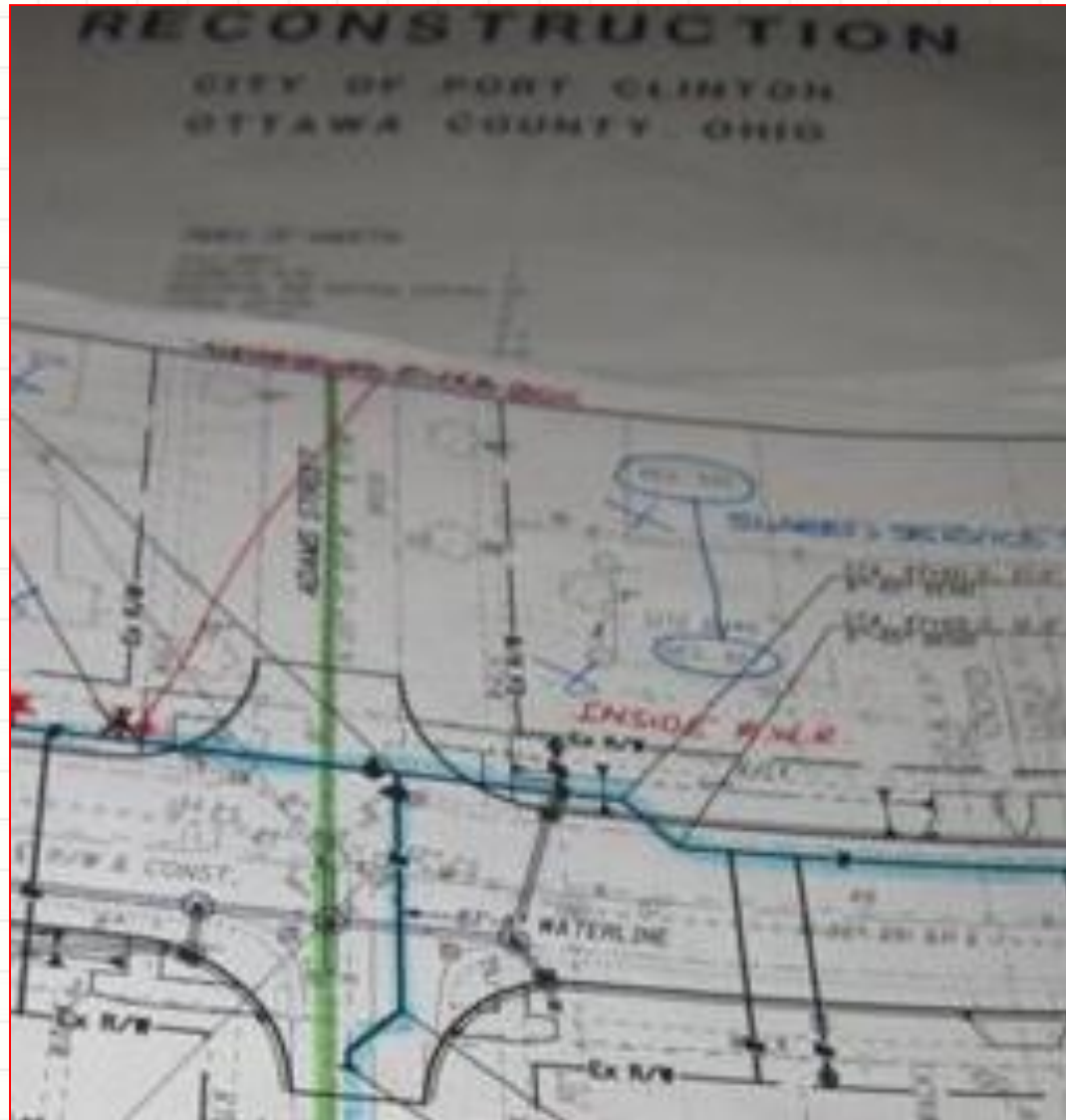
**IRON LINE  
8/30/1948**

# Preliminary Drawings

