

General Engineering Company

How Far Do You
Go to Get
Gravity Flow?



Presenter - Jerry Foellmi, PE



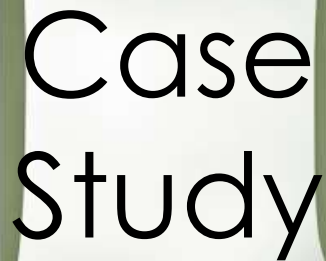
Code



Project
Challenges



Available
Options



Case
Study

- Abbyland Foods
- WI CSA
- Dekorra Utility District
- Greenwood/Loyal



Contact
Information

Code



- Replacement vs. New
- Pipe Size vs. Slope
- Manhole to Manhole Distance
- Private vs. Public
- Open Cut/Directional Bore
- Stream Crossing

Req. Ch. 30 permit



Site Conditions/Layout

- Terrain
- Bedrock
- Groundwater
- Wetlands
- Floodplain
- Streams

Project Issues

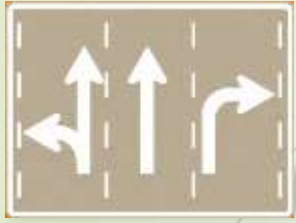
- Grants/Loans
- Budget
- Owner Directives

Project Challenges

Client/DPW Expectations

- Budget
- OMR
- Lift Station ?

Available Gravity Options



- 1 – Increasing Pipe Size
- 2 – MH to MH Separation
- 3 – Directional Bore
- 4 – Lift Station
- 5 – Stream Crossing
Aerial Crossing
Inverted Syphon

