



City of Madison

Proposed Demolition & Conditional Use

Location

1202 Northport Drive

Project Name

Lakeview Reservoir Replacement Project

Applicant

Dane County Human Service Lakeview Offices/
Jon Strand – Short Elliott Hendrickson, Inc.

Existing Use

Water Tower

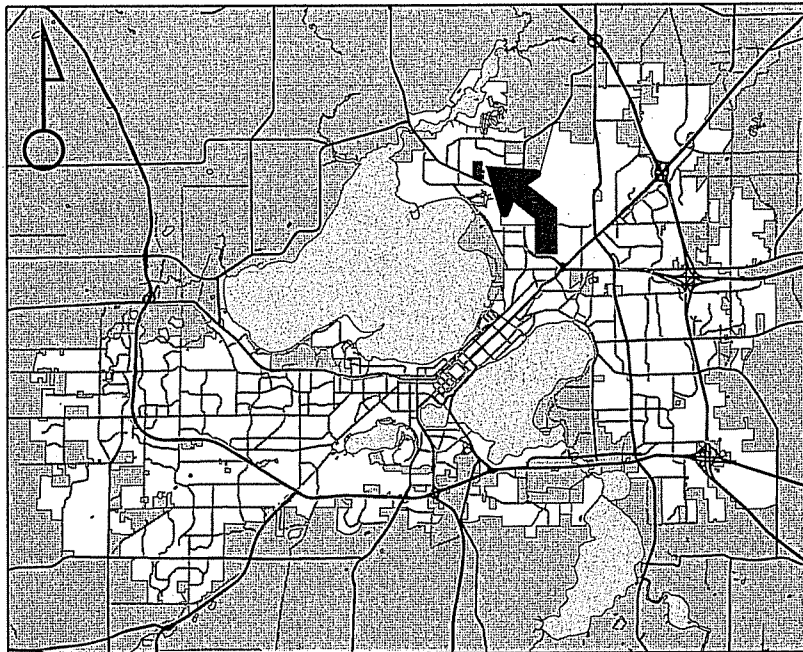
Proposed Use

Demolish existing water tower and
construct new water tower

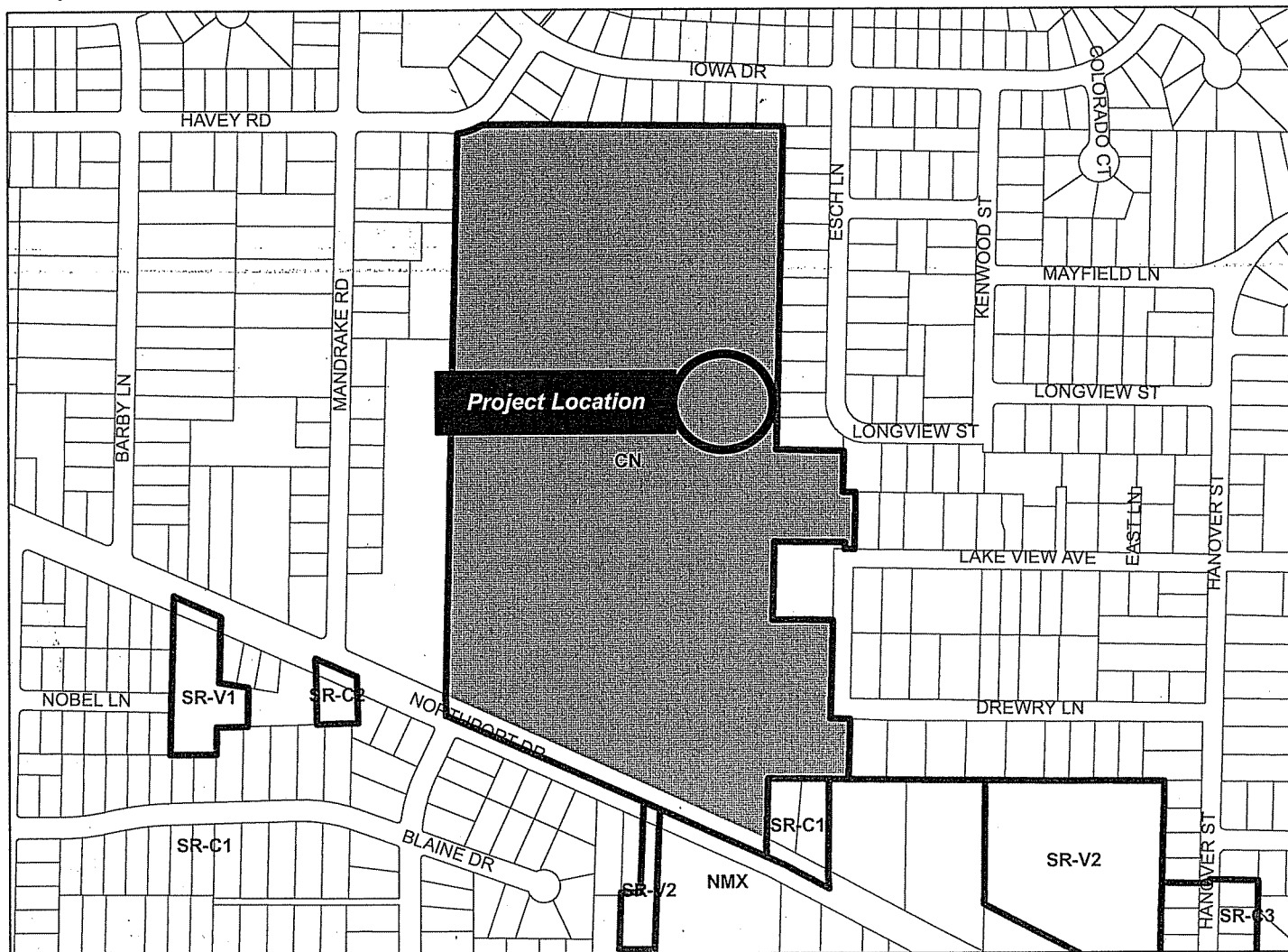
Public Hearing Date

Plan Commission

07 July 2014



For Questions Contact: Heather Stouder at: 266-5974 or hstouder@cityofmadison.com or City Planning at 266-4635



Scale : 1" = 500'

City of Madison, Planning Division : RPJ : Date : 25 June 2014





LAND USE APPLICATION

CITY OF MADISON

215 Martin Luther King Jr. Blvd; Room LL-100
PO Box 2985; Madison, Wisconsin 53701-2985
Phone: 608.266.4635 | Facsimile: 608.267.8739

- All Land Use Applications should be filed with the Zoning Administrator at the above address.
- The following information is required for all applications for Plan Commission review except subdivisions or land divisions, which should be filed using the Subdivision Application.
- This form may also be completed online at:
www.cityofmadison.com/developmentcenter/landdevelopment

FOR OFFICE USE ONLY:

Amt. Paid _____ Receipt No. _____
Date Received 5/7/14
Received By JK
Parcel No. 0809-253-0099
Aldermanic District 18-Anita Weiner
Zoning District CN
Special Requirements OK
Review Required By:
☐ Urban Design Commission ☒ Plan Commission
☐ Common Council ☐ Other: _____

Form Effective: February 21, 2013

1. **Project Address:** 1202 Northport Drive, CSM No. 12189 (Easement to City of Madison Document No. 2909070)
Project Title (if any): Lakeview Reservoir Replacement Project

2. **This is an application for (Check all that apply to your Land Use Application):**

- ☐ Zoning Map Amendment from _____ to _____
- ☐ Major Amendment to Approved PD-GDP Zoning ☐ Major Amendment to Approved PD-SIP Zoning
- ☐ Review of Alteration to Planned Development (By Plan Commission)
- ☒ Conditional Use, or Major Alteration to an Approved Conditional Use
- ☒ Demolition Permit
- ☐ Other Requests: _____

3. **Applicant, Agent & Property Owner Information:**

Applicant Name: Alan Larson, PE, BCEE **Company:** Madison Water Utility
Street Address: 119 E. Olin Ave. **City/State:** Madison, WI **Zip:** 53713
Telephone: (608) 266-4653 **Fax:** () **Email:** ALarson@madisonwater.org

Project Contact Person: Jon Strand **Company:** Short Elliott Hendrickson, Inc.
Street Address: 421 Frenette Drive **City/State:** Chippewa Falls, WI **Zip:** 54729
Telephone: (715) 720-6200 **Fax:** (715) 720-6300 **Email:** jstrand@sehinc.com

Property Owner (if not applicant): Dane County Human Service Lakeview Offices
Street Address: 210 MLK JR BLVD #114 **City/State:** Madison, WI **Zip:** 53703

4. **Project Information:**

Provide a brief description of the project and all proposed uses of the site: Demolish existing 1938 steel elevated tank and replace with new two zone reservoir of either concrete or steel construction, and repair site and landscape after completion of tower construction.