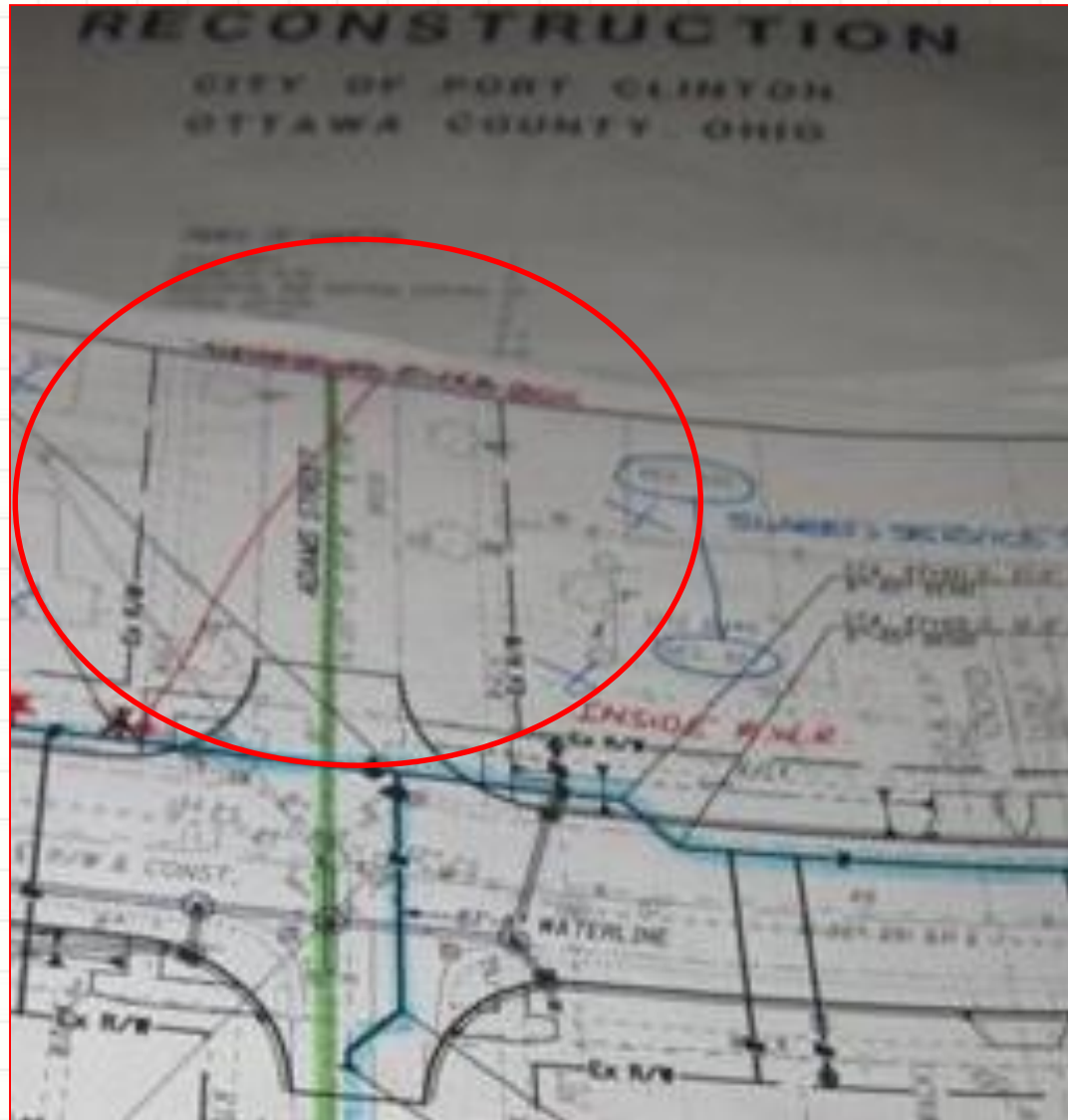




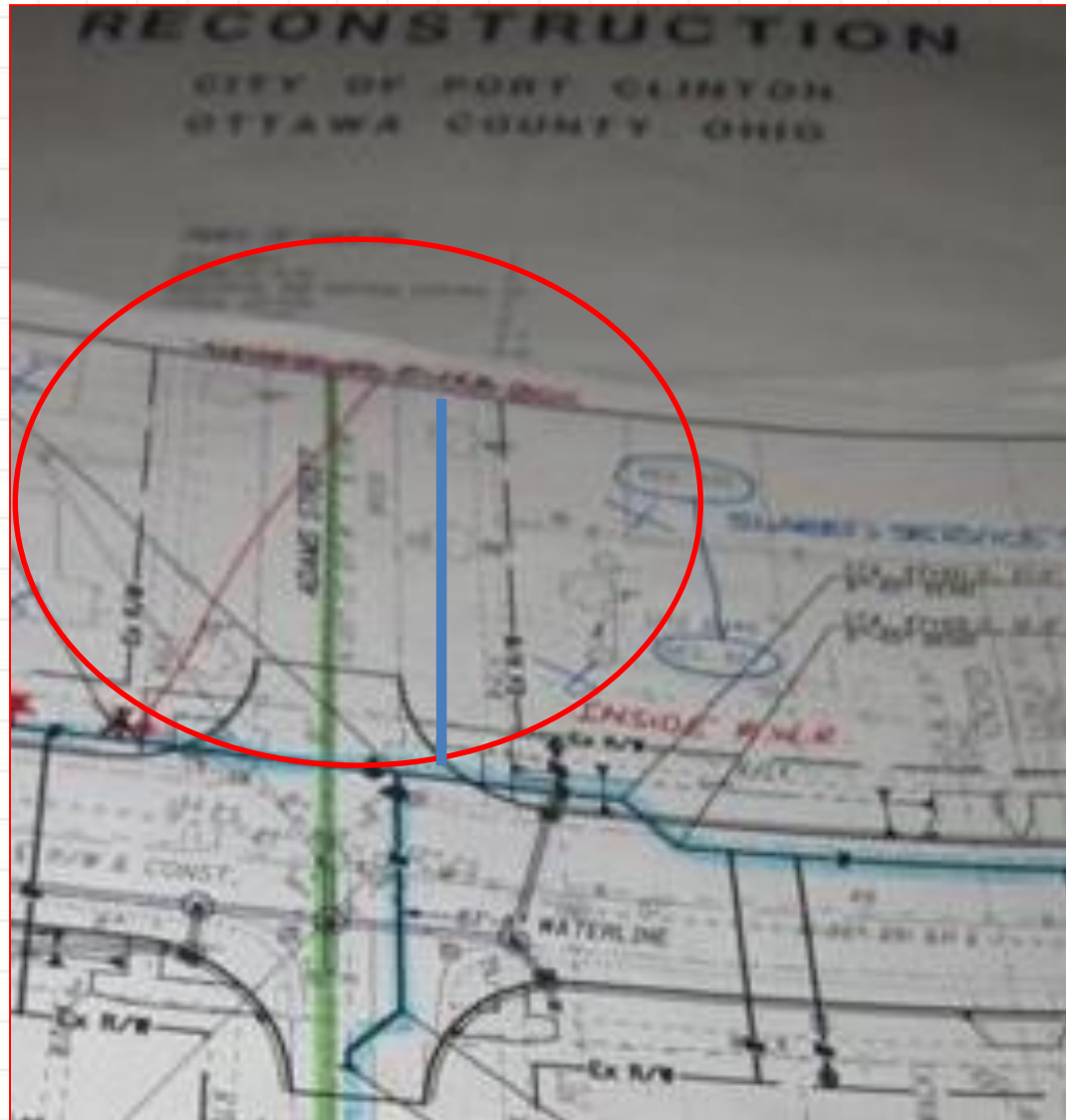
# Preliminary Drawings



