


**CITY OF HUDSON**

**SANITARY SEWER EVALUATION  
AND MODELING REPORT**

**PRESENTATION TO CITY COUNCIL**

BY CTI ENGINEERS, INC.

 OCTOBER 7, 2014

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**Presented by:**



David Kohlmeier, P.E.  
Project Manager



Todd Taylor, P.E.  
Project Engineer



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**COMPREHENSIVE WATER  
MANAGEMENT  
CONSULTING**

TOTAL IN-HOUSE PLANNING, ENGINEERING,  
DESIGN, CONSTRUCTION ADMINISTRATION,  
AND PLANT OPERATIONS SERVICES RELATED  
TO WATER AND WASTEWATER SYSTEMS.

- ENVIRONMENTAL CONSULTING ENGINEERS
- OFFICES IN OHIO, TENNESSEE, & GEORGIA
- EMPLOYEE OWNED
- LICENSED ENGINEERS, TECHNICIANS & OPERATORS



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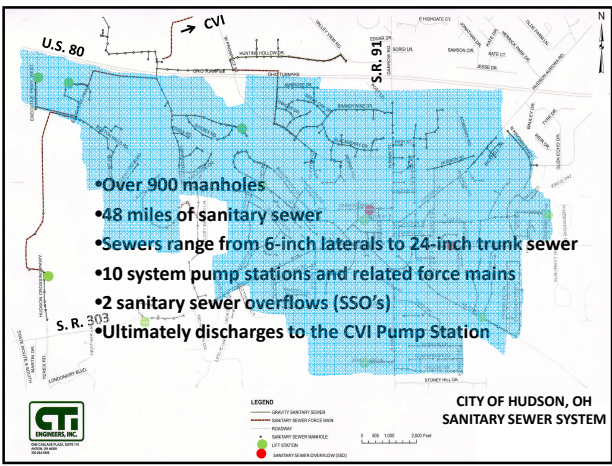
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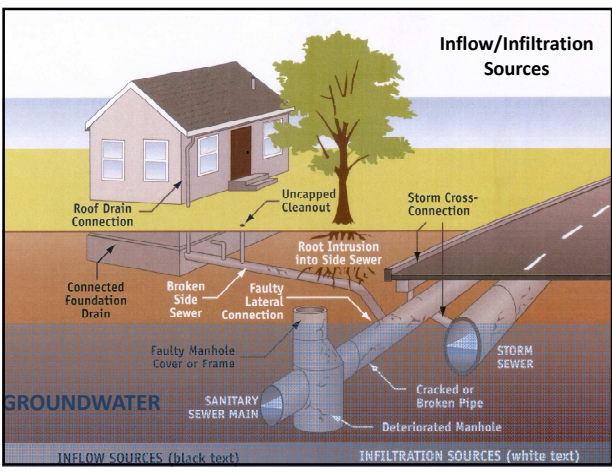
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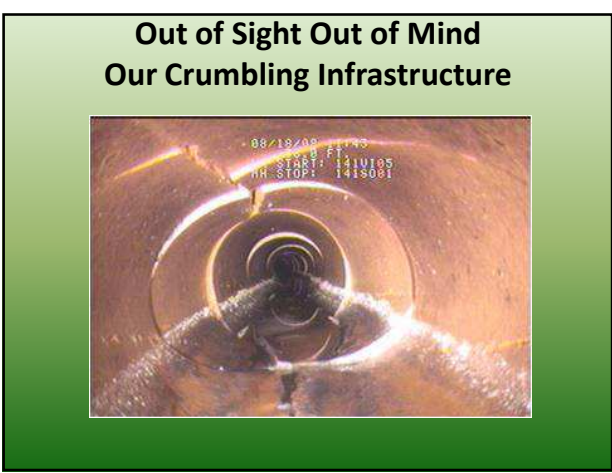
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### Sanitary Sewer Overflow (SSO)



