CENTRAL URBAN SERVICE AREA AMENDMENT APPLICATION

TOWN OF MIDDLETON

This information supports the Town of Middleton's application to amend the Central Urban Service Area to include several parcels plus public rights-of-way totaling 127.3 acres. These include parcels 0708-301-8075-0, 0708-301-8220-0, 0708-292-8600-6, 0708-292-9010-8, 0708-292-9630-8, 0708-292-9670-0, 0708-293-8001-0, and 0708-301-9890-2. The parcels, referred to as the "Pioneer Pointe" land, are currently addressed at 7701 W. Mineral Point Road and 3671 Pioneer Road, and located west of Pioneer Road and south of Mineral Point Road. The lands are currently within the Town of Middleton and are intended to remain in the Town while being served by a City of Madison sanitary sewer.

Submitted: June 10, 2019

Prepared by: Vierbicher

With support from the City of Madison and Town of Middleton Staff

TABLE OF CONTENTS

<u>Desc</u>	Page #		
Plan Co	nsister	ncy and Need	2
	1.1	Introduction	
	1.2	Town and City Resolutions	
	1.3	Community and Neighborhood Plans	
	1.4	The Need for CUSA Expansion	
Intergov	vernm	ental Cooperation	7
	2.1 2.2	Notification of Adjacent Local Governmental Units Adjacent Local Governmental Objections or Support	
Land Us	se		7
;	3.1	Existing and Proposed Land Use	
Natural	Resou	rces	8
	4.1 4.2	Treatment of Natural Resources Environmental Corridors	
Utilities o	and St	ormwater Management	9
;	5.1 5.2 5.3 5.4	Sanitary Sewer Service Water Supply Stormwater Management Flood Study	
Append	dices		11
1	Map B Map C Map E Map E	A: Jurisdiction and Ownership Map for CUSA Amendment Area b: Town Comprehensive Plan Future Land Use Map c: City of Madison Pioneer Neighborhood Development Plan b: Concept Plan Map for CUSA Amendment Area b: Natural Resources Map c: Utilities Map	

Plan Consistency and Need

1.1 Introduction

The Town of Middleton (Town) is submitting this request for an Urban Service Area Amendment (USAA) to extend sanitary sewer service to a 127.3 acre parcel within the Town of Middleton. The request is for sanitary sewer only, not municipal water service. **Map A** shows the proposed Central Urban Service Area (CUSA) amendment area, including existing public rights-of-way. The subject property is south of Mineral Point Road and west of Pioneer Road. To the north are residential lots, a gas station, commercial greenhouse, the West Middleton Elementary School (all south of Mineral Point Road), and a residential subdivision and farm (north of Mineral Point Road). To the east across Pioneer Road is agricultural land and a construction business, within an area planned for the future development of the "Pioneer Neighborhood" within the City of Madison. To the south and west are residential subdivisions and one lot along Mineral Point Road that is planned for commercial use.

For purposes of this application, the proposed expansion area is referred to as "Pioneer Pointe". The real estate within the USAA area is owned by Tumbledown Trails Golf Course, LLC and Watts Family Trust. The Town has been in conversations with the land owner and a private developer for over a year regarding future proposals for the golf course area. This has resulted in consensus on the development concept plan reflected in this USAA application. See **Map D** for proposed Concept Plan.

1.2 Town and City Resolutions

The Town has passed a resolution in support of this USAA application, and the City will be affirming the provision of sanitary sewer through adoption of a resolution approving a Sewer Service Agreement with the Town. The Town's resolution is included in the application. Copies of the City's resolution will be provided upon final approval.

1.3 Community and Neighborhood Plans

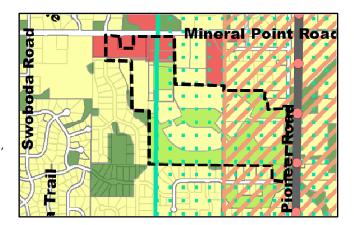
The Town has determined that the addition of the Pioneer Pointe land to the CUSA is consistent with the Town's Comprehensive Plan adopted in 2009 (as amended most recently in March 2019), and with the Town's 2005 Tumbledown Neighborhood Plan (see Town Board resolution). Both units of government have determined that the proposed USAA is consistent with the 2003 City of Madison and Town of Middleton Cooperative Plan, including standards for development within the intergovernmental "Transition Area" that extends ½ mile west of Pioneer Road.

Town Comprehensive Plan

The proposed USA amendment is consistent with the general goals and policies in the Town's Comprehensive Plan. The area is planned for a mixture of "Residential," "Commercial," and "Commercial Recreation" land uses (see **Map B**).

This image shows the USAA area within the context of the Town Future Land Use Map. The orange hashed area depicts the area subject to the Cooperative Plan's Transition Area Development Standards.

The proposed USAA advances specific goals, objectives, and policies in the Town Comprehensive Plan:



(Land Use)

- Goal: Promote a pattern of development that fosters the preservation of the quality of life and the semi-rural character of the Town of Middleton.
- Goal: Promote a pattern of development that minimizes potential conflicts between incompatible land uses.
- Commercial Development Objective: Encourage the development of new retail commercial uses in identified commercial corridors.
 - Policy: Direct businesses to locate along U.S. Highway 14, Mineral Point Road and within appropriate Town islands.
- Environmental Protection Objective: New development should not negatively impact the natural environment or existing property.

(Economic Development)

- Goal: Consider economic development in all future planning decisions.
 - Policy: The Town should consider the health of the Town's existing businesses as well as the state of the agricultural community as a business when making landuse decisions.

