

QTS Data Center Development Municipal Infrastructure Assessment

Presented by:

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Presentation Overview

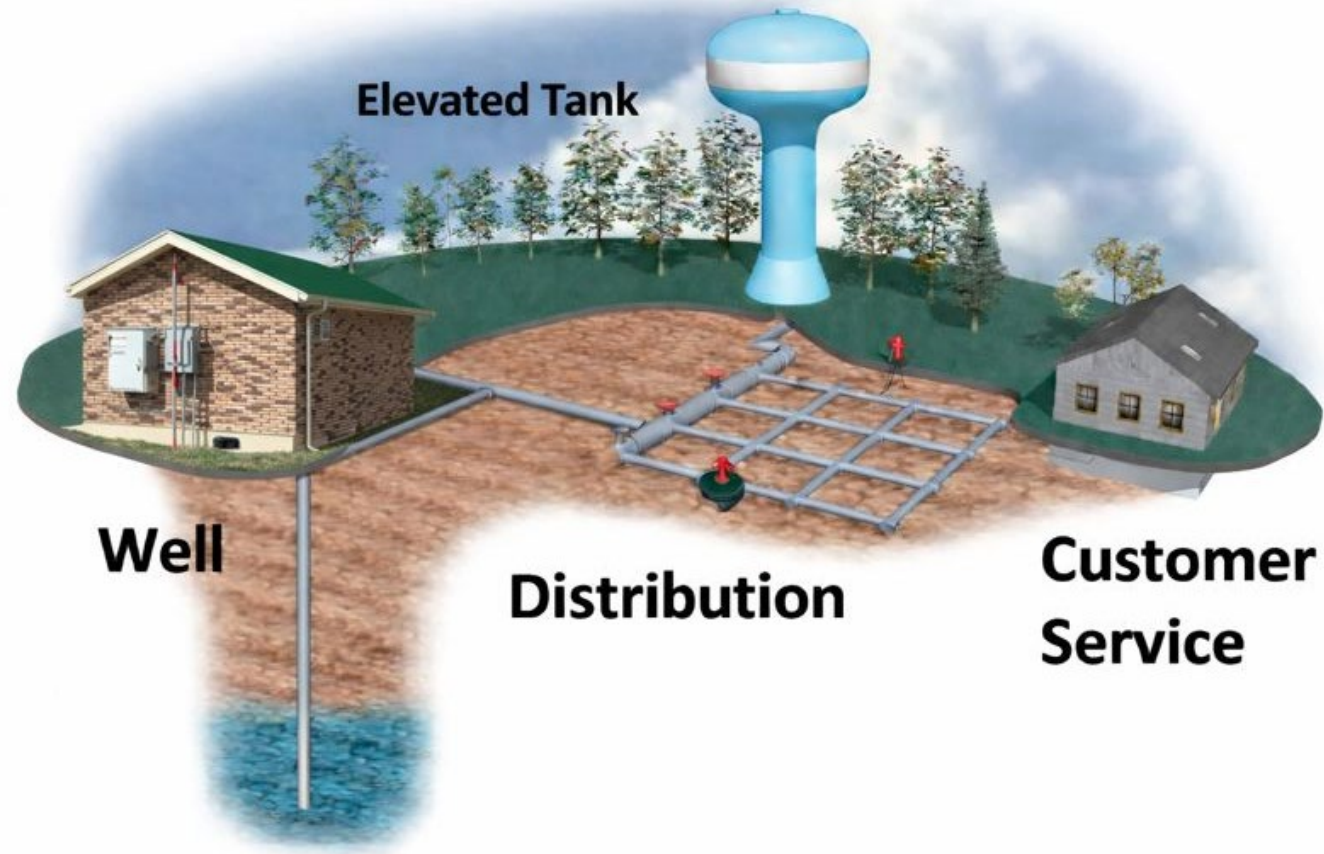


- Water Utility Infrastructure
- Sanitary Sewer Infrastructure
- Stormwater Management
- Traffic/Transportation Facilities





