

ZONING BOARD OF APPEALS MINUTES OF APRIL 8, 2014

Meeting called to order by Chairperson Gerl at 5:01 p.m. in the 1st Floor Conference Room, Suite 108, City Hall Plaza.

PRESENT: Ken Bargender, Ed Gerl, Richard Kenyon, Robert Lewerenz and 1st Alternate Todd Zieglmeier

ALSO PRESENT: Planner/Zoning Administrator Miller, Deputy Clerk Panzer, Alderperson Wagner, Jack Bremer, John Berg, Jeff Gaier, Bob Trussoni, John Richmond, Dave Wasserburger, Richard Bittner, Susan Bittner, Sue Meyer, Dennis Mader and Dan Cattanaach

ABSENT: Dean Markwardt (excused)

ZB14-03 Motion by Kenyon, second by Zieglmeier to approve the minutes of February 11, 2014 as submitted.

Motion carried

Deputy Clerk read the variance request from Marshfield Utilities for property located in the 1700 Block of East Depot Street (parcel 33-02484), zoned "SR-3" Single Family Residential, for a 39 foot variance to construct a new water tower 167 feet above ground level (AGL), at an elevation of 1,437 feet above mean sea level (AMSL). The "Airport Overlay & Height Limitation Zoning Map, Marshfield Municipal Airport, Marshfield, Wisconsin," as identified in Sec. 18-93(4) of the Municipal Code, requires structures at this location, in the Overflight Zone (AIR-4), to not exceed 1,399 feet above mean sea level (AMSL).

Background

Back in May of 2013 the City of Marshfield Plan Commission approved a conditional use request by Marshfield Utilities to exceed the maximum height allowance for a communication tower/antenna of 150 feet. At the time the proposed structure was 184 feet tall (1,455 feet AMSL) being split between a 164 foot water tower and a 20 foot antenna sitting on top of the water tower. This was 34 feet above the maximum antenna height restriction and 56 feet into the Height Limitation Zoning Overlay (HLZO) district restriction.

Although the Plan Commission approved the antenna height through the Conditional Use Permit process, they generally base their decisions on impacts to adjacent property owners and don't factor in the HLZO. In order for the project to be approved, both the Conditional Use Permit and the variance are needed.

Before a variance to the HLZO can be applied for, the FAA must review the application and make a determination as to whether or not the project would be considered a hazard to air navigation. Last fall, Marshfield Utilities submitted the request to the Federal Aviation Administration (FAA) for review of the water tower and antenna height. The initial letter from the FAA was that the structure was a presumed hazard that would require the Airport to raise the minimums on their approach. The Airport Committee recommended that Marshfield Utilities remove the antenna from the request and resubmit the new elevation to the FAA. The revised elevation (1,437 feet AMSL, 167 feet AGL) is what the variance request is based on. The FAA reviewed the newly proposed design and provided no hazard to air navigation determination.

Even though the FAA provided a determination of no hazard to air navigation for the proposed elevation, the location of the tower is an obstruction encroaching into the HLZO and directly in line with the approach to runway 05-23. When granting a variance to the HLZO, the height, location, and proximity of the proposed structure to the Airport should be factored in the decision.

A variance cannot be administratively approved for this plan, based on Sections 18-93 (4), 18-93 (5)(e), and 18-93 (8), of the Municipal Code. The Applicant is requesting variances from the Height Limitation

Zoning Ordinance that restricts the height of all structures at this location to an elevation of 1399 feet AMSL. With a site elevation of 1270 feet and a 167 foot tower, the Applicant is requesting a 39 foot variance for the 1399 foot height limitation zone.

Planner/Zoning Administrator's statement of facts regarding the variance request:

1. The property is located in the 1700 Block of East Depot Street (parcel 33-02484) in the "SR-3" Single Family Residential district.
2. The Lot is 15.344 acres in size with the proposed tower to be located on the south side furthest from the residential properties and closest to the railroad.
3. The proposed tower height is 167 feet AGL.
4. The ground elevation at the proposed tower location is 1270 feet above mean sea level, which would put the overall tower height at 1437 feet above mean sea level.
5. The maximum elevation permitted at this location by the Height Overlay Zoning Ordinance (HLZO) is 1,399 feet AMSL.
6. The proposed tower would exceed the Height Limitation Zoning Overlay District by 39 feet.
7. The Applicant is requesting a 39 foot variance from the HLZO.