(Transportation)

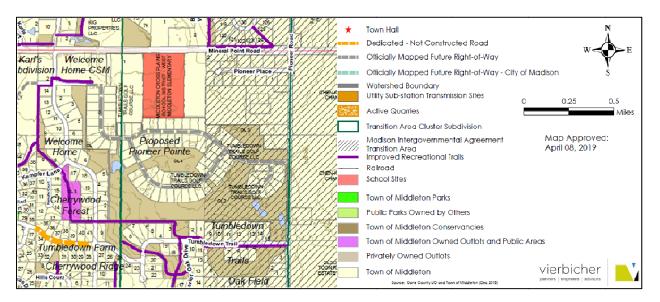
- Goal: The transportation network will be well planned, properly maintained, and
 affordable. It will provide multiple options for safe and efficient access and travel
 within, to and from the Town. Transportation improvements and additions will be
 compatible with the semi-rural character of the Town, support growth plans, consider
 interconnectivity within and across Town borders, and enhance the quality of Town
 life, but will not unnecessarily impact private property or the environment.
- Transportation Objective: Encourage the provision of well-spaced access points from large subdivisions onto the arterial and collector street system. Particular attention should be afforded to the design of the street systems serving the extension of existing subdivisions.
- Transportation Objective: Consider transportation in meeting overall Town planning goals.
 - Policy: Ensure that new development proposals properly address/mitigate traffic impacts.

 Transportation Objective: Consider compatibility with long range transportation plans of adjacent municipalities, Dane County, the MPO, and the Wisconsin DOT.

Through its Comprehensive Plan and land division ordinance, the Town has established its own "Transition Area" extending ½ mile west of Pioneer Road which is intended as a focus area for directing higher-density and more varied housing development. Sewered development offers a different housing option from the private septic lots that are currently available in the Town, and Town ordinances allow for sewered lots.

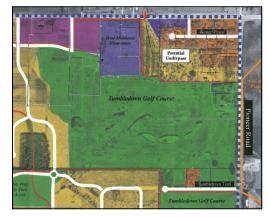
At this time, the Town is beginning a 10-year update to its Comprehensive Plan, to meet state statutory requirements. The Town amended its Future Land Use Map most recently in February of 2019, which updated the planned land use designation for lands within the USAA area and corrected existing map discrepancies. The current Future Land Use Map and goals highlighted above continue to guide land use decisions in the Pioneer Pointe area.

The Town's Official Map was last updated in April 2019, and reflects existing and planned street rights-of-way (see Map C). It is the Town's practice to update the Official Map annually, and to reflect platted developments that have been approved. At this time, the map reflects a future street pattern from an earlier version of the Pioneer Pointe development that had obtained preliminary plat approval. The future street layout in this area is approximate and is subject to change slightly based on the USAA proposal and future revised plat submittals.



Town's Tumbledown Neighborhood Plan (drafted 2005)

The proposed USAA is generally consistent with the 2005 Neighborhood Plan, as it maintains recreational use in the golf course area, is in keeping with the rural character of the Town, provides for improved local street connections, and future development in this area has the potential to improve both stormwater drainage and the viability of the golf course, in keeping with the plan's recommendations.



While the Neighborhood Plan initially envisioned a larger expanse of land for the golf course operation, the plan also recognized that the golf course may not always be there. For over a year, the Town has been in conversations with the land owner regarding future proposals for the golf course, which has resulted in consensus on plans to incorporate residential land uses into the golf course, incorporating the golf course as a planned neighborhood amenity. The Town views the modified golf course that will be part of the proposed residential development to be more viable than the existing golf course.

<u>City's Pioneer Neighborhood Development Plan</u> (Adopted 2004 and Amended 2018)

In preparing this USAA application, the City's plans for the area east of Pioneer Road were considered. The Town, City, and developer have been coordinating on the sanitary sewer agreement for the USAA area, as well as on planning for future streets and stormwater management. The area east of Pioneer Road is planned for lower-density residential and open space, including stormwater management areas receiving water from the west. A future planned street, Shady Birch Trail, is planned to intersect with Pioneer Road from this neighborhood. See Map C.

The City's Pioneer Neighborhood plan is available at https://www.cityofmadison.com/dpced/planning/documents/Pioneer NDP update.pdf



City of Madison and Town of Middleton Cooperative Plan (2003)

In 2003 the City and Town entered into a Cooperative Plan that extends to 2042 and is intended to assure orderly development of the City and Town. The Cooperative Plan set Pioneer Road as the future City-Town boundary, and established a Boundary Adjustment Area east of Pioneer Road to allow the area to be attached to and developed to City standards, served by a full range of City services. Lands within the Boundary Adjustment Area that have not been already attached to the City of Madison will be attached to the City in 2042.

The Cooperative Plan also sets Transition Area Development Standards for the area within ½ mile of Pioneer Road. These standards limit residential densities to four units per net acre, prohibit new driveway access, and require an 80-foot landscape building setback along Pioneer Road. The agreement provides that streets west of Pioneer Road shall be approved by the Town, but suggests cooperation with the City on street alignment to the extent possible. The proposed future street layout shown on **Map D** has been reviewed by the City.

In addition, Cooperative Plan provides that the Town and City shall work to establish environmental corridors in the Transition Area that are to be used for stormwater management, park, and recreational purposes.

1.4 The Need for CUSA Expansion

The addition of the Pioneer Pointe area to the CUSA would allow for orderly development in the Town's Tumbledown Neighborhood and in the Transition Areas established by Town ordinances and the City-Town Cooperative Plan. The expansion will help implement community goals, including land uses within this unique area and sustaining the Town's economic base.

After over a year of coordination between land owners and the Town, a development concept has been proposed for the Pioneer Pointe area that would provide for sewered residential lots as part of an integrated golf course subdivision. The Tumbledown Golf Course, which opened in 1996, went out of business in 2018. The Town wishes to keep a golf course amenity in this area, and incorporating sewered residential, recreational and commercial development into the land use plan for the area will help to achieve that.

Sewer service enables greater options for housing and commercial businesses, compared to the developed lots on private septic that are currently available in the Town. Currently, nearly all of the land in the Town is served by private water wells and septic systems. Poor soils in this area would require less practical and less desirable forms of private septic systems in the proposed CUSA. The proposed CUSA expansion area is contiguous with the existing CUSA boundary, which extends to Pioneer Road between Old Sauk Road and Valley View Road. The Town has received inquiries about the possibility of sewer service in this area, indicating demand. The City anticipates that the Pioneer Neighborhood east of Pioneer Road may build out in the next ten years.