Water System Overview



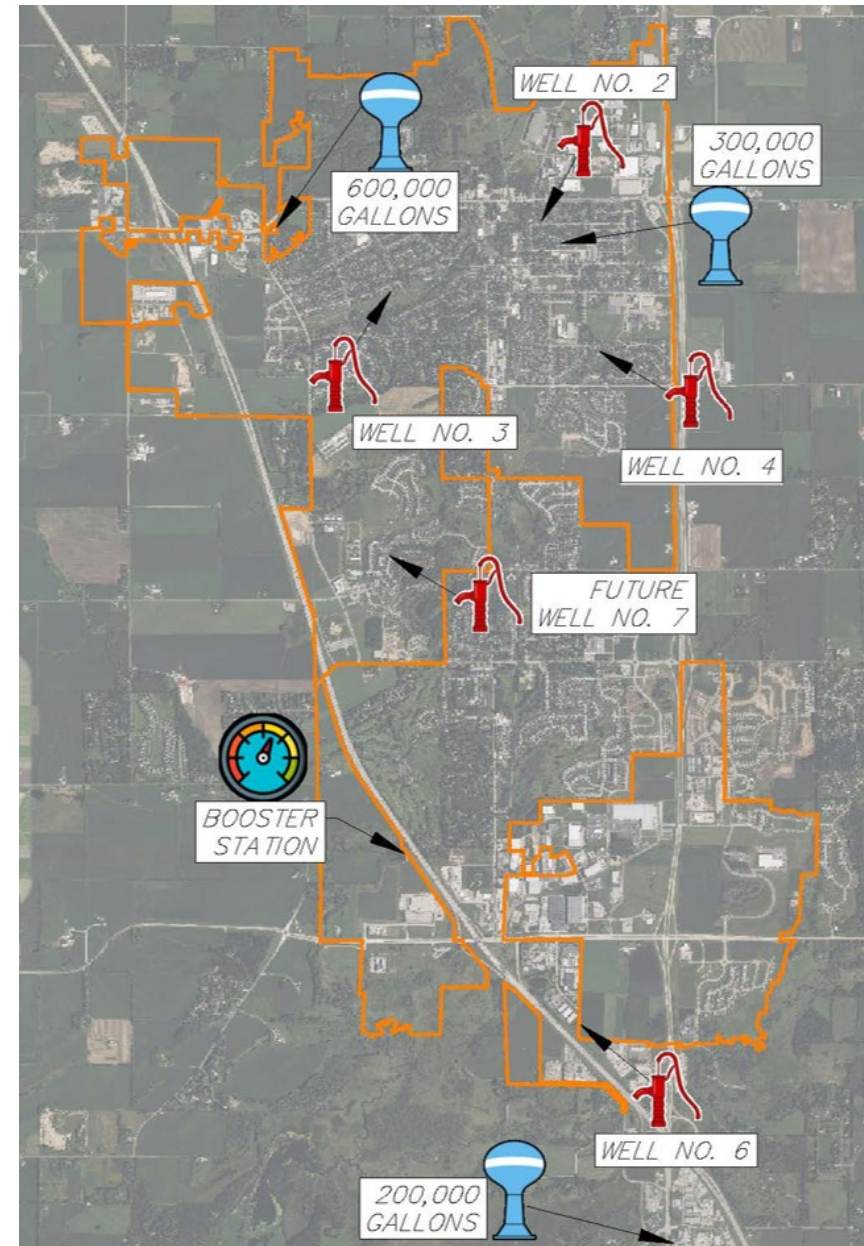
Existing Water System

4 Water Supply Wells

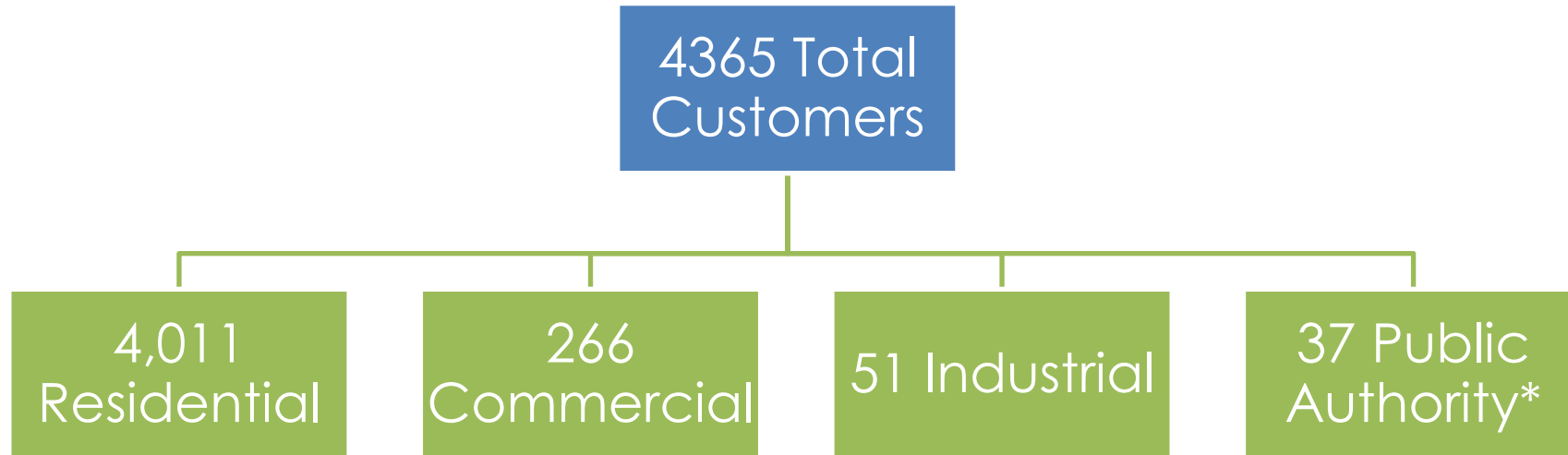
3 Elevated Storage Tanks

1 Booster Station

432,756 LF of Water Mains



Existing Water Customers



*Village Owner, Schools, etc.

Existing Water Use



Customer Land Use	Gallons Sold Per Day*	Percent of Water Sold	Gallons per Acre per Day
Residential	546,834	65%	550
Commercial Use	139,384	16%	300
Industrial Use	90,270	15%	300
Public Authority	32,634	4%	Varies

* Unaccounted for water that is not metered (water main breaks, hydrant flushing, etc)

Existing Water Use



Top 10 Customer*	2024 Average Gals/Day (gal/day)	Acres of site	Average (gal/day/acre)	Percent of Total water usage in 2024
Industrial 1	45,455	15.9	2,859	5.24%
Industrial 2	13,858	4.6	3,013	1.60%
Public Authority 1	8,533	3.6	2,370	0.98%
Industrial 3	7,412	4.1	1,808	0.85%
Public Authority 2	7,134	25.2	283	0.82%
Multi Family 1	6,343	2.8	2,239	0.73%
Commercial 1	4,898	14.7	333	0.56%
Commercial 2	4,684	10.2	459	0.54%
Multi-Family 2	4,486	2.8	1,583	0.52%
Industrial 4	3,676	13.3	276	0.42%
Multi-Family 3	3,629	2.8	1,281	0.42%
*Names of individual customers with confidential information are protected by state law				

Existing System Adequacy: From 2025 Water Study



Water Distribution Network

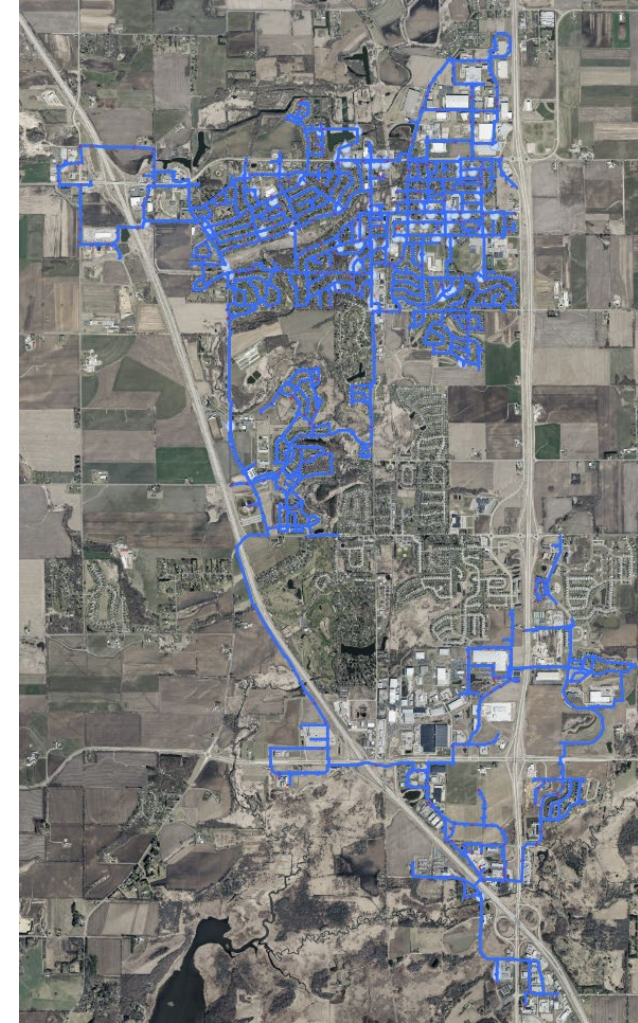
- Adequate

Water Supply Well

- Recommended Additional water supply well
- New well is planned to be constructed in 2027-2028

Water Storage

- Recommended additional water storage by 2030-2035



Proposed Water Use

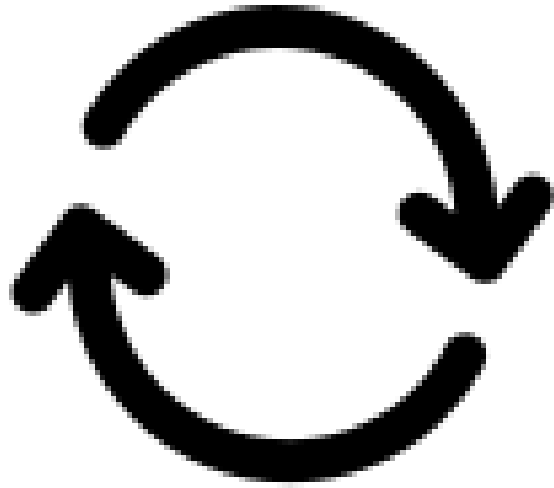


Daily Domestic (Restroom, drinking water, showers, etc.)