Development Schedule: Commencement Summer 2014 Completion Fall 2015

5. Required Submittal Information

All Land Use applications are required to include the following:

☒ **Project Plans including:***

- Site Plans (fully dimensioned plans depicting project details including all lot lines and property setbacks to buildings; demolished/proposed/alterd buildings; parking stalls, driveways, sidewalks, location of existing/proposed signage; HVAC/Utility location and screening details; useable open space; and other physical improvements on a property)
- Grading and Utility Plans (existing and proposed)
- Landscape Plan (including planting schedule depicting species name and planting size)
- Building Elevation Drawings (fully dimensioned drawings for all building sides, labeling primary exterior materials)
- Floor Plans (fully dimensioned plans including interior wall and room location)

Provide collated project plan sets as follows:

- **Seven (7) copies** of a full-sized plan set drawn to a scale of 1 inch = 20 feet (folded or rolled and stapled)
- **Twenty Five (25) copies** of the plan set reduced to fit onto 11 X 17-inch paper (folded and stapled)
- **One (1) copy** of the plan set reduced to fit onto 8 1/2 X 11-inch paper

* For projects requiring review by the Urban Design Commission, provide **Fourteen (14) additional 11x17 copies** of the plan set. In addition to the above information, all plan sets should also include: 1) Colored elevation drawings with shadow lines and a list of exterior building materials/colors; 2) Existing/proposed lighting with photometric plan & fixture cutsheet; and 3) Contextual site plan information including photographs and layout of adjacent buildings and structures. The applicant shall bring samples of exterior building materials and color scheme to the Urban Design Commission meeting.

☒ **Letter of Intent: Provide one (1) Copy per Plan Set** describing this application in detail including, but not limited to:

- | | | |
|---|---|--|
| • Project Team | • Building Square Footage | • Value of Land |
| • Existing Conditions | • Number of Dwelling Units | • Estimated Project Cost |
| • Project Schedule | • Auto and Bike Parking Stalls | • Number of Construction & Full-Time Equivalent Jobs Created |
| • Proposed Uses (and ft ² of each) | • Lot Coverage & Usable Open Space Calculations | • Public Subsidy Requested |
| • Hours of Operation | | |

☒ **Filing Fee:** Refer to the Land Use Application Instructions & Fee Schedule. Make checks payable to: City Treasurer.

☒ **Electronic Submittal:** All applicants are required to submit copies of all items submitted in hard copy with their application as Adobe Acrobat PDF files on a non-returnable CD to be included with their application materials, or by e-mail to pcapplications@cityofmadison.com.

☐ **Additional Information** may be required, depending on application. Refer to the Supplemental Submittal Requirements.

6. Applicant Declarations

☒ **Pre-application Notification:** The Zoning Code requires that the applicant notify the district alder and any nearby neighborhood and business associations in writing no later than **30 days prior to FILING this request**. List the alderperson, neighborhood association(s), and business association(s) AND the dates you sent the notices:

→ If a waiver has been granted to this requirement, please attach any correspondence to this effect to this form.

☒ **Pre-application Meeting with Staff:** Prior to preparation of this application, the applicant is required to discuss the proposed development and review process with Zoning and Planning Division staff; note staff persons and date.

Planning Staff: DAT Mtg Date: 12/11/13 Zoning Staff: DAT Mtg Date: 12/11/13

The applicant attests that this form is accurately completed and all required materials are submitted:

Name of Applicant Alan Larson, PE

Relationship to Property: MWU Project Engineer

Authorizing Signature of Property Owner 

Date 5/6/14

Madison Water Utility



Tom Heikkinen, General Manager

119 E. Olin Avenue
Madison, Wisconsin 53713
Telephone: 608 266-4651
FAX: 608 266-4644
E-mail: water@cityofmadison.com

LETTER OF INTENT

Lakeview Reservoir Replacement Project

May 7, 2014

To: City of Madison Planning Department and Plan Commission
215 Martin Luther King Jr. Blvd. LL110
Madison, WI 53703

From: Alan Larson, PE, BCEE
Madison Water Utility

Re: Land Use Application for Conditional Use
(Reservoir Replacement on Lot 1 of CSM 12189, Easement to City of Madison Document No. 2909070)

Reservoir Owner – City of Madison Water Utility
Engineering Consultant– Short Elliott Hendrickson (SEH)
Architect – Potter Lawson, Inc.

Project Address

Lake View Hill Park
1202 Northport Drive, Madison, WI 53704

Project Description

The project includes demolition of the existing elevated steel tank water reservoir built in 1938 located on the subject site, which is undersized for current and projected water demand in the area this tank serves, and replace it with a new two zone reservoir water storage tank. The new tank will be of either steel or concrete construction, depending upon the outcome of a competitive bid process which will be conducted through standard City procurement contracting procedures.

Cellular antennae located on the existing water tower will be moved to a temporary monopole which will be installed on the site for the duration of the construction process for the new tank, then the antennae will be moved back onto the new tank and the monopole will be removed.

The site is located within the Lake View Hill county park on Dane County lands. The existing tank is a contributing structure to the collection of buildings and structures which were listed on the National Register of Historic Places in 1993 as Lake View Sanatorium. Neither the tank nor the buildings are local historic landmark structures.

The new tank will be designed as a two reservoir tank. The lower tank will have a storage capacity of 1,000,000 gallons, and the upper tank a storage capacity of 300,000 gallons. The tank shell will be cylindrical with a diameter of approximately 50', and a height of approximately 135'. Grade at the base of the tank is approximately elevation 1015'. Final details for the tank design are engineering driven, and partially dependent upon the tank fabricator/erector.

The construction process will require temporary use of a limited area of park land extending beyond the City owned easement. Madison Water Utility has been coordinating with Dane County government and the Citizen Advisory Panel (CAP) on all aspects of the project, including the tank design, aesthetic details, construction phase details for access and the use of the site, as well as site and landscape repair and restoration back to a condition that will satisfy the needs of the County, City, local constituents and users of the park. This coordination process has been ongoing since the Fall of 2013 and will continue through the completion of the project.

Development Team

Owner	City of Madison Water Utility	Alan Larson
Consulting Engineer	Short Elliott Hendrickson, Inc.	Jon Strand
Architect	Potter Lawson, Inc.	Robert Mangas, Doug Hursh

Construction Schedule

Construction is anticipated to start as soon as approvals are granted, with construction commencing in Summer of 2014, and project completion in the Fall of 2015.

Approvals Requested

This application is for approval of a major alteration to an existing site which is an allowed conditional use in a CN zoning district under the 2013 City of Madison zoning code. Approvals requested include:

- Permit to erect a temporary cellular antenna monopole
- Demolition permit to remove the existing elevated steel tank water tower (Reservoir No. 113)
- Conditional Use Application for a new two zone reservoir (either steel or concrete construction)

Certified Survey Map

Lot 1 of CSM 12189, Easement to City of Madison Document No. 2909070.

Demolition

The development team submitted the required notice to the City, Alder, and Neighborhood Association in October 2013.