Since the 1970s, the Town has transitioned from a predominantly rural community to a blend of farms, single-family homes, and suburban-style residential developments. The Town currently contains 6,440 residents and 2,165 households (based on WDOA 2018 population estimates and ACS 2013-2017 5-year estimates).

By 2040, the Town is projected to gain 2,453 new residents and 1,020 new households, to reach a total 8,330 residents and 3,016 households (based on WI DOA projections). As the region continues to grow, increasing population presents the Town with the challenge of maintaining a balance between traditional Town management concepts and offering a diverse set of amenities, facilities, and services that residents expect. The desire of the Town to maintain its "rural character" dictates that development opportunities incorporate substantial open space and that significant lands be devoted to recreation.

Intergovernmental Cooperation

2.1 Notification of Adjacent Local Governmental Units

The City of Madison, the only adjacent municipality, is aware of this application.

2.2 Adjacent Local Governmental Objections or Support

Support for this USA application will be indicated in a City resolution related to a Sewer Service Agreement. No objections to the proposed USAA have been received to date by either the Town or the City from other units of government.

Land Use

3.1 Existing and Proposed Land Use

Map A shows the proposed USAA Boundary in relation to current streets and jurisdictional boundaries. **Map D** shows the land uses existing and proposed within and surrounding the USAA area. Table 1 shows the acreage of existing and proposed land uses. Most of the land within Pioneer Pointe is currently in use as a privately owned, commercial golf course. One property in the east end (along Pioneer Road) is currently used for golf course maintenance purposes, and is intended to remain in this use although it is not proposed as environmental corridor. The west end currently contains two parcels that are planned, platted and zoned for commercial use – one is currently undeveloped; the other is the site of the existing (closed) golf course clubhouse, which is anticipated to be redeveloped for the same general use.

Residential lots in this area are intended to be developed as "cluster subdivision" lots, which are generally smaller than traditional subdivision lots in the Town and utilize common open spaces to meet Town open space requirements. Town ordinances allow for sewered lots, which require a smaller minimum lot size than typical (unsewered) "cluster" lots.

Table 1: CUSA Expansion Area Data

Land Use	Existing Development (acres)	Proposed Land Use (acres)	Environmental Corridor (acres)	Estimated Avg. Units per Acre ***	Estimated Housing Units
Low-Density Residential (Total)		46.9		1.9	89
Low-Density Residential (Intergovernmental Transition Area 1/4 mile from Pioneer Road)		13.0		1.8	23
Commercial	15.3	12.4			
Industrial		-			
Institutional		-			
Street ROW*		12.0			
Recreation (golf course)	111.1	44.3	44.3		
Stormwater Management		4.6	4.6		
Other Open Space**		7.0	7.0		
TOTAL	126.4	127.3	55.9	0.7	89

^{* &}quot;Street ROW" includes all existing and proposed rights-of-way, including existing street right-of-way that establishes contiguity to the existing CUSA, plus planned future roads.

Development Phasing

All lands within the proposed USAA expansion area are intended to be developed within 10 years. For this reason, the entire area is shown on Map D as being within one staging boundary.

^{** &}quot;Other Open Space" includes anticipated floodplain acreage based on the Concept Plan.

^{***} Average density is calculated as net density, exclusive of proposed open spaces and outlots. This matches the density standard set in the Town-City Cooperative Plan.

Natural Resources

4.1 Treatment of Natural Resources

Identified and proposed natural resources are shown on **Map E**. This includes existing wetland, slopes, and drainageways. There are hydric soils present within this area, which correspond to the delineated wetland. The delineated wetland area does not match existing records in the County's GIS mapping database (see the enclosed RA Smith wetland delineation Report and DNR determination for more information). No stream navigability determinations have been made for the land.

The land is characterized by limited topography and is generally flat in nature. While the USAA area contains some slopes greater than 12% and 20%, these are predominantly man-made, with the majority being slopes created as part of the existing Tumbledown Trails Golf Course for landscaping and water features.

A small (0.17-acre) wetland area has been delineated in the northeast corner of the expansion area, where an existing drainageway enters the land from the north. This wetland may be proposed for modification as part of stormwater management plans for this area as it develops. Future decisions about the wetland will be subject to review by other agencies.

Within the Pioneer Pointe area, all stormwater management facilities and outlots are proposed to be privately owned and maintained; no public outlots or facilities are anticipated. Stormwater management plans for this area will be coordinated with the City of Madison.

4.2 Environmental Corridors

Proposed environmental corridors are shown on **Map D** and **Map E**. The proposed corridors comprise the following:

- The stormwater management facilities (basins) serving the Pioneer Pointe development;
- The stormwater drainage way that passes through the Pioneer Pointe development (which will contain the 100-year water elevation); and
- All recreational outlots that are proposed for use as part of the golf course.

The proposal exceeds the minimum environmental corridor requirements established by CARPC and WDNR, by including areas that have both "primary" and "secondary or supplemental" functions as open space. The corridors include private recreation areas in addition to environmental features such as drainageways.

The size and configuration of the environmental corridor areas may be refined as detailed site plans are developed for the property within the expansion area. Town policies and ordinances require the protection of environmentally sensitive lands, including floodplains, surface and groundwater resources, and open space.

Utilities and Stormwater Management

The expansion area is proposed to be served by the City of Madison's sanitary sewer system, while remaining on private water wells as the water source. The proposed sewer system is shown on **Map F**.

5.1 Sanitary Sewer Service

It is anticipated that development in the expansion area will generate an average of 37,283 gallons of wastewater per day (GPD) or 26 gallons per minute (GPM). This estimate is based on the assumptions below. Utilizing a peaking factor of 4, it is assumed that the expansion area would generate a peak of 117,383 GPD or 82 GPM.