Case Studies

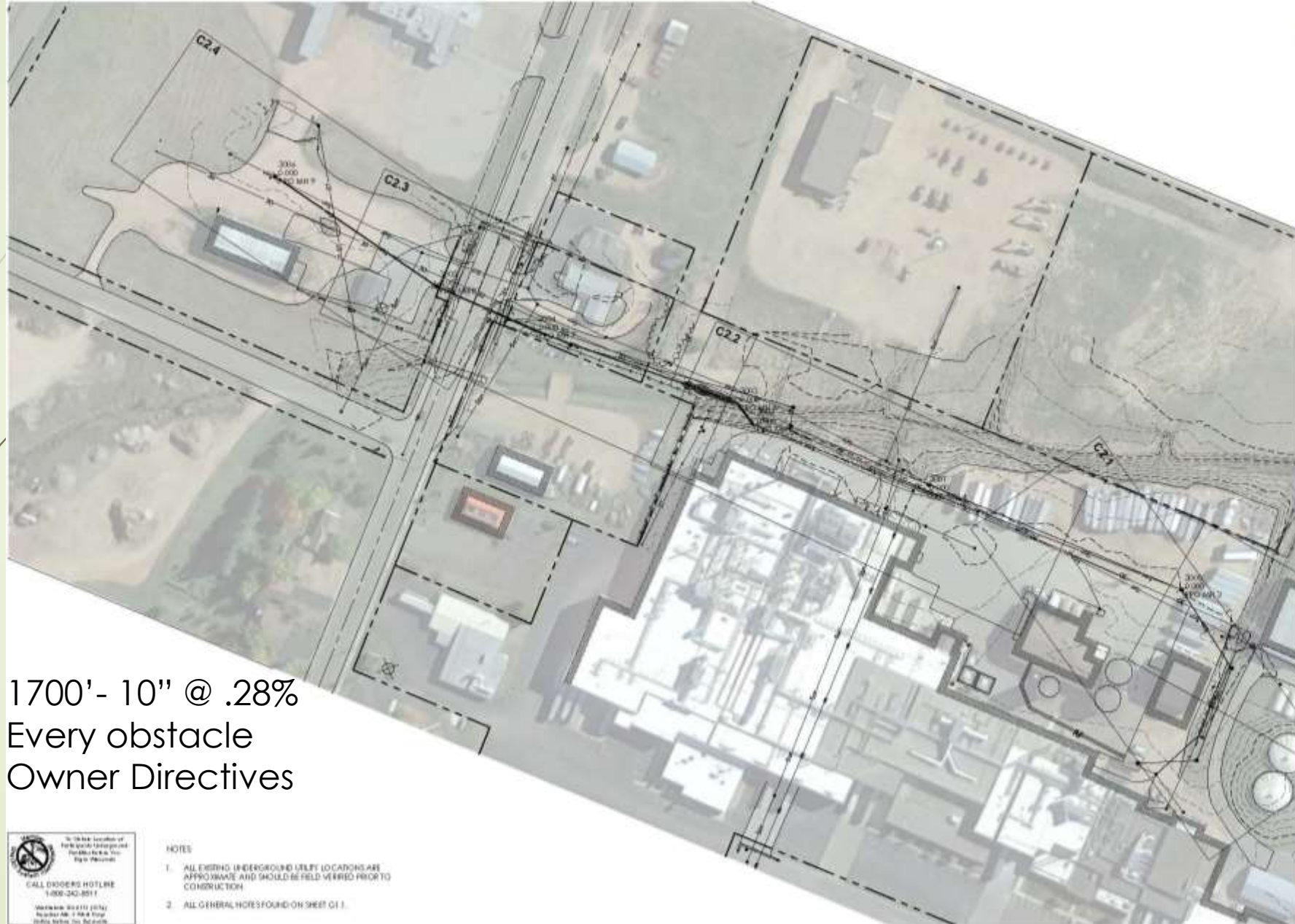
Abbyland Foods - Abbotsford, WI



Abbyland Foods - Abbotsford, WI



Abbyland Foods - Abbotsford, WI



- 1700' - 10" @ .28%
- Every obstacle
- Owner Directives



NOTES

1. ALL EXISTING UNDERGROUND UTILITY LOCATIONS ARE APPROXIMATE AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
2. ALL GENERAL NOTES FOUND ON SHEET C1.1.



General Engineering Company

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OVERALL PROPOSED SEWER
Sausage Plant Sewer
AbbyLand LCC
City of Abbotsford
Marathon County, WI

NO.	DATE



DRAWN BY: LLL
CHECKED BY: JET
DATE: 10/20/15
SCALE: 1"=100'
SHEET NO.