All applicable provisions of the demolition ordinance will be complied with, and a reuse and recycling plan will be submitted for approval prior to the issuance of the demolition permit.

Compatibility with Approved Master Plans

The proposed Lave View Reservoir replacement project team is working with Dane County Parks and citizen groups through the CAP process to insure that the project will satisfy the overall goals, character, and include considerations of neighbors and users of the park, and the Lake View Hill Park Master Plan adopted by the Dane County Board of Supervisors on August 6, 2009 (Res. 74, 09-10).

Neighborhood and City Process

The development team has been hosting events since early last fall to inform the public and solicit public input. These have included numerous Citizen Advisory Panel meetings, two public meetings, two Water Utility Board meetings each of which included a public hearing, meetings with Dane County staff, and a DAT meeting with City staff in December of 2013. The Madison Water Utility hosts a web page on their web site that provides information on the project, its purpose, and the process that the utility is following to erect this replacement tower.

Buildings on the Site

There are three small buildings which will remain on the property that house the cellular equipment of the cellular carriers. There is also a small white shed which will remain.

Site Access and Parking

Vehicular and construction access to the site is from North Port Drive. Contractor access and use of the site and parking spaces on adjacent Dane County land will be restricted as indicated in bid documents. Any damage from the construction process will be repaired by the contractors completing the work of this project.

No additional parking or new paved areas is included in this project.

Respectfully submitted,



for Alan Larson, PE, BCEE
Madison Water Utility

Attachments:

Project Location – 2013 City of Madison Adopted Zoning Map

Project Location – Aerial View

CSM Map No. 12189 and Easement Document No. 2909070 (legal description of parcel)

Photos of the existing water tower and buildings on the easement

CAP hand-outs showing the two zone tank concept and Pressure Zone 5 and 6

Excerpt from the Great Lakes Archeological Research Center Report on Investigations No. 695 (pgs 28, 29, 30)

Summary of current telecommunications licenses

Concept elevation views of steel tank

Concept elevation views of concrete tank

Drawing set including site survey, grading and utility plans, landscape plans, site plan, and contractor use of site and erosion control

Madison Lakeview Water Tower

Project Construction Memo

June 10, 2014

This memo provides overview information on the Madison Water Utility Lakeview Watertower Project's construction phasing plan, parking space coordination, proposed project schedule, contractor traffic movements on site and temporary parking.

Project Phasing

The project will be divided into five construction phases. The phases will include tree removal/crane pad, booster station electrical upgrade, existing water tower demolition, proposed watertower construction and connecting watermain construction.

The first phase will be the tree removal and crane pad contract. This contract will include the removal of selected trees on the site to facilitate the installation of the tank foundation and watermains. Tree removals have been reviewed by County staff and the Friends of the Park. The foundation for the crane will be a temporary gravel pad south of the existing watertower that will provide an area from which the demolition crane can operate.

The second phase involves an electrical upgrade of the existing Lakeview Water Booster Station. The electrical controls will be upgraded with Variable Frequency Drives to allow the station to operate continuously. A temporary emergency generator will also be connected to the booster station to provide electrical power in the event of a power outage. These improvements will allow the existing watertower to be removed from the system while the booster station provides continuous water pressure to zone 5. This zone consists of institutional and residential areas surrounding the Lakeview Park.

The third phase of the project is to remove the existing watertower. The demolition of the watertower will occur after the cellular company carriers and the City emergency radio system relocate during the construction period to a temporary monopole type cell tower. The demolition will include the removal and cutting up of the existing watertower structure. All steel components will be salvaged and recycled.

The fourth phase will be the new watertower construction. This phase includes the removal of the existing watertower concrete base followed by the excavation of the footings for the new watertower. The phase includes the concrete foundation, construction and erection of the steel tank and painting of the tank.

The fifth phase is the new watermain connection pipes. This contract will start approximately 20 feet from the watertower structure and will include a new pipe to the Lakeview Booster Station and a new pipe from the watertower to the main water pressure zone at Northport Drive. The watermain construction phase will take place after foundation construction during time intervals when the watertower contractor is not actively working on the site.

Scheduling

The project is currently moving through the permitting process. It is expected that the first ad for the project will be placed during the first week in July 2014. This will lead to a bid opening the first week of August. The City bid award and contracting phase will take place during August 2014 and September 2014 which will allow the watertower contractor to break ground the first week of October 2014. During mid-summer the cellular companies will remove their antennas from the existing watertower. Prior to the watertower contractor starting work, tree removal/crane pad construction, booster pump station electrical upgrades and existing water tower demolition can take place in September 2014. Foundation work will take place during October/November 2014. Watermain installation work will take place between November 2014 and March 2015 during warmer weather periods. Watertower erection will take place between April 2015 and June 2015. Watertower painting and restoration work will take place between July 2015 and August 2015. Cellular companies will relocate their equipment onto the new watertower in September/October 2015.

A project chart showing the scheduling sequence is included with this memo.

Construction Traffic

The contractor will bring a variety of equipment and vehicles onsite for construction purposes. Vehicles will consist of pick-up trucks, single axle trucks, multiple axle single frame trucks and semi-trailer trucks. Construction traffic will vary depending upon the type of watertower built. Both steel type and full concrete watertowers will be bid out. It is anticipated that 10 to 20 concrete trucks will deliver concrete for a steel type watertower. Approximately 10 to 20 single axle delivery trucks and 20 to 30 semi-trailer trucks will bring equipment and materials onsite. A full concrete watertower will result in 80 to 120 concrete trucks, 10 to 20 single axle delivery trucks and 10 to 15 semi-trailer trucks will bringing materials and equipment onsite.

The project plans incorporate a semi-trailer truck restriction from 8 am to 4 pm. Semi-trailer trucks are restricted from making deliveries during day time hours. The contractor will need to schedule deliveries by semi-trailer truck either before 8 am or after 4pm.