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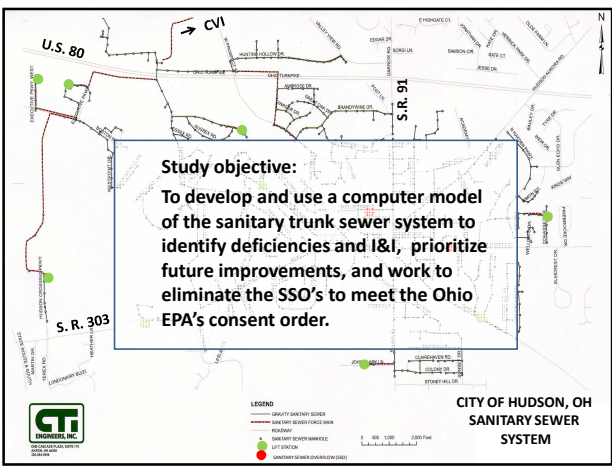
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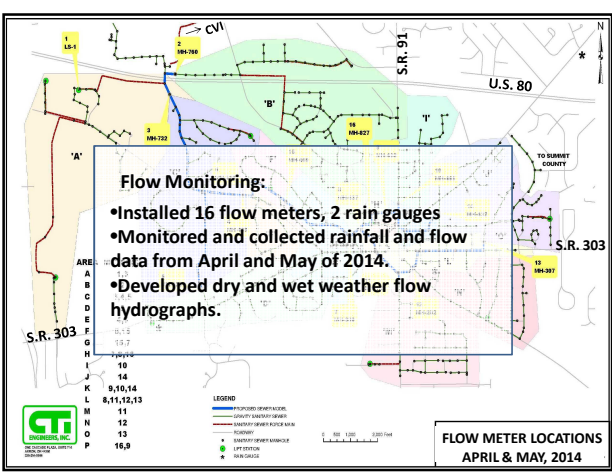
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**HUDSON SANITARY TRUNK SEWER  
MODEL AND SUB-AREAS**

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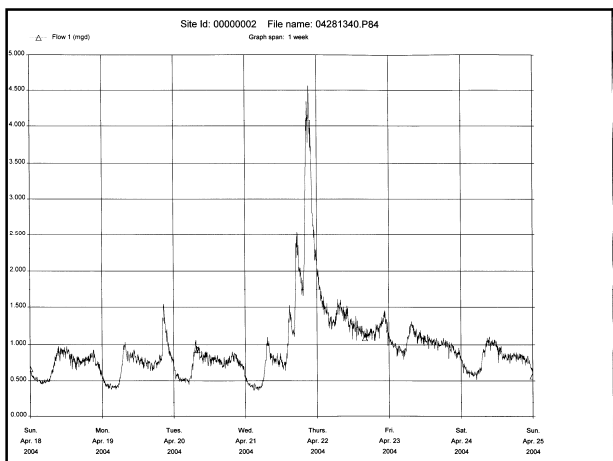
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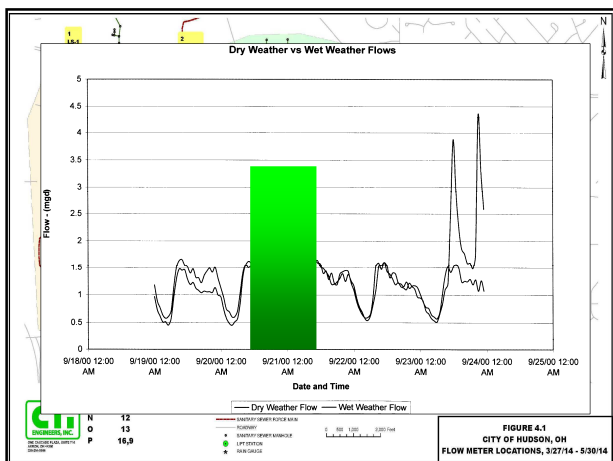
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**WHAT IS A COMPUTER MODEL?**

