Bill No. __4816__  
Ordinance No. ____________  
Requested by: Michael Hurlbert  
Sponsored by: Mike Elam

AN ORDINANCE AFFIRMING THE BOARD OF ZONING ADJUSTMENT’S DECISION ON APPLICATION VAR19-06

WHEREAS, the St. Charles County Charter, Article II, Section 2.529 grants to the County Council legislative power pertaining to planning and zoning in the part of the County outside incorporated cities, towns and villages; and

WHEREAS, a parcel of land located at 530 Knaust Road which is located within unincorporated St. Charles County and designated by the Zoning Map of St. Charles County as within the R1A, Single-Family Residential District; and

WHEREAS, Section 405.090.D.1 of the Ordinances of St. Charles County, Missouri, (OSCCMo) imposes a maximum height of 40 feet for structures within the Single-Family Residential District; and

WHEREAS, the property owner, Missouri American Water Company, applied through Application VAR19-06 to vary the maximum height from 40 feet to 140 feet to construct an elevated water storage tank on the property; and

WHEREAS, pursuant to Section 405.635 OSCCMo., which requires the concurring vote of four (4) members of the Board of Zoning Adjustment (Board) to determine variance requests, the Board denied Application VAR19-06 by a vote of 2 ayes and 3 nays; and
WHEREAS, pursuant to Sections 405.639 OSCCMo, Missouri American Water Company has timely filed an appeal to the County Council from the Board’s denial of Application VAR19-06; and

WHEREAS, the Board has provided to the County Council a complete record of the Board’s action and decision on Application VAR19-06 as required by Section 405.639.B, OSCCMo.; and

WHEREAS, affirming the Board’s decision and passing this bill requires a simple majority vote of four (4) County Council members; and

WHEREAS, because Section 405.639.C OSCCMo., requires action by the County Council “be in the form of an ordinance”, should this bill not pass by the required County Council’s votes, a substitute bill reversing, modifying, or amending the Board’s decision will be presented to the County Council for its consideration and vote. Pursuant to Section 405.639.B, reversing, modifying, or amending the Board’s decision shall require a supermajority vote of five (5) County Council members.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNTY COUNCIL OF ST. CHARLES COUNTY, MISSOURI, AS FOLLOWS:

Section 1. The Council hereby receives the following documents into the record: the St. Charles County Master Plan Year 2030; the Unified Development Ordinance of St. Charles County, Missouri; and the documents attached hereto as EXHIBIT A, which exhibit contains the applicant’s statement of hardship, the plans and any other documents relied on in reaching this determination of the Council.
Section 2. The County Council hereby affirms the decision of the Board of Zoning Adjustment for Application VAR19-06, and the requested variance to Section 405.090.D.1 OSCCMo to vary the maximum height requirement for the Single-Family Residential District from 40 feet to 140 feet is denied.

Section 3. This ordinance shall be in full force and effect from and after the date of its passage and approval.

DATE PASSED

DATE APPROVED BY COUNTY EXECUTIVE

CHAIR OF THE COUNCIL

COUNTY EXECUTIVE

ATTEST:

COUNTY REGISTRAR
BZA APPEAL VAR19-06

VARIANCE REQUEST - 530 KNAUST ROAD

Application: VAR19-06
Owner: Missouri American Water Company
Applicant: Crawford, Murphy & Tilly, Inc.
Variance Requested: Section 405.090.D.1 of the Ordinances of St. Charles County (OSCCMo) - To vary the maximum height requirement for the Single-Family Residential District from 40 feet to 140 feet, to allow for the construction of an elevated water storage tank

Property Zoning: R1A, Single-Family Residential District
Area: 2.95 acres
Location: Approximately 400 feet north of the intersection of Berkshire Downs Drive, adjacent to the City of O'Fallon
Council District: 3
Account No.: 409410A000

CONTENTS:

➢ Synopsis
➢ Staff Recommendation Report
➢ Photo(s) of Site
➢ Aerial Photo
➢ Surrounding Zoning Map
➢ Topographical Map
➢ Applicant’s Statement of Hardship
➢ Concept Plan
➢ Letters received
   • Email from SCC Emergency Communications stating Findings of No Impact
➢ Board of Zoning Adjustment January 2, 2020 Meeting Minutes
➢ Notice to Applicant of the Board's decision on Variance No. VAR19-06
➢ Request to County Council for an Appeal of the Decision of the BZA
January 24, 2020

This is a synopsis for the following application and bill to be introduced at the February 10, 2020 County Council meeting:

A request to reverse the Board of Zoning Adjustment’s January 2, 2020 decision denying the following variance request:

**VARIANCE REQUEST – 530 KNAUST ROAD**

<table>
<thead>
<tr>
<th>Application:</th>
<th>VAR19-06</th>
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</thead>
<tbody>
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<td>Owner:</td>
<td>Missouri American Water Company</td>
</tr>
<tr>
<td>Applicant:</td>
<td>Crawford, Murphy &amp; Tilly, Inc.</td>
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<tr>
<td>Variance Requested:</td>
<td>Section 405.090.D.1 of the Ordinances of St. Charles County (OSCCMo) - To vary the maximum height requirement for the Single-Family Residential District from 40 feet to 140 feet, to allow for the construction of an elevated water storage tank</td>
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<td>Council District:</td>
<td>3</td>
</tr>
<tr>
<td>Account No.:</td>
<td>409410A000</td>
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This is an application to reverse the Board of Zoning Adjustment’s January 2, 2020 denial of a variance to exceed the maximum height limit of 40 feet in the R1A, Single-Family Residential District, to allow Missouri American Water Company to construct a 2-million gallon water storage tank which would be 140-feet in height.

Within R1A Zoning Districts, “elevated storage tanks” are a permissive use “by right” (Section 405.090.B12), but the County’s zoning regulations offer no height exceptions for such storage tanks to exceed the maximum 40 foot height limit for the District.

The applicant explains the necessity for this specific height as follows:

“Due to continued growth in the western St. Charles region, the existing pumped storage facilities alone are no longer adequate to meet maximum day equalization and fire reserve. Low pressure complaints have arisen within the west side of the zone during peak hour periods. In order to alleviate these problems, it is necessary to construct a new booster station and install a 2.0 MG elevated storage tank and all required yard piping. Additional options were considered including installation of a 0.75 MG elevated storage tank, however equalization and fire/emergency reserve dictated the need for the 2.0 MG storage tank. Elevated storage can maintain more constant system pressures without relying on mechanical pumping.”