- 125,000 Gallons per day or 83 gpdpa
- 868,00 gpd total Village System in 2024
- 14.5% of the total Village water usage

Possible deed restriction to limit water usage

Cooling System

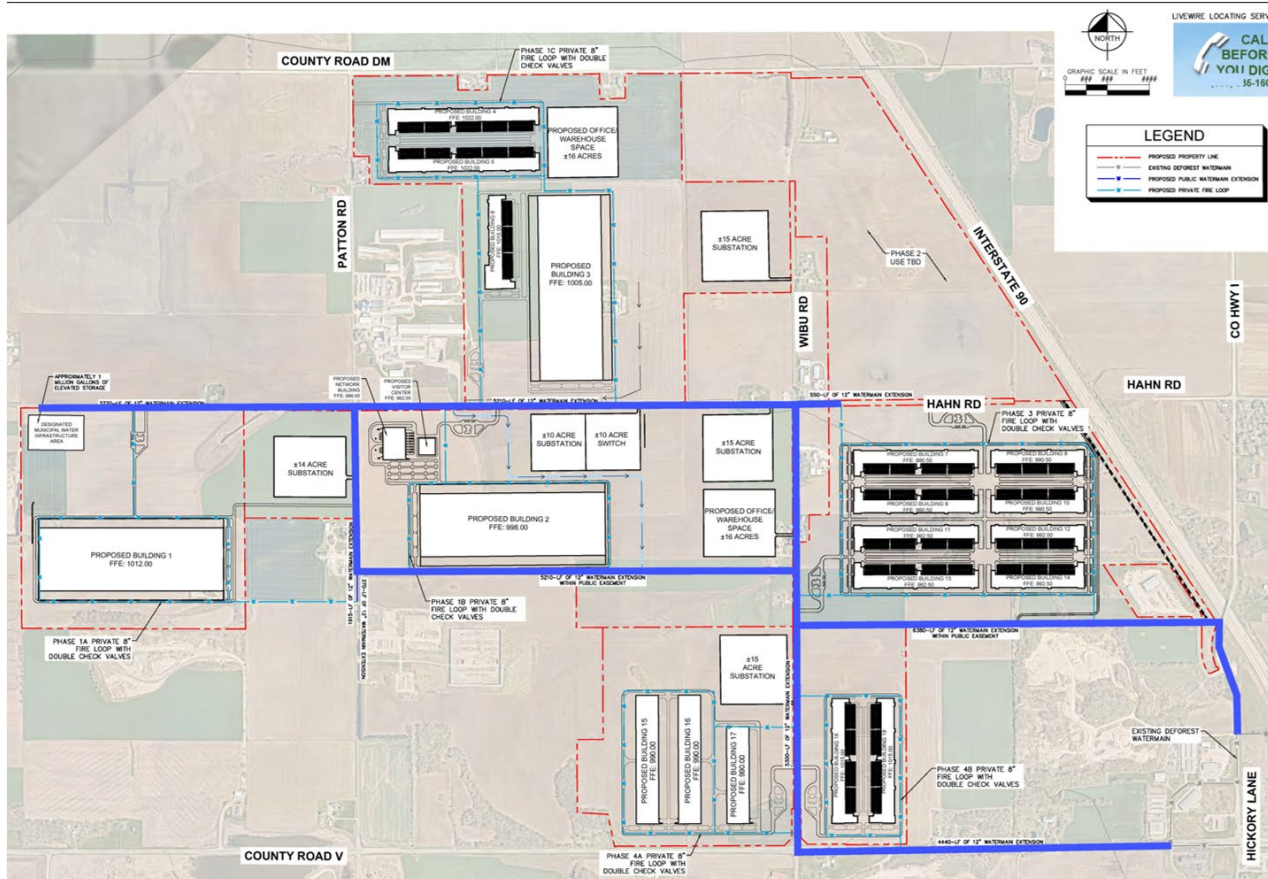


Cooling System

Closed Loop System

- Requires an initial Fill.
- Upwards of a million gallons to fill per building
- Village water use is 868,000 gallons per day (316+ million gallons per year)
- Data Center will purchase that water from the Village
- Cooling system fill will be phased from the Village and regulated to ensure no adverse effects on other water users.

Infrastructure Requirements



Water Main Distribution

- Existing 12" diameter mains in place
- Proposed 35,000 LF of water main extension (8% of DeForest overall system)

Water Supply Wells

- Well capacity is sufficient with current Village plans
- No additional wells are required