USAA LOADING ANALYSIS											
						AVERAGE					
	TOTAL	RESIDENTIAL	SINGLE-			DAILY	PEAK	PEAK			
TOTAL	SANITARY	(SINGLE-FAMILY)	FAMILY		RESIDENTIAL	SANITARY	SANITARY	SANITARY			
DEVELOPMENT	BASIN AREA	BASIN AREA	HOUSING	COMMERCIAL	PEAKING	LOADING	LOADING	LOADING			
AREA (ACRES)	(ACRES)	(ACRES)	UNITS	AREA (ACRES)	FACTOR	(GAL/DAY)	(GAL/DAY)	(GAL/MIN)			
126.55	61.01	46.90	89	14.11	4.0	37283	117383	82			

- (1) Residential peaking factor of 4.0 used based on community population size under 1,000 (NR110.15(4)(c)
- (2) Wastewater generation of 100 gallons per day per person used for residential land use (NR110.13(b)3.); assumed 3 persons per housing unit
- (3) 750 gallons per acre per day used for commercial area (MMSD Collection System Evaluation Estimate Average)
- (4) Golf course/outlot area assumed as environmental corridor and non-contributing to sanitary basin area

Using general assumptions for water usage (89 Low Density Residential units at 300 gpd and 14.11 acres of commercial development at 750 gpd/ acre), the amendment area will generate an average of 37,283 gallons of wastewater per day. Utilizing a peaking factor of 4 for the residential area and not the commercial area, it is assumed that the amendment area will generate a peak of 117,383 gallons per day or 82 gallons per minute (gpm). The 750 gallons per day per acre used for the commercial area is the Madison Metropolitan Sewerage District (MMSD) collection system evaluation estimated average.

The Town of Middleton amendment area will be served by the City's existing Lower Badger Mill Creek (LBMC) Sanitary Interceptors. The LBMC Phase 1 Sanitary Interceptor is located between Mid-Town Road and Valley View Road. It is 27 inches in diameter and has a design capacity of 6,561 gpm. The Phase 2 Sanitary Interceptor is located between Valley View Road and Mineral Point Road and along Pioneer Road where this Town development will be connecting. It is 21 inches in diameter and has a design capacity of 3,187 gpm.

These interceptors drain to the Mid-Town Lift Station located on Mid-Town Road between Meadow Road and Hidden Hill Drive. This lift station has a total capacity of 650 gpm. Recent average flows were 123 gpm with peak flows reaching 1,089 gpm during the August 21, 2018 storm event (9.62" rainfall). This basin despite being new has shown to be prone to Inflow Infiltration (clearwater entering the sewer collection system). Taking out the August 21st rain event, 247 gpd was the maximum flow volume observed at the lift station (Feb, 20, 2018, 0.84" of rainfall). The Mid-Town lift station design capacity will accommodate approximately 1,000 dwelling units. When the lift station nears capacity, it will be relieved by a MMSD owned sewer Interceptor along the LBMC corridor between Mid-Town Road and CTH PD. MMSD's current plan is to relieve the Mid-Town Lift Station in 2024.

5.2 Water Supply

Water will be provided to the expansion area by private wells. It is anticipated that development in this area will require 50 to 94 wells, depending on whether the wells all serve individual lots or if some are shared. This range is based on the following assumptions:

- 89 single-family homes would require either 89 individual wells or 45 joint wells (with 2 homes per joint well).
- One commercial site for the Golf Course clubhouse (along Mineral Point Road) will require 1 well.
- One 6-acre commercial property (Watts property on Mineral Point Road) may require up to 3 wells. (Note: This assumes 3 different future uses for the property and may be a high estimate.)
- The existing golf course maintenance lot (along Pioneer Road) currently contains a separate well and it is assumed that well will remain in place.

Future average well depth is anticipated to be approximately 225-300 feet, with a minimum depth of 150 feet and maximum depth of 400 feet.

Based on a 2015 report provided by CARPC, the expansion area appears to lie within an area that indicates a pattern of nitrate levels between 8 and 12 mg/L. This data is based on well records dating from the 1970s to 2014, as well as statistical analysis and groundwater modeling. Thus far, the Town is not aware of any specific issues with nitrate levels in wells within the expansion area. More localized well site testing would be needed to verify the specific nitrate levels in this area.

5.3 Stormwater Management

The expansion area lies within the Lower Badger Mill Creek watershed. This watershed encompasses an area on the far west side of Madison, the south side of the Town, and extends south to the City of Verona. The watershed is tributary to the Upper Sugar River, which is a coldwater sport fishery.

The expansion area includes anticipated locations for stormwater detention/infiltration facilities. These facilities will, at a minimum, be designed to meet the City of Madison and Dane County infiltration requirements which require providing 90% of the predevelopment infiltration volume. Conceptual locations for stormwater basins are shown on **Maps D**, **E**, **and F**. Within the Pioneer Pointe development, it is anticipated that stormwater management will consist of detention basins serving the golf course clubhouse site, golf course maintenance site, and residential land uses, and one individual stormwater basin will serve the commercial site in the northwest corner. These facilities will be implemented through future development approvals. Private land owners will be responsible for the management and long-term maintenance of all stormwater facilities within the expansion area.