C2.0



Abbyland Foods - Abbotsford, WI



Abbyland Foods - Abbotsford, WI



Case Studies

WI CSA



Case Studies

Crystal, Fish & Mud Lakes Protection District
Dane Co, WI



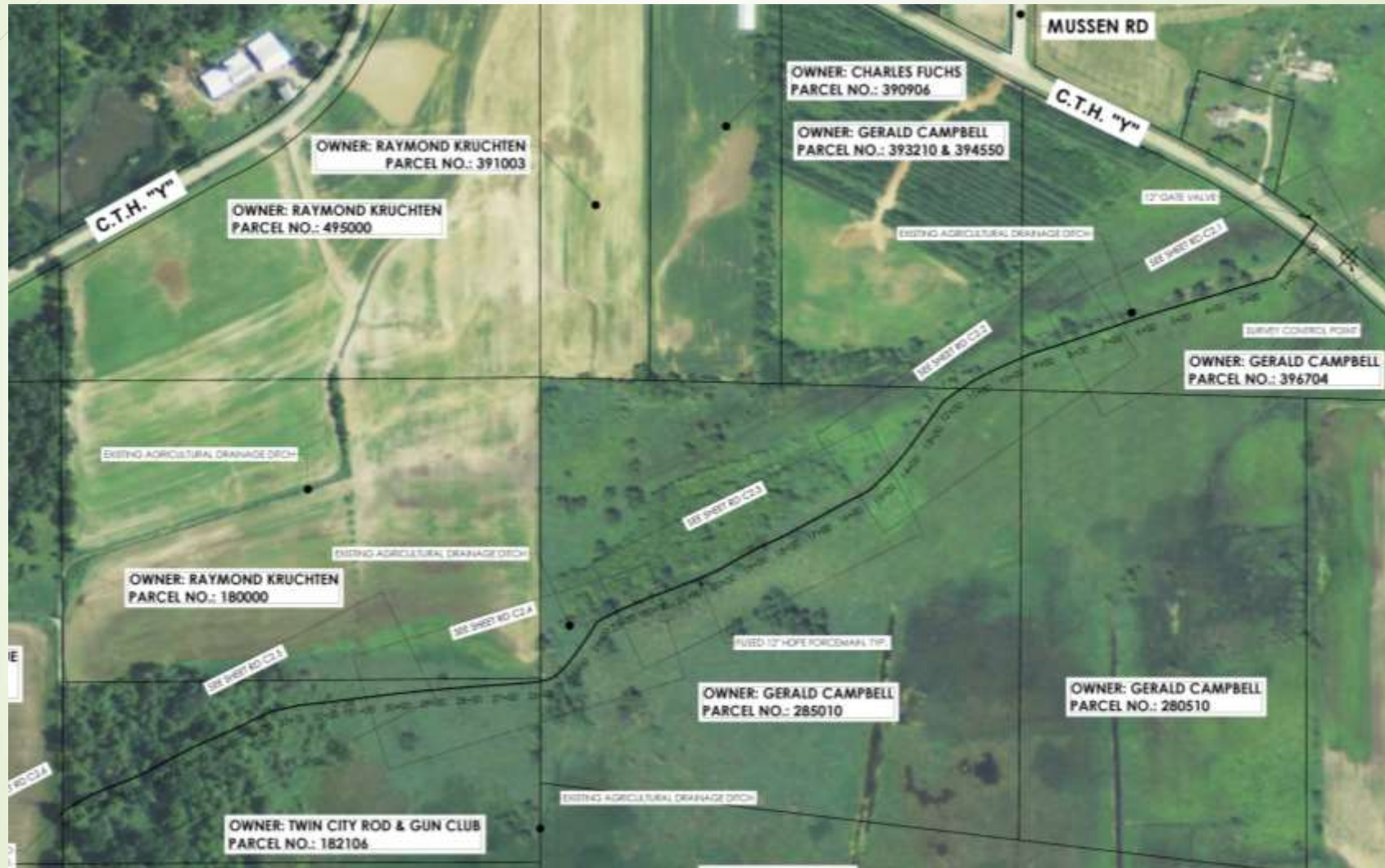
Case Studies

Crystal, Fish & Mud Lakes Protection District
Dane Co, WI



Case Studies

Crystal, Fish & Mud Lakes Protection District - Dane Co, WI



Case Studies

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Case Studies

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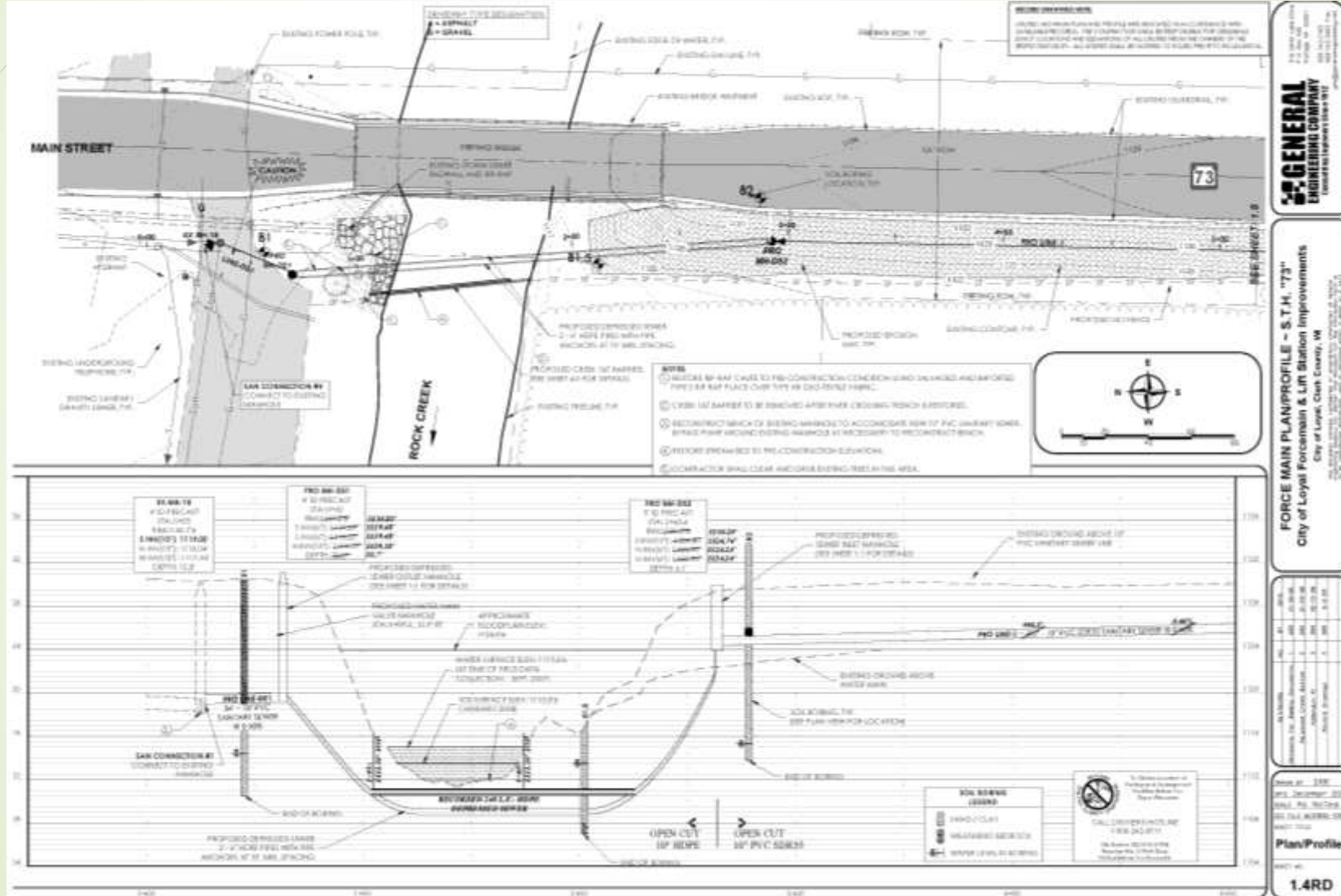
Case Studies

Dekorra Water Utility District
Dekorra, WI



Case Studies

Greenwood, WI





Takeaways

- Open mind when considering sewer service for challenging sites
- Tight Pocketbook
- Reducing Costs vs Long-Term OMR



Contact Information



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