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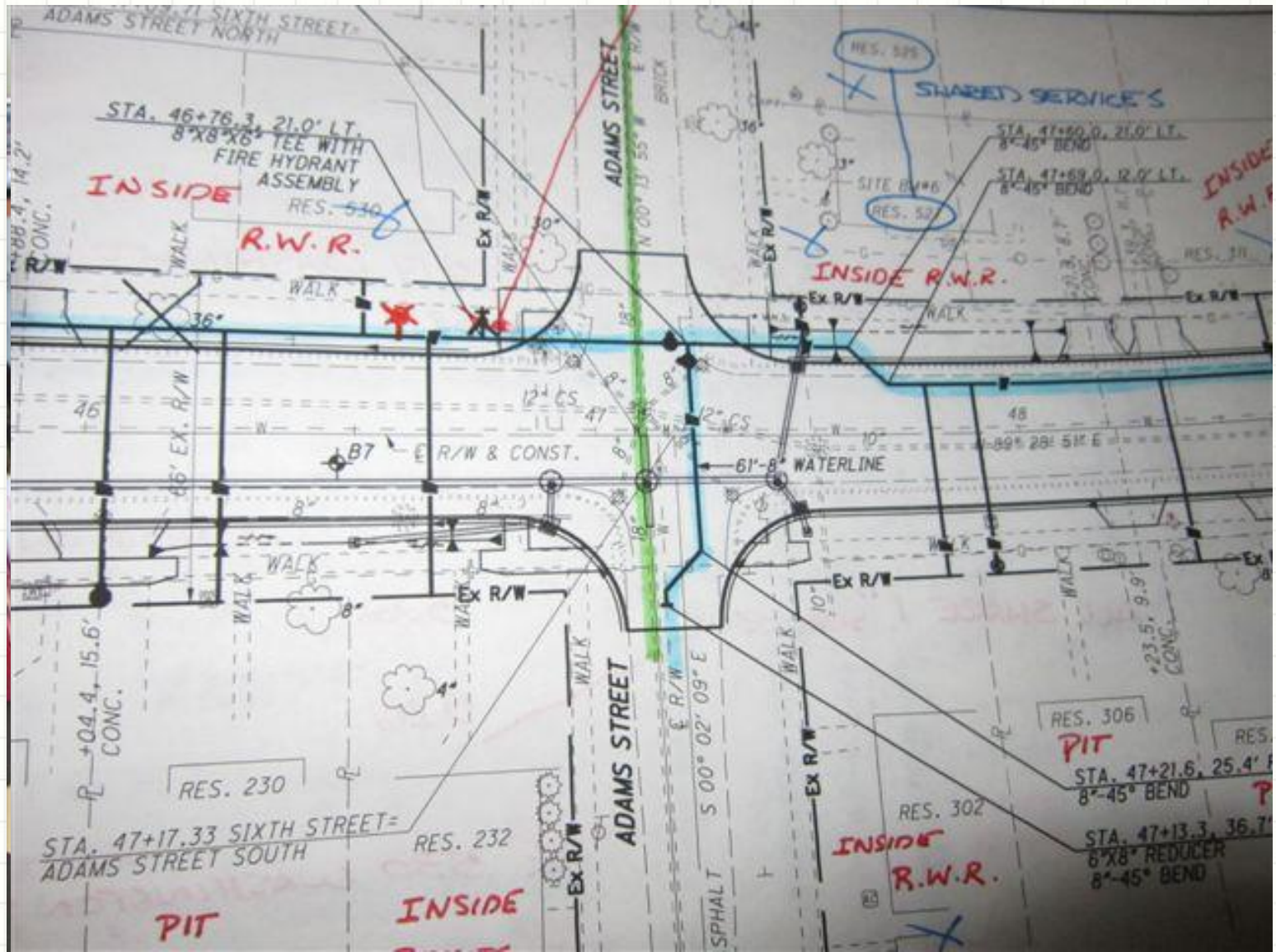


