

PLANNING UNIT REPORT  
DEPARTMENT OF PLANNING AND DEVELOPMENT  
April 6, 2006

**ZONING MAP AMENDMENT/CONDITIONAL USE APPLICATION:**

1. Requested Action: Approval of a zoning map amendment and conditional use located at 1224 Felland Road from Temporary Agriculture to R1 to enable the construction of a City of Madison Water Utility reservoir.
2. Applicable Regulations: Public utility and public service uses, including water pumping stations and water reservoirs are listed as a conditional use in the R1 Single-Family Residence District.
3. Report Drafted By: Bill Roberts, Planner IV.

**GENERAL INFORMATION:**

1. Applicant: City of Madison Water Utility, Alan L. Larsen, Principal Engineer.
2. Status of Applicant: The Madison Water Utility owns this site.
3. Development Schedule: Construction of this facility is to begin as soon as all necessary approvals have been obtained.
4. Parcel Location: West of Felland Road between Lien Road and Highway 30, 3<sup>rd</sup> Aldermanic District.
5. Parcel Size: 3.4 acres.
6. Existing Zoning: Temporary Agriculture District.
7. Existing Land Use: Vacant parcel.
8. Surrounding Land Use and Zoning (See map): This site is surrounded by a mix of undeveloped lands and clusters of rural single-family dwellings in close proximity to the recently approved Village of Autumn Lake plat.
9. Adopted Land Use Plan: The adopted Comprehensive Plan for the City of Madison shows this area and the surrounding properties as NADA-TDN, a Neighborhood Development Area-Traditional Neighborhood Development. There is no specific land use plan prepared for this site at this time.
10. Environmental Corridor Status: This site is not located within a designated environmental corridor.

**PUBLIC UTILITIES AND SERVICES:**

This development is intended to be a site for a public water service reservoir that will serve the surrounding developing neighborhood within the City of Madison, as well as to augment water service to previously developed neighborhoods in the City of Madison in the general area of this site.

**STANDARDS FOR REVIEW:**

This application is subject to the conditional use standards.

**ANALYSIS, EVALUATION AND CONCLUSION:**

On February 21, 2006 the Common Council adopted Ordinance Legislative File I.D. 02872, that annexed this small parcel of land from the Town of Burke to the City of Madison to permit the construction of a Madison Water Utility reservoir on this site. This site was selected and purchased in 1999 by the Madison Water Utility due in large part to its high ground elevation and proximity to the northeast portion of the Water Utility's main pressure zone.

The application before the Plan Commission at this time consists of two elements. The first element is a zoning map amendment that will rezone this site from the Temporary Agricultural zoning it was assigned at the time of annexation to R1 Single-Family Residence District.

The second element is approval of a conditional use. The zoning ordinance requires that public utility and public service uses such as electrical substations, railroad right-of-ways, water pumping stations, water reservoirs and similar uses are conditional uses in the R1 Single-Family Residence District.

As shown on the attached site plan, the actual reservoir tank will be set back approximately 1,000 feet west of Felland Road. The large round concrete storage tank is similar to other water reservoir installations throughout the City of Madison. A small 20' x 20' controller's building will be constructed adjacent to the reservoir structure. An access road will be provided to the reservoir from Felland Road. The Water Utility's letter of intent describes the need for this new water storage reservoir at this site in detail. Certain utility customers in the area have been experiencing periods of very low water pressure. This facility is also required to serve the approved but yet to be developed Village of Autumn Lake subdivision and other future subdivisions in the City of Madison located generally in this area of the City.

The Zoning Administrator has examined this application and has determined that all the requirements of the R1 Single-Family Residence District applicable to this proposal are met.

