



**Central Brown County  
Water Authority (CBCWA)**  
Brown County, WI

# **Central Water Storage Project**

## **Public Information Meeting**

### **Town of Ledgeview**

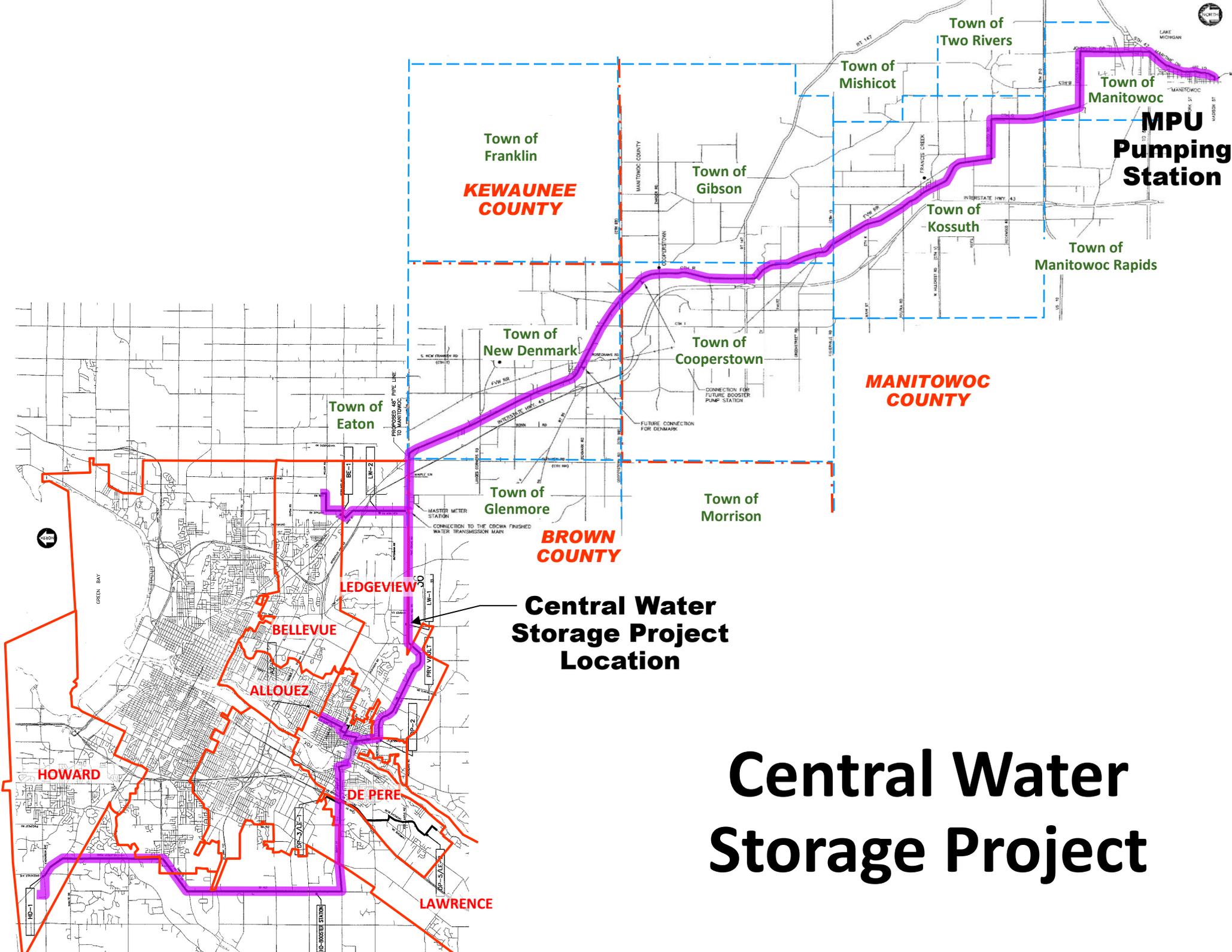
**October 29, 2013**

**McMAHON**  
**INC**  
DESIGN / BUILD SPECIALISTS

DONALD J. VOOGT, P.E.