Infrastructure Requirements



Elevated Storage/Pressure Zone

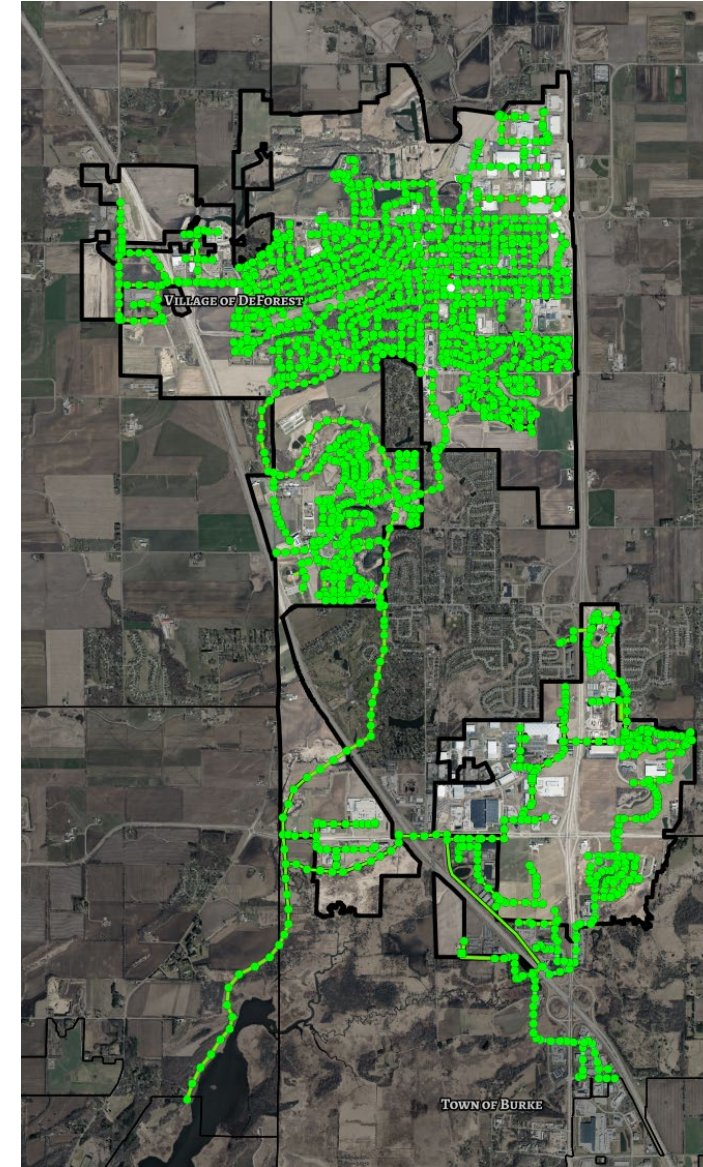
- New tower required for pressure considerations
- Existing system operates at elevations 905 to 995
- Data Center elevations approximately 970 to 1065
- Pressure Booster/reducing station required
- New tower adds capacity that would be required in 2030-2035
- A new elevated storage and booster station will be developer funded (\$3-\$4 Million)



Agency Review



Sanitary Sewer System Overview



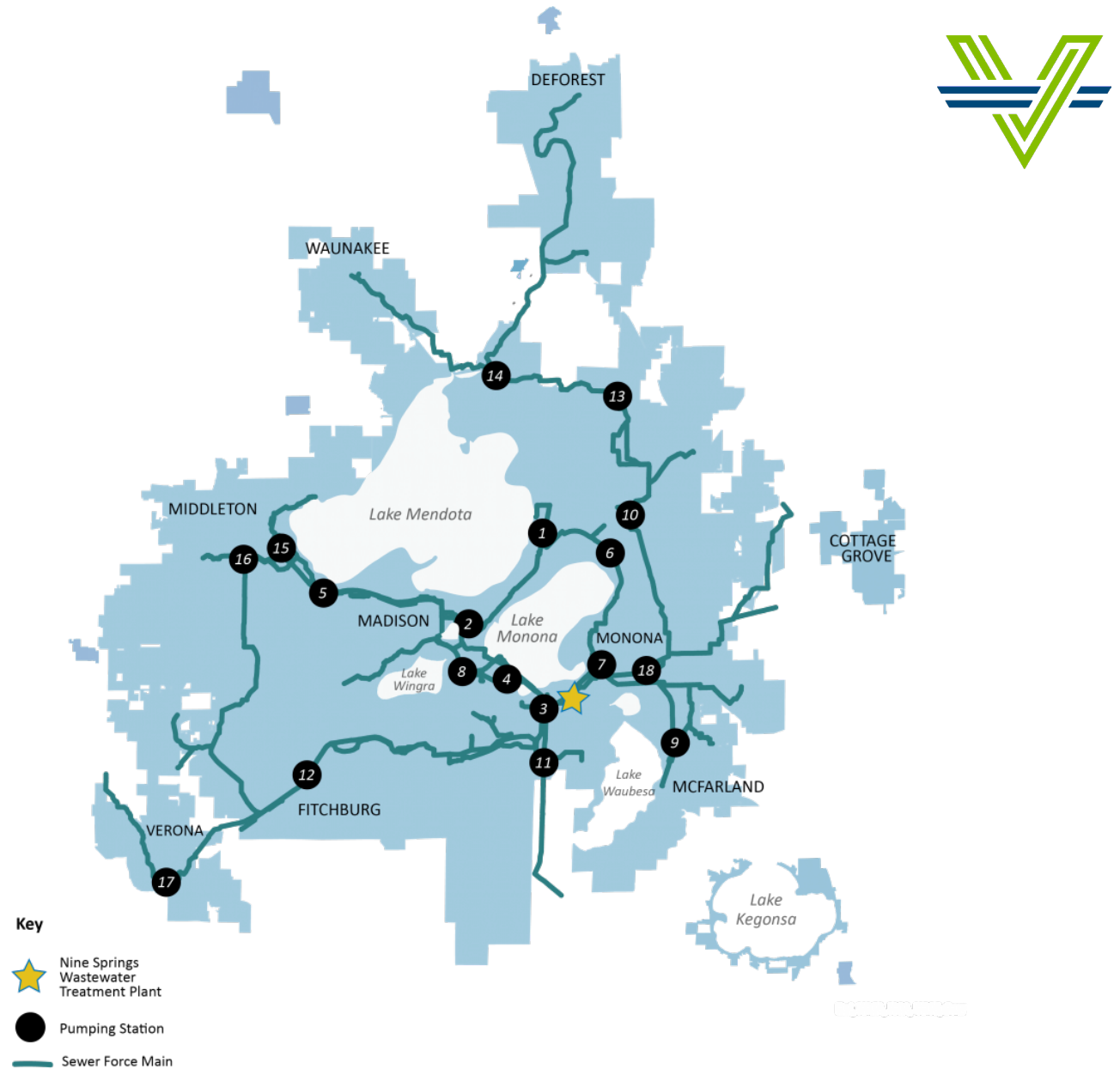
Existing Conditions:

Village Owned Sanitary Mains

- 373,772 lineal feet
- 1 Pumping Station

Madison Metropolitan Sewerage District (MMSD)

- Collects the Village Mains
- Treats the wastewater at Nine Springs Wastewater Treatment Plant



System Adequacy



Village Sanitary Sewer Main

- Adequate network of collection mains
- Existing 12" to 18" diameter mains in place for future development



Madison Metropolitan Sewerage District (MMSD)

- Interceptor Sewers are sized for additional growth
- MMSD treats ~40 million gallons per day with a total capacity to treat 56 mgd
- Collects fees based on land development areas. The fee is billed to the Village and reimbursed by the developer.





