

**Amendment Area:**

The City of Verona is requesting an Urban Service Area (USA) amendment to add approximately 33.5-acres to the City of Verona USA. Lands included within this amendment include lands located within the City's Southeast Neighborhood.

**Plan Consistency and Need:**

The Liberty Business Park parcel is located within the City's Southeast Neighborhood Plan and is identified as a future "transition" use from non-residential uses to the west, and residential uses to the east. The Well #6 Site is identified as a future non-residential land use. Transitional uses identified in the Plan include "lower intensity non-residential land-uses such as offices or higher intensity residential land-uses such as high-density housing."<sup>1</sup> The Liberty Business Park property is currently zoned Rural Agriculture (RA), which is considered a holding zone for future development. A future rezoning is necessary and will be consistent with the Neighborhood Plan.

The City adopted a Water System Master Plan September of 2006. Both parcels are located within the Southeast Pressure Zone. The Liberty Business Park parcel was located outside the city limits at the time of the creation of the Water System Master Plan, but was included in the future city limits.<sup>2</sup> The proposed USA Amendment is consistent with the City's Comprehensive Plan.

**Intergovernmental Cooperation:**

The City and Town of Verona adopted an Intergovernmental Agreement<sup>3</sup> allowing both governments to cooperate on issues, including municipal boundaries, and both the City and Town have benefited from the creation of this agreement. The proposed amendments are located in both the City and Town of Verona. The Agreement states "the City and Town agree to limit rural development that would make it difficult to efficiently extend urban services to that area in the future"<sup>4</sup>. The Town is aware of the City of Verona USA amendment and has not provided any objections to the application. All of the land being requested is located within areas planned by the City in the Comprehensive Plan and neighborhood plans as depicted in Figure 1.

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<sup>1</sup> Transition-Area Land Uses, Southeast Neighborhood Plan, p. 16, <http://www.ci.verona.wi.us/DocumentCenter/View/626/Adopted-Southeast-Neighborhood-Plan-2010>

<sup>2</sup> Figure 6-2, Future Water System Pressure Zones, p. 6-4

<sup>3</sup> Under Section 66.0301, Wisconsin Statutes, <http://www.ci.verona.wi.us/DocumentCenter/View/1331>