# Background

- Water Supply from Manitowoc Public Utilities installed in 2007
- Member Communities
  - Village of Allouez
  - Village of Bellevue
  - City of DePere
  - Village of Howard
  - Town of Lawrence
  - Town of Ledgeview
- Approximately 75,000 users
- 65 mile Transmission Main
- Each member-community has limited backup supply and storage



Town of Franklín  
**KEAUUNEE COUNTY**

Town of Two Rivers  
Town of Mishicot  
Town of Manitowoc  
**MPU Pumping Station**  
Town of Kossuth  
Town of Manitowoc Rapids

**MANITOWOC COUNTY**

Town of New Denmark  
Town of Cooperstown  
Town of Glenmore  
Town of Morrison  
**BROWN COUNTY**

**Central Water Storage Project Location**

# Central Water Storage Project

HOWARD  
DE PERE  
LAWRENCE  
ALLOUEZ  
BELLEVUE  
LEDGEVIEW

# System Usage

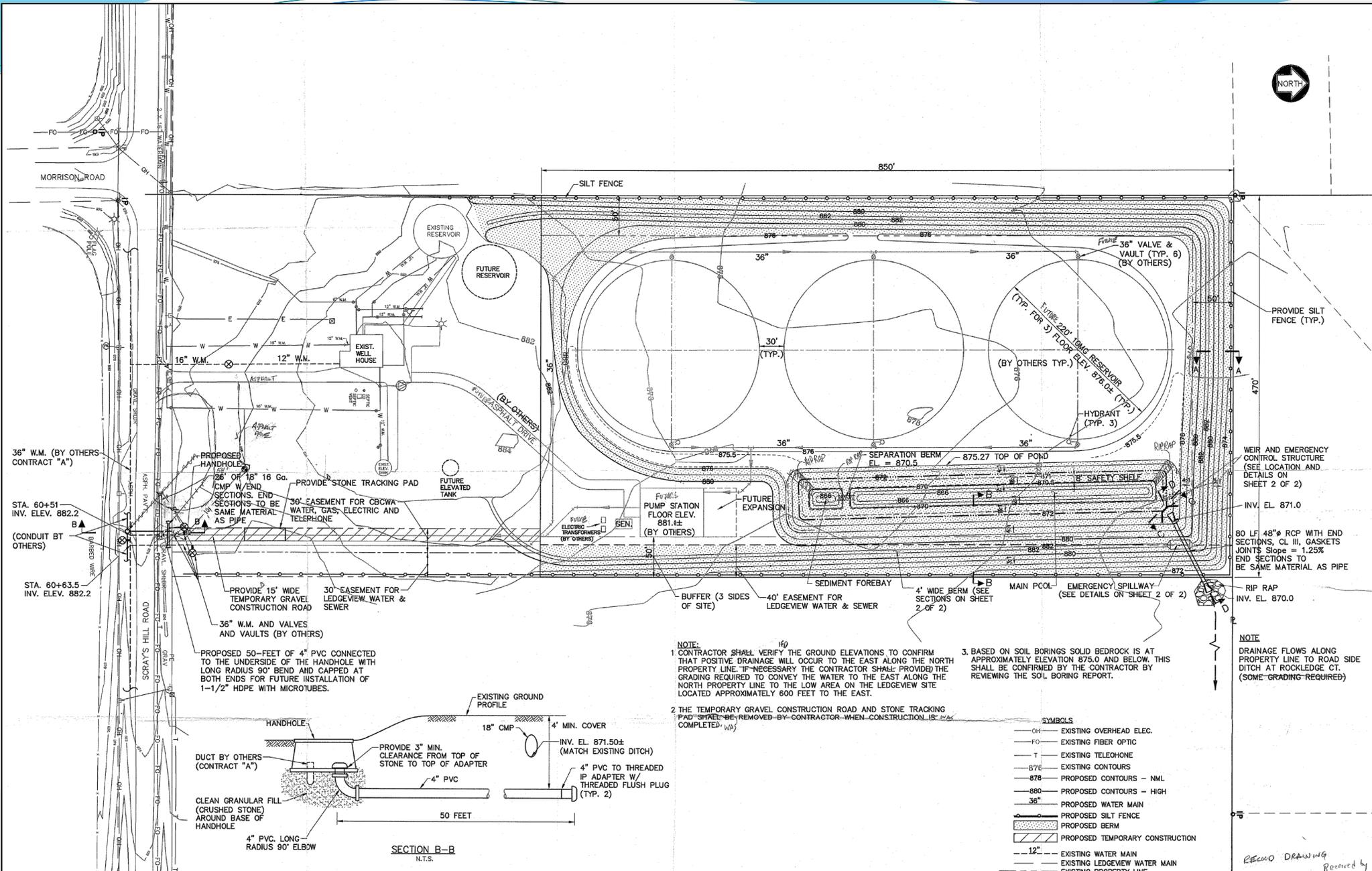
- Average Day Demand      Approx. 8-10 mgd
- Peak Day Demand      Approx. 20-22 mgd
- Peak Hour Demand      Above 23 mgd