“System hydraulics dictate the target water level for an elevated storage tank and at this location the system water pressure equates to an elevation of 740 feet HGL. At the site location, the base elevation of the elevated storage tank is approximately 610 feet USGS, with a riser height of 88 feet (698 feet HGL), an overflow height of 130 feet (740 feet HGL), overall height of approximately 140 feet and bowl diameter of approximately 100 feet. The recommended height of the tank is necessary to operate appropriately with the existing system hydraulics and stabilize customer service pressures for the surrounding area during peak hour periods.”
Per Section 405.590.C, a variance may be issued when the evidence demonstrates that each of the four following criteria has been met:

1. The variance is requested due to unique circumstances inherent to the specific piece of property and not to personal considerations of the property owner; and

2. The variance is not needed as the result of an affirmative act of the property owner that could have been avoided through a different course of action; and

3. The variance would not merely grant a special benefit to the property beyond what is enjoyed by other properties regulated by the same set of zoning regulations; and

4. The application of such non-use regulation would result in practical difficulties to the property owner. In determining whether "practical difficulties" exist, relevant factors to consider include whether, or to what degree, the owner can pursue the permitted use without a variance; the financial hardship to the property owner from the strict application of the regulation; how substantial the variance request is in relation to the regulation; whether the difficulty can be obviated by some method other than a variance; and whether such relief can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the zoning regulations as embodied in the Unified Development Ordinance and maps.

At its January 2, 2020 meeting, following public testimony, the Board of Zoning Adjustment denied the variance by a vote of 2 in favor and 3 against approval.

Affirming the Board’s decision would require a majority vote, but reversing, modifying, or amending the Board’s decision would require an affirmative vote of five County Council members (Section 405.639.B OSCCMo).

Recommendation:

County staff recommends that the County Council approve this application subject to the following conditions:

1. This variance applies to the proposed elevated water tank only. The height limitation shall be 140 feet.

Should the attached bill be denied, in conformance with the requirement that action by the County Council "...shall be in the form of an ordinance" (Section 405.639.C OSCCMo), a substitute bill would then be introduced for the County Council to reverse the decision of the BZA and grant the requested variance.

Sincerely,

Robert Myers  
Director of Planning & Zoning

cc:  Steve Ehrlmann, County Executive  
      Joann Leykam, Director of Administration  
      John Watson, County Counselor
REPORT TO BOARD OF ZONING ADJUSTMENT

To: County Board of Zoning Adjustment
Prepared by: Mark Price Jr., A.I.C.P.
Application No.: VAR19-06
Date: December 23, 2019

BACKGROUND

Owners/Applicant: Missouri American Water / Crawford, Murphy & Tilly, Inc.
Requested Action: To vary Section 405.090.D.1 of the Ordinances of St. Charles County (OSCCMo); to vary the maximum height requirement in the R1A, Single-Family Residential District from 40 feet to 140 feet, to allow for the construction of an elevated water storage tank
Zoning: R1A, Single Family Residential District
Location: 530 Knaust Road, Approximately 400 feet north of the intersection of Berkshire Downs Drive and Knaust Road, adjacent to the City of O’Fallon
Parcel Size: 2.95 acres
Current Land Use: Booster pump station for Missouri American Water

Adjacent Land Use and Zoning:

<table>
<thead>
<tr>
<th>Direction</th>
<th>Zoning</th>
<th>Land Use</th>
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</thead>
<tbody>
<tr>
<td>North</td>
<td>R1A, Single Family Residential</td>
<td>Single Family Dwelling Unit</td>
</tr>
<tr>
<td>East</td>
<td>R1A, Single Family Residential</td>
<td>Single Family Dwelling Unit</td>
</tr>
<tr>
<td>South</td>
<td>R1A, Single Family Residential</td>
<td>Single Family Dwelling Unit</td>
</tr>
<tr>
<td>West</td>
<td>R-1, Single Family Residential (City of O’Fallon Zoning)</td>
<td>Single Family Dwelling Units</td>
</tr>
</tbody>
</table>

Request Summarized:
The applicant proposes to construct a 2 million gallon elevated storage tank. Such a tank is allowable as a permissive use in the R1A, Single Family Residential District. The applicant is requesting to elevate this tank to a height not to exceed 140 feet. This exceeds the districts height limit of 40 feet, by 100 feet, thus generating this request for a variance.

Site Characteristics:
The parcel is approximately 450 feet deep at its shallowest and approximately 246 feet wide. The site has an elevation of approximately 600 feet above mean sea level at the
entrance to Knaust Road and rises to approximately 607 feet in height where the tank is to be erected. The site then slopes down towards the southwest to a low point of 574 feet in the southwest corner of the lot. The lot does contain a significant stand of trees. During construction, some of those trees would be removed while clearing the building pad for the elevated tank. There is currently a gravel drive accessing the site. This is not proposed to be changed.

**Relevant Property History:**
This property has no relevant history with the County.

**Applicant’s Statement of Hardship:**
The applicant states the following in their hardship letter:

“Due to continued growth in the western St. Charles region, the existing pumped storage facilities alone are no longer adequate to meet maximum day equalization and fire reserve. Low pressure complaints have arisen within the west side of the zone during peak hour periods. In order to alleviate these problems, it is necessary to construct a new booster station and install a 2.0 MG elevated storage tank and all required yard piping. Additional options were considered including installation of a 0.75 MG elevated storage tank, however equalization and fire/emergency reserve dictated the need for the 2.0 MG storage tank. Elevated storage can maintain more constant system pressures without relying on mechanical pumping.

There is less potential of main breaks and better customer service when constant system pressures can be maintained. In addition, the use of elevated storage is more energy efficient than mechanical pumping.

System hydraulics dictate the target water level for an elevated storage tank and at this location the system water pressure equates to an elevation of 740 feet HGL. At the site location, the base elevation of the elevated storage tank is approximately 610 feet USGS, with a riser height of 88 feet (698 feet HGL), an overflow height of 130 feet (740 feet HGL), overall height of approximately 140 feet and bowl diameter of approximately 100 feet. The recommended height of the tank is necessary to operate appropriately with the existing system hydraulics and stabilize customer service pressures for the surrounding area during peak hour periods.