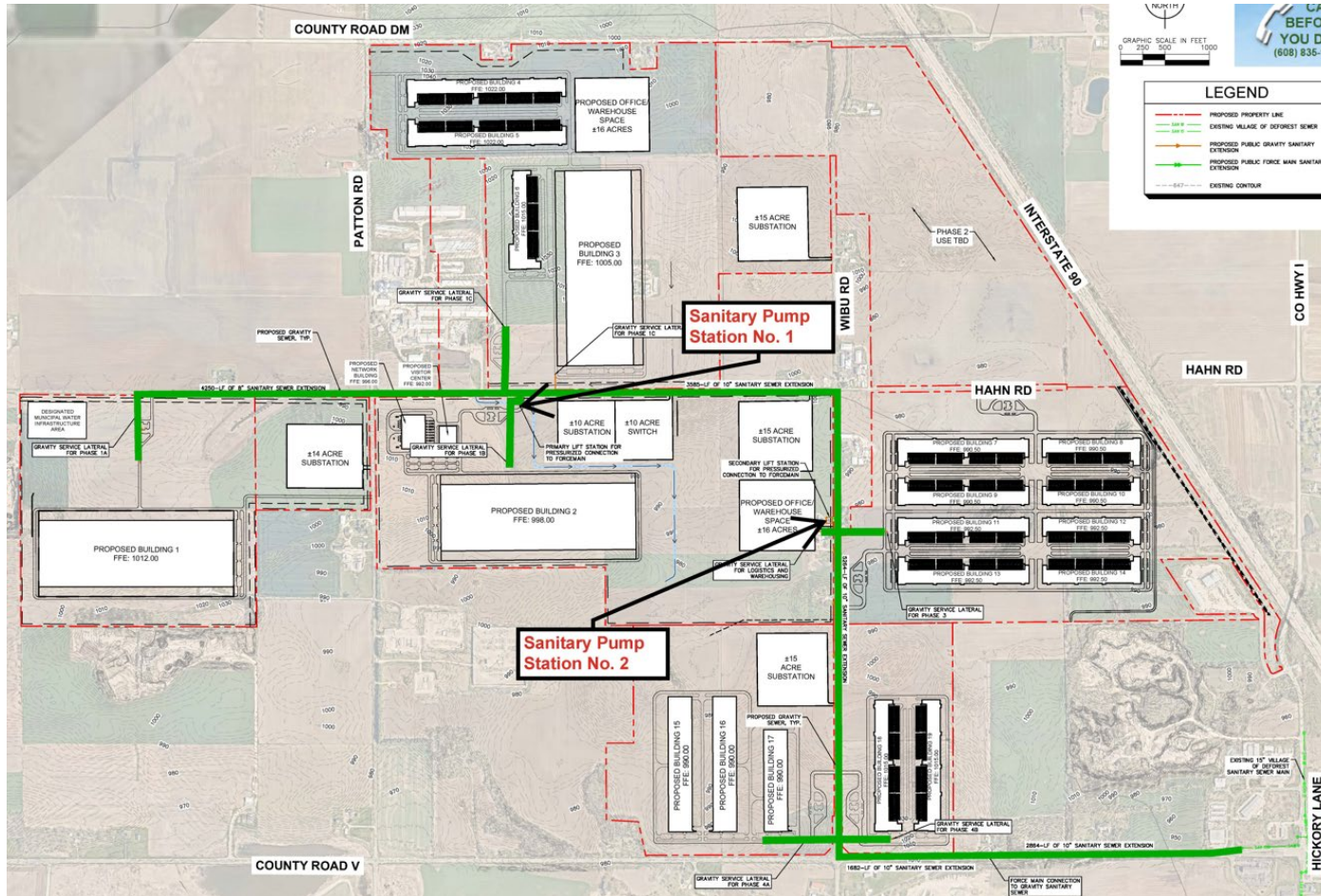
Proposed Data Center Conditions



125,000
Gallons
per Day

- 0.77 cubic per feet second wastewater generated
- 8" diameter sanitary sewer sufficient
- Normal strength wastewater – no high strength
- Village and MMSD monitoring

Data Center Infrastructure Requirements



18,000 LF of New Sanitary Sewer

- 4.8% addition to the system
- Requires 2 new pump Stations
- All sewer system infrastructure developer funded.