Temporary Parking

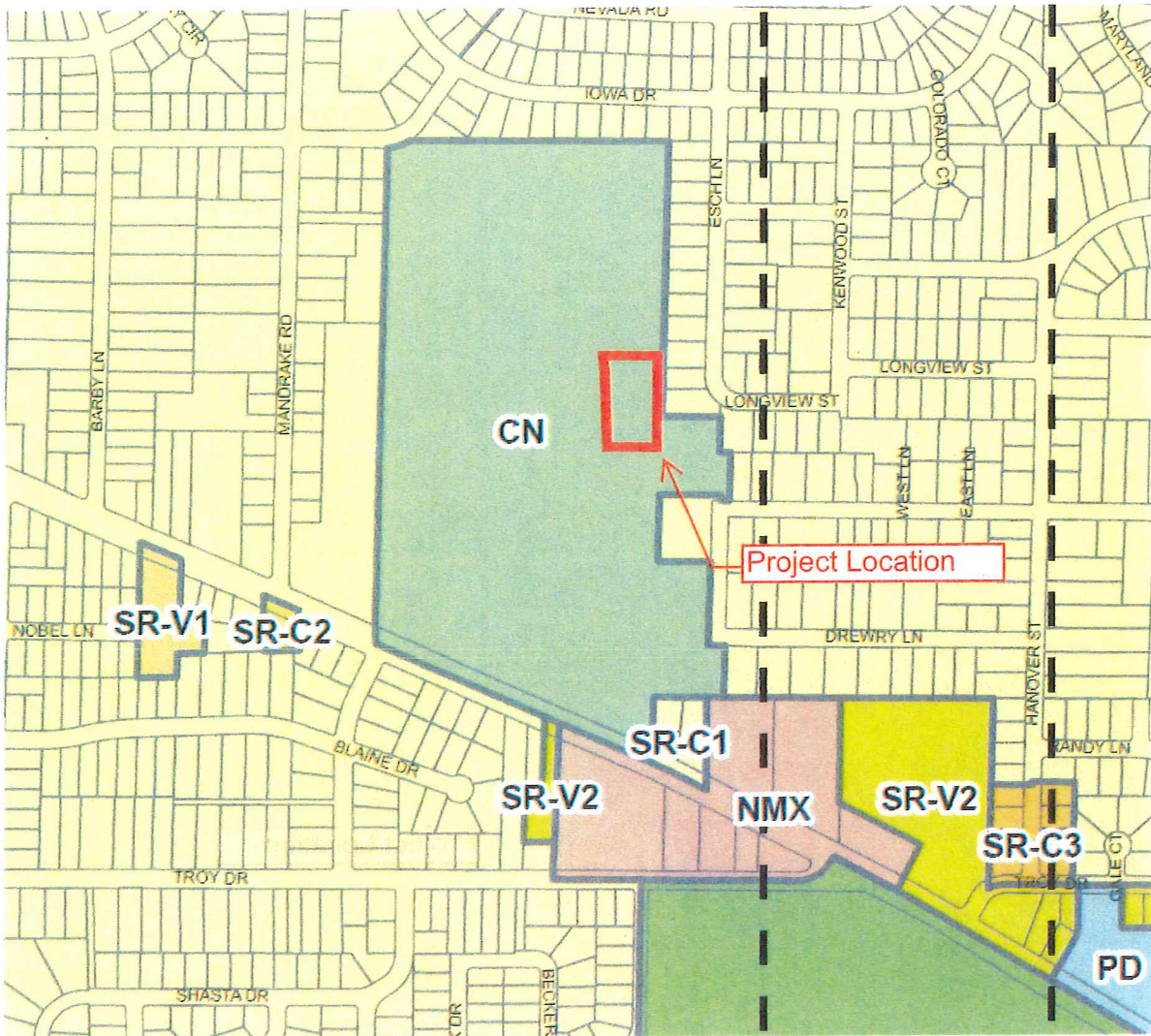
The construction layout will occupy 25 parking spaces near the watertower location. Additional temporary parking areas can be constructed on the east and west side of the main County building. The east temporary parking areas can be constructed around the former Nurse's Dorm building. The building can stay in place with 13 parking stalls on the south side of the building, 15 parking stalls on the north side of the building and 12 parking stalls along the driveway from the water booster station to the Nurse's Dorm for a total of 40 new parking spaces. The parking surface can be constructed of crushed aggregate with temporary markers to delineate the stalls.

On the west side of the main County building additional parking stalls can be created by creating 45 new parking spaces. It is expected that parking needs will be restricted along the entrance road curve which will remove 14 spaces and results in a net gain of 31 parking spaces.

The total number of added temporary parking spaces includes 40 on the east side plus 31 on the west side minus the 25 spaces occupied in the construction area for a net gain of 46 parking spaces.

A parking layout plan consisting of an overview drawing, east parking drawing and west parking drawing is included with this memo.