**RECOMMENDATIONS:**

Planning staff recommends that the Plan Commission forward this proposed zoning map amendment to the Common Council with a favorable recommendation. Planning staff further recommends that the Plan Commission find that the conditional use standards are met and approve this conditional use application subject to the comments of the reviewing departments. 6



## Traffic Engineering Division

David C. Dyer, City Traffic Engineer

Madison Municipal Building  
215 Martin Luther King, Jr. Boulevard  
P.O. Box 2986  
Madison, Wisconsin 53701-2986  
PH 608/266-4761  
TTY 608/267-9623  
FAX 608/267-1158

March 23, 2006

TO: Plan Commission

FROM: David C. Dyer, P.E., City Traffic Engineer

SUBJECT: **1224 Felland Road – Rezoning / Conditional Use – Temp A to R1 – City of Madison Water Utility Reservoir**

The City Traffic Engineering Division has reviewed the subject development and has the following comments.

**MAJOR OR NON-STANDARD REVIEW COMMENTS** (Comments which are special to the project and/or may require additional work beyond a standard, more routine project.)

1. The applicant shall be responsible to secure all proper permits and approvals from any municipality or government unit having jurisdiction at the entrance.

### GENERAL OR STANDARD REVIEW COMMENTS

In addition, we offer the following General or Standard Review Comments:

2. When the applicant submits final plans for approval, the applicant shall show the following: items in the terrace as existing (e.g., signs and street light poles), type of surfaces (driveway will need to be paved and noted on the site plan), existing property lines, one contiguous plan dimensions of radii, aisles, driveways, stalls including the two (2) feet overhang, and a scaled drawing at 1" = 50'.
3. All signs at the approaches shall be installed behind the property line. All directional/regulatory signage and pavement markings on the site shall be shown and noted on the plan.
4. Public signing and marking related to the development may be required by the City Traffic Engineer for which the developer shall be financially responsible.

Please contact John Leach, City Traffic Engineering at 267-8755 if you have questions regarding the above items:

Contact Person: Alan Larson  
Fax: 266-4644



Department of Public Works  
City Engineering Division

608 266 4751

Larry D. Nelson, P.E.  
City Engineer

City-County Building, Room 115  
210 Martin Luther King, Jr. Boulevard  
Madison, Wisconsin 53703  
608 264 9275 FAX  
608 267 8677 TDD

**Deputy City Engineer**  
Robert F. Phillips, P.E.

**Principal Engineers**  
Michael R. Dailey, P.E.  
Christina M. Bachmann, P.E.  
John S. Fahrney, P.E.  
David L. Benzschawel, P.E.  
Gregory T. Fries, P.E.

**Operations Supervisor**  
Kathleen M. Cryan

**Hydrogeologist**  
Joseph L. DeMorett, P.G.

**GIS Manager**  
David A. Davis, R.L.S.

DATE: March 15, 2006

TO: Plan Commission

FROM: Larry D. Nelson, P.E., City Engineer

SUBJECT: 1224 Felland Road Conditional Use & Rezoning

The City Engineering Division has reviewed the subject development and has the following comments.

**MAJOR OR NON-STANDARD REVIEW COMMENTS** (Comments which are special to the project and/or may require additional work beyond a standard, more routine project.)

- |   |
|---|
| <p>1. Public sanitary sewer service is presently unavailable to this site. Sewer service may become available in the future and the owner shall be obligated to pay sewer area charges regardless of whether or not sewer service is desired.</p> |
|---|

**GENERAL OR STANDARD REVIEW COMMENTS**

In addition, we offer the following General or Standard Review Comments:

**Engineering Division Review of Planned Community Developments, Planned Unit Developments and Conditional Use Applications.**