# Preliminary Drawings





# Preliminary Drawings





# DURING THE 2012 OTCO Water Distribution Workshop



**GOT AN IDEA!**

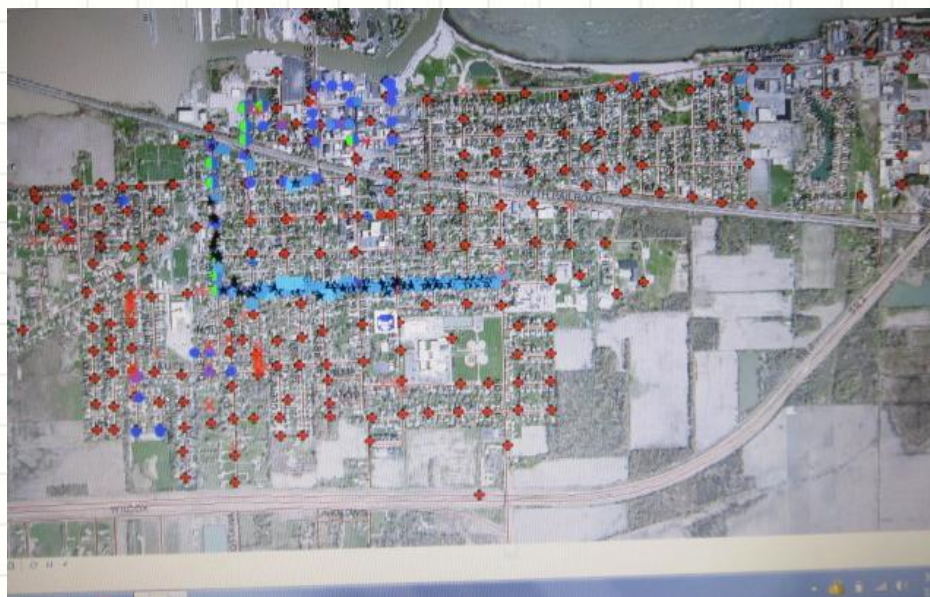
# TRANSFER



&



TO



# CONVINCE MY



## Training

Knowledge, skills, and abilities. It for...  
nter