The proposed elevated storage tank will also provide much needed equalization storage to the western part of the St. Charles zone, which is anticipated to be the growth area and thereby reduce pressure swings during peak hour events. In addition to providing equalization storage, the elevated tank will also provide for emergency elevated storage to a zone which is otherwise without elevated storage.”
COUNTY STAFF ANALYSIS:

The applicant has stated that the height variance request for a water tank to be built at 140 feet in height is necessary in order to provide the necessary water pressure for approximately 375,000 residents in this portion of the County. Without sufficient water pressure, some homes may not have water during peak times and consequently, fire suppression may become a severe consequence of losing necessary water pressure.

When discussing a height variance request, site line vision can be a primary objection from surrounding property owners. There is a large subdivision (Berkshire Downs) located to the west of the proposed water tank location. This proposed, elevated water storage tower does have a potential for negatively impacting the sight lines of the community. Elevations towards this subdivision drop approximately 30 feet with existing trees located along this site line for approximately 200 feet. The tree line varies in height but an average of approximately 30-50 feet of additional canopy can be added to the drop in vertical elevation in regard to the line of site vision of the proposed water tank.

The applicant’s submittal includes a simulated image of what the proposed water tank will look like if placed in the proposed location. The tank would be painted white. Many utility apparatus such as water tanks and cell towers are painted blue or silver to blend more readily with the scenic view for residents. The Board may want to consider alternative colors to the white version presented.

The applicant has also indicated that they have consulted with the Federal Aviation Administration (FAA) in regard to the proposed height and have received a “Determination of No Hazard to Air Navigation”. No information regarding lighting of the water tank has been provided.

In summary, the Board must evaluate the need for a stable water source at the calculated, necessary water pressure versus the impact this tower may have on the scenic views of residents in the area.

VARIANCE CRITERIA:

The Board of Zoning Adjustment may vary the strict application of a regulation if the property owner proves all four of the following criteria:

1. **The variance is requested due to unique circumstances inherent to the specific piece of property and not to personal considerations of the property owner.**

   Staff sees no exceptional situation or condition that applies to this specific property, other than that the water tower’s location is dictated by the service area and the elevation of the parcel.

2. **The variance is not needed as the result of an affirmative act of the property owner that could have been avoided through a different course of action.**
The applicant has provided written evidence for the Board to consider on this question. They provide the technical reasons for the request and why this location is necessary for the placement of the elevated tank. The specific height requested is for technical reasons – to provide the necessary water pressure for both consumption and fire flows for approximately 375,000 customers.

3. The variance would not merely grant a special benefit to the property beyond what is enjoyed by other properties regulated by the same set of zoning regulations.

The applicant could erect a ground storage tank at this location below the 40-foot height limit imposed by the zoning regulations; however, it would not provide the height necessary for proper water pressure to distribute water systemwide.

4. The application of such non-use regulation would result in practical difficulties to the property owner. In determining whether “practical difficulties” exist, relevant factors to consider include whether, or to what degree, the owner can pursue the permitted use without a variance; the financial hardship to the property owner from the strict application of the regulation; how substantial the variance request is in relation to the regulation; whether the difficulty can be obviated by some method other than a variance; and whether such relief can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the zoning regulations as embodied in the Unified Development Ordinance and maps.

The applicant has provided documentation that there is no other alternative to constructing the water tank at the required height of 140 feet. Water pressure needs for their customers and for fire suppression require the height to be at 140 feet.

STAFF RECOMMENDATION:

The options of the Board of Zoning Adjustment are:

- Approve the requested variance without conditions
- Approve the requested variance with conditions, or
- Deny the requested variance.

County staff recommends that the Board of Zoning Adjustment approve this application subject to the following conditions:

1) This variance applies to the proposed elevated water tank only. The height limitation will be 140 feet.
2) The color of the tank may not vary from the colors determined by the Board to be appropriate.
530 Knaust Road – subject site

Looking across Knaust Road from subject site
Knaust Road looking north from subject site
VAR 19-06 –Zoning

Subject Property
December 13, 2019

Board of Zoning Adjustment
St. Charles County

Re: Height Restriction Variance Request

Dear Board of Zoning Adjustment Members:

Missouri American Water Company (MOAW) is proposing to replace an existing booster station and construct an elevated storage tank on MOAW owned property at the current Knaust Road Booster Station location at 530 Knaust Road in St. Peters, Missouri. The property is zoned R1A with a permissive use of “sewage treatment plants and related facilities, including lift stations, water supply plants, pumps, reservoirs, wells and elevated storage tanks, for the purpose of providing services to the public” per Section 405.090.B.12. However, construction on the site is subject to a maximum height of 40 feet per Section 405.090.D.1. As such, MOAW is requesting a variance to the maximum height restriction in order to construct the elevated storage tank.

Need for the Project

MOAW provides potable water service to approximately 375,000 customers in the St. Louis Metro Service Area. The St. Charles County distribution system is hydraulically connected and supplied by the St. Louis County Central Plant through the Green Bottoms Pressure Reducing Station. All storage in the existing St. Charles zone is pumped storage and located on the eastern half of the system. Due to continued growth in the western St. Charles region, the existing pumped storage facilities alone are no longer adequate to meet maximum day equalization and fire reserve. Low pressure complaints have arisen within the west side of the zone during peak hour periods. In order to alleviate these problems, it is necessary to construct a new booster station and install a 2.0 MG elevated storage tank and all required yard piping. Additional options were considered including installation of a 0.75 MG elevated storage tank, however equalization and fire/emergency reserve dictated the need for the 2.0 MG storage tank. Elevated storage can maintain more constant system pressures without relying on mechanical pumping. There is less potential of main breaks and better customer service when constant system pressures can be maintained. In addition, the use of elevated storage is more energy efficient than mechanical pumping.

System hydraulics dictate the target water level for an elevated storage tank and at this location the system water pressure equates to an elevation of 740 feet HGL. At the site location, the base elevation of the elevated storage tank is approximately 610 feet USGS, with a riser height of 88 feet (698 feet HGL), an overflow height of 130 feet (740 feet HGL), overall height of
approximately 140 feet and bowl diameter of approximately 100 feet. The recommended height of the tank is necessary to operate appropriately with the existing system hydraulics and stabilize customer service pressures for the surrounding area during peak hour periods.