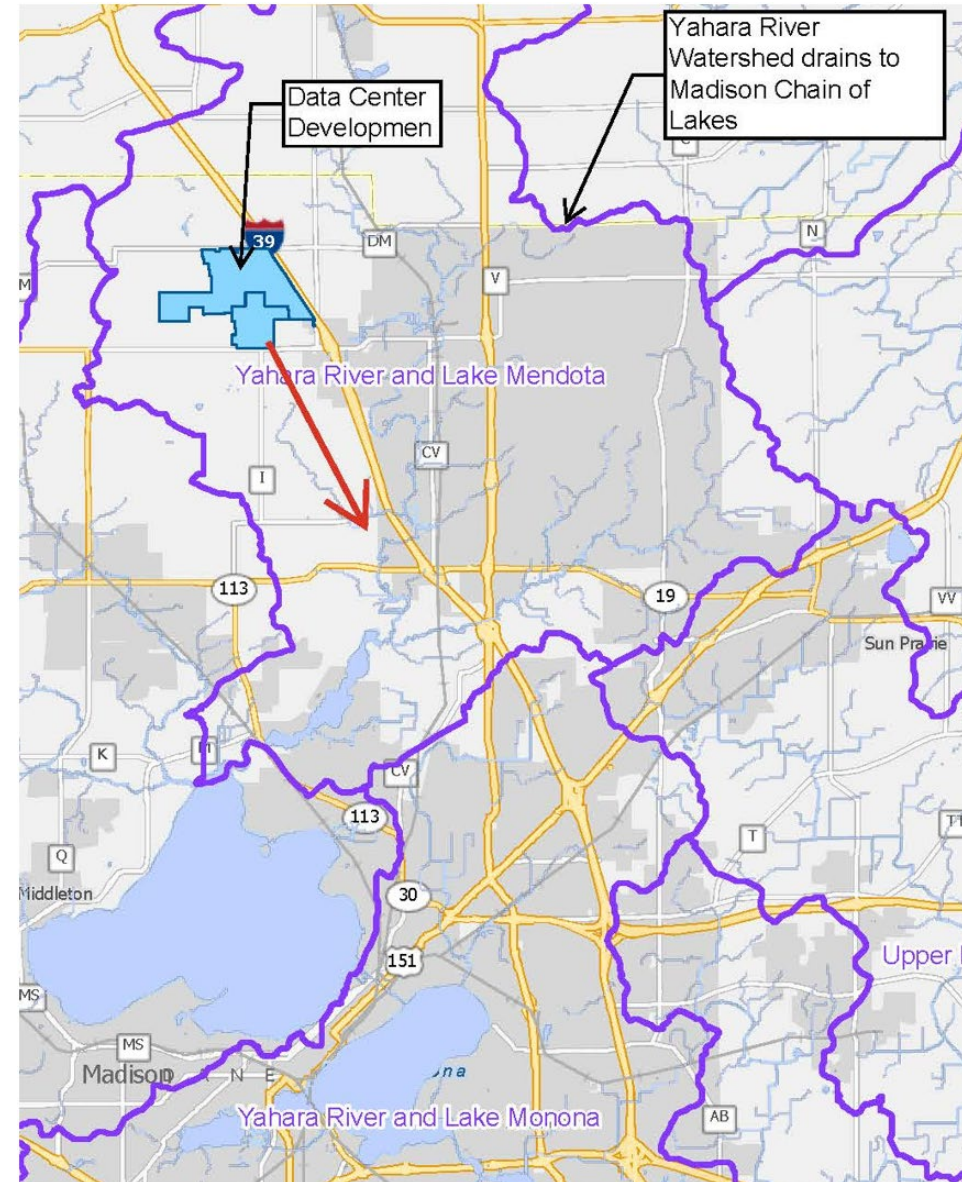
Agency Approvals



Madison Metropolitan
Sewerage District



Storm Water Management Overview





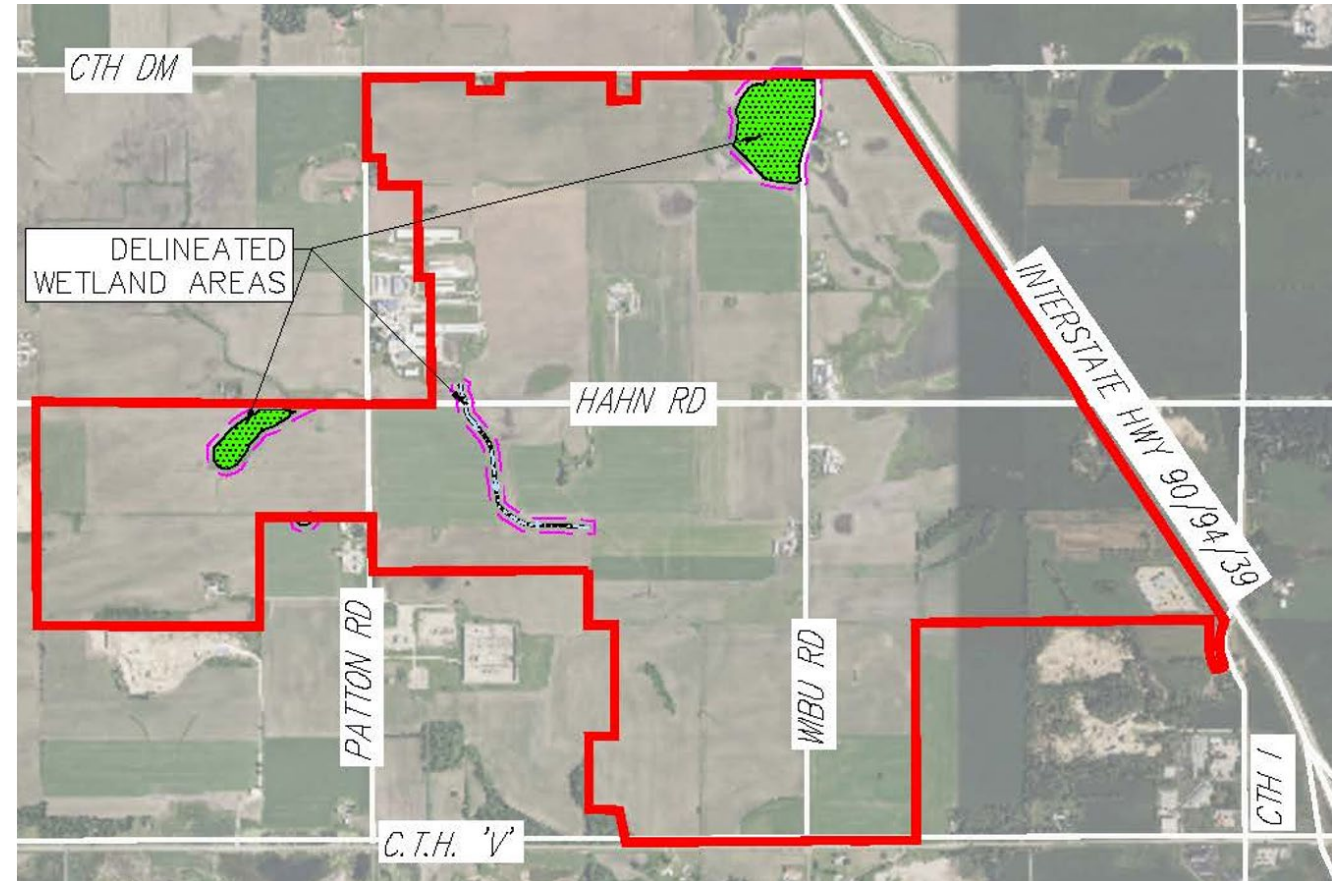
Existing Conditions

Development
Would Occupy
1,572 Acres

Mostly
Undeveloped
Agricultural Lands

29 Acres of
Delineated
Wetlands

No Mapped
Floodplain





Proposed Conditions

The development will add ~650 acres of impervious surfaces (buildings, parking lots, roads)

The development will result in ~40% of the total area in impervious surfaces

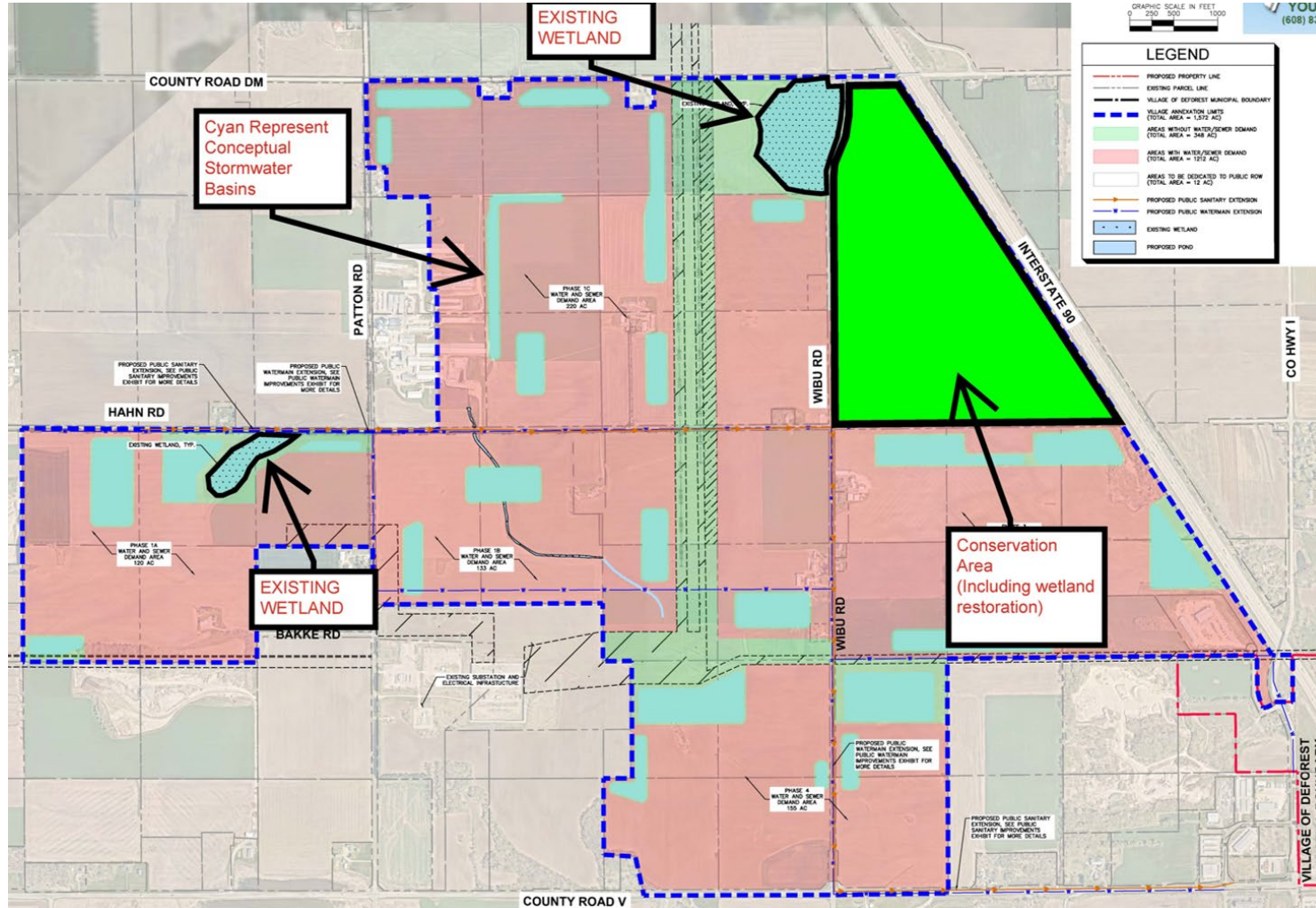
Typically industrial developments result in 70-80% impervious surfaces