# TRAINING VIA INTERNET



*VIA 'GO TO MEETINGS'*

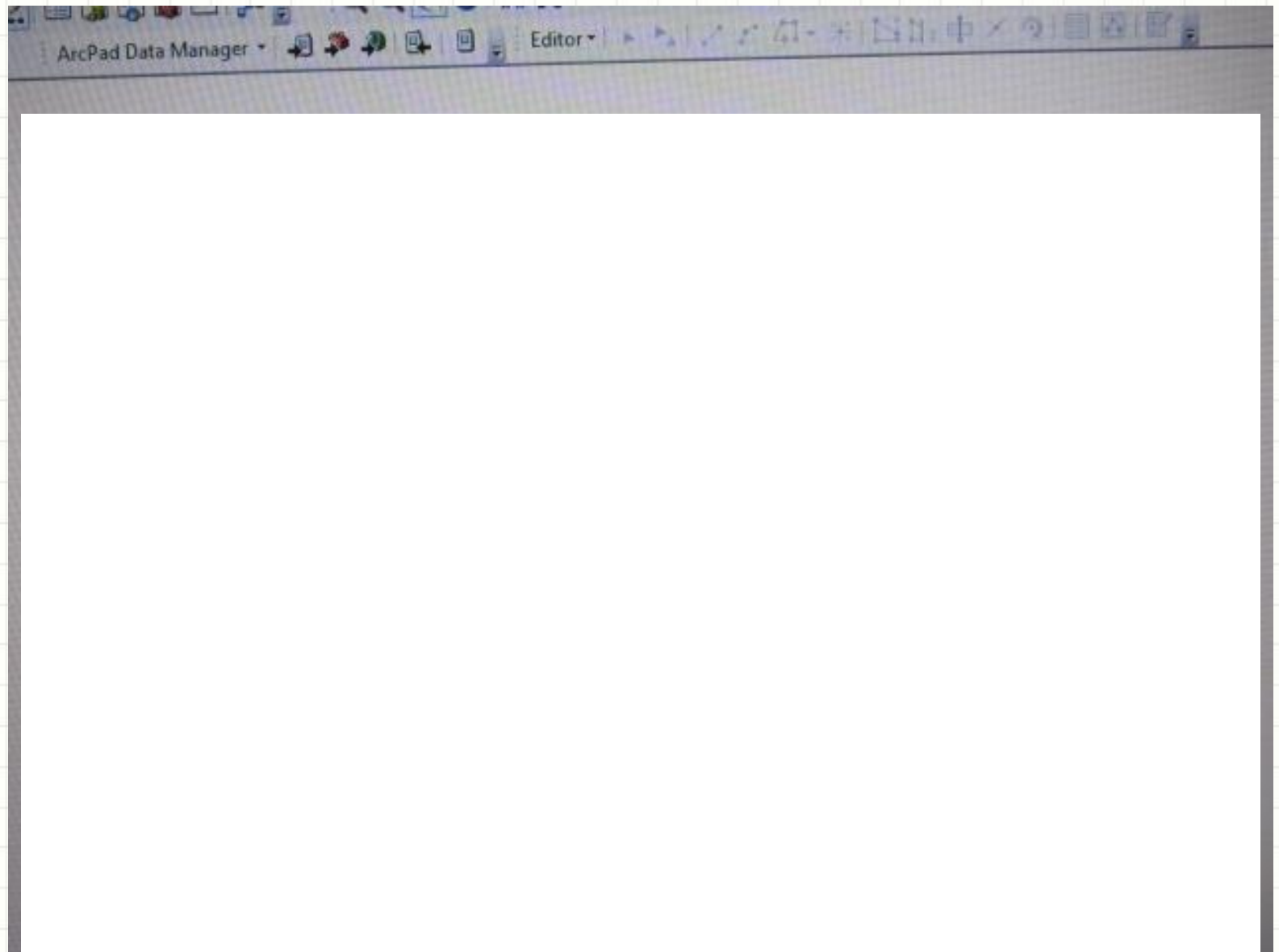


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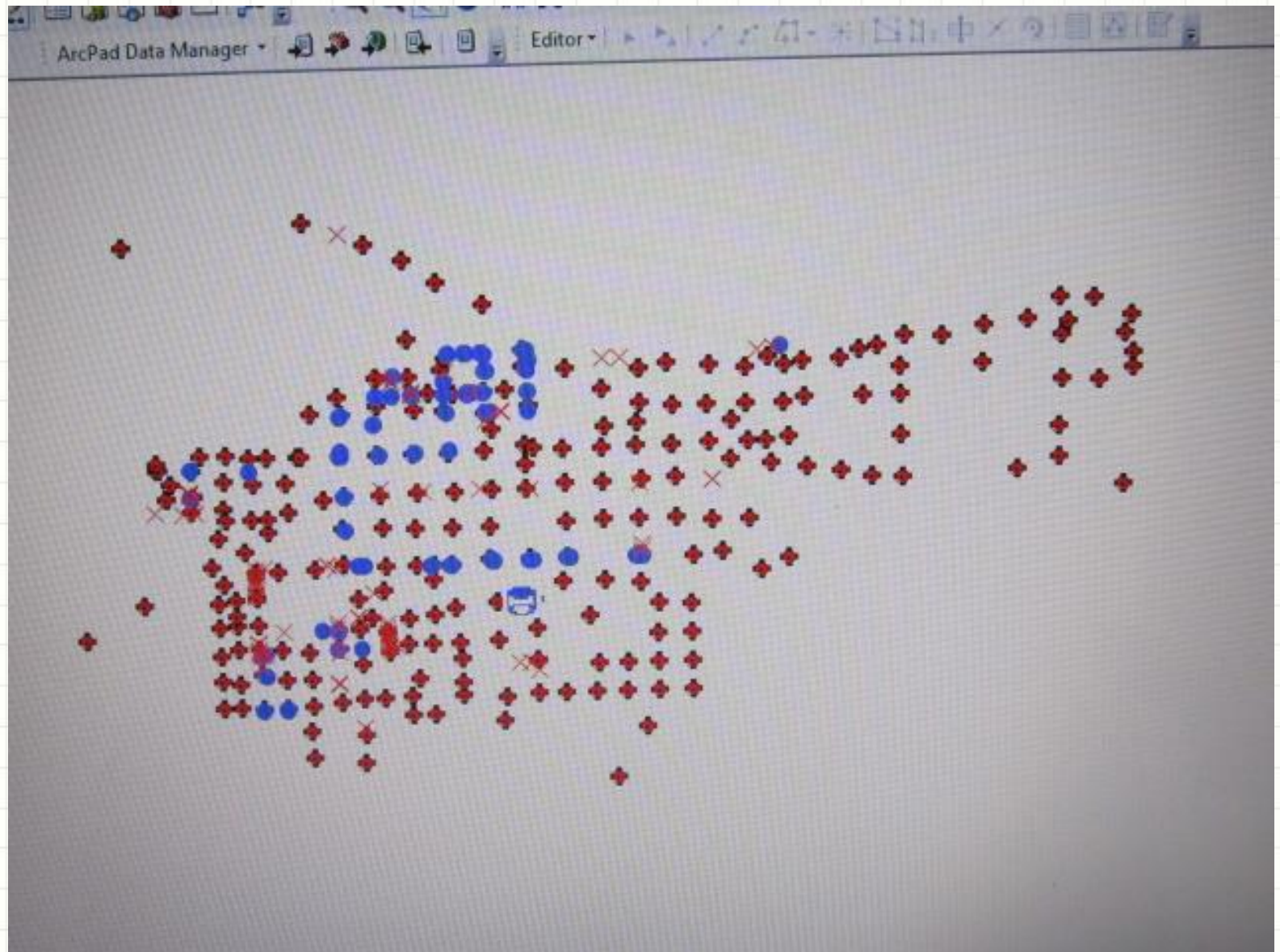


*VIA 'GO TO MEETINGS'*

# INITIAL TRAINING RESULTS



# DIGITIZED FIRE HYDRANTS



Seeing   
is Believing

THE MAYOR/SSD SAID.....