# System Needs

- Projected Peak Hour Demand exceeds capacity of pipeline at Finished Water Pump Station (excessive pressures in pipeline)
- No emergency reserve storage
- Excess energy costs for pumping peak daily demands
- Pressure surges due to closed pipe
- Zero pressure during loss of water supply (sanitary condition)

# Project Summary

- Site Plan was developed and approved in 2005
- Original Plan was Three - 10 million gallon Water Storage Tanks and a Pumping Station
  - Each Tank - 220' diameter, 35' high
  - One Pumping Station



36" W.M. (BY OTHERS CONTRACT "A")

STA. 60+51  
INV. ELEV. 882.2

(CONDUIT BY OTHERS)

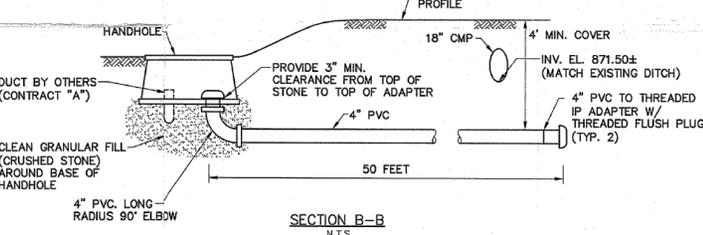
STA. 60+63.5  
INV. ELEV. 882.2

PROVIDE 15' WIDE TEMPORARY GRAVEL CONSTRUCTION ROAD

30' EASEMENT FOR LEDGEVIEW WATER & SEWER

36" W.M. AND VALVES AND VAULTS (BY OTHERS)

PROPOSED 50'-FEET OF 4" PVC CONNECTED TO THE UNDERSIDE OF THE HANDHOLE WITH LONG RADIUS 90° BEND AND CAPPED AT BOTH ENDS FOR FUTURE INSTALLATION OF 1-1/2" HDPE WITH MICROTUBES.



NOTE:

1 CONTRACTOR SHALL VERIFY THE GROUND ELEVATIONS TO CONFIRM THAT POSITIVE DRAINAGE WILL OCCUR TO THE EAST ALONG THE NORTH PROPERTY LINE. IF NECESSARY THE CONTRACTOR SHALL PROVIDE THE GRADING REQUIRED TO CONVEY THE WATER TO THE EAST ALONG THE NORTH PROPERTY LINE TO THE LOW AREA ON THE LEDGEVIEW SITE LOCATED APPROXIMATELY 600 FEET TO THE EAST.