Variance Criteria (Section 18-165 (6))

The board shall review all variance requests against the standards provided under Wisconsin Statutes and applicable case law. To qualify for a variance, an applicant would have the burden of proof to demonstrate that the variance criteria are met. The following are the criteria and the Applicants response in quotes and the staff's comments below:

- a. *The variance will not be contrary to the public interest.* "It is in the public interest to have this 500,000 gallon reservoir. This reservoir will allow the Utility to perform maintenance on the existing Grant Tower while not interruption service to any customers in the Utilities Primary Zone."

While there is certainly a public interest in allowing the Utility to perform maintenance on the existing facilities, the Zoning Board must take into account the interest of all parties involved, including the purpose of the HLZO and the reason to protect it. Lowering the elevation of the proposed water tower is not an option, but an alternative location, outside of the alignment to runway 5/23, is something that should be considered.

- b. *Substantial justice will be done by granting the variance.* "Yes. As mentioned above, this reservoir will allow the Utility to perform maintenance without any service interruption."

Substantial justice means justice administered according to rules of law in a fair manner to all. In this case, the Airport may be adversely impacted by the height and location of the proposed tower. The FAA has submitted a determination of no hazard to air navigation, however, the tower is right in line with the runway and allowing variances into the HLZO without careful consideration of the impact on the City should be avoided.

- c. *The variance is needed so that the spirit of the ordinance is observed.* "Yes. The reservoir does not fit into 1 or 2 single family zoning restrictions but is necessary for continued operation of the Water Utility."

The spirit of the HLZO district is to protect the airspace for air traffic into and out of the Airport. The Utility is also limited in that a water tower needs to be at a designed elevation to provide the proper water pressure required by code. The variance process has been put in place to hear and consider exceptions that may be necessary to carry out other needed services for the community. A water tower

is a needed aspect of the City's water system and allowing the height is probably a valid exception. The primary concern comes from the proposed location and alignment with the runway approach.

d. Due to special conditions, a literal enforcement of the provisions of the zoning ordinance will result in unnecessary hardship. “Yes. Without the new reservoir, the City could have either service interruption or drastic increase or decrease in pressure's while trying to operate the Primary Zone using Booster Station Pumps during any maintenance activities to the existing Grant Tower.”

A literal enforcement of the ordinance does result in an unnecessary hardship for the Utility as they are required to keep the water tower at the proposed elevation which encroaches into the HLZO. There are very few locations within the City that are outside the 3 mile boundary of the HLZO where a water tower could be placed that would not require a variance.

Airport Committee Recommendation

The Airport Committee met on Thursday, March 20, 2014 to discuss the proposed variance and make a recommendation. The Airport Committee recommended that the variance application be denied based on safety concerns and the potential impact that allowing a structure into the HLZO could have on future minimums for the Airport.

A representative for the Spirit, Mike Luna, said that the proposed tower does not affect their approaches, but they will support whatever the Airport decides is the best course of action from an aviation safety standpoint.

Deliberations

Dave Wasserburger distributed a handout. (See attached.) He gave a background on Marshfield Utilities and explained the two separate pressure zones which operate independently of each other and listed the towers, their locations and their elevation heights in each pressure zone. He also referred to a letter from the Federal Aviation Administration. The Federal Aviation Administration conducted an aeronautical study which revealed that the proposed structure does not exceed obstruction standards and would not be a hazard to air navigation provided that a Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or within 5 days after the construction reaches its greatest height. Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking and lighting are accomplished on a voluntary basis, it is recommended that it be installed and maintained in accordance with the FAA.

John Richmond explained that the structure of the proposed water tower has to be 2' taller than the Grant Park Water Tower. In order to keep the water pressure relatively similar, the top of the water levels of the towers need to be the same.

Dave Wasserburger referred to Attachment 1 of Marshfield Utilities' handout and explained that an engineering study was done in 2009 and the result of that study was a proposed water tower that was located out of the City limits where there is no existing infrastructure.

Lewerenz asked if anyone knew what it would cost if Marshfield Utilities was forced to use the proposed east tower site.

Dave Wasserburger said it would cost millions and it would take time to obtain those properties and then build the infrastructures. Water mains are typically laid down in the streets and when you start tearing up streets to install a water main it gets very expensive very quick. Water towers rust from the inside out and the existing water tower that was built in 1990 needs to be painted. Typically a paint job last about 20 years. The water tower needs to be emptied for about 2 months to be painted. There was some land for

sale on Lincoln Avenue and 11th Street where there is existing 12" water main, but that land turned out to be in the main airport runway.

Jeff Gaier explained that the Airport had 7 obstructions this year alone that weren't penetrating the height limitation zone, but were affecting the zones for its approaches that had to be removed, addressed or the Federal Aviation was going to raise the minimums.

John Berg distributed a handout addressing the Airport's opposition to Marshfield Utilities' variance request. (See attached.)