The proposed elevated storage tank will also provide much needed equalization storage to the western part of the St. Charles zone, which is anticipated to be the growth area and thereby reduce pressure swings during peak hour events. In addition to providing equalization storage, the elevated tank will also provide for emergency elevated storage to a zone which is otherwise without elevated storage.

Additional Considerations

As shown on the Plot Plan, the elevated storage tank is proposed to be located on the eastern portion of the property, approximately 320 feet from the Berkshire Downs subdivision located east of the property. The preliminary tank rendering drawing enclosed provide views of the elevated storage tank from various viewpoints. Modeling of the proposed tank location has shown that the tank shadow during various times of the day should not adversely affect the current residential houses.

The tank is also positioned such that the bowl is located within the setback requirements as required by code. The proposed pump station is considered an accessory structure and will be located as required to meet the applicable code regarding distances and setbacks.

Due to the height of the tank, concern may exist regarding interference with existing emergency communications. Provisions can be provided to install antennas to eliminate any interference, if needed.

In addition, due to the height of the tank consultation with the Federal Aviation Administration has been completed and a "Determination of No Hazard to Air Navigation" has been received for construction.

Thank you for consideration of our request and please do not hesitate to contact us should you have questions, comments or require additional information.

Sincerely,

MISSOURI AMERICAN WATER COMPANY
NOTE: TRACT IS ZONED R1A

SITE PLAN

EXHIBIT
DECEMBER 2019

KNAUST ROAD - PUMP STATION AND TANK

530 KNAUST ROAD
ST PETERS, MISSOURI

PROPOSED PRE-PACKAGED PUMP STATION
(EST. 15' BY 30')

PROPOSED 2 MG ELEVATED WATER TOWER
(PEDESTAL DIA 54') (BOWL DIA 100')

EXISTING PUMP STATION
(8.4' X 12.25')

EXISTING R.O.W. LINE

PROPOSED GRAVEL DRIVE

NOTE: TRACT IS ZONED R1A
Greetings,

For your records, I have reviewed the variance request conveyed to me describing a proposal for a 140’ water tank at estimated coordinates 38° 46’ 3.28” N / 90° 40’ 32.73” W (530 Knaust Road) and found there should be no impact to our public safety networks. Please consider this e-mail as confirmation that the intended structure as described and shown will not impose on the needed clearance for our microwave radio network.

Thank you,
-dK

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The information contained in this communication is confidential, is intended only for the use of the recipient named above, and may be legally privileged. If the reader of this message is not the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please resend this communication to the sender and delete the original message or any copy of it from your computer system.

Thank You

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From: Marr, Ellie
Sent: Friday, December 20, 2019 3:25 PM
To: Kinley, Dwayne <DKinley@sccmo.org>
Cc: Myers, Robert <RMyers@sccmo.org>
Subject: 530 Knaust Road

Dwayne,
Can you give us any indication if this would be a problem for emergency communications? The applicant will be heard before the Board on January 2, 2020. If you could let us know by then, that would be great.

Ellie

Ellie Marr, CFM
Senior Planner
201 North Second Street
St. Charles, MO 63301
636-949-7335 x7235
MINUTES OF REGULAR MEETING

ST. CHARLES COUNTY BOARD OF ZONING ADJUSTMENT

DATE: January 2, 2020
TIME: 7:00 P.M.
PLACE: COUNTY EXECUTIVE BUILDING
100 NORTH THIRD ST.
EXECUTIVE COUNCIL CHAMBERS
ST. CHARLES, MO 63301

MEMBERS PRESENT: Gerry Prinster, Chairman; Kevin DeSain, Secretary; David Bauer, Vice-Chairman; Vicki LaRose; and John Matlick

MEMBERS ABSENT: Leslie Gross, Alternate Board Member; and Robert Boschert, Alternate Board Member

STAFF PRESENT: Robert Myers, Planning & Zoning Director; Mark Price, County Planner; Ardita Roark, Associate County Counselor; and Sheila Weiss, Recording Secretary

SPEAKERS: VAR19-06: Renee Lawrence, owner’s representative, 727 Craig Road, St. Louis, MO 63141; Donna Arizzi-Shields, 3 Greenbriar Summit Court; Edward Murat, 135 Berkshire Downs Drive; Mark Siddle, 5 Greenbriar Summit Court; Dennis Mayer, 109 Berkshire Downs Drive; Jennifer Wagner, 210 Greenbriar Bluff Drive; Don Wendel, 8 Moorbriar Court; Charles Shields, 3 Greenbriar Summit Court; and Pam Siddle, 5 Greenbriar Summit Court

CALL TO ORDER

Board of Zoning Adjustment Chairman Gerry Prinster called the meeting to order at 7:00 PM. Following the Pledge of Allegiance, he welcomed the audience, explained the functions of the Board of Zoning Adjustment and the format of the meeting, and explained the procedures for speakers. Chairman Prinster also introduced The Unified Development Ordinance (UDO) and Zoning Maps of St. Charles County into the record.

CHANGES TO THE AGENDA

NONE
PUBLIC HEARINGS

I. VARIANCE REQUEST – 530 KNAUST ROAD

Application: VAR19-06  
Owner: Missouri American Water Company  
Applicant: Crawford, Murphy & Tilly, Inc.  
Variance Requested: Section 405.090.D.1 of the Ordinances of St. Charles County (OSCCMo) - To vary the maximum height requirement for the Single-Family Residential District from 40 feet to 140 feet, to allow for the construction of an elevated water storage tank  
Property Zoning: R1A, Single-Family Residential District  
Area: 2.95 acres  
Location: Approximately 400 feet north of the intersection of Berkshire Downs Drive, adjacent to the City of O’Fallon  
Council District: 3  
Account No.: 409410A000

Board Secretary Kevin DeSain read the variance request aloud. Chairman Gerry Prinster then opened the public hearing and asked the owner or owner’s representative to approach the podium to explain the request.