Lakeview Reservoir Replacement Project



Project Location - 2013 City of Madison Adopted Zoning Map

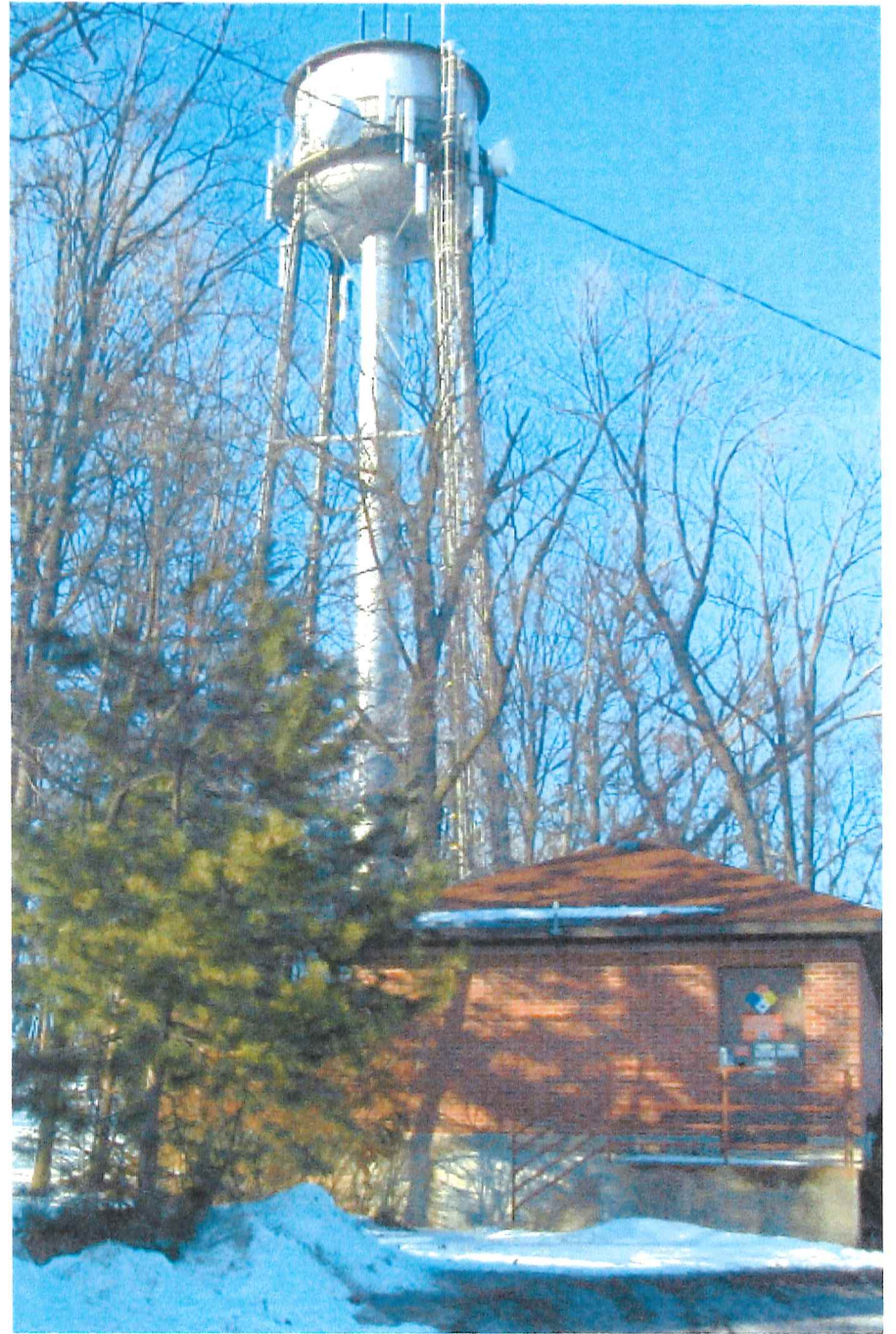
Lakeview Reservoir Replacement Project



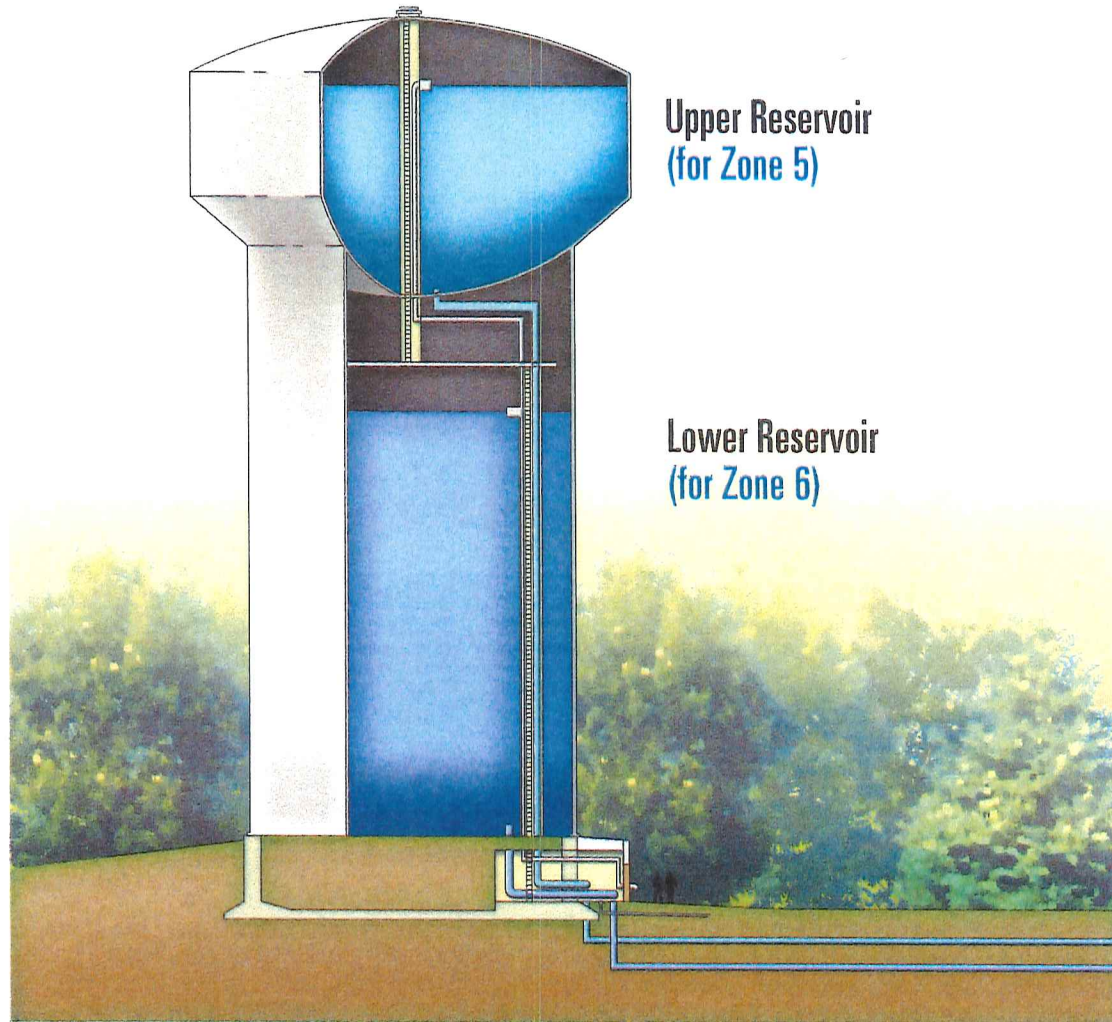
Project Location - Aerial View

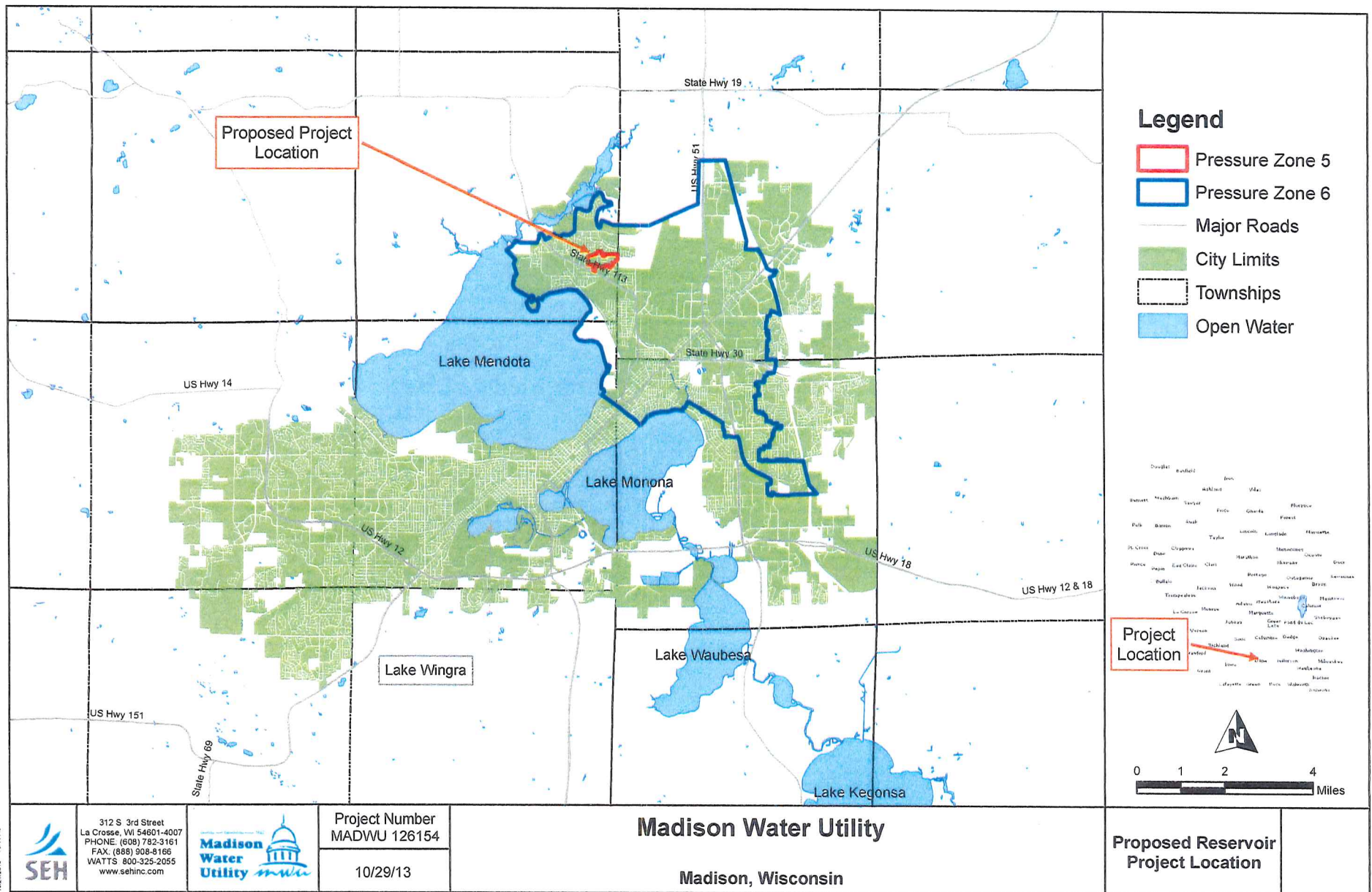
LOCATED IN THE NE1/4 OF THE SW1/4, THE SE1/4 OF THE SW1/4, THE
NW1/4 OF THE SE1/4 AND THE SW1/4 OF THE SE1/4 OF SECTION 25, T8N,
R9E, CITY OF MADISON, DANE COUNTY, WISCONSIN.

[illegible]