Bargender asked what percentage of aircraft use the Air-2 runway approach in a year from either direction versus the Air-1 runway approach.

Jeff Gaier explained that the primary approach comes from the south. However, when an airplane gets over the airport depending on what direction the wind is coming from, is what direction it is going to land even if they come from the south. The main approach lighting is on the south end, so that is our primary lowest minimum that they are going to come in on. If something would happen that the wind direction is coming out of the west, we have to protect the circle to landings minimums of the airport so that the airplane can change direction to come in on whatever runway the wind is favorable. 60% use the approach to the south.

John Berg said he is predicting that this runway is going to be used a little more than it has in the past, because of the GPS approach and all the other changes that have been made in the last year. We are getting a higher quality of aircraft in our airport than we have in the past. Putting this tower dead center in the middle of that airport runway is a path taken off. Even at the normal height limitations the tower would be right dead in the center and that is not a good deal when you look at the overall picture for something that is going to be there for 50 years. Marshfield Utilities has invested in the city, but there is a major investment in that airport in the City of Marshfield too.

Kenyon asked about potential liability costs.

Jeff Gaier said if the variance is granted to put the tower into the liability square lands of the City of Marshfield and if an airplane collides into the tower, the City, the pilot, Marshfield Utilities and the Airport will be liable. If there are any future approaches, the FAA may change the minimums because of this known obstruction for this approach. If too many variances are granted into the height limitation, the Bureau of Aeronautics may start giving the airport low priority on the money that they will be giving out for projects.

The FAA flight checks all the runways for the approaches and in the past that service has been free of charge. Flight checks are no longer a free of charge service. Any changes that are published is an instant flight check. If the minimums get changed the airport will have to incur that cost. Unfortunately, this is so new, that we haven't been told what the actual cost is going to be yet.

Bargender asked if there were plans for a future expansion of runways in the area of Hwy BB that was rerouted and abandoned.

Jeff Gaier said the master plan reflects both north and south expansions. Expanding to the southwest would be a huge cost, because there is a residence to the west and there are extreme drop offs in that area. Any future expansion would be on the north side.

Gerl asked if the proposed water tower could be moved over so it is not right in the center of the runway approach.

Dave Wasserburger pointed out that the geography falls down, so it would cost more. If you build downhill you will need to build a higher tower.

Moving the tower to the west was discussed

Moving the tower to Hewitt was also discussed.

Dave Wasserburger said the 1,399 foot height limitation puts the Utility out of business. The only reason the other towers are there is because they were built prior to the HLZO.

Jeff Gaier went over the handout that John Berg distributed earlier in the meeting which covered the reasons why the Marshfield Airport Committee is in opposition of this variance request per the four variance criteria.

John Richmond explained that Marshfield Utilities needs the 1,437 elevation to have a tent pole effect to raise the pressures up.

Dave Wasserburger referred to page 2 of the Utility's handout and covered the reasons why the Utility believes the variance should be granted per the four variance criteria. (See attached.)

Dave Wasserburger said Marshfield Utilities tried to combine both pressure zones in 2012 and it proved to be a disaster. Within four hours they had six neighborhoods calling in water main breaks. This was their first option to paint Grant Tower.

Dave Wasserburger explained that Marshfield Utilities has to maintain certain pressures in their distribution system by state code. We need to maintain a minimum of 20 pounds pressure in the distribution system with a hydrant flowing at 500 gallons per minute. Lowering the water tower by 39 feet would lower the system pressure by about 17 psi and this would not allow us to maintain the minimum pressure requirements as required by state code.

Dave Wasserburger said the cost to build the proposed tower is \$1.75 million and a paint job on the existing Grant Tower will cost around \$450,000.

Alderson Wagner referred to the tower on the corner of St. Joseph Avenue and McMillan Street that is abandoned and empty.

John Richmond said that the St. Joseph Avenue Tower is the high pressure zone and at the moment is empty. He explained that when the time comes to repaint the Mannville Tower then the St. Joseph Avenue Tower will be back in use.

Alderson Wagner asked if the St. Joseph Avenue Tower could be used as a backup for the Grant Tower.

Dave Wasserburger said they tried combining both systems and that tower is 30' taller than the Grant Tower and there would be too much pressure.

Alderson Wagner asked what is going to become of the tower on St. Joseph Avenue and McMillan Street.

Dave Wasserburger responded by saying that it serves a lot of use as a backup. It is going under some construction starting tomorrow. The purpose of that tower is to allow us to take Mannville Tower down whenever we need to and use that tower to control the high zone system, so there is a lot of value to that tower for us to be able to do that.

John Richmond said that it also doesn't have enough storage really to operate the primary pressure zone.

Bob Trussoni said it is physically located in a different zone.