Renee Lawrence, the owner’s representative, was sworn in. Ms. Lawrence stated that she is a Senior Project Engineer with the property owner, Missouri American Water Company. Following a meeting with County staff on December 9, 2019, Missouri American is seeking a variance to allow for them to build a 140-foot tall elevated water tank on this property. Missouri American serves customers in St. Charles County, St. Louis County, and Chesterfield. This location stores water that is pumped in to supply these areas. This property and was purchased in 1989 by Missouri American in order to accommodate current and future water supply needs for these areas. Due to continued growth in the western St. Charles region, the existing pumped storage facilities alone are no longer adequate to meet maximum day equalization and fire reserve. Low pressure complaints have arisen within the west side of the zone during peak hour periods. In order to alleviate these problems, it is necessary to construct a new booster station and install a 2.0 MG elevated storage tank and all required yard piping. Elevated storage can maintain more constant system pressures without relying on mechanical pumping. The proposed storage tank will be located on the eastern portion of the property, which is the highest elevation on the property. The tank will be comprised of concrete and steel, and the bowl diameter will be approximately 100 feet. The adjacent pump station on this property will supply water to the tank when needed. They would not build upon the back portion of the property or remove any of the existing trees. They believe that this is the most efficient and effective solution in order to be able to supply water to their customers, and keep their rates down. Every capital project that they do has an impact on their customer’s rates.

Chairman Gerry Prinster asked the Board if they had any questions for the owner’s representative.

Dave Bauer asked Ms. Lawrence if Missouri American has looked into finding another location for this tank.
Renee Lawrence responded that Missouri American purchased this property in 1989 for this purpose, so they have not explored other locations.

Gerry Prinster asked when the adjacent subdivision was built.

Renee Lawrence responded that she is not sure when the Berkshire Downs Subdivision was built, but it was not there when Missouri American purchased this property in 1989.

Dave Bauer asked Ms. Lawrence what the average life expectancy is for this type of tank.

Renee Lawrence responded that the life expectancy of these tanks is at least 50 years. The base of the tank will allow for additional pumps to be added in the future if necessary.

There being no further questions for the owner’s representative, Chairman Gerry Prinster asked if the County staff had any comments regarding to this variance request.

Mark Price, County Planner, went over the four criteria that must be met per County Ordinance in order for a variance to be approved by the Board of Zoning Adjustment, and staff’s comments as follows:

1. The variance is requested due to unique circumstances inherent to the specific piece of property and not to personal considerations of the property owner.

   [Staff sees no exceptional situation or condition that applies to this specific property, other than that the water tower’s location is dictated by the service area and the elevation of the parcel.]

2. The variance is not needed as the result of an affirmative act of the property owner that could have been avoided through a different course of action.

   [The applicant has provided written evidence for the Board to consider on this question. They provide the technical reasons for the request and why this location is necessary for the placement of the elevated tank. The specific height requested is for technical reasons – to provide the necessary water pressure for both consumption and fire flows for approximately 375,000 customers.]

3. The variance would not merely grant a special benefit to the property beyond what is enjoyed by other properties regulated by the same set of zoning regulations.

   [The applicant could erect a ground storage tank at this location below the 40-foot height limit imposed by the zoning regulations; however, it would not provide the height necessary for proper water pressure to distribute water systemwide.]

4. The application of such non-use regulation would result in practical difficulties to the property owner. In determining whether “practical difficulties” exist, relevant factors to consider include whether, or to what degree, the owner can pursue the permitted use without a variance; the financial hardship to the property owner from the strict application of the regulation; how substantial the variance request is in relation to the regulation; whether the difficulty can be obviated by some method other than a variance; and whether such relief can be granted without substantial detriment to the public good and without substantially impairing the intent, purpose and integrity of the zoning regulations as embodied in the Unified Development Ordinance and maps. [The applicant has provided documentation that there is no other alternative to constructing the water tank at the required height of 140 feet. Water pressure needs for their customers and for fire suppression require the height to be at 140 feet.]
Robert Myers added that the Board may also wish to take into consideration the following three items:

1. What type of lighting will be placed on the property?

2. What color will the tank be painted?

3. Will the 140-foot height of the proposed tank interfere with St. Charles County Emergency Communications systems?

Robert Myers stated that in regards to question number 3, the St. Charles County Emergency Communications has stated that the intended structure will not impose on the needed clearance for their microwave radio network.

Renee Lawrence responded that the FAA has stated that there is no need for any lighting or marking for the proposed tower. There will likely be a light over the access door, and possibly two lights at the roll-up door for safe access to the interior of the tower during nighttime hours if needed. Ms. Lawrence stated that as far as tank color, they do not intend to paint the pedestal, and the tank is typically painted white except for the color Missouri American logo. She stated that they are open to painting the bowl any color that the County would like for them to paint it.

Dave Bauer asked County staff if they have a color preference, and if there are issues with them putting their logo on the tank.

Robert Myers responded that putting their logo on the tank would not require a sign permit. He stated that County staff does not have any color recommendation for the tank. He would just like for the applicant’s representative to state what color they typically paint these tanks for the record, and so the Board can take that into consideration.

Vicki LaRose asked Renee Lawrence how often these towers are painted.

Renee Lawrence responded that the towers are on a two-year to five-year inspection cycle, and they are painted as necessary.

Vicki LaRose asked Ms. Lawrence if there is an industry-standard for the color that these towers are painted to help them disappear into the skyline.

Renee Lawrence responded that there is no color that is going to make them disappear.

For the record, the County did not receive any written communications regarding this variance request.

Chairman Gerry Prinster asked if there was anyone in the audience that would like to speak for or against this application.

Donna Arizzi-Shields, 3 Greenbriar Summit Court, was sworn in. Ms. Arizzi-Shields stated that they just received a letter notifying them of this application on December 23rd. She feels like they were not given enough time to talk to their neighbors about this application, and she believes that this meeting may have intentionally been scheduled on January 2nd in order to limit the number of neighbors who may be able to attend the meeting. She lives in the Berkshire Downs Subdivision, which is adjacent to the subject property, and is opposed to this application for a 140-foot water tower. She stated that there is lots of land for sale in Cottleville that Missouri American can purchase to build this tower on. She will have to see this tower every day from her property, and Missouri American Water Company does not even serve the Berkshire Downs Subdivision, as they are served by PWSD #2. She is concerned about how this tower will affect
her property values, and she stated that if this tower is built, she will sell her house. Ms. Arizzi-Shields asked the Board to table this application in order to allow them more time to talk to their neighbors and distribute a petition against this water tower.