Two Zone Reservoir Concept





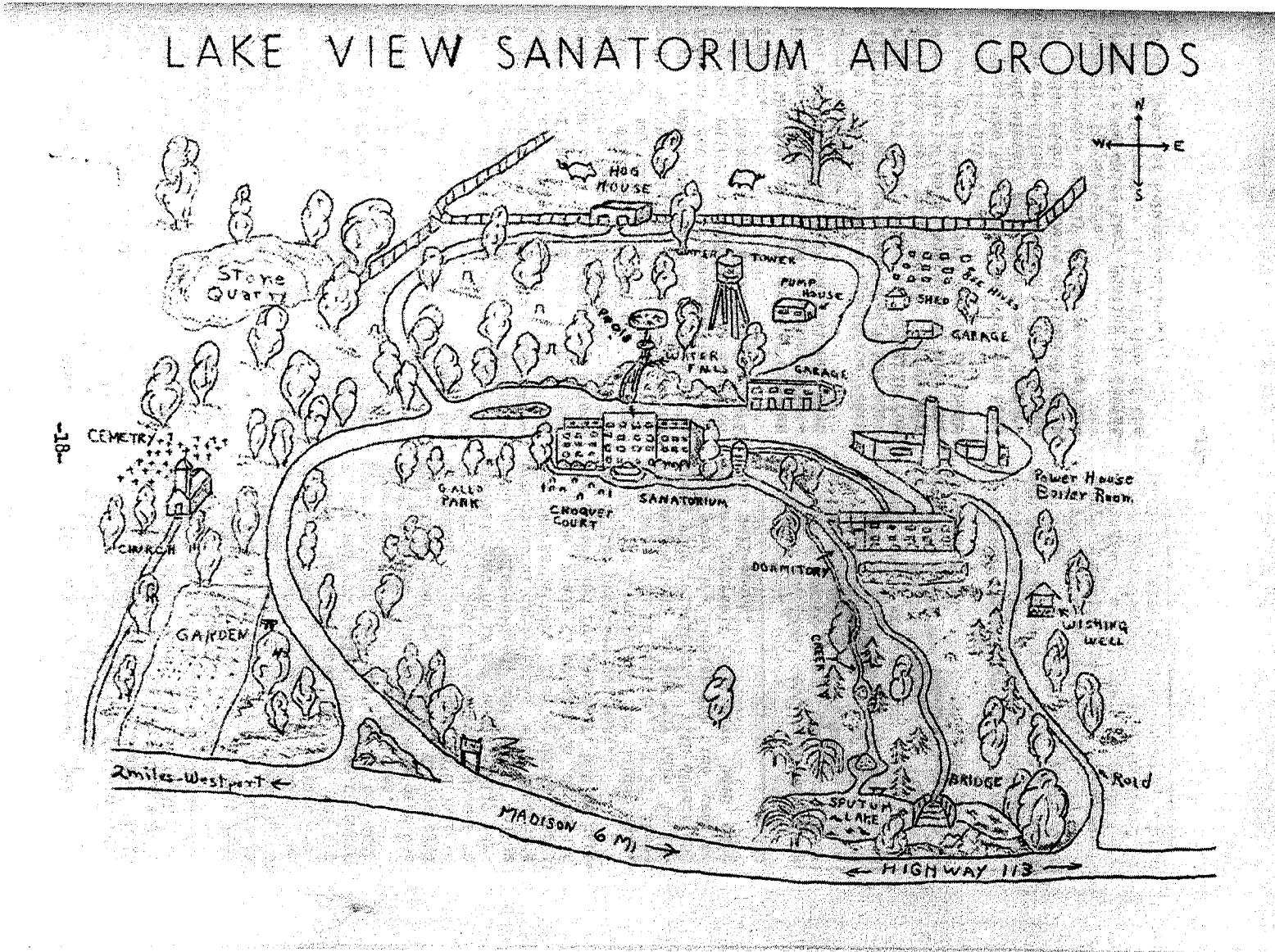


Figure 3.12 Patient map of Lakeview Sanatorium grounds.

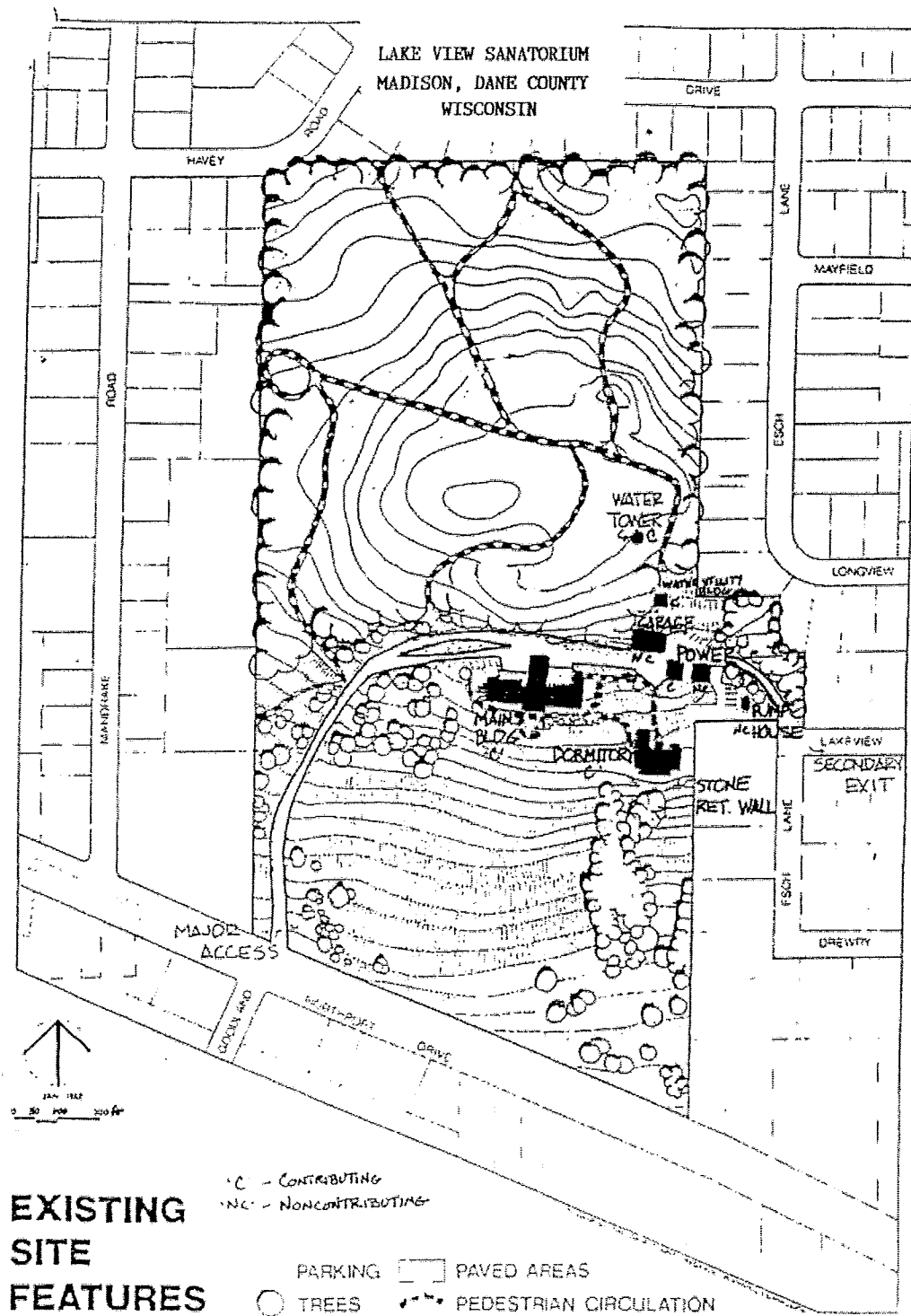


Figure 3.13 Contributing and non-contributing buildings and structures at Lake View Hill County Park.

2. Access to the cave system might be possible from an off-site location, efforts should be made to identify any potential entrances located outside of the boundaries of Lake View Hill County Park.

3. Care should be taken in the installation of any facilities requiring extensive or intensive ground disturbance in the event that any underlying fissures are encountered.

Results of the Archaeological Fieldwork

Sanatorium Buildings and Associated Features

The 48 acres of the Lake View Hill County Park were formerly the grounds of the Lakeview Tuberculosis Sanatorium, which was in operation from the 1930s to the 1960s. At the height of its operation, the sanatorium consisted of: a main building; workers dormitories; site superintendent's residence; a power house; a pump house and water tower; hog barns and butchery area; ponds; gardens; and a waterfall fed by a system of water collection cisterns (Figure 3.12). In 1993, most of the major extant sanatorium buildings and architectural features were listed in the National Register of Historic Places. Contributing buildings and structures include the main sanatorium building, dormitory for help, maintenance building (original power house), water utility building, and water tower. Non-contributing buildings and structures include the power house, garage, and power house. A map detailing the locations of contributing and non-contributing buildings and structures on the property is provided as Figure 3.13. Other non-extant buildings and features associated with the sanatorium, specifically the remnants of the hog barn and water collection cisterns, were documented as part of the present study.