**BUT HOW  
MUCH?**

**INITIAL TRAINING**

**BUT HOW  
MUCH?**

**INITIAL TRAINING**

**\$0**



# GET THE EQUIPMENT !



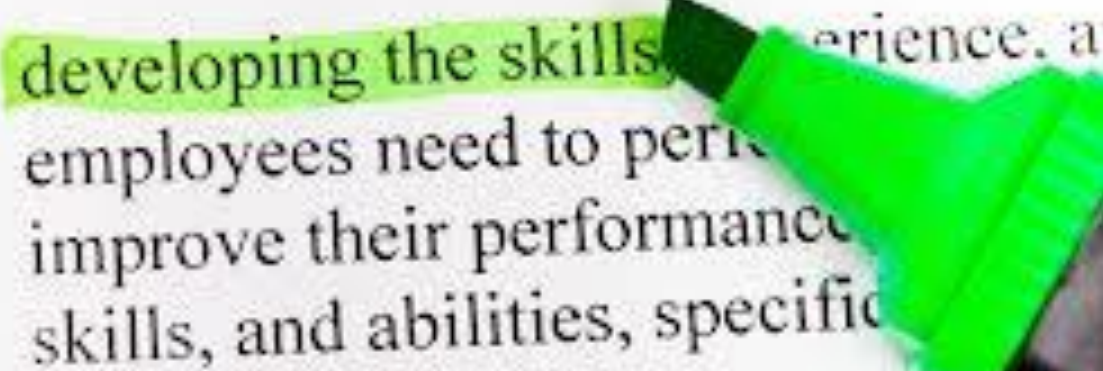




# MORE

## Training

developing the skills, experience, and  
employees need to perform  
improve their performance  
skills, and abilities, specific

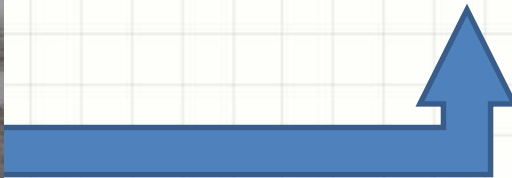
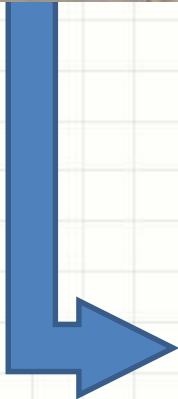


# ON-LINE, IN THE FIELD, & SCHOOL OF HARD KNOCKS

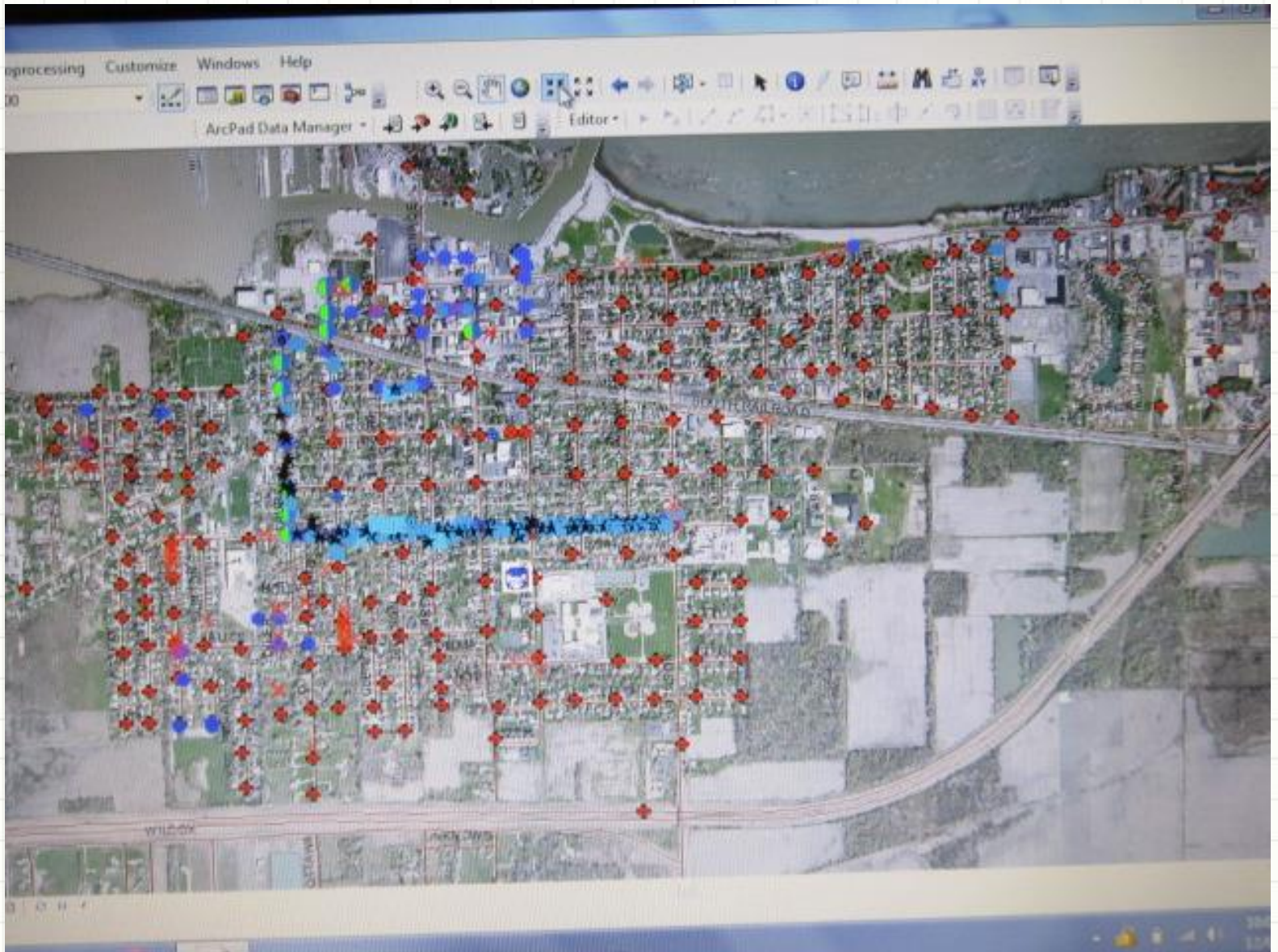




**LEARN**

A black computer mouse with a cord is positioned on a white reflective surface below the word "LEARN".