**A COMPUTERIZED SIMULATION OF YOUR SEWER COLLECTION SYSTEM THAT MIMICS THE HYDRAULIC CHARACTERISTICS OF THE ACTUAL SEWER SYSTEM.**

**LEGEND**  
 - QUALITY SANITARY SEWER  
 - SANITARY SEWER FORCE MAIN  
 - ROADWAY  
 - SANITARY SEWER MANHOLE  
 - LIFT STATION

**CITY OF HUDSON, OH  
 SANITARY SEWER  
 SYSTEM**

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**WHY MODEL?**

- DETERMINE SYSTEM CAPACITY
- IDENTIFY SYSTEM DEFICIENCIES
- PRIORITIZE & DESIGN IMPROVEMENTS TO CORRECT DEFICIENCIES

**LEGEND**  
 - SEWER MODEL  
 - QUALITY SANITARY SEWER  
 - SANITARY SEWER FORCE MAIN  
 - ROADWAY  
 - SANITARY SEWER MANHOLE  
 - LIFT STATION

**CITY OF HUDSON, OH  
 SANITARY SEWER  
 SYSTEM**

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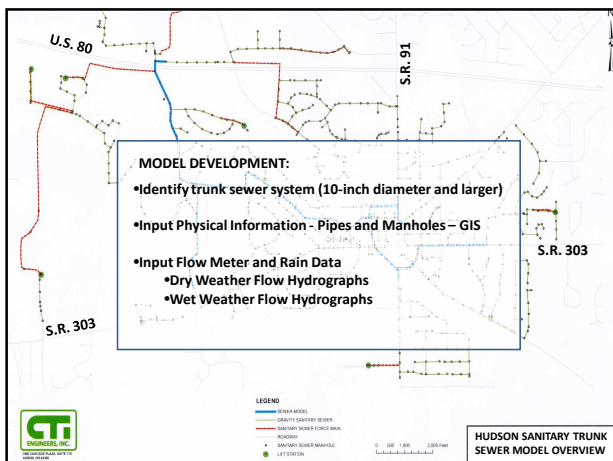
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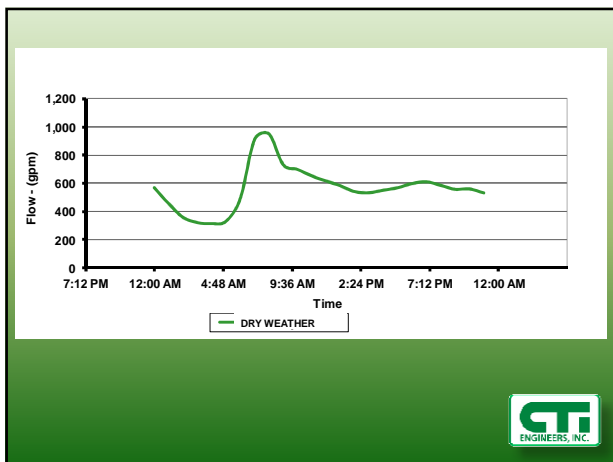
