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**ZONING AND PLATTING COMMISSION  
HILL COUNTRY SITE PLAN and ENVIRONMENTAL VARIANCE REQUEST  
REVIEW SHEET**

**CASE NUMBER:** SPC-2012-0429C    **COMMISSION DATE:** January 7, 2014

**PROJECT NAME:** Water Control and Improvement District No. 17-Mansfield Water Treatment Plant

**ADDRESS:** 4506 N FM 620 Rd.

**AREA:** 6.849 acres

**WATERSHED:** Lake Travis (Watersupply Rural, DWPZ)

**EXISTING ZONING:** P

**APPLICANT:** Travis Country WC & ID #17 Special Assessments checking  
3812 Eck Ln  
Austin, TX 78734  
(512) 266-1111

**AGENT:** River City Engineering (David Kneuper, P. E.)  
3801 S 1<sup>st</sup> St.  
Austin, Texas 78704  
(512) 442-3008 ext. 108

**PROPOSED USE:** The applicant requests approval of a Hill Country Roadway site plan in order to construct a Water Treatment Plant and approval of variances. The site is located within the Low Intensity Zone of FM 620, a Hill Country Roadway.

**DESCRIPTION OF VARIANCES:**

Variance request is as follows:

1. To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93% [LDC 25-8-454(D)(1)(a)].
2. To allow a waiver from the building height from 28' to 30' 10 ½" [LDC 25-2-1124]
3. To allow a waiver from the 40% natural area to 21% [LDC 25-2-1025(A)]

**SUMMARY STAFF RECOMMENDATION FOR HCRC SITE PLAN:** Staff recommends approval of this Hill Country Roadway site plan. Staff recommends approval of the Hill Country Roadway waivers to allow an increase of building height from 28' to 30' 10 ½" and to reduce the natural area from 40% to 21%.

The site plan complies with all other applicable requirements of the Land Development Code and the zoning ordinance. All administrative requirements will be met prior to site plan release.

The site plan must be approved by the Zoning and Platting Commission because of its location within the Hill Country Overlay. All Hill Country Roadway requirements have been met.

**STAFF RECOMMENDATION FOR ENVIRONMENTAL VARIANCE:**

Environmental staff does not recommend the Environmental Variance to increase impervious cover.

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**ENVIRONMENTAL BOARD RECOMMENDATION FOR ENVIRONMENTAL VARIANCE:**

Environmental Board recommends approval of the request for variance with conditions.  
(See attached Environmental Board motion sheet for EV Board conditions)

**AREA STUDY:** N/A

**APPLICABLE WATERSHED ORDINANCE:** Comprehensive Watershed Ordinance

**CAPITOL VIEW:** Not in View Corridor

**T.I.A.:** Not Required

**ZONING AND PLATTING COMMISSION ACTION:** N/A

**CASE MANAGER:** Donna Galati, 512-974-2733  
[Donna.Galati@austintexas.gov](mailto:Donna.Galati@austintexas.gov)

**ENVIRONMENTAL REVIEWER:** Jim Dymkowski, 512-974-2707  
[james.dymkowski@austintexas.gov](mailto:james.dymkowski@austintexas.gov)

**PROJECT INFORMATION:**

**PROJECT INFORMATION:** 6.849 acres

**EXIST. ZONING:** P

**MAX. BLDG. COVERAGE:** \*

**PROP. BLDG CVRG:** 26,067 sq. ft. (10%)

**MAX. IMPERV. CVRG:** \*

**PROP. IMP. CVRG:** 94,313 sq. ft. (36.19%)

**ALLOWED F.A.R.:** \*

**PROPOSED F.A.R.:** 0.1:1

*\*Established with Commission approval of a site plan*

**SUMMARY COMMENTS ON SITE PLAN:**

**LAND USE:** This request is for approval of a Hill Country Roadway land use site plan. This site is located within the Low Intensity Zone of FM 620.

The site plan proposes construction of a water treatment plan and associated improvements. The site proposes vehicular connection to FM 620.

**ENVIRONMENTAL:** This site is in the Drinking Water Protection Zone. All Hill Country Roadway and zoning requirements have been met. Environmental variances are requested. EV Board backup materials attached.

**TRANSPORTATION:** All comments cleared.

**SURROUNDING CONDITIONS:**

Zoning/ Land Use

North: DR (Vacant)

East: DR (Vacant)

South: 620, then DR (Electric Cooperative)

West: DR (Vacant then Mansfield Dam)

<u>STREET:</u>	<u>R.O.W.</u>	<u>SURFACING</u>	<u>CLASSIFICATION</u>
620	155'	75'	Major Arterial

**NEIGHBORHOOD ORGANIZATION:**

Austin Heritage Tree Foundation  
 Austin Monorail Project  
 Bike Austin  
 Courtyard Homeowner Assn.  
 Homeless Neighborhood Association  
 Lake Austin Collective  
 Leander ISD Population and Survey Analysts  
 Long Canyon Homeowners Assn.  
 SELTexas  
 Sierra Club, Austin Regional Group  
 Steiner Ranch Community Association  
 Steiner Ranch Neighborhood Association  
 Super Duper Neighborhood Objectors and Appealers Organization  
 The Real Estate Council of Austin, Inc.