# HOW MANY HOURS OF



INITIALLY

# HOW MANY HOURS OF



# 120 HOURS

**BUT HOW  
MUCH?**

**FOR THE EQUIPMENT  
AND  
SOFTWARE**

**BUT HOW  
MUCH?**

**FOR THE EQUIPMENT  
AND  
SOFTWARE**

**\$20,330**

**(INCLUDED SET-UP AND  
FIELD TRAINING FROM COMPANY REP)**



## FIELD EQUIPMENT

- 1) GEO XH Survey Grade Sub-Foot Handheld
- 2) 2 year Warrently
- 3) Trimble Arcpad Version 6.0.0
- 4) GPS Corrects Ext ESRI Arcpad Software
- 5) Zephyr Model Antenna
- 6) Pole with Cable \$10,495

## SOFTWARE

- 1) Arc GIS Advance Desktop (Arc Info) \$7,295
- 2) Arc Publisher \$2,040

## OTHER

- 1) Laptop Computer \$500

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**TOTAL\$      \$20,330**

\$10,495



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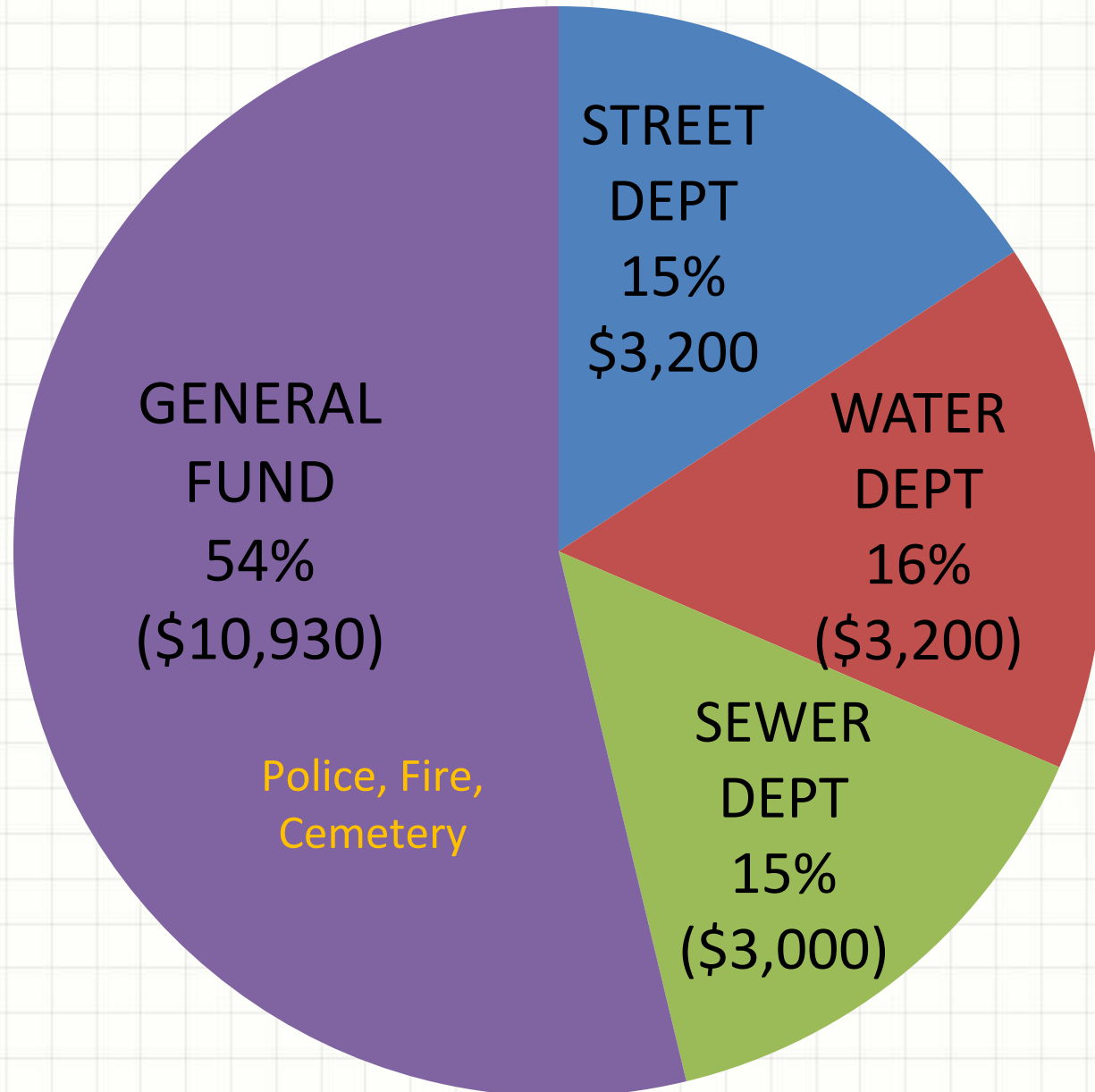
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**TOTAL\$      \$20,330**