John Richmond said it will allow us to at any point in time if one of those would need maintenance, to still operate off of the other one, but most of the time we would be trying to operate off of both.

Bob Trussoni said if something happened to the western tower, where it gets damaged and something needs to be repaired immediately, we can continue to run the system because we have the other one in service.

Dave Wasserburger explained what happened the evening of January 24th. It was about the coldest night this winter and the CPU on the Grant Tower failed. We didn't know how much system pressure we had, but we were able to fail over to another pressure gauge at our main treatment plant and run, but we had to get people up there the next day to get the CPU fixed. If we had two towers, we could have just switched over to the other tower.

Dave Wasserburger explained one of the options that their engineer gave them was to construct one 1 million gallon tower at this location that they picked and tear down the Grant Tower, but there is value to having the second tower. If one fails, you have the other one available to control the water system.

Kenyon said when it comes to government things, he tends to trust the most local government entity as opposed to a bureaucracy that doesn't live here and doesn't operate here. He trusts Marshfield government more than State and more than Federal.

ZB14-04 Motion by Lewerenz, second by Bargender to grant the variance request from Marshfield Utilities for a 39 foot variance to construct a new water tower 167 feet above ground level (AGL), at an elevation of 1,437 feet above mean sea level (AMSL) in the 1700 Block of East Depot Street for the following reasons:

- It would be an extreme hardship to the City of Marshfield residents not to have a tower and regardless of where the tower is located in the city it will have to be above the height restriction.
- There is no property available that is large enough that is not in line in the city and putting it outside of the city even if it did work would be an economic hardship.
- The FAA has no problem with the proposed tower nor does the State of Wisconsin.

Bargender felt the tower should be lit 24/7.

ZB14-05 Motion by Lewerenz, second by Gerl to amend motion **ZB14-04**; to include the condition that the tower be permanently lit 24/7 and to include the following statements:

Based on the deliberations, the following statements were the findings of the criteria:

- a) Granting the variance is in the public interest because we need a water tower and regardless of where it is, it needs to be above the height limitation.

b) Substantial justice will be granted then to the residents of the City of Marshfield that will have safety in that if something happens to one of our water towers or in the case of the one needing to be taken down next year for painting that we will have enough water pressure. And especially with the concern of fire, where the pressure will not get below 20 pounds in any part of the city.

c) As to the spirit of the ordinance, the reason we grant variances is because sometimes the spirit of the ordinance does not allow actions to be taken to make the public safe and to make the water system actually work for the city. We respect the safety of the Airport, but it seems to be the only way that it makes sense to do this.

d) A literal enforcement of the zoning ordinance would create an unnecessary hardship, because if the alternative would be to set the tower way to the east, new property would have to be bought, new 12" water lines would have to be run and to make it legal it would cost tens of millions of dollars and that would be an unnecessary hardship to the people paying the water bills in the City of Marshfield.

Motion **ZB14-05**; approved without objection.

Vote on motion **ZB14-04** as amended; Bargender, Gerl, Lewerenz and Zieglmeier voted Aye; Kenyon voted Nay

Motion carried

Motion by Kenyon, second by Lewerenz to adjourn at 6:15 p.m.

Motion carried

Lori A. Panzer
Deputy City Clerk

**WATER TOWER ZONING VARIANCE REQUEST
MARSHFIELD UTILITIES**

Marshfield Utilities originated in 1904 when the City of Marshfield purchased the Water Works, Electric Light and Power Company from Mr. W.H. Upham. Since that time the Water Utility has steadily grown and today serves 7,123 Residential customers, 812 Commercial customers, 33 Industrial customers and 59 Public Authority customers. In 2013 The Water Utility sold about 612 million gallons of water. The 2013 Public Service Commission report calculations show the Water Utility is currently valued at \$27 Million Dollars.

The Water Utility consists of 2 separate pressure zones which operate independently of each other. These zones are named the High Pressure Zone and the Primary Pressure Zone.

The High Pressure Zone serves about 25% of the city. The Hospital, Clinic, Fleet Farm and Mannville are in this Zone. The High Pressure Zone has 2 water towers associated with it.

They are:

St Joseph Avenue Water Tower. 1612 N. St Joseph Ave. 75,000 gallons.

Constructed prior to Airport Zoning Overlay Map.

Ground Elevation: 1362 AMSL

Top of Tower: 1462 AMSL

Mannville Tower. 2810 W Huettner, 500,000 gallons.

Outside of Airport Overlay Zoning Map.

Ground Elevation: 1302 AMSL

Top of Tower: 1466 AMSL

The Primary Pressure Zone serves the remaining 75% of the city. There is currently 1 tower associated with this pressure zone.