Name: 1224 Felland Road Conditional Use & Rezoning

**General**

- 1.1 The construction of this building will require removal and replacement of sidewalk, curb and gutter and possibly other parts of the City's infrastructure. The applicant shall enter into a City / Developer agreement for the improvements required for this development. The applicant shall be required to provide deposits to cover City labor and materials and surety to cover the cost of construction. The applicant shall meet with the City Engineer to schedule the development of the plans and the agreement. The City Engineer will not sign off on this project without the agreement executed by the developer. The developer shall sign the Developer's Acknowledgement prior to the City Engineer signing off on this project.
- 1.2 The site plan shall identify lot and block numbers of recorded Certified Survey Map or Plat.
- 1.3 The site plan shall include all lot/ownership lines, existing building locations, proposed building additions, demolitions, parking stalls, driveways, sidewalks (public and/or private), existing and proposed signage, existing and proposed utility locations and landscaping.
- 1.4 The site plan shall identify the difference between existing and proposed impervious areas.
- 1.5 The site plan shall reflect a proper street address of the property as reflected by official City of Madison Assessor's and Engineering Division records.
- 1.6 The site plan shall include a full and complete legal description of the site or property being subjected to this application.



Right of Way / Easements

- 2.1 The Applicant shall Dedicate a \_\_\_\_\_ foot wide strip of Right of Way along \_\_\_\_\_.
- 2.2 The Applicant shall Dedicate a \_\_\_\_\_ foot wide strip of Right of Way along \_\_\_\_\_.
- 2.3 The Applicant shall Dedicate a Permanent Limited Easement for grading and sloping \_\_\_\_\_ feet wide along \_\_\_\_\_.
- 2.4 The City Engineer has reviewed the need for pedestrian and bicycle connections through the development and finds that no connections are required.
- 2.5 The Applicant shall Dedicate a Permanent Limited Easement for a pedestrian / bicycle easement \_\_\_\_\_ feet wide from \_\_\_\_\_ to \_\_\_\_\_.
- 2.6 The Developer shall provide a private easement for public pedestrian and bicycle use through the property running from \_\_\_\_\_ to \_\_\_\_\_.
- 2.7 The developer shall be responsible for the ongoing construction and maintenance of a path within the easement. The maintenance responsibilities shall include, but not be limited to, paving, repaving, repairing, marking and plowing. The developer shall work with the City of Madison Real Estate Staff to administer this easement. Applicable fees shall apply.

Streets and Sidewalks

- 3.1 The Applicant shall execute a waiver of notice and hearing on the assessments for the improvement of [roadway] \_\_\_\_\_ in accordance with Section 66.0703(7)(b) Wisconsin Statutes and Section 4.09 of the MGO.
- 3.2 **Value of sidewalk installation over \$5000.** The Applicant shall Construct Sidewalk to a plan approved by the City Engineer along \_\_\_\_\_.
- 3.3 **Value of sidewalk installation under \$5000.** The Applicant shall install public sidewalk along \_\_\_\_\_. The Applicant shall obtain a Street Excavation Permit for the sidewalk work, which is available from the City Engineering Division. The applicant shall pay all fees associated with the permit including inspection fees. All work must be completed within six months or the succeeding June 1, whichever is later.
- 3.4 The Applicant shall execute a waiver of their right to notice and hearings on the assessments for the installation of sidewalk along [roadway] \_\_\_\_\_ in accordance with Section 66.0703(7)(b) Wisconsin Statutes and Section 4.09 of the MGO.
- 3.5 The Applicant shall grade the property line along \_\_\_\_\_ to a grade established by the City Engineer. The grading shall be suitable to allow the installation of sidewalk in the future without the need to grade beyond the property line. The Applicant shall obtain a Street Excavation permit prior to the City Engineer signing off on this development.
- 3.6 The Applicant shall close all abandoned driveways by replacing the curb in front of the driveways and restoring the terrace with grass.
- 3.7 **Value of the restoration work less than \$5,000. When computing the value, do not include a cost for driveways. Do not include the restoration required to facilitate a utility lateral installation.** The Applicant's project requires the minor restoration of the street and sidewalk. The Applicant shall obtain a Street Excavation Permit for the street restoration work, which is available from the City Engineering Division. The applicant shall pay all fees associated with the permit including inspection fees.
- 3.8 The Applicant shall make improvements to \_\_\_\_\_ in order to facilitate ingress and egress to the development. The improvement shall include a (Describe what the work involves or strike this part of the comment.) \_\_\_\_\_.
- 3.9 The Applicant shall make improvements to \_\_\_\_\_. The improvements shall consist of \_\_\_\_\_.
- 3.10 The approval of this Conditional Use does not include the approval of the changes to roadways, sidewalks or utilities. The applicant shall obtain separate approval by the Board of Public Works and the Common Council for the restoration of the public right of way including any changes requested by developer. The City Engineer shall complete the final plans for the restoration with input from the developer. The curb location, grades, tree locations, tree species, lighting modifications and other items required to facilitate the development or restore the right of way shall be reviewed by the City Engineer, City Traffic Engineer, and City Forester.
- 3.11 The Applicant shall provide the City Engineer with a survey indicating the grade of the existing sidewalk and street. The Applicant shall hire a Professional Engineer to set the grade of the building entrances adjacent to the public right of way. The Applicant shall provide the City Engineer the proposed grade of the building entrances. The City Engineer shall approve the grade of the entrances prior to signing off on this development.
- 3.12 The Applicant shall replace all sidewalk and curb and gutter which abuts the property which is damaged by the construction or any sidewalk and curb and gutter which the City Engineer determines needs to be replaced because it is not at a desirable grade regardless of whether the condition existed prior to beginning construction.