<sup>4</sup> Under Section 66.0301, Wisconsin Statutes, p. 8

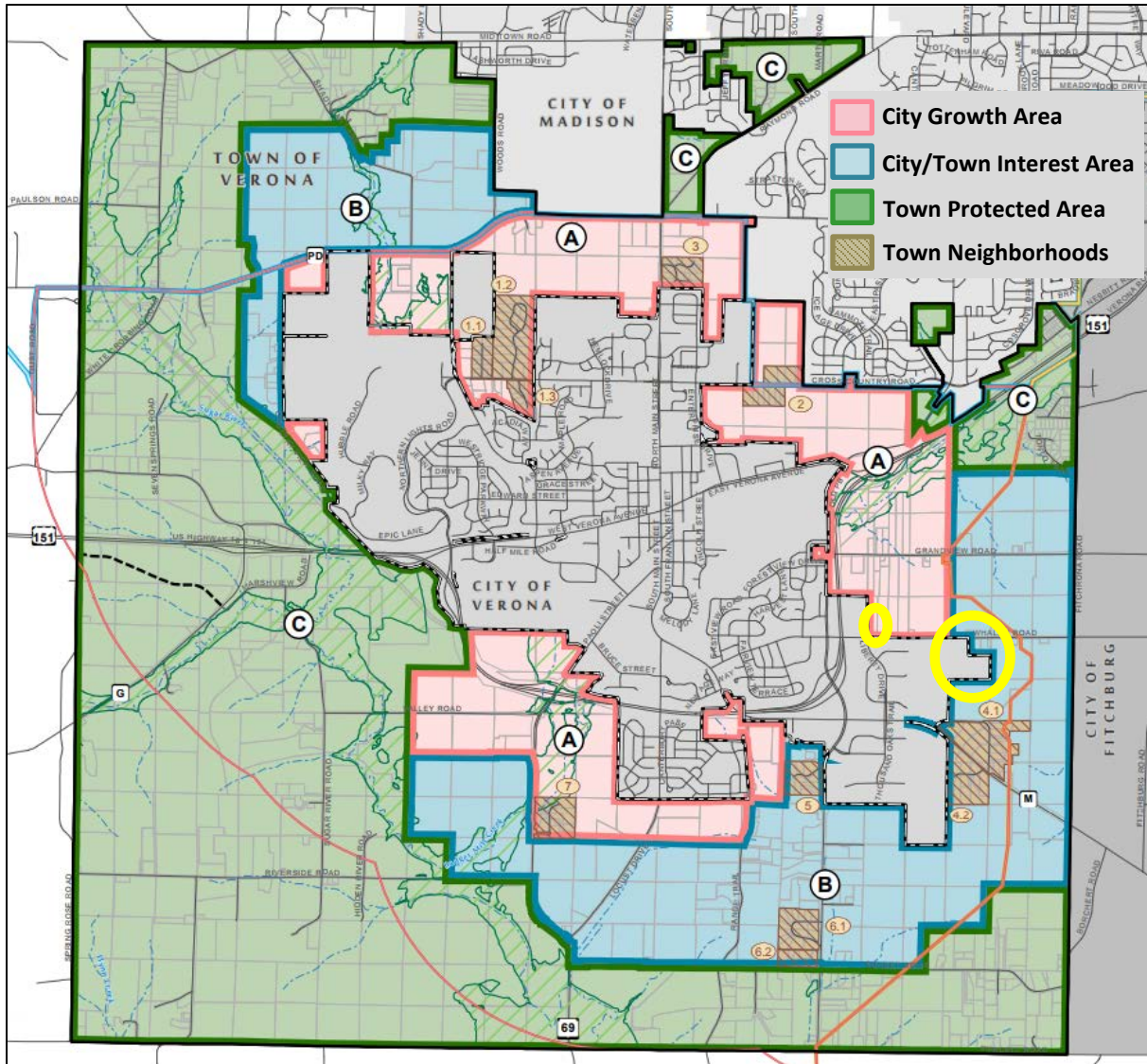


Figure 1 - Planning Areas with yellow circle denoting property

## Land Use:

Liberty Business Park expansion is adjacent to a State Certified Site and is ready for development. Developers continue to show interest in both residential and non-residential uses for the property knowing that it can be combined with the property to the west. Land to the west is already in the City of Verona's USA to have a larger developable area, which the City has answered inquiries regarding the property. The property is zoned rural agriculture until the property owner requests a rezoning. The Southeast Neighborhood Plan designated this property as a transition land use. The Liberty Business Park parcel is already in the City, and needs an USA approval to ensure the property can be developed.

The Well #6 property is designated as non-residential land use, but the City is in the process of purchasing approximately 1.5-acres for use as a municipal well as a public institutional land use. An USA amendment is necessary for the City to construct the municipal well.

Land Use	Total Area (acres)	Existing Development (acres)	Environmental Corridor (acres)
Transitional	32	0	0
Institutional	1.5	0	0
<b>Total</b>	<b>33.5</b>	<b>0</b>	<b>0</b>