Hog Barn Facility

The foundation remnants of the reported sanatorium hog barn and butchering facility are located in the wooded area north of the main sanatorium buildings. The remnants of the hog barn consist of concrete slab floors surrounded by low poured concrete walls (Figure 3.12, 3.14). Brian Graedel remembers a livestock facility in the woods, a barn or slaughterhouse, with two sides, each serving one of two 10-acre hog operations (perhaps cattle too). That seems to match the concrete foundation-and- fence poles, north of the main east/west trail. Most of the north wall of the barn facility has fallen over. A large amount of cut animal bone was found strewn around the remnants of the hog facility.

Documentation of the sanatorium hog barn and butchering facility consisted of the completion of a plane table map of the remaining foundation walls and concrete floors of the facility. A rail imbedded in one of the foundation walls at the west side of the facility was used for a site datum for mapping. This datum was later assigned coordinates in the Dane County coordinate system using a Global Positioning System receiver provided by the county.

Management Issues

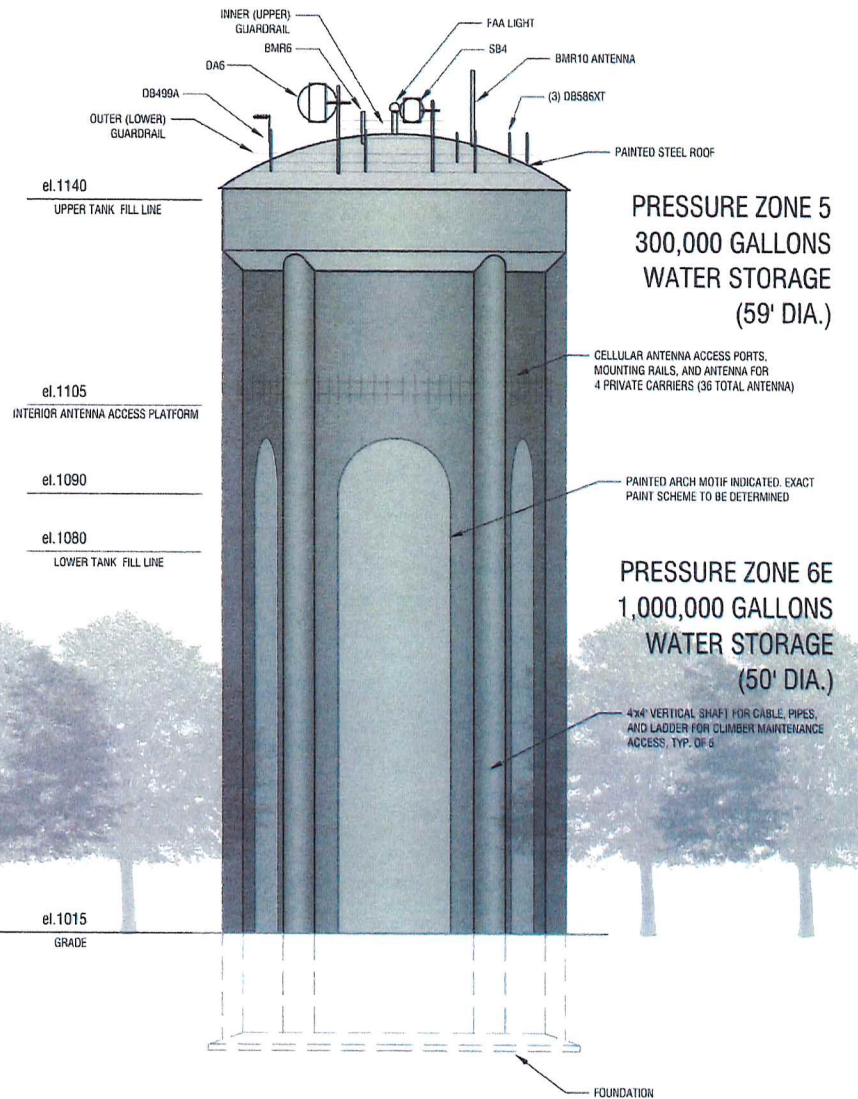
1. The ruins of the Hog Barn Facility in and of itself would not be considered significant from an

**LAKEVIEW WATER TOWER - 1202 NORTHPORT DRIVE
SUMMARY RE: TELECOMMUNICATION LICENSES**

Real Estate Project No.	Applicant	Contract Begin Date	Contract Expiration Date	Payment Due Date	Amount Next Due	Description of Equipment
4119	Sprint Spectrum L.P.	03/01/98	2/28/18	3/1/2014	\$26,221.75	9 antennas. Current ground cabinets will be relocated into middle equipment building.
3978	PrimeCo Personal Communications, L.P. (n/k/a Verizon Wireless)	06/01/97	5/31/17	6/1/2014	\$26,221.74	9 antennas. Cabinets are located within south equipment building.
3979	Madison SMSA Limited Partnership n/k/a Cingular (AT&T)	01/12/98	1/11/18	1/12/2014	\$22,475.77	Currenty 6 antennas. Will be adding 3 more when new tower constructed. Cabinets are located within south equipment building.

Notes:

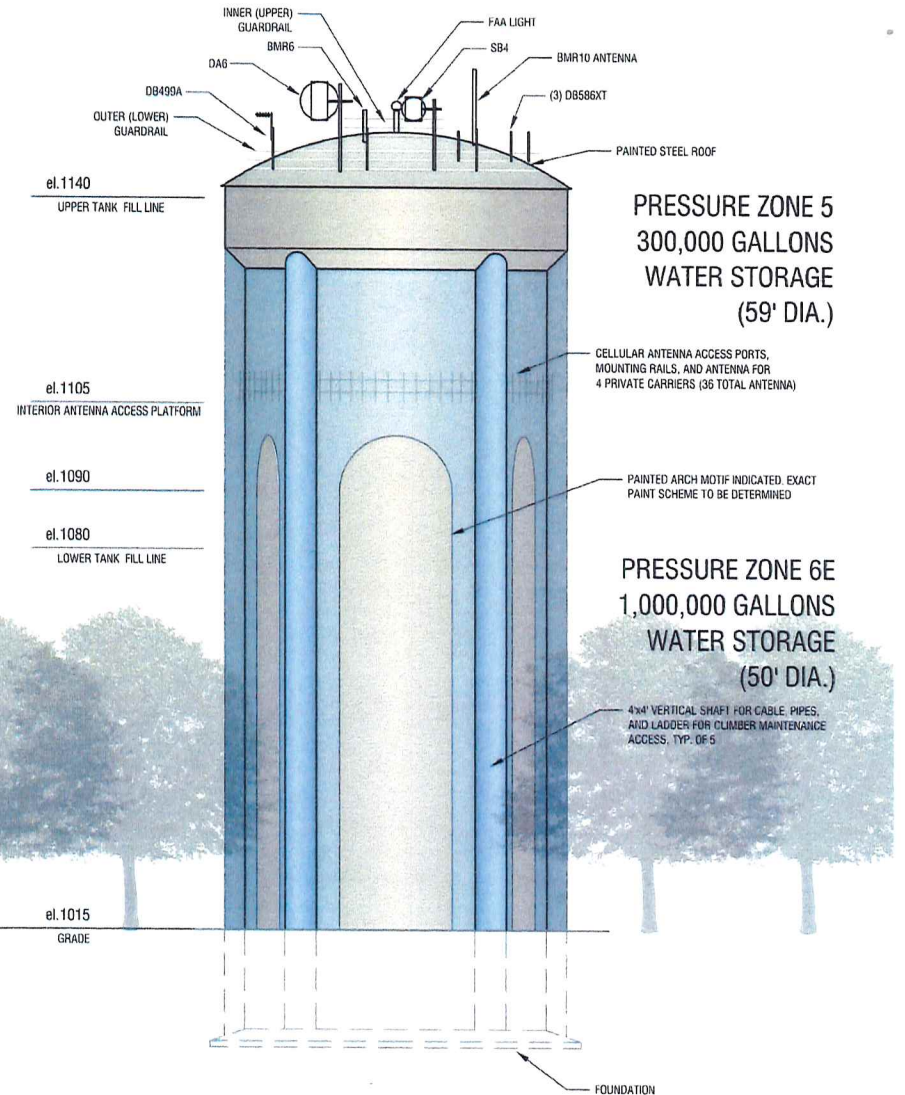
- 1.) All license fees are subject to 4% annual adjustments.
- 2.) 50% of annual net revenues for each license at Lakeview Water tower are payable to Dane County by 2/1 of each year. Balance of net revenues are deposited into the City's Tower Revenue Fund (SO03). That money is used to fund the City's lead pipe replacement program.
- 3.) Per the terms of the Easement from Dane County, the City may grant licenses to a maximum of four (4) telecommunication companies for the placement and operation of telecommunications equipment and improvements on the Tower and Tower Easement Area.
- 4.) Each license is initially authorized via Common Council Resolution. Resolutions are considered by the following additional commissions/boards: Plan Commission, Board of Water Commissioners, Board of Public Works and Board of Estimates. Licensees are also required to obtain all necessary Zoning and Building Permit approvals.
- 5.) There are also City facilities located on the tower and within the north building east of tower. See SiteSafe RF report for listing of equipment.