It is:

Grant Park Water Tower. 601 W. Cleveland. 500,000 gallons.

Constructed prior to airport Zoning Overlay Map.

Ground Elevation: 1303 AMSL

Top of Tower: 1435 AMSL

The proposed new water tower will serve the Primary Pressure Zone. The proposed site is located 2.18 miles northeast of the airport.

Proposed Depot Street Water Tower

Ground Elevation: 1270 AMSL

Top of Tower: 1437 AMSL

The Federal Aviation Administration has conducted an aeronautical study to determine if the proposed water tower would propose a hazard to air navigation.

The Federal Aviation Administration has determined the tower does not exceed obstruction standards and would not be a hazard to air navigation. (See Attachment 3.)

Marshfield Utilities respectfully requests that a variance be granted to allow the construction of a water tower to serve the city of Marshfield.

Variance Criteria

1. The variance will not be contrary to the public interest.

- a. Marshfield Utilities through the help of their engineer Stantec Consulting, completed an engineering study on the water system in April of 2011. As a part of that study, an east side water tower was proposed. (See Proposed East Water Tower Attachment 1.)
- b. This study was performed to ensure the Utility would continue providing optimal water service to the residents of the City of Marshfield.
- c. The site that was procured for the new tower was chosen for several reasons.
 - i. Close proximity to the engineering reports proposed location.
 - ii. Land was available to be purchased. (Land was purchased by Marshfield Utilities in 2012)
 - iii. Sufficient land was available to purchase to allow the raw materials to be stored on site during construction of a water tower and to provide a buffer around the site for future water tower painting and maintenance. Current land use is agricultural.
 - iv. Land had no known demolition concerns or environmental issues.
 - v. Land was located within the City of Marshfield
 - vi. Existing infrastructure was in place to allow for a tower to provide service. (See Actual Tower Site Attachment 1.)
- d. In 2016, the existing Grant Tower is due for painting and maintenance. To perform this painting and maintenance, Grant Tower will have to be completely drained and taken out of service. Without a secondary tower to operate the Primary Pressure Zone, the Utility and the City of Marshfield's water storage capabilities, static and residual pressures as well as fire flows throughout the system will be severely impacted. **Note: Operating the City of Marshfield on one pressure zone is not an option.**
- e. The Depot Street Tower constructed as proposed will allow for a seamless transition in operations during this period of painting and maintenance of Grant Tower.
- f. The Depot Street Tower will also allow Marshfield Utilities to slightly raise the static and residual pressures in that area of the City.
- g. All of the above mentioned items are in the public's best interest per question #1.

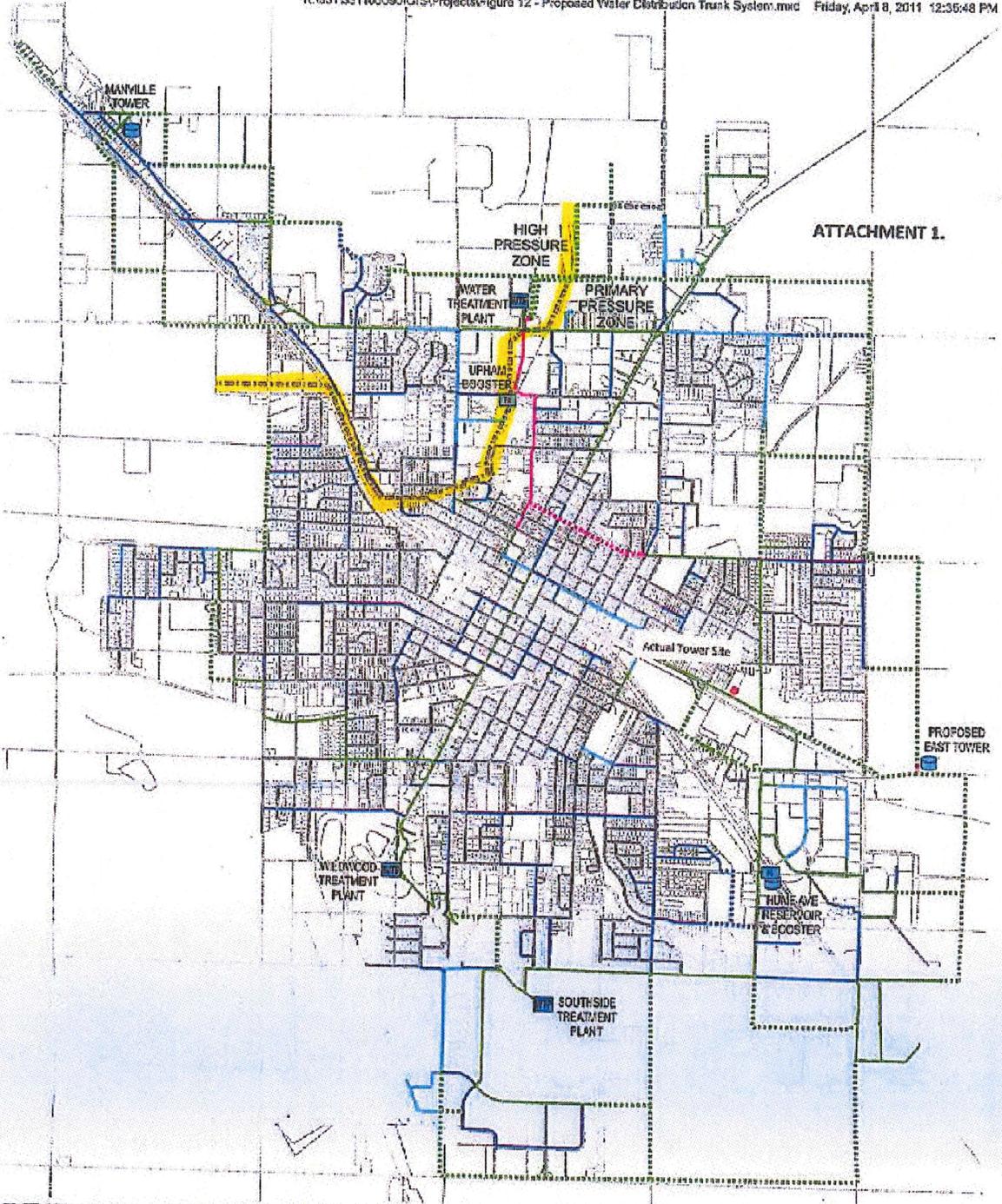
2. Substantial justice will be done by granting the variance.