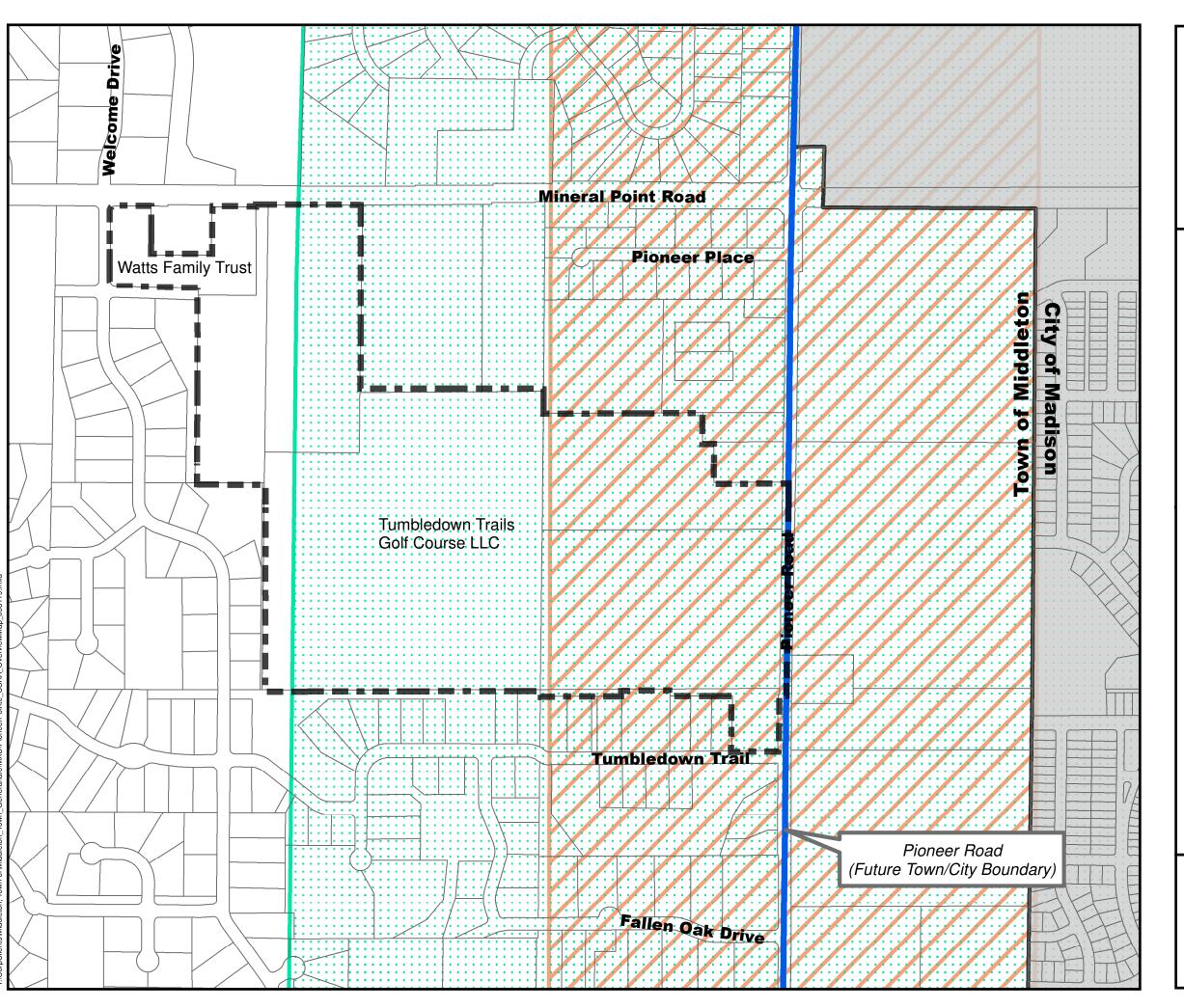
Existing pond areas within the expansion area were created primarily for aesthetic purposes and as a source for the golf course irrigation system. They do not provide stormwater treatment for

the existing developed area, and for this reason are not counted as existing "stormwater management" acreage.

The Town, land developer, and City of Madison have been coordinating on stormwater management planning in this area, in order to ensure orderly development and functional drainage patterns across both sides of Pioneer Road. Per this coordination with the City, stormwater management plans for the Pioneer Pointe area will utilize current conditions for Pioneer Road (profile and cross culverts), as no improvements to Pioneer Road are planned at this time.

5.4 Flood Study

A flood study was conducted in 2018, revised in early 2019, and is currently being revised and updated based on current-day stormwater calculations and modeling assumptions for 100-year events. A copy of the final Flood Study will be provided for this USAA application as soon as it is available.