2 THE TEMPORARY GRAVEL CONSTRUCTION ROAD AND STONE TRACKING PAD SHALL BE REMOVED BY CONTRACTOR WHEN CONSTRUCTION IS COMPLETED.

3. BASED ON SOIL BORINGS SOLID BEDROCK IS AT APPROXIMATELY ELEVATION 875.0 AND BELOW, THIS SHALL BE CONFIRMED BY THE CONTRACTOR BY REVIEWING THE SOIL BORING REPORT.

SYMBOLS

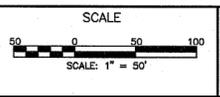
- OH — EXISTING OVERHEAD ELEC.
- FO — EXISTING FIBER OPTIC
- T — EXISTING TELEPHONE
- 876 — EXISTING CONTOURS
- 878 — PROPOSED CONTOURS - NML
- 880 — PROPOSED CONTOURS - HIGH
- 36" — PROPOSED WATER MAIN
- [Pattern] — PROPOSED SILT FENCE
- [Pattern] — PROPOSED TEMPORARY CONSTRUCTION
- 12" — EXISTING WATER MAIN
- [Pattern] — EXISTING LEDGEVIEW WATER MAIN
- [Pattern] — EXISTING PROPERTY LINE

NOTE

DRAINAGE FLOWS ALONG PROPERTY LINE TO ROAD SIDE DITCH AT ROCKLEDGE CT. (SOME GRADING REQUIRED)

NO.	DATE	DESCRIPTION	APPROVED
REVISIONS			

DESIGNED JGM/ADK  
DRAWN ZB/LRL  
CHECKED MHW  
DATE JUNE, 2006



CENTRAL BROWN COUNTY WATER AUTHORITY  
BROWN COUNTY, WISCONSIN  
LEDGEVIEW RESERVOIR SITE WORK CONTRACT "L"