~140 acres of land dedicated to stormwater management including basins and conveyance systems

All but 1 acre of existing wetlands will be preserved with 75-foot vegetative buffers provided around the wetlands

The development proposes to set aside approximately 160 acres of natural area including areas of wetland restoration

Storm Water Runoff Mitigation



Stormwater Mitigation

- Wet Detention Basin
- Detention Basin
- Infiltration Basin

Recommendations

- Grey water re-use and recycling
- Dane County's Salt Wise Program
- Native Plantings in open area



Performance Standards

A reduction in sediment and pollutant loading post development of 80% as compared to no controls

Runoff rate control to reduce post-development runoff equal to or less than pre-development conditions for up to the 200-year storm event

Achieve 100% of the pre-development infiltration and groundwater recharge – Ordinance requirement is 90%

Water runoff temperature reduction through infiltration practices

Development of a Storm Water Pollution Prevention Plan and Spill Prevention and Mitigation Plan

Agency Approvals

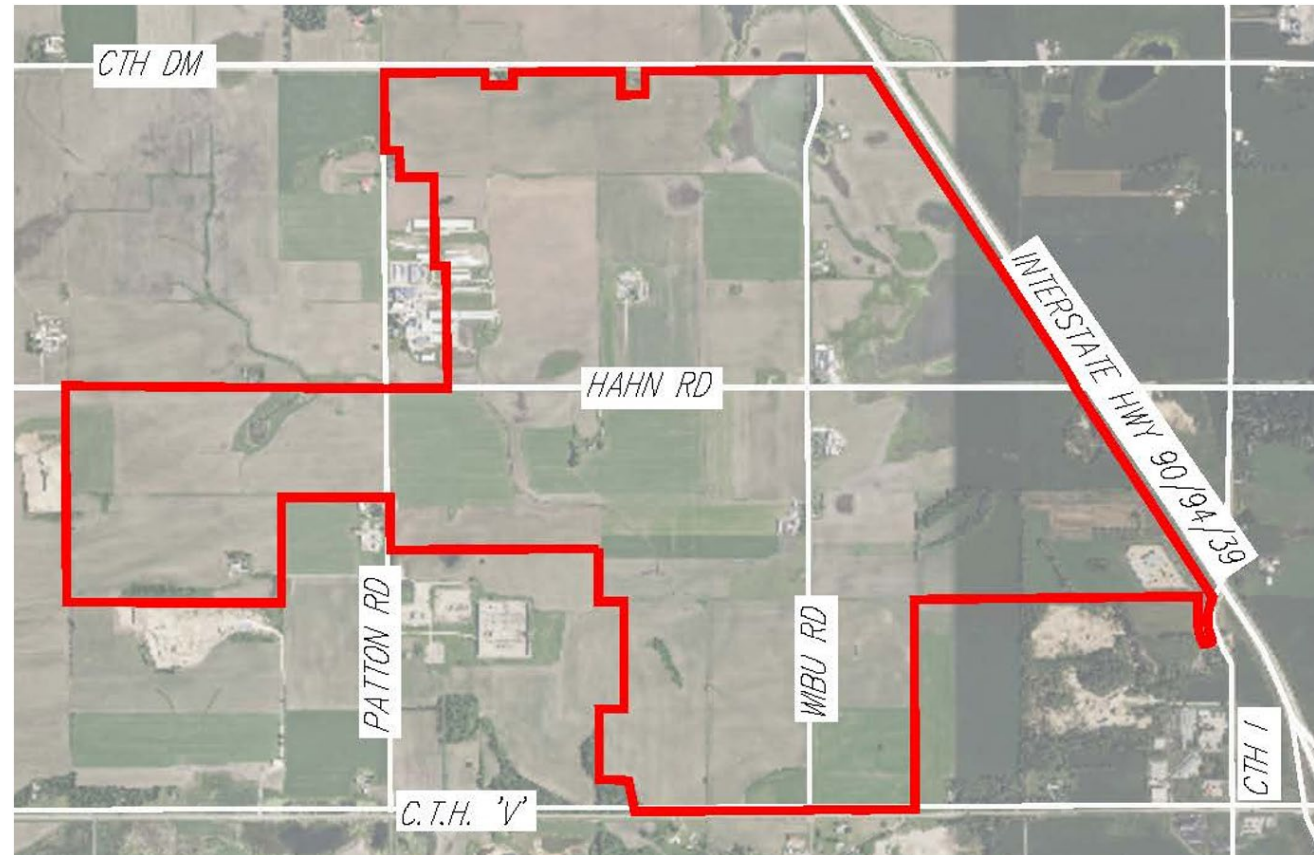




Transportation Facilities Overview

■ Existing Roads

- Rural Cross section
 - No curb and gutter
 - Ditches
- No dedicated Transit or bike/pedestrian facilities