Edward Murat, 135 Berkshire Downs Drive, was sworn in. Mr. Murat stated that his property is directly behind the proposed tower site. He asked if there has been a study done on the sewer system to see if it can take that much water when the tank is drained for maintenance. Mr. Murat is opposed to this application, and stated that there are plenty of other places they can build this tank. He is also concerned about his property values, and questions why they need a 140-foot tall tank to service the area.

Renee Lawrence responded that when taking the tank out of service, they typically use as much water as possible beforehand. If water needs to be drained, it will be drained into the sanitary sewer system, and Missouri American will be required to obtain a permit through Duckett Creek prior to draining the tank. The Department of Natural Resources will determine whether the sanitary sewer system can handle the amount of water to be drained prior to Duckett Creek approving the permit.

Mark Siddle, 5 Greenbriar Summit Court, was sworn in. Mr. Siddle stated that were the tank to be drained, the water would go directly down onto his property. Mr. Siddle asked why the residents were given such little notice of this public hearing. Mr. Siddle stated that the Berkshire Downs Subdivision was built in 1999, and they were told when they purchased their property that if Missouri American built a water tower on that property it would be a ground tank.

Robert Myers responded that in terms of timing, notification is done per County Ordinance, which requires that the adjacent property owners be notified 5 to 15 days prior to the public hearing. Mr. Myers added that the Board of Zoning Adjustment meetings are always scheduled for the first Thursday of each month. There was no ill-intent with this meeting being scheduled for January 2, 2020, which just happens to be the first Thursday in January.

Dennis Mayer, 109 Berkshire Downs Drive, was sworn in. Mr. Mayer asked if Missouri American has looked at other sites for this tower. He also asked if the existing tank is adequate for their existing needs, and they are wanting to build this tower for future needs. Mr. Mayer asked if they could build an additional pump station somewhere to add more pressure to the system. He is also concerned that draining extra water into the sewer system will back sewage up into the resident’s basements. Mr. Mayer asked if there would be another public hearing if the Board approves this application, in case they run into issues that may require additional engineering.

Renee Lawrence stated that Missouri American Water Company purchased this property in 1989, and has not had a need for additional water storage until now. Hydraulic studies show that a tank larger than 40-feet tall is necessary in order to supply the water pressure needed for this area, including the necessary capacity for fire flow. Choosing another location would entail additional infrastructure and pipes, along with the necessary electrical components to run the system. This would push out the completion date of this project substantially.

Robert Myers stated that if Missouri American connects to any sanitary or storm sewer lines, they will be required to obtain all necessary permits from the owner of the sanitary sewer line or storm sewer line prior to draining the tank. The owner of that line will require them to show that the sanitary sewer line can handle the amount of water they plan to drain into it. Additionally, County building permits will require that they show authorization to connect in the first place.

Jennifer Wagner, 210 Greenbriar Bluff Drive, was sworn in. Ms. Wagner asked the Board to table this application to allow them to contact other property owners in her subdivision before the Board makes their decision. She has no problem with a 40-foot tall tower, which is allowed on the property, but is opposed to
a 140-foot tower. She stated she is opposed to this request and it is not her problem if Missouri American
incurs additional costs because they have to build a sub-station. They knew there was a 40-foot limit on
water towers when they purchased this property.

Don Wendel, 8 Moorbriar Court, was sworn in. Mr. Wendel stated that his property backs to the subject
property. He is opposed to this request, and agrees with everything the audience speakers have stated so
far. He stated this tower would be an eyesore.

Charles Shields, 3 Greenbriar Summit Court, was sworn in. Mr. Shields is opposed to this request, and
stated that a 140-foot tall water tower behind his house will not be attractive. He believes his property
values will decrease if a 140-foot tower is built. Mr. Shields also asked the Board to table this application
to give them more time to speak with their neighbors.

Pam Siddle, 5 Greenbriar Summit Court, was sworn in. Ms. Siddle stated that the proposed tower will be
in direct view of her atrium window. Mrs. Siddle also asked the Board to table this application.

There being no further audience speakers, Chairman Prinster asked County staff it they had any further
comments regarding this application.

There being no further comments from staff, Chairman Prinster called the applicant’s representative back
to the podium to respond to questions from the Board.

Renee Lawrence approached the podium.

Gerry Prinster asked Ms. Lawrence if the tower could provide the necessary water pressure if it were larger
in diameter, but less than 140 feet high.

Renee Lawrence responded that for every foot of height, there is 2.31 pounds of pressure added. In order
to be able to meet state safety requirements and for the water pressure to be at a minimum of 35 psi,
system hydraulics dictate that this tower needs to be 140 feet tall.

John Matlick asked if the pump station capacity could be increased with a 40-foot tall tower in order to
achieve the necessary psi.

Renee Lawrence responded that the original design in 2005 was based on a 40-foot ground storage tank,
which the current pump station could support. Due to the increased population, the minimum required
pressure cannot be achieved with the current pump station and a 40-foot tower.

John Matlick asked if they could increase the pumps and produce the required water pressure with large
tank and a 40-foot high tower.

Renee Lawrence responded that the amount of infrastructure that would be required to achieve that would
be massive, and would require redundant electrical sources and back-up generators. If this were done and
the electricity were to fail, the water pressure would fail as well. An elevated storage tank allows water
delivery at the required psi without a dependency on electricity.

John Matlick asked what type of earthquake this tower is engineered to withstand.

Renee Lawrence responded that the company that builds these tanks based on what the Department of
Natural Resources requires for the specific USGS seismic zone where the tank is to be located.
Dave Bauer asked if Missouri American Water Company met with any of the neighbors in the adjacent subdivision about this project prior to bringing it to the Board of Zoning Adjustment.

Renee Lawrence responded that when they begin a project, those details are released through Missouri American’s External Affairs Department to release to the public at their discretion.

Dave Bauer asked if Missouri American has looked at purchasing any other locations for the proposed tower.

Renee Lawrence responded that Missouri American’s Planning Group determined that this was the best location for this project prior to handing it over to her. She reiterated that if they were to build this tower at another location, a large amount of infrastructure would be required to achieve that.

Dave Bauer asked Ms. Lawrence how many other properties Missouri American owns in St. Charles County that have pump stations on them an could potentially have towers built on them in the future.