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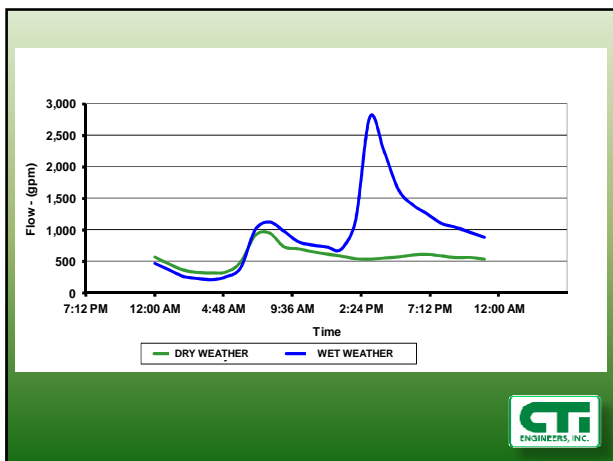
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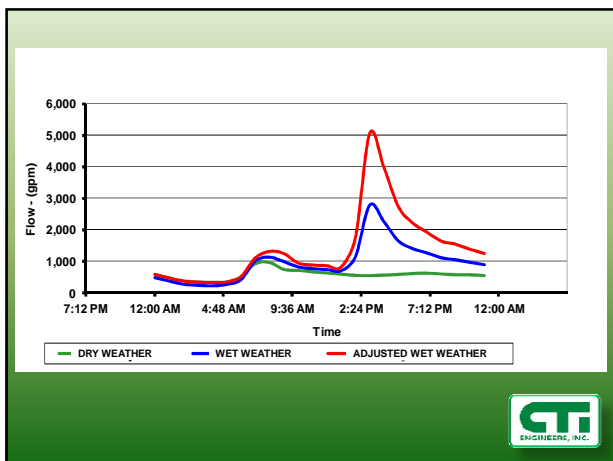
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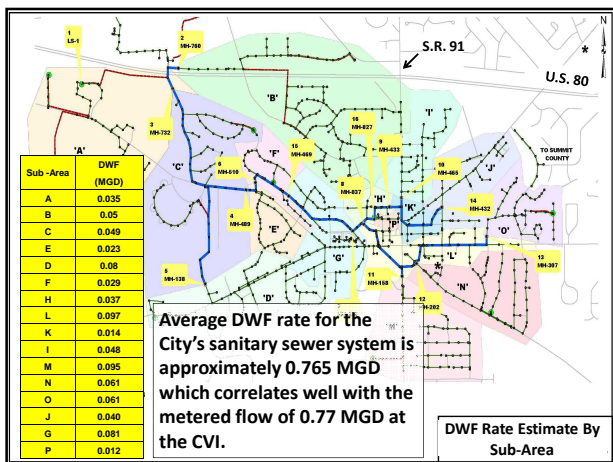
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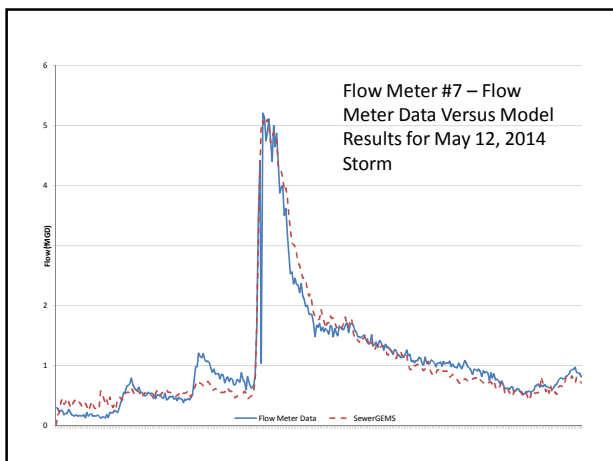
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**City of Hudson, OH May 12, 2014 – Rainfall Event  
Actual Versus Model-Reported SSO Volumes (Gallons)**

Location	Actual	Model
MH - 264	3,000	2,700
MH - 430	116,000	105,000




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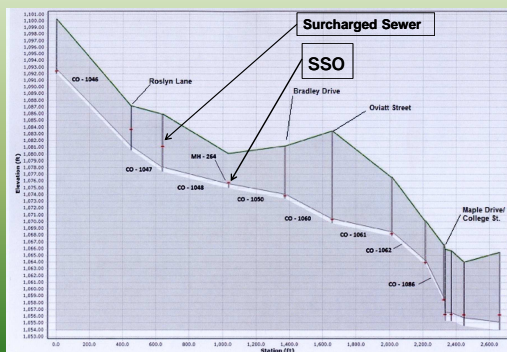
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**E. Streetsboro SSO  
(May 12, 2014 Model Results)**