Map A: Jurisdiction & Ownership Map CUSA Pioneer Pointe

Drafted June 10, 2019 Approved

Legend

Proposed CUSA Boundary

Existing CUSA Boundary

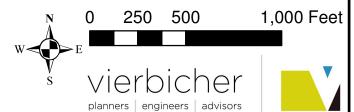
Parcels

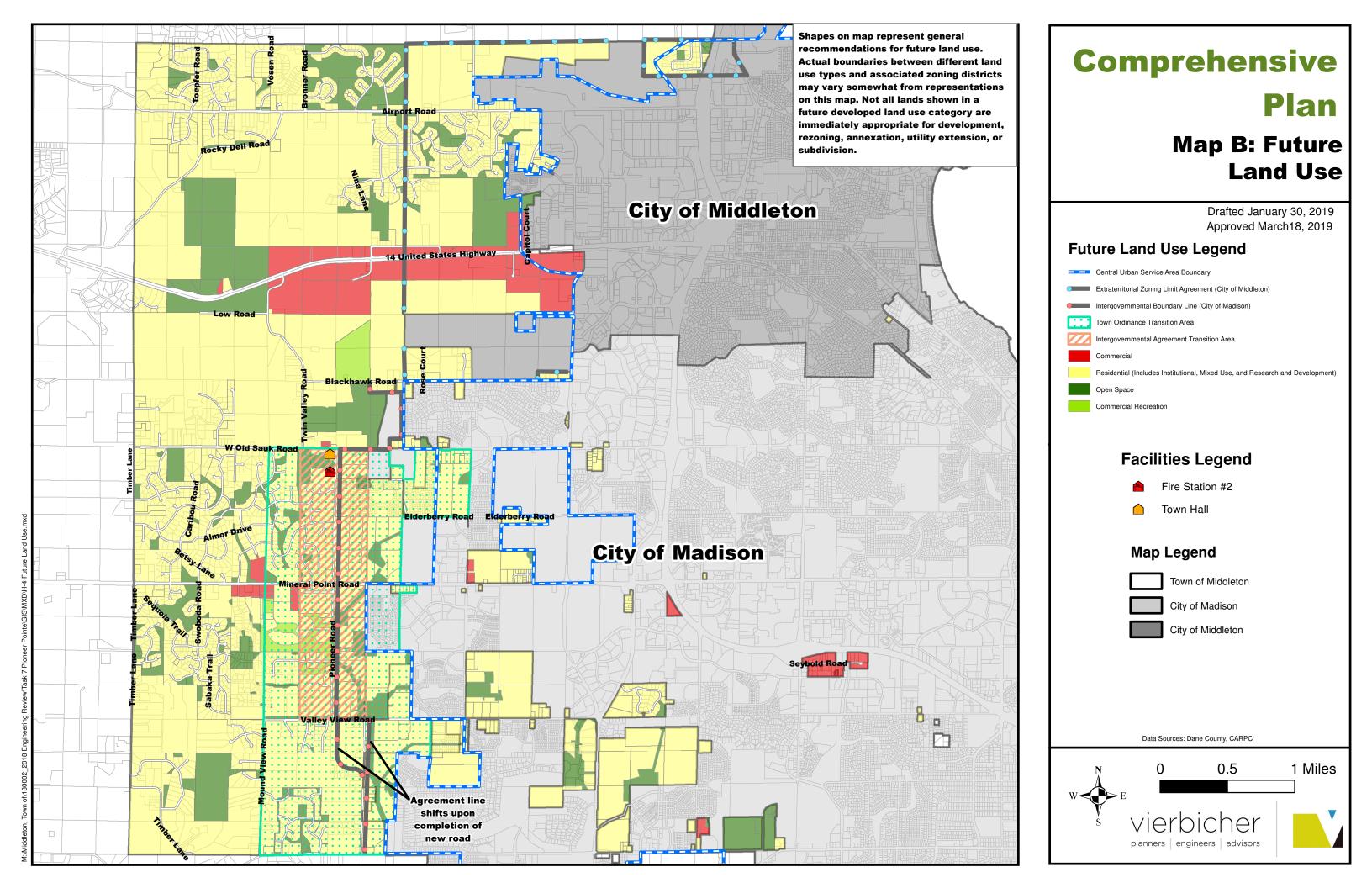
City of Madison

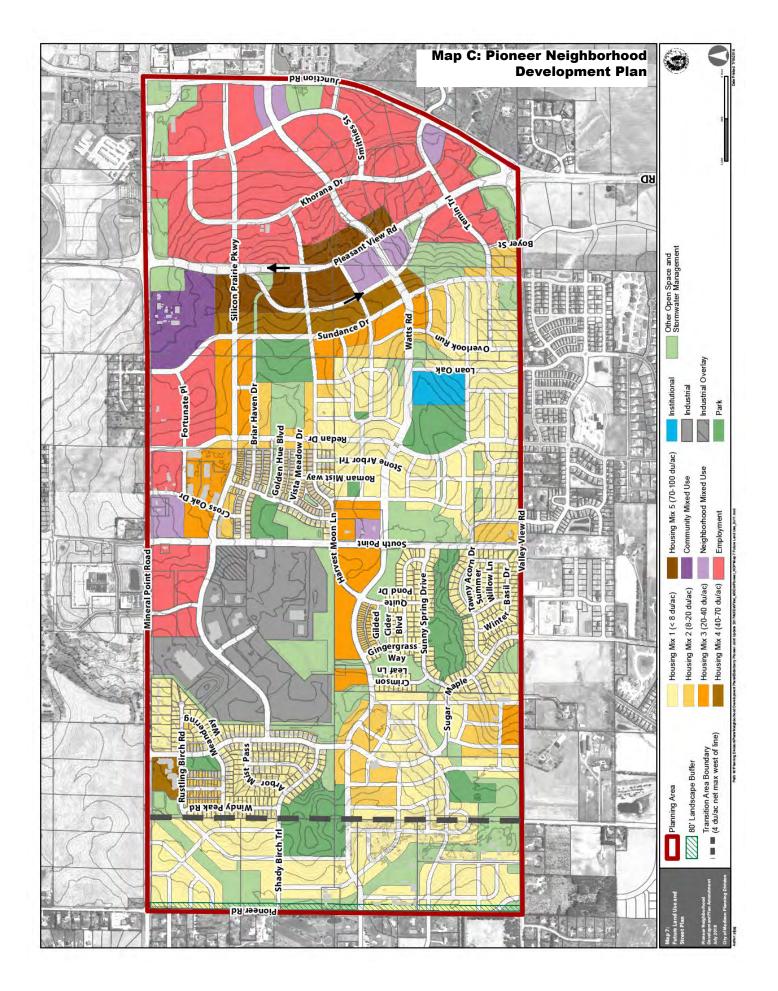
Town Ordinance Transition Area

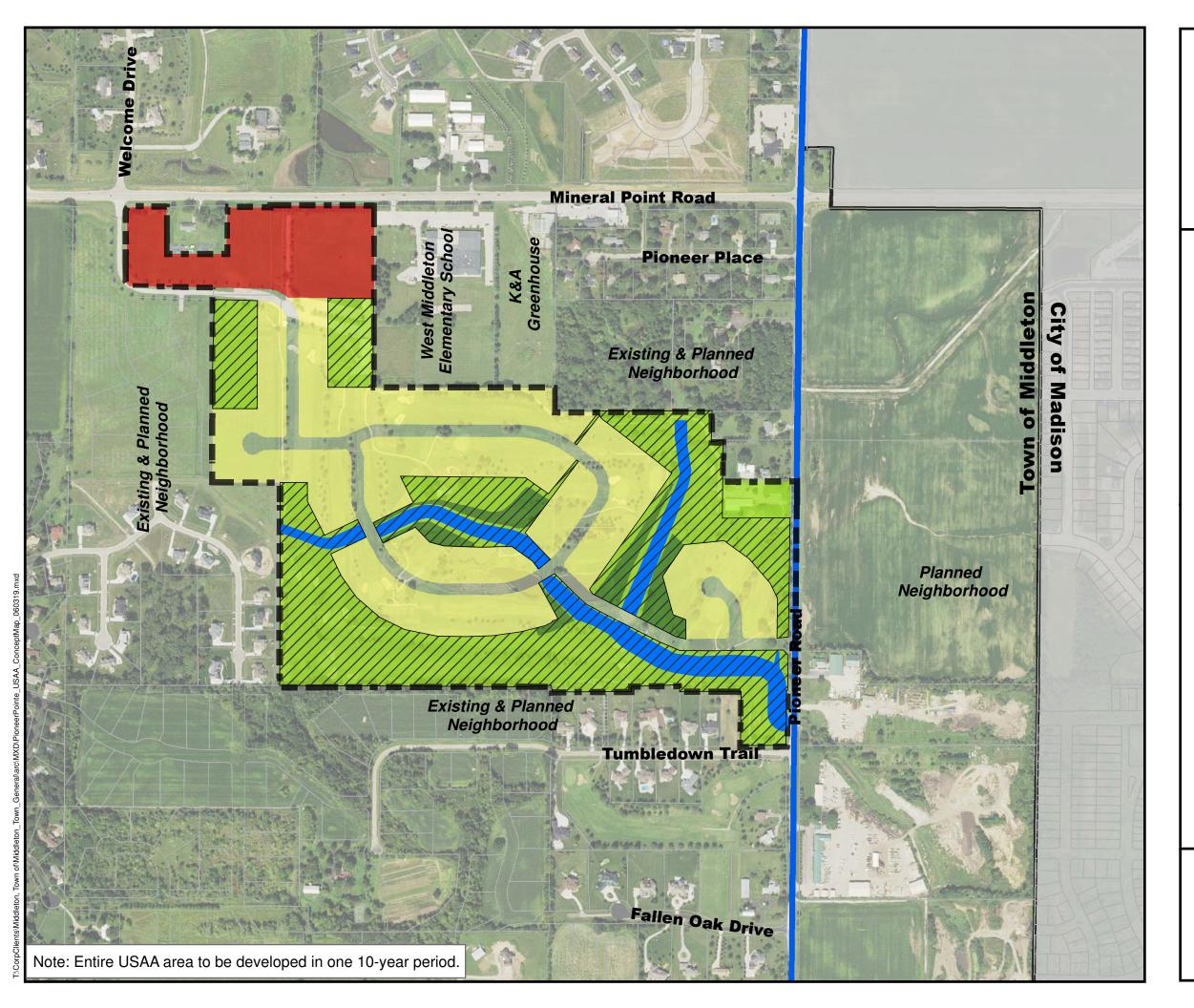
Intergovernmental Agreement Transition Area