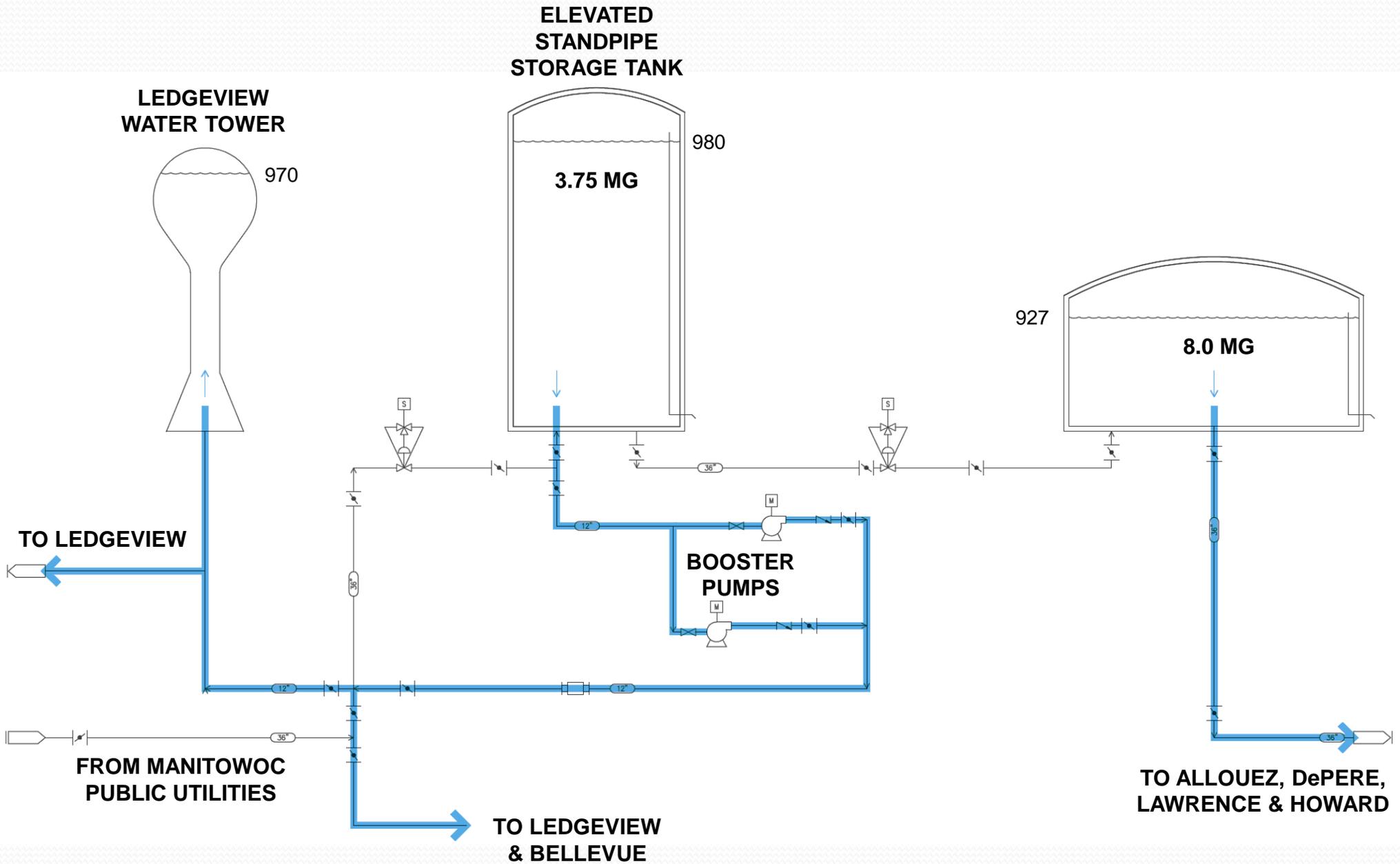


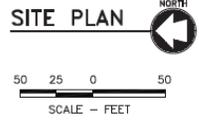