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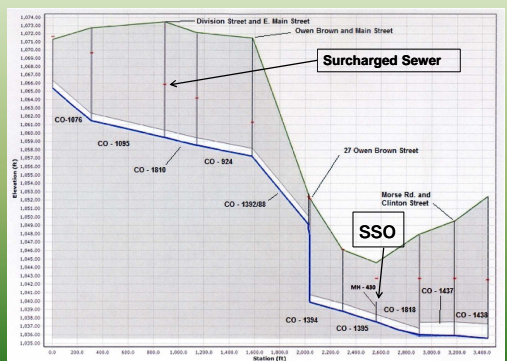
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**Owen Brown SSO  
(May 12, 2014 Model Results)**

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# Owen Brown SSO (May 12, 2014 Model Results)




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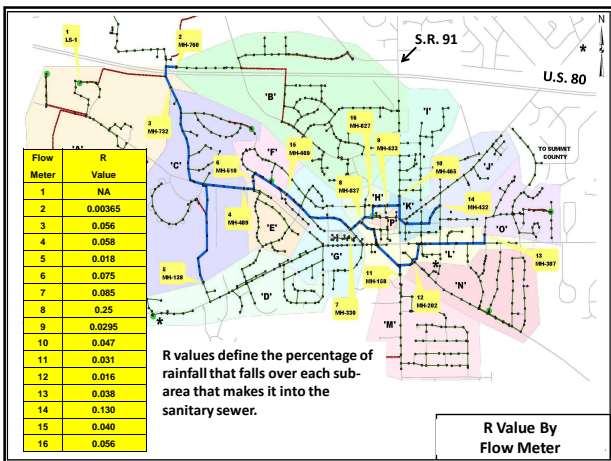
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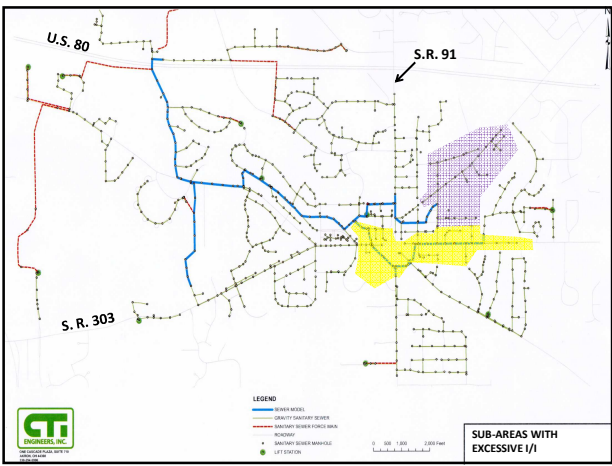
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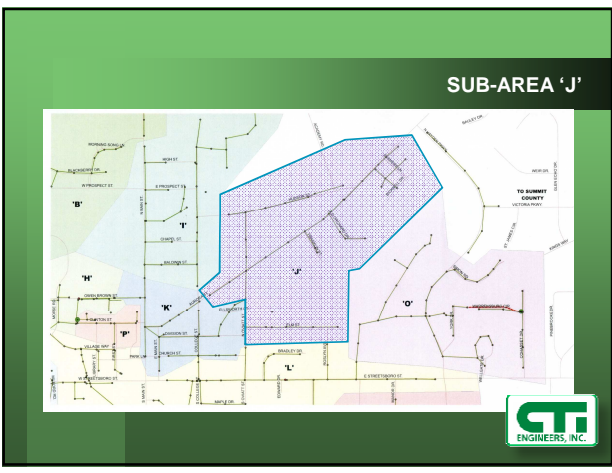