- 3.13 The Applicant shall obtain a privilege in streets agreement for any encroachments inside the public right of way. The approval of this development does not constitute or guarantee approval of the encroachments.
- 3.14 The Applicant shall provide the City Engineer with the proposed soil retention system to accommodate the restoration. The soil retention system must be stamped by a Professional Engineer. The City Engineer may reject or require modifications to the retention system.
- 3.15 The Applicant shall complete work on exposed aggregate sidewalk in accordance with specifications provided by the city. The stone used for the exposed aggregate shall be approved by the City. The Construction Engineer shall be notified prior to beginning construction. Any work that does not match the adjacent work or which the City Construction Engineer finds is unacceptable shall be removed and replaced.
- 3.16 All work in the public right-of-way shall be performed by a City licensed contractor.

**Storm Water Management**

- 4.1 The site plans shall be revised to show the location of all rain gutter down spout discharges.
- 4.2 Storm sewer to serve this development has been designed and constructed. The site plans shall be revised to identify the location of this storm sewer and to show connection of an internal drainage system to the existing public storm sewer.
- 4.3 The plan set shall be revised to show a proposed private internal drainage system on the site. This information shall include the depths and locations of structures and the type of pipe to be used.
- 4.5 The applicant shall show storm water "overflow" paths that will safely route runoff when the storm sewer is at capacity.
- 4.6 The applicant shall demonstrate compliance with Section 37.07 and 37.08 of the Madison General Ordinances regarding permissible soil loss rates. The erosion control plan shall include Universal Soil Loss Equation (USLE) computations for the construction period. Measures shall be implemented in order to maintain a soil loss rate below 7.5-tons per acre per year.
- 4.7 The City of Madison is an approved agent of the Department of Commerce. This proposal contains a commercial building and as such, the City of Madison is authorized to review infiltration, stormwater management, and erosion control on behalf of the Department of Commerce. No separate submittal to Commerce or the WDNR is required.
- 4.8 This development includes multiple building permits within a single lot. The City Engineer and/or the Director of the Inspection Unit may require individual control plans and measures for each building.
- 4.9 If the lots within this site plan are inter-dependent upon one another for stormwater runoff conveyance, and/or a private drainage system exists for the entire site an agreement shall be provided for the rights and responsibilities of all lot owners. Said agreement shall be reviewed and placed on file by the City Engineer, referenced on the site plan and recorded at the Dane Co Register of Deeds.
- 4.10 Prior to approval, this project shall comply with Chapter 37 of the Madison General Ordinances regarding stormwater management. Specifically, this development is required to:
  - Detain the 2 & 10-year storm events.
  - Detain the 2, 10, & 100-year storm events.
  - Control 40% TSS (20 micron particle).
  - Control 80% TSS (5 micron particle).
  - Provide infiltration in accordance with NR-151.
  - Provide substantial thermal control.
  - Provide oil & grease control from the first 1/2" of runoff from parking areas.