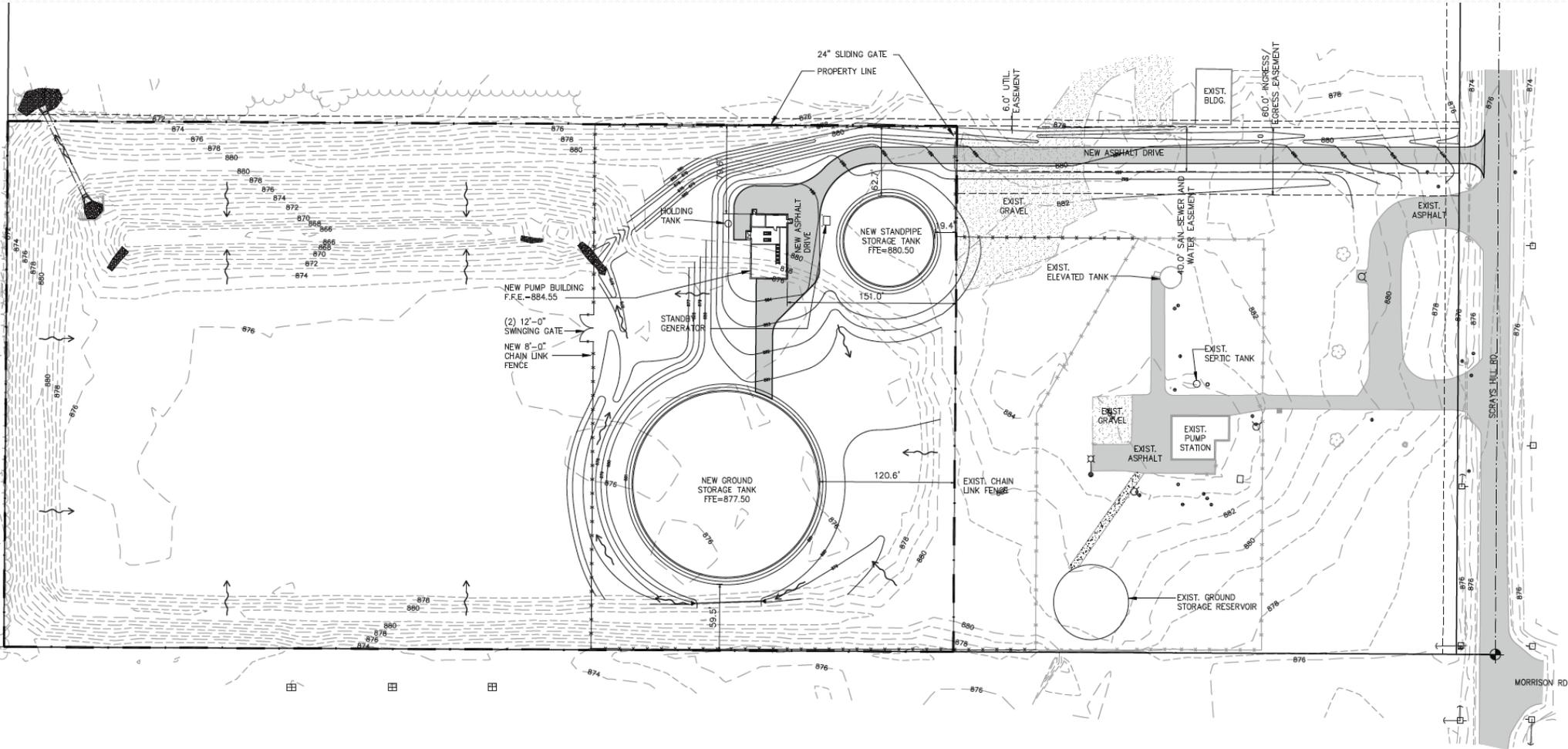
SITE GRADING AND DRAINAGE PLAN,  
SECTION AND NOTES