- a. By granting this variance you will allow Marshfield Utilities to continue to provide water and fire protection to the residents of the City of Marshfield at continued low prices. Construction of the Depot Street Tower at the proposed location will allow for

redundancy in the system. This redundancy allows things like taking a reservoir temporarily out of service to go completely unnoticed as the residents of the City of Marshfield will be completely unaffected.

3. **The variance is needed so that the spirit of the ordinance is observed.**
 - a. The variance is needed to ensure that the spirit of the ordinance will continue to be observed. Marshfield Utilities understands the need for the City of Marshfield and the Marshfield Airport to protect its air space. The City of Marshfield also needs to protect its ability to provide water to its residents at the required pressures and fire flows and at a desirable cost. Without this variance the cost incurred to construct the proposed tower outside the 1399 radius would be extraordinary. (See Airport Overlay and Height Limitation Zoning Map Attachment 2.)

4. **Due to special conditions, a literal enforcement of the provisions of the zoning ordinance will result in unnecessary hardship.**
 - a. Not allowing this variance will result in unnecessary hardship to the City of Marshfield and its residents. If you look at the Airport Overlay and Height Limitation Zoning map. The only area of the City of Marshfield that you could build a water tower of the necessary height (1437 MSL vs. 1399 MSL) in the Primary Pressure Zone would be the far northeastern area of the City.
 - b. A tower at the 1399 AMSL would lower the pressure in the system by approximately 19 psi. **Note: Operating the system at a lowered pressure is not an option.**
 - c. This location is not desirable to the City of Marshfield as it would do the following
 - i. Lower the static pressures throughout the southern area of the community.
 - ii. Lower residual pressures in the southern area of the community.
 - iii. Dramatically lower fire flows in the southern area of the community due to the long length of piping between primary storage to the desired location.
 - iv. Severely change the water flow patterns throughout the distribution system.
 - v. Infrastructure is not set up in this area for a large reservoir to be added to the distribution system.
 - vi. No land is for sale that has current infrastructure in place in this location.
 - vii. Cost to change the infrastructure to limit the above mentioned concerns would be tens of millions of dollars if not more.



ATTACHMENT 1.