Stormwater management plans shall be submitted and approved by City Engineering prior to signoff.

- 4.11 The plan set shall be revised to show more information on proposed drainage for the site. This shall be accomplished by using spot elevations and drainage arrows or through the use of proposed contours. It is necessary to show the location of drainage leaving the site to the public right-of-way. It may be necessary to provide information off the site to fully meet this requirement.
- 4.12 A portion of this project comes under the jurisdiction of the US Army Corp of Engineers and WDNR for wetland or flood plain issues. A permit for those matters shall be required prior to construction on any of the lots currently within the jurisdictional flood plain.
- 4.13 The Applicant shall submit, prior to plan sign-off, digital CAD files to the Engineering Program Specialist in the Engineering Division (Lori Zenchenko). The digital copies shall be to scale and represent final construction.

CAD submittals can be either AutoCAD (dwg) Version 2001 or older, MicroStation (dgn) Version J or older, or Universal (dxf) formats and contain the following data, each on a separate layer name/level number:

- a) Building Footprints
- b) Internal Walkway Areas
- c) Internal Site Parking Areas

- d) Other Miscellaneous Impervious Areas (i.e. gravel, crushed stone, bituminous/asphalt, concrete, etc.)
- e) Right-of-Way lines (public and private)
- f) Lot lines
- g) Lot numbers
- h) Lot/Plat dimensions
- i) Street names

NOTE: Email file transmissions preferred [lzenchenko@cityofmadison.com](mailto:lzenchenko@cityofmadison.com) . Include the site address in this transmittal.

- 4.14 NR-151 of the Wisconsin Administrative Code will be effective on October 1, 2004. Future phases of this project shall comply with NR 151 in effect when work commences. Specifically, any phases not covered by a Notice of Intent (NOI) received from the WDNR under NR-216 prior to October 1, 2004 shall be responsible for compliance with all requirements of NR-151 Subchapter III. As most of the requirements of NR-151 are currently implemented in Chapter 37 of the Madison General Ordinances, the most significant additional requirement shall be that of infiltration.

NR-151 requires infiltration in accord with the following criteria. For the type of development, the site shall comply with one of the three (3) options provided below:

Residential developments shall infiltrate 90% of the predevelopment infiltration amount, 25% of the runoff from the 2-year post development storm or dedicated a maximum of 1% of the site area to active infiltration practices.

Commercial development shall infiltrate 60% of the predevelopment infiltration amount, 10% of the runoff from the 2-year post development storm or dedicate a maximum of 2% of the site area to active infiltration practices.

- 4.15 The applicant shall submit, prior to plan sign-off, digital PDF files to the Engineering Division (Jeff Benedict or Tim Troester). The digital copies shall be to scale, and shall have a scale bar on the plan set.

PDF submittals shall contain the following information:

- a) Building footprints.
- b) Internal walkway areas.
- c) Internal site parking areas.
- d) Lot lines and right-of-way lines.
- e) Street names.
- f) Stormwater Management Facilities.
- g) Detail drawings associated with Stormwater Management Facilities (including if applicable planting plans).

- 4.16 The Applicant shall submit prior to plan sign-off, electronic copies of any Stormwater Management Files including:

- a) SLAMM DAT files.
- b) RECARGA files.
- c) TR-55/HYDROCAD/Etc...
- d) Sediment loading calculations

If calculations are done by hand or are not available electronically the hand copies or printed output shall be scanned to a PDF file and provided.