Renee Lawrence responded that she cannot answer that, but when they do purchase a property it is purchased with the intent of putting these structures on the property.

Dave Bauer stated that some of the adjacent homeowners stated that they were aware that this property could potentially build a 40-foot water tower in the future. He asked County staff if there is anything in County Ordinances that would have made sure these homeowners were made aware when they purchased their homes that a 40-foot tall water tower could be built on the adjacent property in the future.

Robert Myers responded that people could see through public records that the adjacent property is owned by Missouri American Water Company, but there is not a long-range plan publicly available that would show what their future intentions would be for that property.

Vicki LaRose asked County Staff if there are any zoning districts within St. Charles County that would allow a 140-foot tall water tower by right.

Robert Myers responded that the Industrial Zoning District would allow for a 140-foot tall water tower.

There being no further speakers from the audience, Chairman Gerry Prinster closed the public hearing and called for discussion from the Board members.

John Matlick stated that he thinks that the Board should consider tabling this application to allow the adjacent homeowners more time to try to distribute a petition.

Gerry Prinster asked County staff if the Board could table this variance request.

Robert Myers responded that the Board should consider this application based upon the evidence submitted by the applicant, and recommended that they should only table the request if sufficient information has not been submitted to make a decision.

There being no further discussion from the Board, Chairman Prinster asked for a motion to approve this variance request.

David Bauer made a motion to approve VAR19-06, subject to staffs recommended conditions. The motion was seconded by John Matlick.

The vote on the motion was as follows:
<table>
<thead>
<tr>
<th>Gerry Prinster</th>
<th>- No</th>
<th>Kevin DeSain</th>
<th>- Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Matlick</td>
<td>- No</td>
<td>Vicki LaRose</td>
<td>- Yes</td>
</tr>
<tr>
<td>David Bauer</td>
<td>- No</td>
<td></td>
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</tbody>
</table>

Application VAR19-05 was **DENIED**.

The vote count was 2 Yeas, 3 Nays, and 0 Abstentions.

Robert Myers pointed out to the Board that the Ordinance states that “A majority of the Board shall constitute a quorum, and the concurring vote of four (4) members shall determine all matters of appeal or revision.” Since this was a 2-3 vote, he asked Chairman Prinster if he would like to call for a motion to take another vote or if the Board is okay with not making a determination.

Chairman Prinster stated that the Board has already voted to deny this application by a vote of 2-3.

Ardita Roark concurred with Chairman Prinster.
January 3, 2020

Dear Missouri American Water Company:

This letter will serve as notification that the St. Charles County Board of Zoning Adjustment has heard and voted on the following application:

**VARIANCE REQUEST – 530 KNAUST ROAD**

Application: VAR19-06

Owner: Missouri American Water Company

Applicant: Crawford, Murphy & Tilly, Inc.

Variance Requested: Section 405.090.D.1 of the Ordinances of St. Charles County (OSCCMo) - To vary the maximum height requirement for the Single-Family Residential District from 40 feet to 140 feet, to allow for the construction of an elevated water storage tank

Property Zoning: R1A, Single-Family Residential District

Area: 2.95 acres

Location: Approximately 400 feet north of the intersection of Berkshire Downs Drive, adjacent to the City of O'Fallon

Council District: 3

Account No.: 409410A000

The results of their actions are as follows:

_____ Granted    X    Denied

Dated: January 2, 2020

Variance Request No. VAR19-06 was **denied** by a vote of 2 yes and 3 no.

Under Section 405.639 of the Ordinances of St. Charles County, any applicant, County Department Director, Elected Official, or Division Director aggrieved by a decision of the Board of Zoning Adjustment may appeal that decision to the County Council. Where the decision of the Board of Zoning Adjustment was not unanimous, any other person or persons jointly or severally aggrieved by any decision of the Board of Zoning Adjustment may appeal that decision to the County Council. Appeals to the County Council shall be on a form approved by the Council and submitted to the County Council within fourteen (14) working days after the date of the decision of the Board of Zoning Adjustment was mailed.

If you have questions please feel free to contact our office at (636) 949-7335 or Planning@sccmo.org.

Sincerely,

Robert Myers, AICP
Director, Planning & Zoning Division

cc: Adrianne Eilers, Crawford Murphy & Tilly Inc.
APPEAL TO COUNTY COUNCIL
FROM DECISION OF THE
BOARD OF ZONING ADJUSTMENT

Person(s) filing appeal: Missouri American Water Company

Name: Renee C. Lawrence, Senior Project Manager

Address: 727 Craig Road

City: St. Louis State: Missouri Zip: 63141

Day Phone: 314-996-2307

BZA Appeal No.: VAR19-06 BZA Decision: Denied Date of Decision: Jan. 2, 2020

Appeal or Variance that was requested of the BZA:

VAR19-06: Request to vary the maximum height requirement for the single-family residential district from 40 feet to 140 feet to allow for the construction of an elevated water storage tank.

Reason for appealing decision:

Missouri American Water Company believes that the decision is in direct conflict with Section 405.090.B.12 of the St. Charles County Zoning Ordinance for parcels zoned as R1A. The attached letter includes information containing ordinance wording and also provides supportive information pertaining to the life safety benefits of locating the tank at the 530 Knaust Road property.

Please return form to: St. Charles County Council, 100 N. Third Street Suite 124, St. Charles, MO 63301
January 22, 2020

St. Charles County Council
100 N. Third St.
Suite 124
St. Charles, MO 63301

Subject: Appeal of St. Charles County Board of Zoning Denial of Missouri American Water Company Variance Request VAR19-06

Dear County Council Members

In accordance with St. Charles County Ordinance 405.639, Missouri American Water Company requests to appear before the County Council in order to formally appeal the January 2, 2020 decision to deny the structure height variance request for the property owned by Missouri American Water Company located at 530 Knaust Road in St. Charles County.

Missouri American Water Company is a water utility serving the public and over 350,000 customers in the St. Louis County and St. Charles County region in eastern Missouri. The current customer base in St. Charles County is approximately 30,500. As a regulated utility, the company is charged to produce and deliver safe and adequate quantities of potable water to customers and the public in general. Integral to that charge is the provision of water to support fire flow volumes to fire districts in the service areas, a life safety benefit of equal importance to safe drinking water. Within the service area for the proposed tank location, there are four (4) fire districts: O’Fallon, Cottleville, Central County Fire and Rescue and City of St. Charles. The Cottleville Assistant Fire Chief, Ryan Roberts, provided an email in support of the project at the 530 Knaust Road location which is included as an attachment to this appeal request.