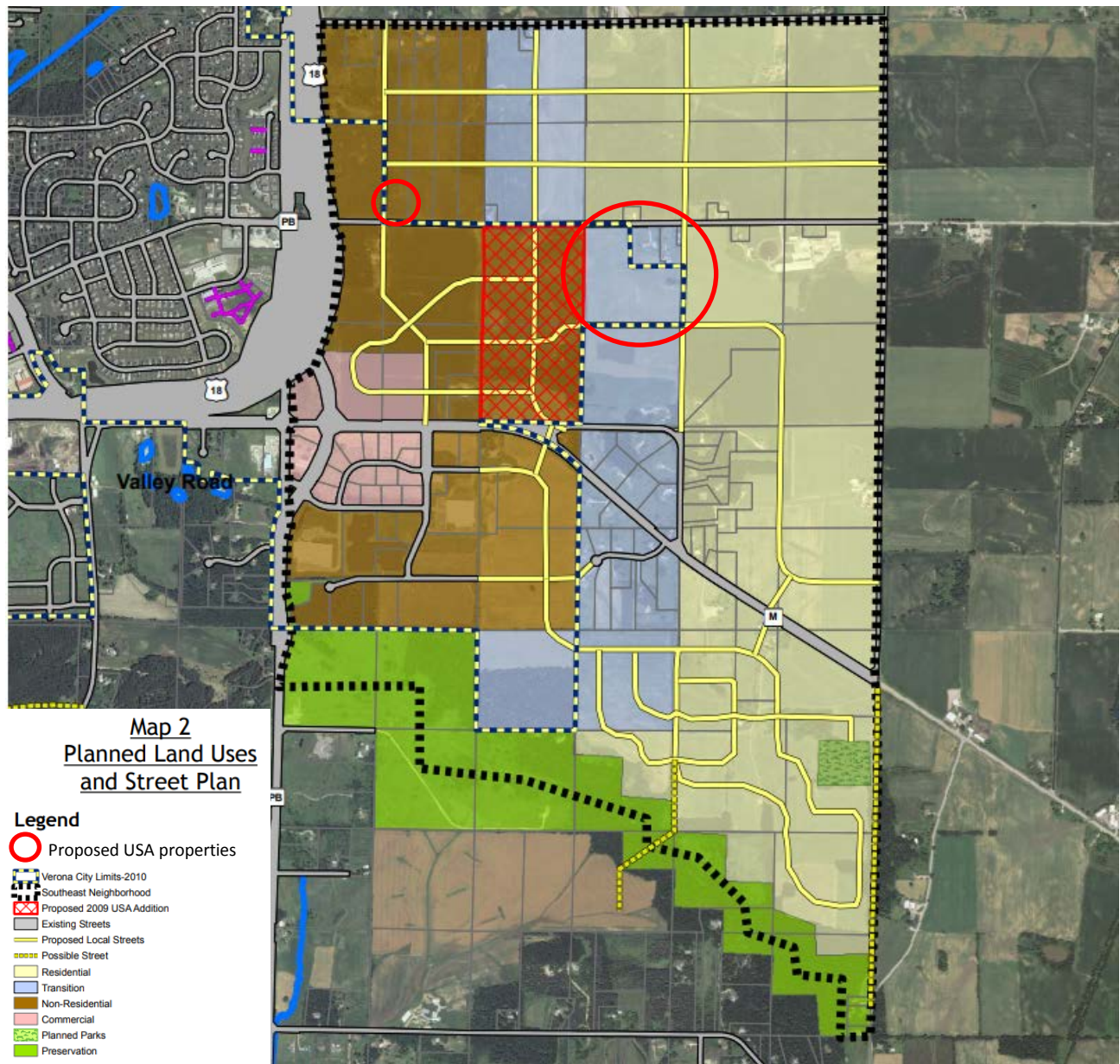
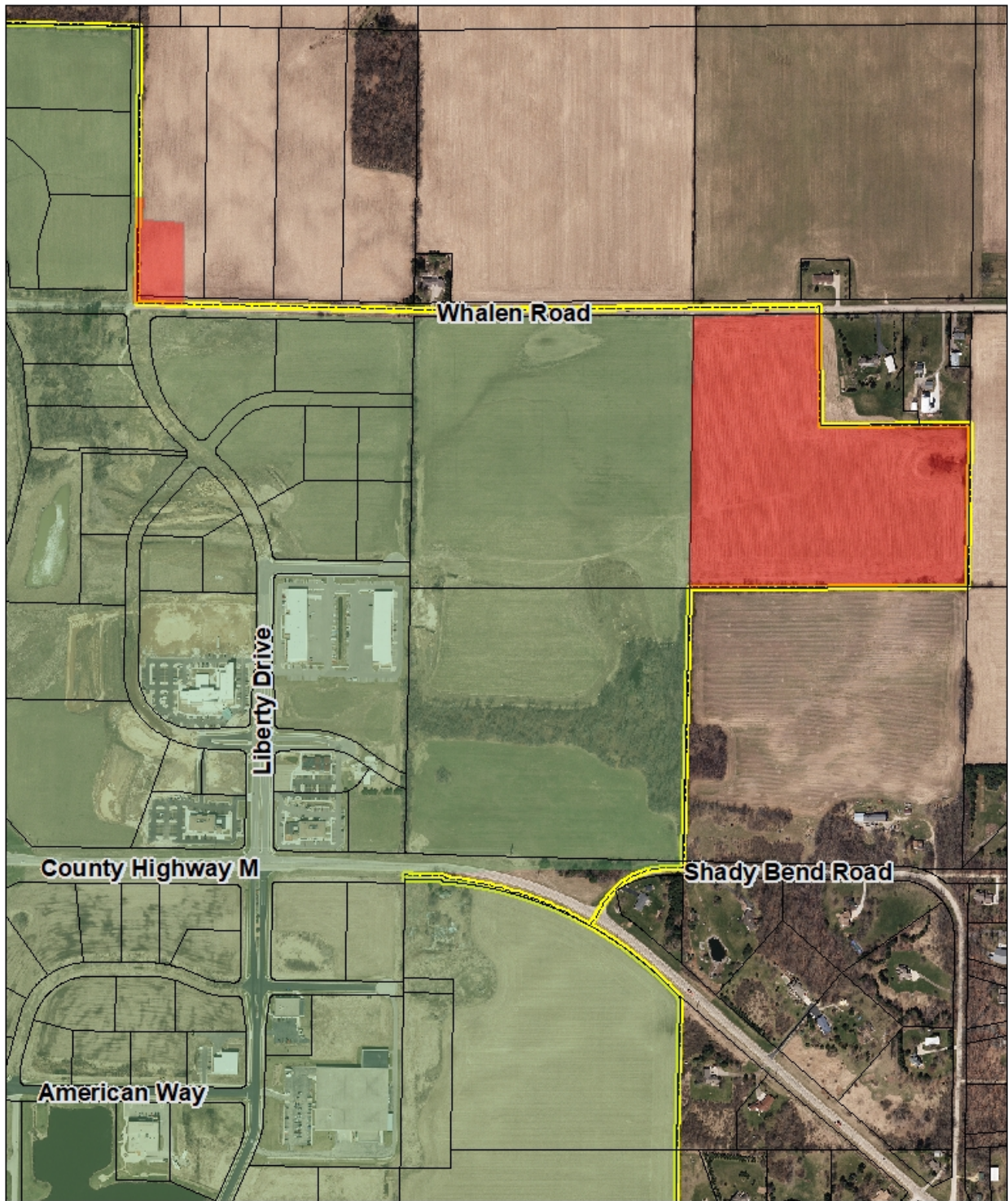