\$500

# Shared Expense

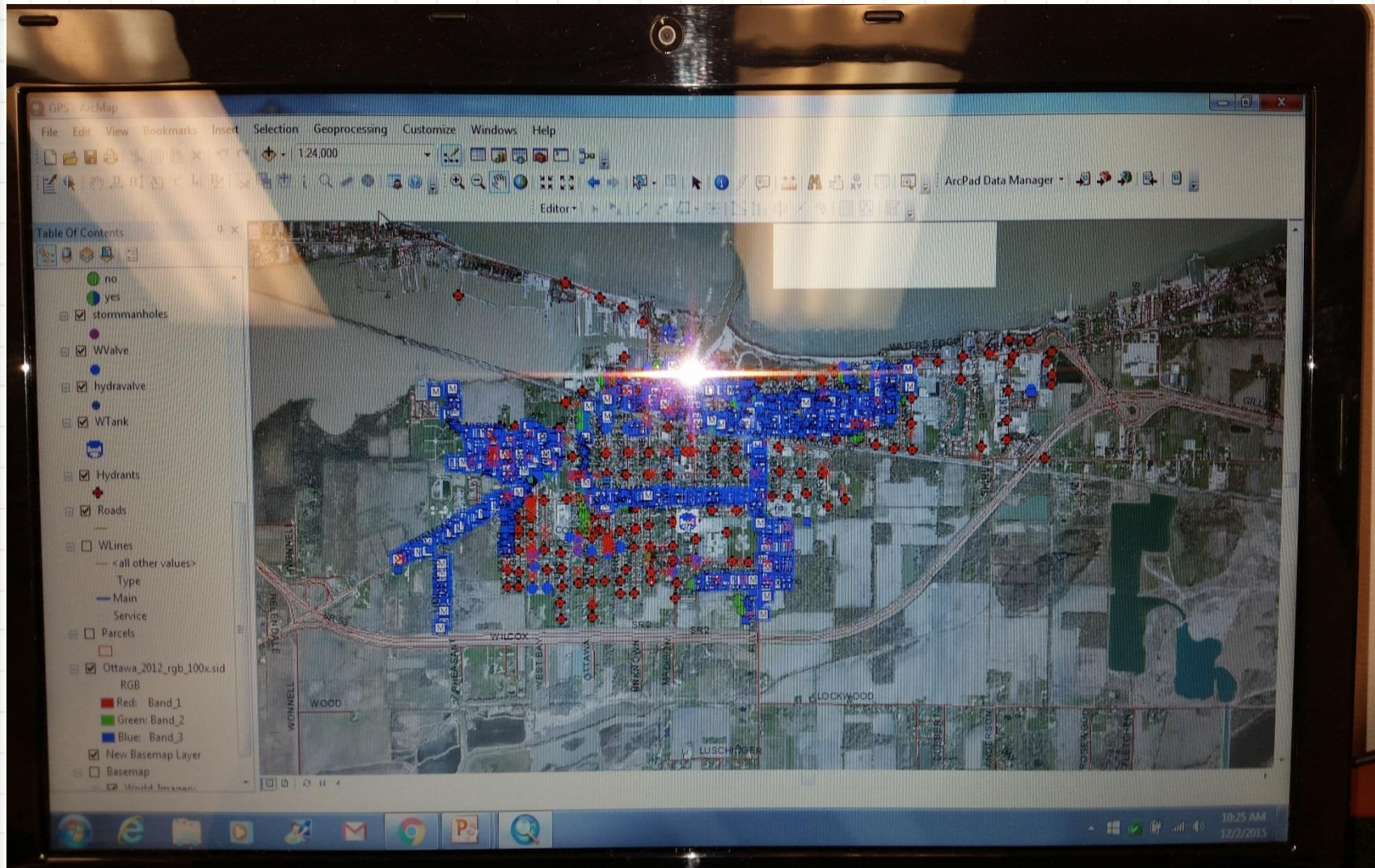


# WAS IT SUCCESSFUL?





# YES....even a Novice Can Use It!



# HOW ACCURATE IS THE DATA?

- CITY OF PORT CLINTON'S DATA HAS A 4" ACCURACY
- HOW IMPORTANT IS ACCURACY.....?



# Navigate Back to Assets

Where Is That Valve?.....



Nav 0.87m 5

Target: 2 Road Sign Options

Dist: 5.25 m Bear: 103° (T)

Turn: 14° Head: 84° (T)



# What tool would you use?



# What direction to go next?

- City will continue to finish collecting local assets, i.e. valves, curbbox locations sewer and storm manholes.
- Publishing data for residents/nonresidents by expanding the capability of the City's website. For example: zoning maps, voting results, council wards, leaf pick up data to name a few
- Sharing City data with Ottawa County.
- Expanding to Arc GIS On-Line so other departments fire, water, sewer dept can use data collected