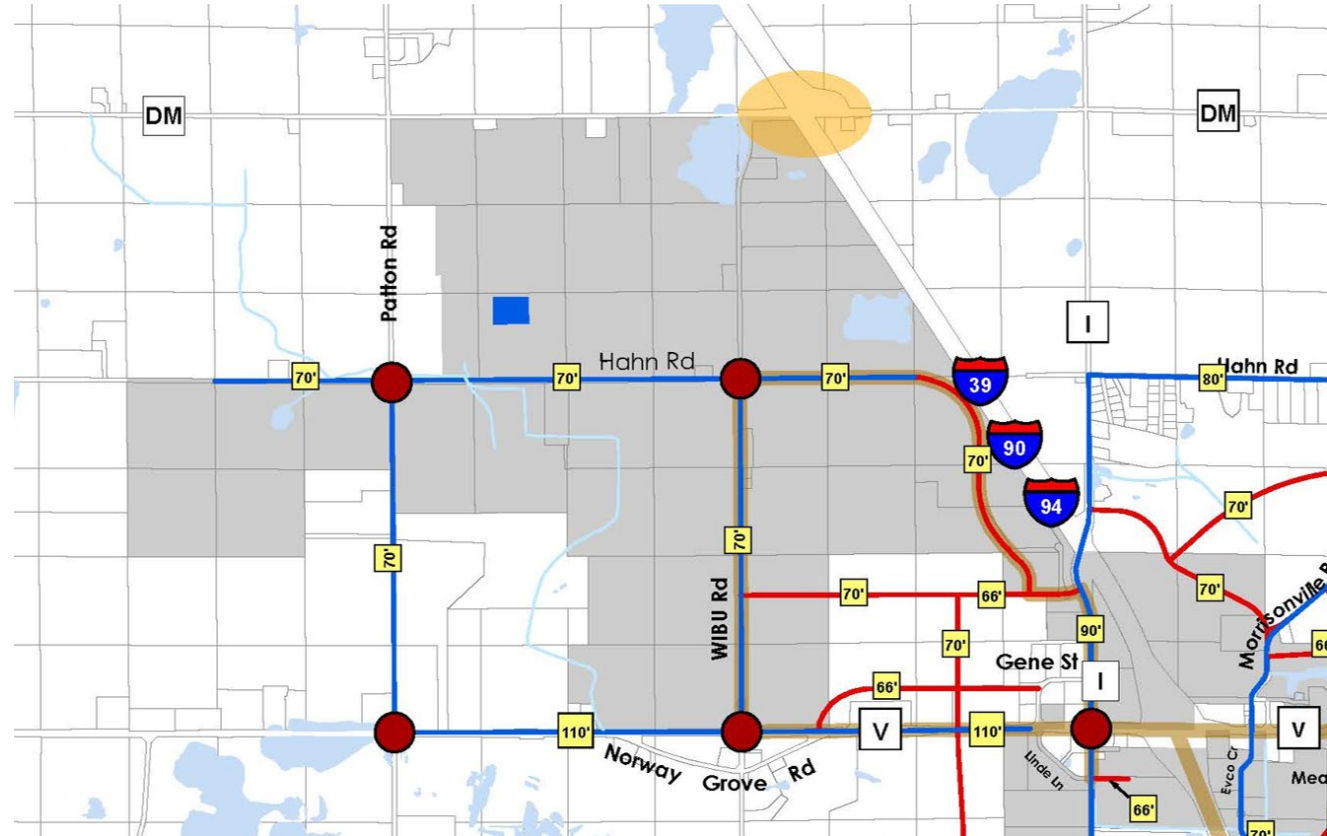




Transportation Planning

- **Traffic Impact Analysis (TIA)**

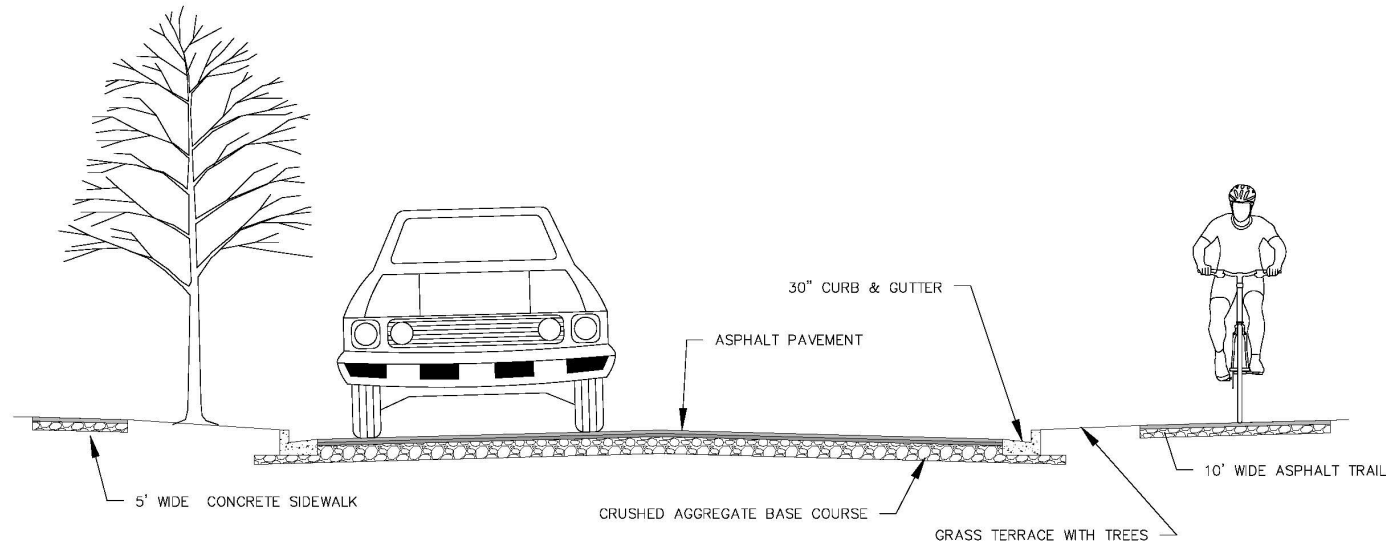
- Analysis Traffic impacts from the development during and after construction



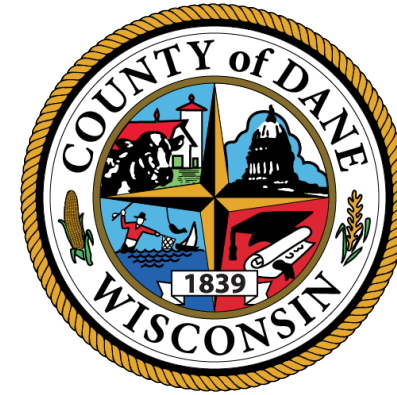
Proposed Improvements



- **Proposed and reconstructed streets to village standards**
 - Provides a network of sidewalks and trails
 - All new and improved streets will be developer funded



Agency Review





Discussion