Figure 2 - Southeast Neighborhood Plan





### Legend



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|---|---|
| <span style="display: inline-block; width: 20px; height: 10px; background-color: red; border: 1px solid black;"></span> Proposed Urban Service Area | <span style="display: inline-block; width: 20px; height: 10px; border: 1px solid black;"></span> 2016 Parcels - Dane County |
| <span style="display: inline-block; width: 20px; height: 10px; background-color: lightgreen; border: 1px solid black;"></span> Urban Service Area   | <span style="display: inline-block; width: 20px; height: 10px; border: 2px dashed yellow;"></span> Verona City Limits       |

2017 Aerial  
April 3, 2018

**Natural Resources:**

The parcels contain various types of silt loam soils such as St. Charles, McHenry, and Dodge, which are good for farming. These soils are generally located on less than six (6) percent slopes, with a small portion of McHenry silt loam located on 6 to 12 percent slopes. Kidder loam soil is not prime farmland soils and is located in the area of the property with twelve (12) to twenty (20) percent slopes that are eroded<sup>5</sup>.

The Liberty Business Park parcel includes a small section in the central eastern portion of the property of steep slopes based on the Dane County online GIS mapping. An archeological study based in literature and records was conducted in May 2010 for the property to the west of this parcel. The study determined that there are no known archeological sites and it is presumed to not have inhabits near this area as there is not a significant water resource.

Currently, the property is farmed and will continue to be farmed until a development project is constructed on the property. As part of the land division process, environmental corridors will be designated on the property at that time. There are no known wetlands, forest, floodplains, or other physical constraints that would lend to an environmental corridor designation at this time. Future stormwater ponds or open spaces will be designated as environmental corridors.

**Utilities & Stormwater Management:**

The Madison Metropolitan Sewerage District (MMSD) Nine Springs regional wastewater treatment plant serves the City of Verona and will provide wastewater treatment for development within the amendment area. Capacity information for the Nine Springs treatment plant can be obtained from Curt Sauser at 608-222-1201, ext. 269.

Current average daily flow to the Nine Springs wastewater plant from the City of Verona is 0.94 million gallons per day (January to December 2016 figures). The City's 2007 Wastewater Master Plan set average daily wastewater flows for different development types in areas proposed for future development. The Master Plan assumed 9 to 11 capita per acre for single family, 12 to 18 capita per acre for duplex, and 14 to 22 capita per acre for multi-family. Recent development trends in the City would indicate that the multi-family density has increased up to 36 capita per acre. Wastewater generation averages 81 gallons per capita per day and with inflow and infiltration equals 90 gallons per capita per day. Commercial and industrial development has an average wastewater generation of 600 gallons per acre per day. The peak daily wastewater generation is 400% of average daily flow or 360 gallons per capita per day. The City is currently

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<sup>5</sup> Information from the DCiMap 3.1 website

moving towards the completion of an updated Wastewater Master Plan that should be completed in late 2018.