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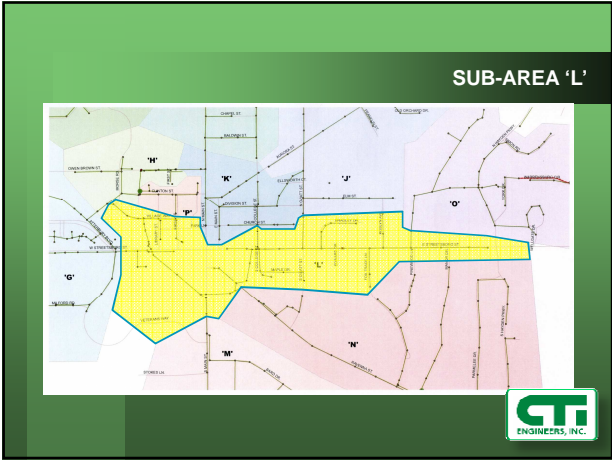
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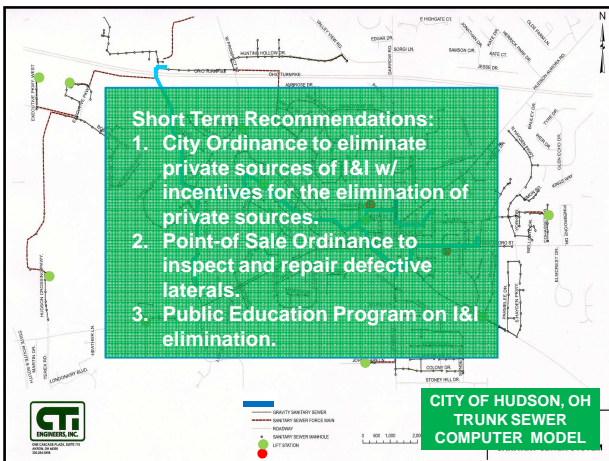
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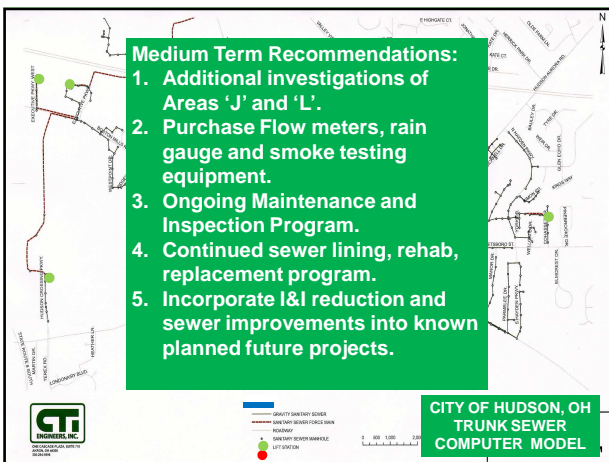
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**ADDITIONAL COLLECTION SYSTEM  
EVALUATION TOOLS**

- FLOW METERING
- MANHOLE INSPECTION
- SMOKE TESTING
- DYED WATER TESTING
- CCTV INSPECTION



**GTI ENGINEERS, INC.**

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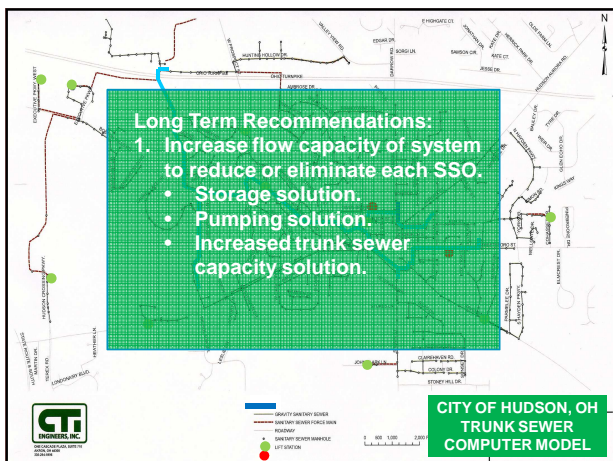
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