#### Utilities General

- 5.1 The Applicant shall obtain a Street Excavation permit for the installation of utilities required to serve this project. The Applicant shall pay the permit fee, inspection fee and street degradation fee as applicable and shall comply with all the conditions of the permit.
- 5.2 The applicant shall obtain all necessary sewer connection permits and sewer plugging permits prior to any utility work.
- 5.3 All proposed and existing utilities including gas, electric, phone, steam, chilled water, etc shall be shown on the plan.
- 5.4 The applicant's utility contractor shall obtain a connection permit and excavation permit prior to commencing the storm sewer construction.
- 5.5 The site plans shall be revised to show the location of existing utilities, including depth, type, and size in the adjacent right-of-way.
- 5.6 The developer shall provide information on how the Department of Commerce's requirements regarding treatment of storm water runoff, from parking structures, shall satisfied prior to discharge to the public sewer system. Additionally, information shall be provided on which system (storm or sanitary) the pipe shall be connected to.

#### Sanitary Sewer

- 6.1 Prior to approval of the conditional use application, the owner shall obtain a permit to plug each existing sanitary sewer lateral that serves a building that is proposed for demolition. For each lateral to be plugged the owner shall deposit \$1,000 with the City Engineer in two separate checks in the following amounts: (1). \$100 non-refundable deposit for the cost of inspection of the plugging by City staff; and (2). \$900 for the cost of City crews to perform the plugging. If the owner elects to complete the plugging of a lateral by private contractor and the plugging is

inspected and approved by the City Engineer, the \$900 fee shall be refunded to the owner.

- 6.2 All outstanding Madison Metropolitan Sewerage District (MMSD) and City of Madison sanitary sewer connection charges are due and payable prior to connection to the public sewerage system.
- 6.3 Each unit of a duplex building shall be served by a separate and independent sanitary sewer lateral.
- 6.4 The site plan shall be revised to show all existing public sanitary sewer facilities in the project area as well as the size and alignment of the proposed service.

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# CITY OF MADISON FIRE DEPARTMENT

## Fire Prevention Division

325 W. Johnson St., Madison, WI 53703-2295  
Phone: 608-266-4484 ♦ FAX: 608-267-1153

DATE: April 5, 2006  
TO: Plan Commission  
FROM: Edwin J. Ruckriegel, Fire Marshal  
SUBJECT: 1224 Felland Rd.

The City of Madison Fire Department (MFD) has reviewed the subject development and has the following comments:

**MAJOR OR NON-STANDARD REVIEW COMMENTS** (Comments which are special to the project and/or may require additional work beyond a standard, more routine project.)

1. The fire lanes shown on the site plans do not comply with Comm 62.0509, and/or MGO Chapter 34; the owner must revise the plans or apply for and receive approval of a Petition for Variance from the Board of Building Code, Fire Code and Licensing Appeals prior to construction of the project. If the Board does not approve the Petition for Variance, then the owner must submit a new application for approval of revised plans. Please call John Lippitt for further information (608-261-9658).

## **GENERAL OR STANDARD REVIEW COMMENTS**

In addition, we offer the following General or Standard Review Comments:

2. Provide fire apparatus access as required by Comm 62.0509 and MGO 34.19, as follows:
  - a. A dead-end fire lane that is longer than 150-feet shall terminate in a turnaround. Provide an approved turnaround (cul-de-sac, 45 degree wye, 90 degree tee) at the end of a fire lane that is more than 150-feet in length.
  - b. Fire lanes shall be constructed of concrete or asphalt only, and designed to support a minimum load of 80,000 lbs.
  - c. Provide a fire lane with the minimum clear unobstructed width of 20-feet.

Please contact John Lippitt, MFD Fire Protection Engineer, at 608-261-9658 if you have questions regarding the above items.

cc: John Lippitt

**CITY OF MADISON  
INTERDEPARTMENTAL  
CORRESPONDENCE**

**Date:** April 6, 2006

**To:** Plan Commission

**From:** Kathy Voeck, Assistant Zoning Administrator

**Subject:** 1224 Felland Rd

**Present Zoning District:** Temp. Ag

**Proposed Use:** City of Madison Water Utility Reservoir

**Proposed Zoning District:** R-1

**Conditional Use:** 28.08(2)(c)9.f. Water reservoirs are a conditional use. 28.04(18) Regulations governing lot size, bulk requirements, and access to improved public streets shall not apply to any lot designed or intended for a public utility and public service use when approved by the Plan Commission.