Data Sources: Dane County, CARPC









Map D: Concept Plan Map CUSA Pioneer Pointe

Drafted June 10, 2019 Approved

Legend

Proposed CUSA Boundary

Existing CUSA Boundary

Environmental Corridor

Parcels

City of Madison

Future Land Use Districts

Commercial

Single Family Residential

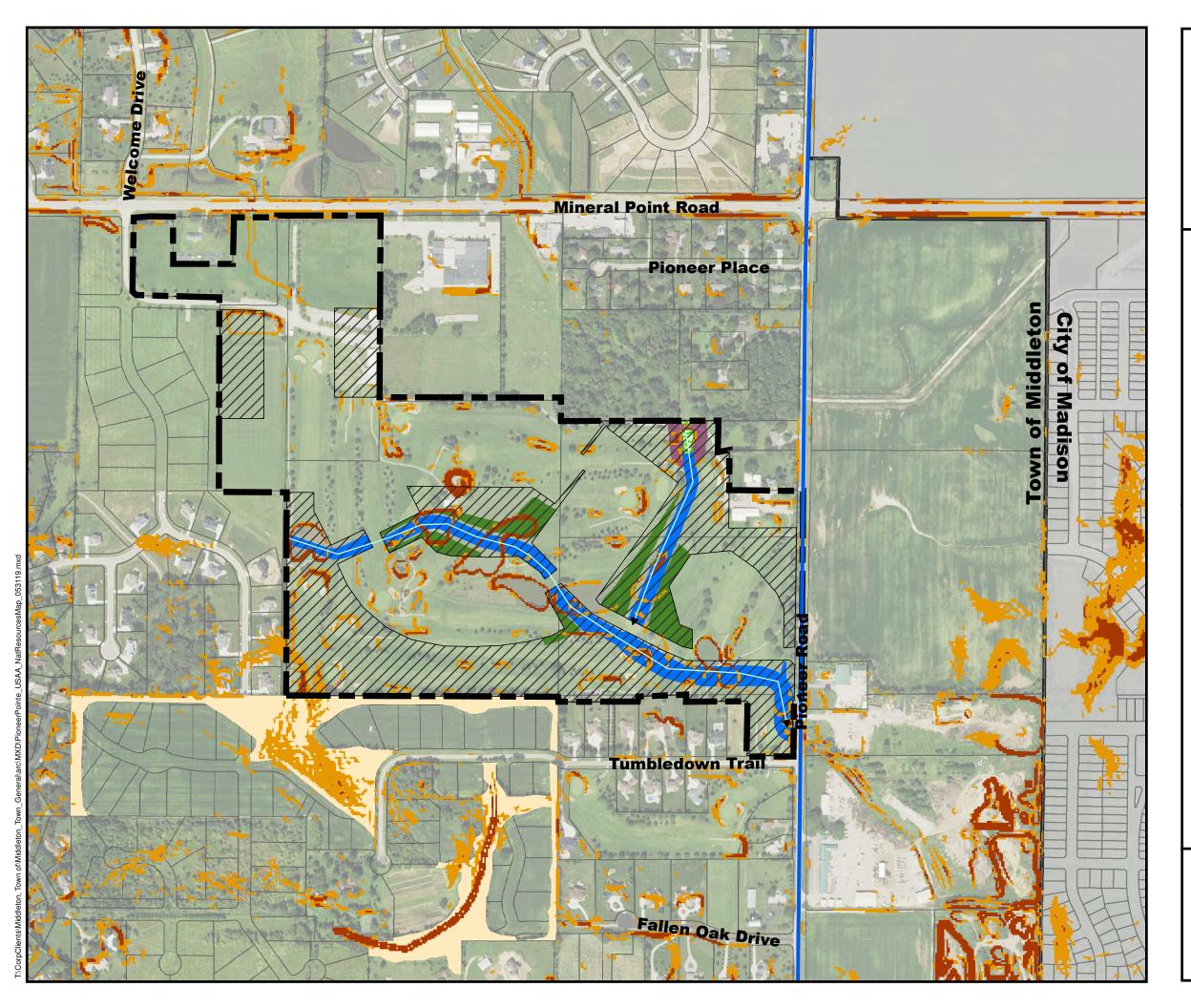
Recreation

Conceptual Stormwater Management Basins

Conceptual Drainageway

Data Sources: Dane County, CARPC





Map E: Natural Resources Map CUSA Pioneer Pointe

Drafted June 10, 2019 Approved

Legend

Existing CUSA Boundary

Proposed CUSA Boundary

Parcels

City of Madison

Land Use

Approx. Wetland Buffer Region (75')

Conceptual Stormwater Management Basins

Conceptual Floodplain Boundary

Proposed Environmental Corridor

Slope 12% - 20%

Slope 20% or Greater

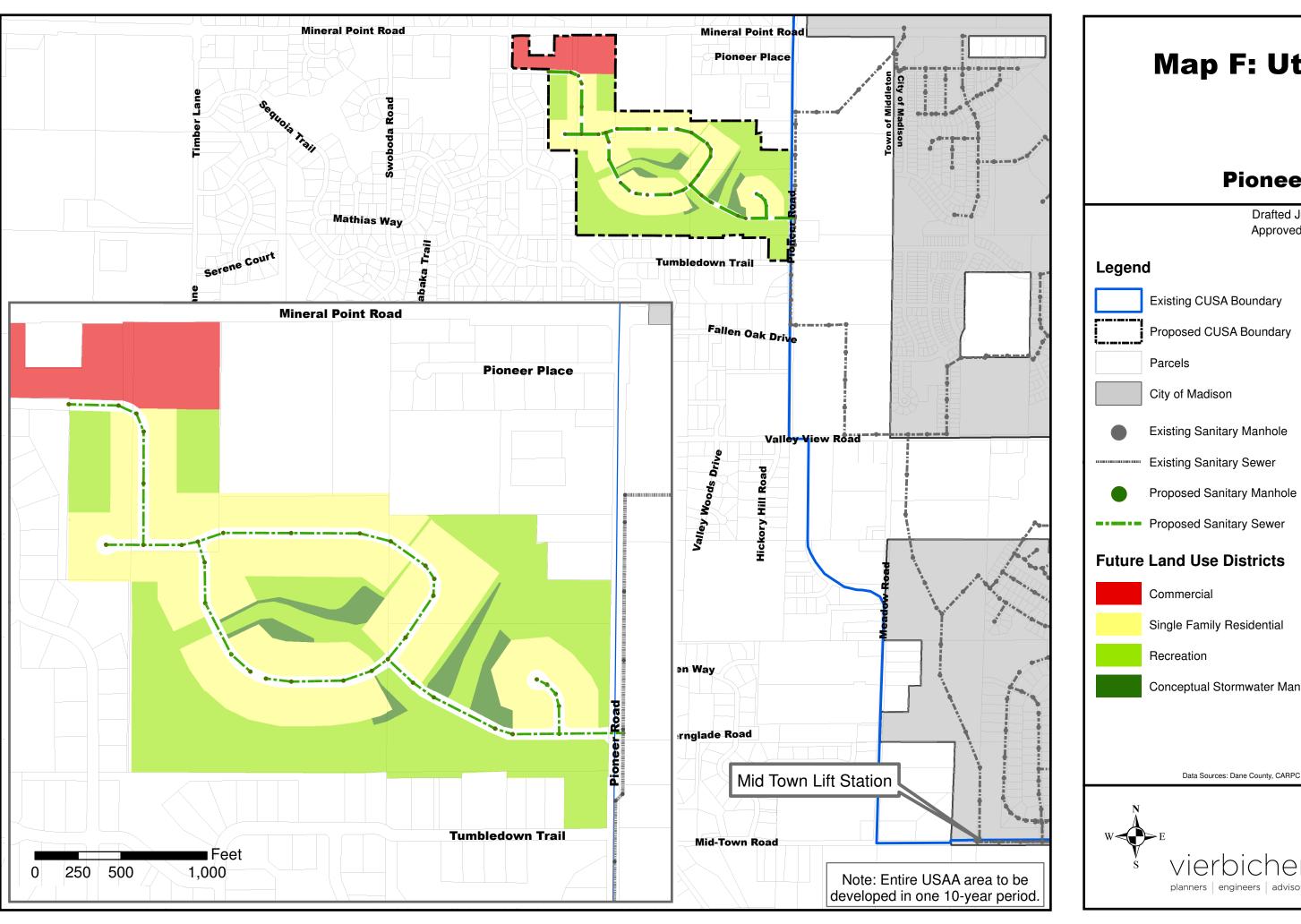
Approximate Wetland Boundary

Woodlands (Dane County)

Flow Direction

Data Sources: Dane County, CARPC





Map F: Utilities Map **CUSA Pioneer Pointe**

Drafted June 10, 2019 Approved **Existing CUSA Boundary Proposed CUSA Boundary** Parcels City of Madison **Existing Sanitary Manhole Existing Sanitary Sewer** Proposed Sanitary Manhole Proposed Sanitary Sewer **Future Land Use Districts** Commercial Single Family Residential Recreation Conceptual Stormwater Management Basins