Within St. Charles County, properties zoned as R1A, under Ordinance Section 405.090.B.12, have the following permissive uses: “Sewage treatment plants and related facilities, including lift stations, water supply plants, pumps, reservoirs, wells, and elevated storage tanks, for the purpose of providing services to the public”. The property at 530 Knaust Road is zoned as R1A. The denial of the variance request directly conflicts with the written ordinance; therefore, it is Missouri American Water’s appeal argument that the denial was issued without considering the ordinance wording in its entirety and despite the fact that St. Charles County Planning and Zoning Staff Recommended approval of the variance request.

The 530 Knaust Road property was purchased in 1989 for the purpose of building potable water infrastructure to support the residential growth in the water utility’s service area. The parcel is located centrally within the St. Charles service area and has an elevation that is favorable for gravity distribution of water to residents. Currently without the 2 million gallon elevated tank, water demands during peak usage times and days causes residents to experience lower pressures and limits the volume of water available to fire districts for fighting fires. Once the construction of the elevated tank is complete, the improvements in fire flow rates average in the range of 1500 gallons per minute (gpm) to 2500 gpm for the northwestern areas near the tank site and range from 100 gpm to 500 gpm for eastern and southern areas near the tank site.
The 530 Knaust Road parcel frontage has the required large diameter transmission pipeline infrastructure necessary to receive and distribute the water to the residents and customers. The proposed site plan for the project is included to illustrate the proposed tank location within the parcel.

Water utilities are encouraged by the Missouri Department of Natural Resources to have interconnections with neighboring utilities to meet consumer demands during operational and emergency situations. One such interconnection between Missouri American Water and Public Water Supply District #2 is located at the intersection of Knaust Road and Berkshire Downs Drive. The delivery of water from Missouri American Water to PWSD#2 will improve with the elevated tank being located at 530 Knaust Road.

Constructing an elevated tank will support Missouri American Water's goal to minimize impacts to the customers from a financial perspective. Constructing an elevated storage tank lowers capital investment costs for site improvements such as tree removal, site grading and electrical infrastructure upgrades. Capital improvement projects have the potential to impact the decisions made by the Missouri Public Service Commission during their establishment and approval of water rates for Missouri American Water customers; therefore, when project scopes are developed, the direct financial impact to customers becomes integral to the decision and design processes.

Construction of a ground storage tank with pumping units sized to meet varying consumer demand requires larger equipment, redundant electrical services, and emergency power generators. Electrical pumping scenarios may require frequent on/off cycling which can adversely impact system pressures. Failures of electrical pumping units can cause sudden pressure drops and distribution system water hammering. An elevated tank relies on gravity which does not fail. The use of gravity is more reliable from the perspective of pressure management within the distribution system. Consistent system pressures minimize risks for water main breaks due to sudden changes in pressure.

Visually, the proposed elevated tank with a forty-eight (48) foot diameter pedestal, will be less intrusive to property owners' line of sight than a one-hundred (100) foot diameter ground storage tank. The adjacent property owners are buffered by well-established trees having heights that are taller than the base elevation for the proposed elevated tank. Renderings of the tank from views surrounding 530 Knaust Road are included as exhibits to illustrate the approximate location of the proposed tank, the tree buffers, and the proximity to homes in the Berkshire Downs Subdivision.

We request the St. Charles County Council reverse the decision made on January 2, 2020 by the Board of Zoning Adjustment and vote to approve this request for variance so that Missouri American Water may proceed with construction of the necessary storage tank on this property zoned as R1A, under Ordinance Section 405.090.B.12, which already allows elevated storage as a permissive use on this parcel.

Respectfully,

Renee C. Lawrence
Senior Project Engineer

Enclosures:
Cottleville Assistant Chief Roberts Email
530 Knaust Road Project Site Plan
Tank Rendering Exhibits
EXTERNAL EMAIL - "Think before you click!"

Tom,

When I was informed that the proposed water storage tower on Knaust Road was blocked, I was stunned. I can understand the “not in my backyard” mentality, but the proposed location seems to be an ideal spot. The tank at that location would service multiple fire districts, as boundaries for three fire districts meet in that general location. The elevation of the proposed tank is also advantageous, not only the physical height of the tank, but topographically as well. The elevation provides for less pumps downhill, and greater pressure for all customers, current and future.

I would anticipate that the future development of over 425 homes and business between Gutermuth Road and Highway N should have an impact on the water supply. Having that tank will help maintain, if not increase the available water volume and pressure to current customers. I would expect that adding that significant number of homes and businesses would have some adverse effect on existing customers’ water pressure, if the tank was not added. One last item that some may not be aware of, is that the better the water distribution system is for the fire department, the lower residents’ insurance rates could be.

Please keep me informed of any changes.

Ryan Roberts
Assistant Chief/Fire Marshal
Cottleville Fire Protection District

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ZONED RESIDENTIAL

EXISTING FIRE HYDRANT
EXISTING R.O.W. LINE
EXISTING CONCRETE ENTRANCE

PROPOSED 2 MG ELEVATED WATER TOWER
PROPOSED PRE-PACKAGED PUMP STATION (15' BY 45')
PROPOSED GRAVEL DRIVE
200' X 200' WORK AREA REQUIRED BY CALDWELL
24" INFLENT LINE
16" EFFLENT LINE
14" PUMP STATION SUCTION LINE
12" PUMP STATION DISCHARGE LINE

SITE NOMENCLATURE:
1. EXISTING PUMP STATION
2. EXISTING (8.4' X 12.25')
3. PROPOSED 2 MG ELEVATED WATER TOWER
4. PROPOSED PRE-PACKAGED PUMP STATION (15' BY 45')
5. PROPOSED GRAVEL DRIVE
6. 200' X 200' WORK AREA REQUIRED BY CALDWELL
7. 24" INFLENT LINE
8. 16" EFFLENT LINE
9. 14" PUMP STATION SUCTION LINE
10. 12" PUMP STATION DISCHARGE LINE

TRACT IS ZONED R1A

SITE EXISTING SOIL TYPE: FAT CLAY (CH)