LEGEND

- | | | |
|----------------------------|---------------------------------------|-------------------------|
| EXISTING WATER MAIN | PROPOSED WATER MAIN | SYSTEM FACILITY |
| — 6-INCH AND LESS | 8-INCH | ☐ WATER TREATMENT PLANT |
| — 8-INCH | 12-INCH | ☐ BOOSTER STATION |
| — 10-INCH | 16-INCH | ☐ WATER STORAGE |
| — 12-INCH | PROPOSED PRESSURE ZONE BOUNDARY | ☐ BASE MAPPING |
| — 16-INCH | | ☐ TRANSPORTATION |
| — 18-INCH | | ☐ PARCEL |

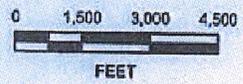
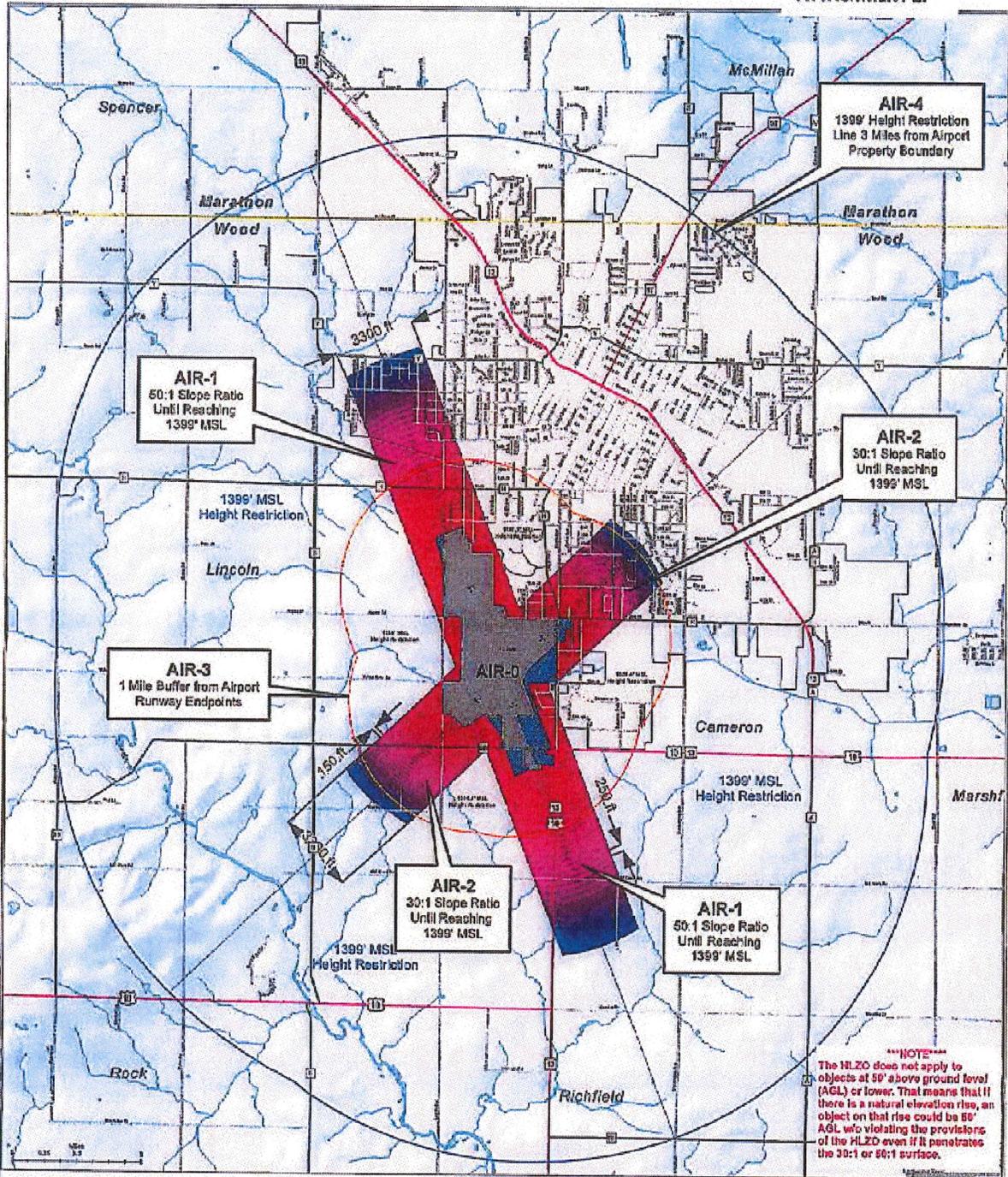


FIGURE 12 - PROPOSED FUTURE WATER DISTRIBUTION TRUNK SYSTEM





AIR-1
50:1 Slope Ratio
Until Reaching
1399' MSL

AIR-4
1399' Height Restriction
Line 3 Miles from Airport
Property Boundary

AIR-2
30:1 Slope Ratio
Until Reaching
1399' MSL

AIR-3
1 Mile Buffer from Airport
Runway Endpoints

AIR-2
30:1 Slope Ratio
Until Reaching
1399' MSL

AIR-1
50:1 Slope Ratio
Until Reaching
1399' MSL

*****NOTE*****
The MLEO does not apply to
objects at 50' above ground level
(AGL) or lower. That means that if
there is a natural elevation rise, an
object on that rise could be 50'
AGL, violating the provisions of
the MLEO even if it penetrates
the 30:1 or 50:1 surface.