The existing condition of the sanitary sewer collection system based on the current system model shows pipes serving this proposed addition are currently .25 - .75 percent full for ten (10) year – six (6) hour model event. The existing sanitary sewer system has the capacity to handle the addition of the average daily flow of 16,800 gallons per day without impact to the downstream system. Current capacity of the collection system will allow for an additional 225,000 gallons per day without impact to the system.

The City of Verona has 1,100,000 gallons of elevated water storage in three (3) water towers, and 500,000 gallons of ground reservoir storage and a pumping capacity (wells) of 7,670 gallons per minute. The City currently has five (5) wells. Well 1 pumps 450 gallons per minute, Well 2 pumps 1,170 gallons per minute, Well 3 pumps 1,750 gallons per minute, Well 4 pumps 2,000 gallons per minute, and Well 5 pumps 2,300 gallons per minute, which totals 7,670 gallons per minute. The City's pumping capacity with its largest well out of service is 5,370 gallons per minute.

The City's water system is currently composed of three (3) pressure zones. The Central Zone contains all the wells, a 300,000 gallon water tower, and a 500,000 gallon ground reservoir with 2,000 gallon per minute supply booster station. The Southeast Zone contains a 300,000 gallon water tower and 1,000 gallon per minute supply booster station. The North Zone contains a 500,000 gallon water tower and 1,500 gallon per minute supply booster station.

Current average daily demand is approximately 1.20 million gallons. Peak hourly demand is 2,900 gallons per minute. Projected 2040 average daily demand is 3.33 million gallons with a peak hour demand of 8,000 gallons per minute (City of Verona 2015 Preliminary Water System Master Plan Update).

The City of Verona has adopted stormwater management requirements that are as stringent as or more stringent than current Dane County stormwater management requirements. The City has a full-time public works employee who is responsible for insuring that private and public stormwater management facilities within the City of Verona are being managed and maintained according to the approved management plans for these facilities. The ownership and management follows the City's development procedures. Stormwater management facilities that are designed at the plat level or certified survey map (CSM) level and located in outlots that are dedicated to the public are ultimately owned and managed by the City. Facilities that are not dedicated to the City are owned and maintained by the property owner.

The amendment area to the north of Whalen Road drains toward Whalen Road into the ditch running west along the north side of Whalen Road toward U.S. Highway 18/151.

From there, it drains into an Unnamed River or Stream (per the WDNR Surface Water Data Viewer) which ultimately drains to Badger Mill Creek. Because the impervious area on the Well #6 parcel is less than 4,000 square feet, there are currently no stormwater treatment facilities. Should the parcel be redeveloped, stormwater treatment may be required per City ordinance requirements.

The amendment area for Liberty Business Park drains to the property to the west. From there, it drains into an Unnamed River or Stream (per the WDNR Surface Water Data Viewer) which ultimately drains to Badger Mill Creek. This amendment area is completely undeveloped. In this amendment area, individual/private stormwater treatment basins on developable parcels will be utilized to manage stormwater. Standards for these basins, as well as erosion control requirements during site grading and other development activities, will be conducted in accordance with the City of Verona's adopted stormwater management and erosion control ordinances.

The City of Verona has adopted construction site erosion and stormwater run-off control standards in Chapter 15-2 of the Code of City Ordinances. Chapter 15-2 has standards for sediment control, oil & grease control, run off control, infiltration and thermal control for new developments that will occur in the amendment area in accordance with Wisconsin Administrative Code NR 151 and NR 216, and the Dane County Stormwater Management and Erosion Control Ordinance. For new development the standards in the ordinance are summarized as follows:

- Sediment: Retain 3 micron size soil particles resulting from a 1 year storm event.
- Oil & Grease: Treat the first 0.5 inches of run-off using best management practices at commercial and industrial sites.
- Run-Off: Maintain pre-settlement peak run-off rates for the 1, 2, 10 & 100 year storm events.
- Thermal: Stormwater management plans must include provisions and practices to reduce runoff temperatures for sites within the City since the entire City of Verona lies within the Upper Sugar River and Badger Mill Creek Water Sheds.
- Infiltration: Infiltrate sufficient runoff volume so that post-development infiltration volume is a least 90% of the pre-development infiltration volume, based on average annual rainfall.