MAJOR OR NON-STANDARD REVIEW COMMENTS (Comments which are special to the project and/or may require additional work beyond a standard, more routine project). **NONE.**

GENERAL OR STANDARD REVIEW COMMENTS

**ZONING CRITERIA**

<b>Bulk Requirements</b>	<b>Required</b>	<b>Proposed</b>
Lot Area	8,000 sq. ft.	adequate
Lot width	50'	30' (public utility site-ok)
Usable open space	n/a	n/a
Front yard	30'	adequate
Side yards	7'	adequate
Rear yard	40'	35' (public utility site-ok)
Building height	2 story/35'	34' to average mean

<b>Site Design</b>	<b>Required</b>	<b>Proposed</b>
Number parking stalls	n/a	n/a

<b>Other Critical Zoning Items</b>	NONE
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With the above conditions, the proposed project **does** comply with all of the above requirements.

Quality and Reliability since 1882

**Madison  
Water  
Utility**



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www.madisonwater.org • 119 East Olin Avenue • Madison, WI 53713-1431 • TEL 608.266.4651 • FAX 608.266.4426

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Friday, February 17, 2006

Ms. Kathy Voeck – Assistant Zoning Administrator  
Department of Planning and Development  
100 Municipal Building  
215 Martin Luther King, Jr. Blvd  
Madison, Wisconsin 53701-2984

Subject: Madison Water Utility  
Felland Road Reservoir  
**Conditional Use Permit Application – Letter of Intent**

Dear Kathy:

We are writing to inform you of our intent to construct a 6.0 million-gallon ground level post tensioned concrete reservoir at our property on Felland Road. The proposed reservoir will provide needed storage capacity to our main pressure zone and to the area east of the interstate highway and north of Highway 30. As with any gravity operated water storage reservoir, this reservoir will provide water during peak demand hours of the day, water for fighting fires in the Utility's main pressure zone in the northeast corner of the City, and water for emergency's such as power outages or equipment breakdowns. Having stored water available that can feed the system by gravity is key to system reliability and redundancy.

The reservoir will also provide stabilization to the water pressure provided to the east side of the Utility's main pressure zone. Currently customers in that area experience pressure swings during the day of 10 to 15 psi that results in periods of very low pressure. Having a large water reservoir will buffer the pressure swings and stabilize pressures to these customers.

The site was selected and purchased in 1999 due to its ground elevation and proximity to the northeast portion of our main pressure zone. To operate effectively, the maximum tank water level elevation will be set at 1085. Ground level concrete reservoirs typically have a sidewall height of 30 to 40 feet. Bedrock at this site is at elevation 1055 and makes it ideal for a water storage reservoir.

The facility will consist of the concrete tank and a small control/monitoring building. The building will house electronic monitoring equipment that will allow the Utility to monitor reservoir operation and water quality remotely. The building will also have sample taps that will be used to take regular gab samples for DNR compliance testing. Once constructed, no Water Utility personnel will be located at the site. A Water Utility employee will visit the site daily for less than an hour to check the facility and equipment and to take water samples.

This facility is a key infrastructure component to providing water service to the east side. This facility is in the Utility's approved Water Master Plan Capital Improvement Program. We appreciate your assistance in moving this project forward and look forward to your approval. If you have any questions please feel free to call me at 266-4653 or contact our Consultant, Ravi Jayaraman at Clark Dietz 262-657-1550.

Sincerely,

**MADISON WATER UTILITY**

A handwritten signature in black ink, appearing to read 'Alan L. Larson', with a long horizontal flourish extending to the right.

Alan L. Larson, P.E.  
Principal Engineer - Water