AIRPORT OVERLAY & HEIGHT LIMITATIONS
Marshfield Municipal Airport
Marshfield, WI

Legend

- City Limits
- Airport Property Boundary
- County Boundary
- Height Restriction Line
- 1399' MSL Height Restriction
- 50:1 Slope Ratio
- 30:1 Slope Ratio
- 1 Mile Buffer
- 3 Mile Buffer

Scale: 0.5 1.0 1.5 2.0 Miles



Mail Processing Center
 Federal Aviation Administration
 Southwest Regional Office
 Obstruction Evaluation Group
 2601 Meacham Boulevard
 Fort Worth, TX 76193

Aeronautical Study No.
 2014-AGL-634-OE

Issued Date: 02/21/2014

ATTACHMENT 3.

David Wasserburger
 Marshfield Utilities
 PO Box 670
 Marshfield, WI 54449-0670

**** DETERMINATION OF NO HAZARD TO AIR NAVIGATION ****

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Water Tank Marshfield Water Tower
 Location: Marshfield, WI
 Latitude: 44-39-36.57N NAD 83
 Longitude: 90-09-05.14W
 Heights: 1270 feet site elevation (SE)
 167 feet above ground level (AGL)
 1437 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure does not exceed obstruction standards and would not be a hazard to air navigation provided the following condition(s), if any, is(are) met:

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- At least 10 days prior to start of construction (7460-2, Part 1)
- Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

Based on this evaluation, marking and lighting are not necessary for aviation safety. However, if marking/lighting are accomplished on a voluntary basis, we recommend it be installed and maintained in accordance with FAA Advisory circular 70/7460-1 K Change 2.

This determination expires on 08/21/2015 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

A copy of this determination will be forwarded to the Federal Communications Commission (FCC) because the structure is subject to their licensing authority.

If we can be of further assistance, please contact our office at (847) 294-7575. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2014-AGL-634-OE.

Signature Control No: 206048568-208669955
Vivian Vilaro
Specialist

(DNE)

cc: FCC

The Case of the Marshfield Airport Committee in Opposition to the Petition of the Marshfield Water Utility to grant a variance to the Airport Height Limitation Ordinance to build a water tower exceeding the height limitations

1. The variance will not be contrary to the public interest.

The public interest in aviation safety as well as the maintenance of commerce has been well-established in the creation of the airport height limitation overlay to the zoning map. The location of the water tower at that site and at that height is clearly contrary to well-established public interest.

It is recognized that the City of Marshfield is in need of stabilizing its water supply and maintaining water pressures to assure public health, safety and welfare. The Airport committee recognizes and supports that effort. It does not, however, support an effort at the expense of another matter of public interest: the safety of the flying public and protection of property from accidents that may occur.

The City of Marshfield, the owner of the Marshfield Municipal Airport, exposes themselves to a potential serious liability by allowing a variance into the height limitation zoning.

2. Substantial justice will be done by granting the variance.

There is no issue of justice involved here. The ordinance to which the variance is being requested has been in existence for some time and the Water Utility has been fully aware of it, having requested variances in the past for precisely the same subject. To purchase land directly in the path of an instrument approach and propose a structure that is clearly in excess of the limits provided in an ordinance which they were fully aware of speaks poorly of respect for the public interest concept embodied in the ordinance.

3. The variance is needed so that the spirit of the ordinance is observed

This is exactly the opposite of the case before you. The siting of an obstruction in the path of an instrument approach is by definition a violation of the spirit of the ordinance and should not be allowed.

4. Due to special conditions, a literal enforcement of the provisions of the zoning ordinance will result in unnecessary hardship.

The Water Utility argues that because of hydraulic concerns, the elevation of the land in the proposed area makes it the ideal site, if not the only site in which a new tower to provide the desired water pressure can be located. The Airport Committee acknowledges their concern but argues that in the

interest of public safety, the utility could locate the tower elsewhere even though some additional costs would be incurred.

On the other hand, the Airport Committee rejects the argument that the money to purchase the land upon which the proposed water tower is to be located would be "wasted rate-payer's money" because it was poor planning by the Utility to assume that a variance would be granted.

Further, there is a need for this water tower but the utility has not established the need as either urgent or emergency which would necessitate a deviation from the long-established and stringently enforced airport height overlay.

Based upon these considerations, the Marshfield Airport Committee respectfully requests that the Board of Zoning Appeals reject the petition of the Marshfield Water Utility.