The above standards will reduce the impact of development on the Badger Mill Creek and Upper Sugar River through minimization of sediment in stormwater run-off both during and after construction.

The City's Ordinance is enforced through the issuing of erosion control and stormwater management permits as part of the building permit process. The City Engineer reviews



all erosion control and stormwater management permit applications. Often times these reviews result in modifications to the proposed plans.

The City has committed to follow up on the approved erosion control plans through the Public Works Staff. Staff follows up on the stormwater management plans that have been implemented and inspects commercial and industrial construction sites for compliance with erosion control plans. The Building Inspector enforces erosion control requirements on residential development.

The issuance of the erosion control and stormwater management permits by the City Engineer requires the implementation of erosion and stormwater management controls as the first step in the construction process. Failure to meet this requirement subjects the contractor to cease work orders and fines. The requirement to implement stormwater management controls is enforced by both the Public Works Department and Building Inspection Department Staff.

#### Well #6 Property

The Well #6 property is a 1.32 acre site located north of Whalen Road and east of the Liberty Business Park. The subject property is currently located in the Town of Verona. This property is located east of the existing East Side Interceptor service area. Sanitary sewer service will be provided through the extension of the East Side Interceptor east along Whalen Road. Development of this property will generate no measurable wastewater flow on a daily basis. The proposed building to be located on this site will be a new municipal well and well house that will not be occupied on a daily basis but periodically occupied throughout the week as City staff check the well and well house. Wastewater generated at this facility will be conveyed to MMSD PS17 located within the City of Verona.

The property is served by the Southeast pressure zone. The proposed well and well house will provide additional reliability to the Southeast pressure zone, fortify the fire flow demand for the Southeast pressure zone, and provides additional capacity. The proposed well will connect to the existing distribution system located within the Whalen Road right-of-way that will feed the existing system south into the Liberty Business Park and west into the City of Verona.

Stormwater management is not required for the Well #6 property due to the size of the construction and the resulting impervious area. The property is currently located within the Town of Verona and will be annexed into the City of Verona prior to any construction. Stormwater runoff is directed toward Whalen Road where water will enter the existing ditch and be conveyed west toward the Highway 18/151 bypass.

The proposed Well #6 is designed to produce 2,000 gallon per minute as outlined in the design report and Public Service Commission (PSC) submittal, which are attached. PSC has approved the construction of a 2,000 gallon per minute well as noted in the attached approval documents. The Wisconsin Department of Natural Resources has approved the plans and specifications for the construction of the proposed Well #6 and Well #6 pump house as noted in the attached documents.

#### Liberty Business Park Addition

The Liberty Business Park expansion area is an approximately 32-acre parcel of land that is currently within the City of Verona. This property lies to the east of the existing East Side Interceptor current service area. This area will be served by extending the existing 12-inch East Side Interceptor, which will collect the wastewater and convey it through the gravity collection system to MMSD PS 17 in the City of Verona. The projected average daily wastewater flow from this expansion is estimated to be 0.02 million gallons per day or 0.02 cubic feet per second. City Staff has assumed fifteen (15) percent of the 32-acres (about 5 acres) is right-of-way and stormwater management. Using an average of 600 gallons per day per acre for commercial development, the resulting wastewater flow is 16,800 gallons per day, or 67,200 gallons per day peak flow. This equates to 0.10 cubic feet per second. These numbers are estimates as an approved site plan does not exist at this time.

The Southeast Zone of the water system serves this area. The existing 8-inch diameter watermain on Clarity Street will be extended into this parcel to serve future development. The watermain will be looped back into the existing 12-inch main on Liberty Drive within the Ambition Street right-of-way. The developer will be responsible to extend the water mains into the property as development occurs. The 300,000 gallon Southeast water tower and the Southeast booster station can provide 3,500 gallon per minute of available firefighting capacity being 300,000 gallons divided by 150 minutes, plus the 2,000 gallons per minute from the Southeast booster station meet the demand requirements.

Stormwater management in the Liberty Business Park property will be through the construction of a new stormwater detention basin, and infiltration basin as proposed and approved as part of the overall stormwater management plan for the Liberty Business Park. As development continues throughout the Liberty Business Park, individual develop plans will be submitted for review by the City for compliance with the approved stormwater management plan and City standards. Stormwater generated within this expansion will drain to either a future planned detention basin and infiltration basin, or to the existing west basin adjacent to the Highway 18/151 bypass. The existing West basin and the proposed east basin are to be public facilities owned and maintained by the City.