**TWO ZONE TANK
STEEL OPTION**



STEEL CONCEPT DESIGN OPTION - GREEN
Lake View Reservoir Replacement Project
Madison Water Utility
April 30, 2014

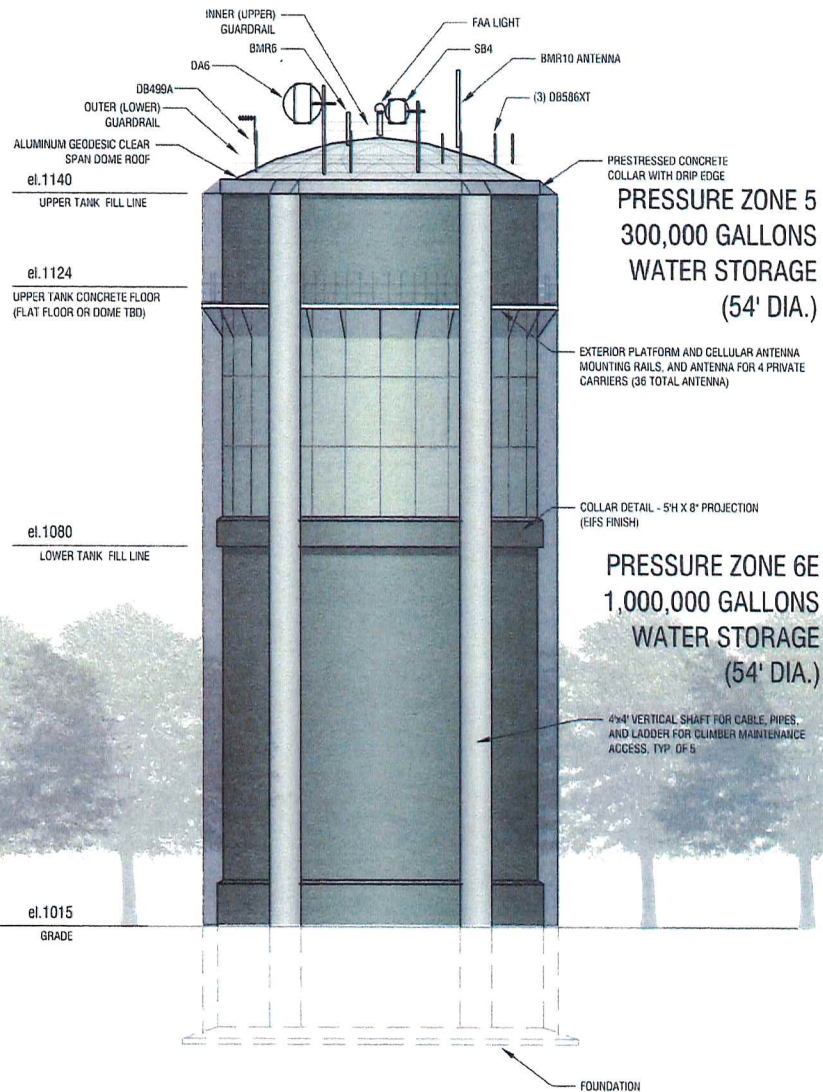


**TWO ZONE TANK
STEEL OPTION**



STEEL CONCEPT DESIGN OPTION - BLUE
Lake View Reservoir Replacement Project
Madison Water Utility
April 30, 2014

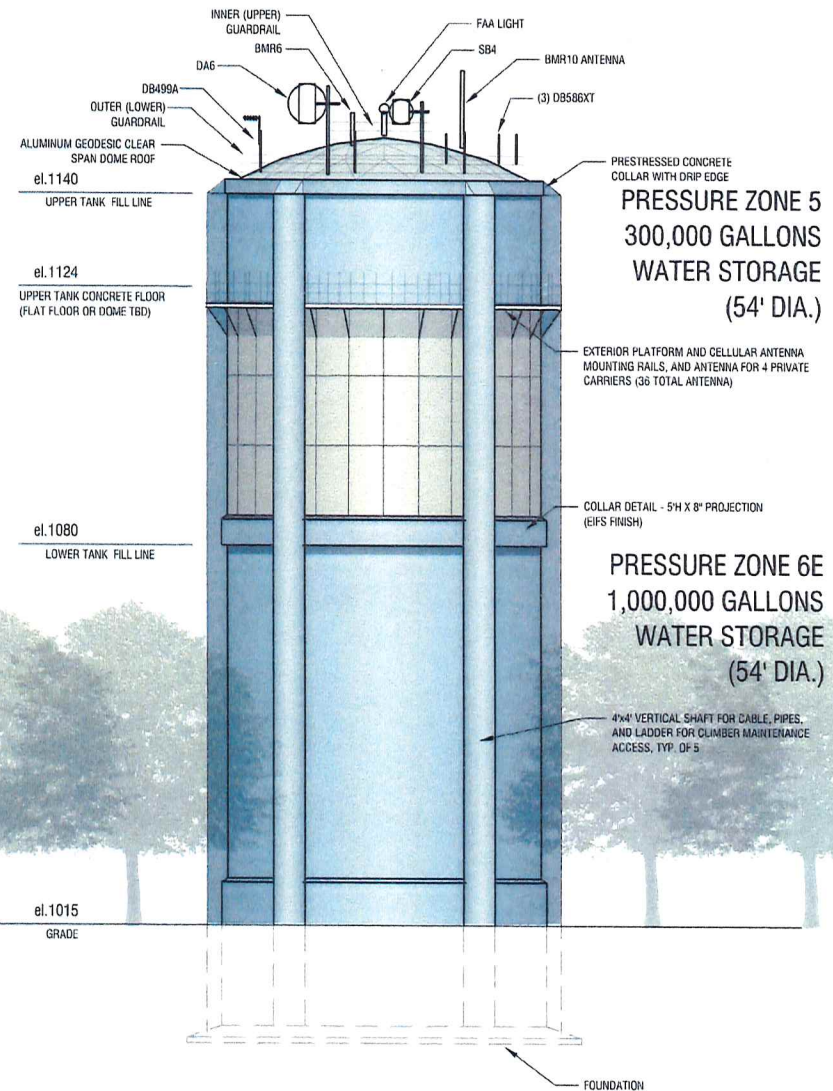




**TWO ZONE TANK
CONCRETE OPTION**



CONCRETE CONCEPT DESIGN - GREEN
Lake View Reservoir Replacement Project
Madison Water Utility
April 30, 2014



**TWO ZONE TANK
CONCRETE OPTION**



CONCRETE CONCEPT DESIGN - BLUE
Lake View Reservoir Replacement Project
Madison Water Utility
April 30, 2014