SHEET 1 OF 2 SHEETS  
CTE PROJECT NO. 40696

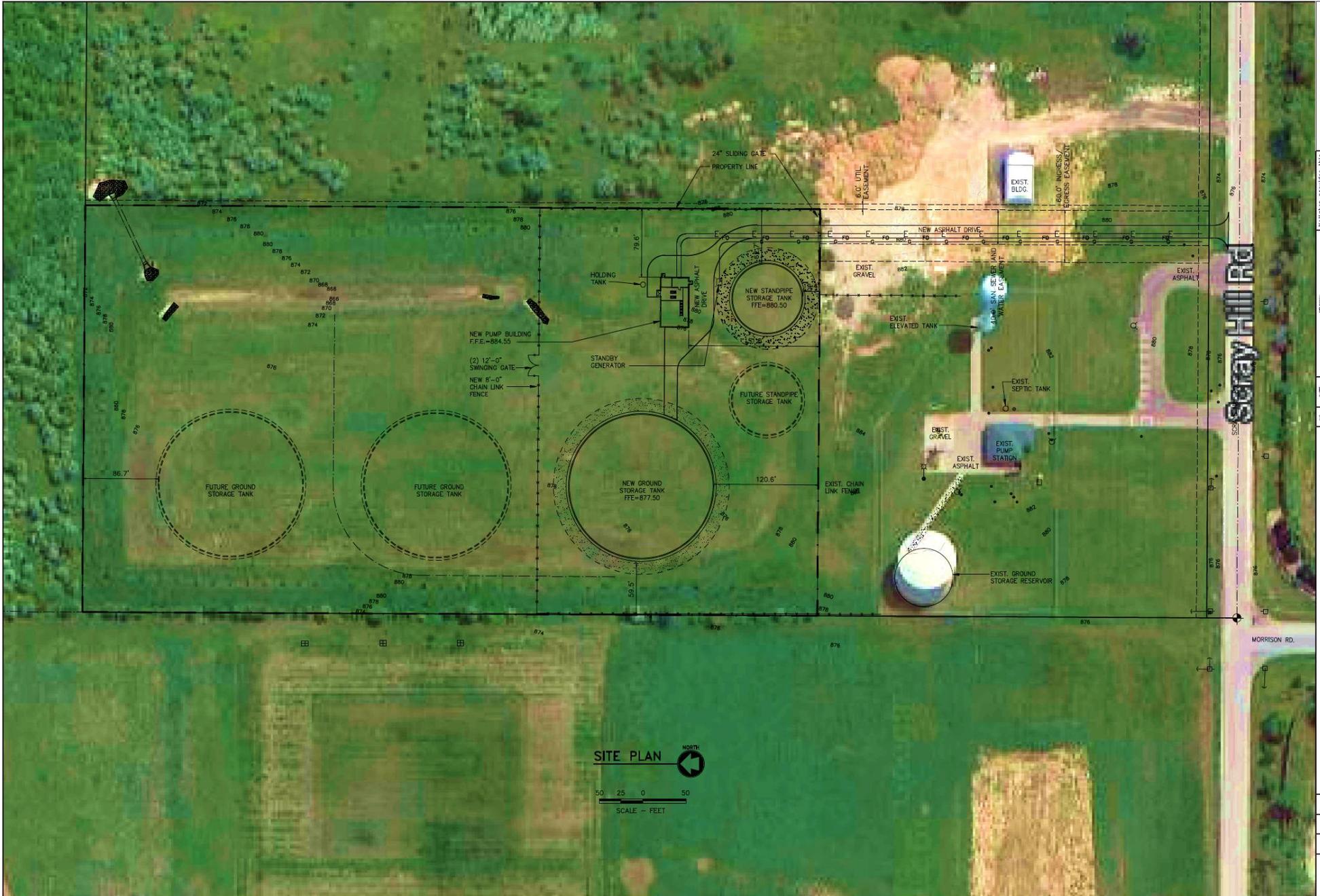
# Project Summary

- Current Proposed Plan has Two Tanks and a Pump Station
  - Elevated Tank - 3.75 million gallon, 80' diameter, 100' tall
  - Ground Storage Tank - 8 million gallons, 166' diameter, 40' tall
  - One Pumping Station
- 8 million gallon tank provides emergency supply to DePere, Howard, Lawrence and Allouez
- 3.75 million gallon tank provides emergency supply to Bellevue and Ledgeview





# Initial Site Plan



**MCMAHON, INC.**  
 DESIGN / BUILD SPECIALISTS  
 1445 MCMAHON DRIVE NEENAH, WI 54956  
 Phone: (920) 751-4200 Fax: (920) 751-4200  
 www.mcmahon.com

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NO.	DATE	REVISION

**CENTRAL BROWN COUNTY WATER AUTHORITY  
 CENTRAL WATER STORAGE FACILITY  
 OVERALL SITE PLAN**

DESIGNED DUV	DRAWN PGK
PROJECT NO. C0027-230104.02	
DATE SEPT., 2013	
SHEET NO. <b>C2</b>	









# Central Storage Project Benefits

- Reduces hydraulic surges and stresses in pipeline
- Eliminates zero pressure issue
- Eliminates need for Cooperstown Pump Station at least 30 years (\$5.0 M)
- Delays need for additional community storage (\$8.2 M)
  - Bellevue, Allouez, DePere, Howard
- Extends life of existing WTP capacity
- Energy cost savings > \$100 K/yr
- Provides emergency supply storage
- Lower water rates

## Short Term Concerns

- Construction Noise
- Construction Dust
- Truck Traffic
- Possibly some Blasting for 36" pipe installation
- Site Erosion

## Long Term Concerns

- Tank overflow (30 minutes maximum)
- Aesthetics
  - Tank Size, Color, Landscaping

# Questions...



*Thank You.*