**CONDITIONAL USE PERMIT**

**D. 25-5-145.** A site plan may not adversely affect the public health, safety, or welfare, or materially injure property. If the Land Use Commission determines that a site plan has an adverse effect or causes a material injury under this subsection, the Land Use Commission shall identify the adverse effect or material injury.

**§ 25-5-146 CONDITIONS OF APPROVAL.**

(A) To make a determination required for approval under Section 25-5-145 (Evaluation Of Conditional Use Site Plan), the Land Use Commission may require that a conditional use site plan comply with a condition of approval that includes a requirement for:

- (1) a special yard, open space, buffer, fence, wall, or screen;
- (2) landscaping or erosion;
- (3) a street improvement or dedication, vehicular ingress & egress, or traffic circulation;
- (4) signs;
- (5) characteristics of operation, including hours;
- (6) a development schedule; or
- (7) other measures that the Land Use Commission determines are required for compatibility with surrounding uses or the preservation of public health, safety, or welfare.

**CONDITIONAL USE PERMIT REVIEW AND EVALUTATION CRITERA**

- A. The following evaluation is included to provide staff position on each point of the conditional use permit criteria. Section 25-5-145 of the Land Development Code states: "The Planning Commission shall determine whether the proposed development or use of a conditional use site plan complies with the requirements of this section. A conditional use site plan must:
- B.
  1. **Comply with the requirements of this title;**  
Staff Response: This site plan complies with all regulations and requirements of the Land Development Code.
  2. **Comply with the objectives and purposes of the zoning district;**  
Staff Response: The proposed Water Treatment Plant improvements will comply with the zoning designation for a civic use.

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3. **Have building height, bulk, scale, setback, open space, landscaping, drainage, access, traffic circulation, and use that is compatible with the use of an abutting site;**  
Staff Response: The site plan complies with all requirements of the Land Development Code. Minimal traffic will be generated by this Water Treatment Plant.
  4. **Provide adequate and convenient off-street parking and loading facilities; and**  
Staff Response: The site plan complies with off-street parking and loading facility requirements.
  5. **Reasonably protect persons and property from erosion, flood, fire, noise, glare, and similar adverse effects.**  
Staff Response: The site plan will comply with all requirements of the Land Development Code and reasonably protects the health, safety, and welfare of persons and property.
  6. **For conditional use located within the East Austin Overlay district, comply with the goals and objectives of a neighborhood plan adopted by the City Council for the area in which the use is proposed.** Staff response: The proposed project is not in the East Austin Overlay.
- C. **In addition, a conditional use site plan may not:**
7. **More adversely affect an adjoining site than would a permitted use;**  
Staff response: The site plan will conform to all regulations and standards established by the Land Development Code. This proposed site plan does not more adversely affect an adjoining site than would a permitted use. The Water Treatment Plant improvements meet the objectives of P-public zoning.
  8. **Adversely affect the safety or convenience of vehicular or pedestrian circulation, including reasonably anticipated traffic and uses in the area; or**  
Staff Response: The site plan improves the safety and convenience of vehicular and pedestrian circulation.
  9. **Adversely affect an adjacent property or traffic control through the location, lighting, or type of a sign.** Staff Response: All signs and lighting will comply with the Land Development Code.



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BOARD/COMMISSION RECOMMENDATION

ENVIRONMENTAL BOARD

Resolution Number: 20131207 006a

Water Control and Improvement District No. 17 Mansfield Water Treatment Plant SPC-2012-0429C

Request:

1. To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93% LDC Section 25-8-454(D) (1) (a)

**WHEREAS**, the project will provide public welfare and environmental benefits that curtail the environmental impacts

And whereas, proposed water treatment to stormwater runoff will reduce the percentage of impervious cover that will directly impact water quality to below 20%

**THEREFORE**, the Environmental Board recommends approval of the request for variance with the following Board Conditions:

- The Force main will be constructed as presented with stub outs to maximize potential for existing Septic systems in the Travis Vista plant to connect to the force main
- The District shall provide financial incentives to the existing Travis Vista plant and septic customers to waive Steiner Ranch impact fees to further incentivize those connections.

Record of the Vote [5-1-0-1]

For: Deegan, Gary, Maxwell, Neely and Schissler

Against: Perales

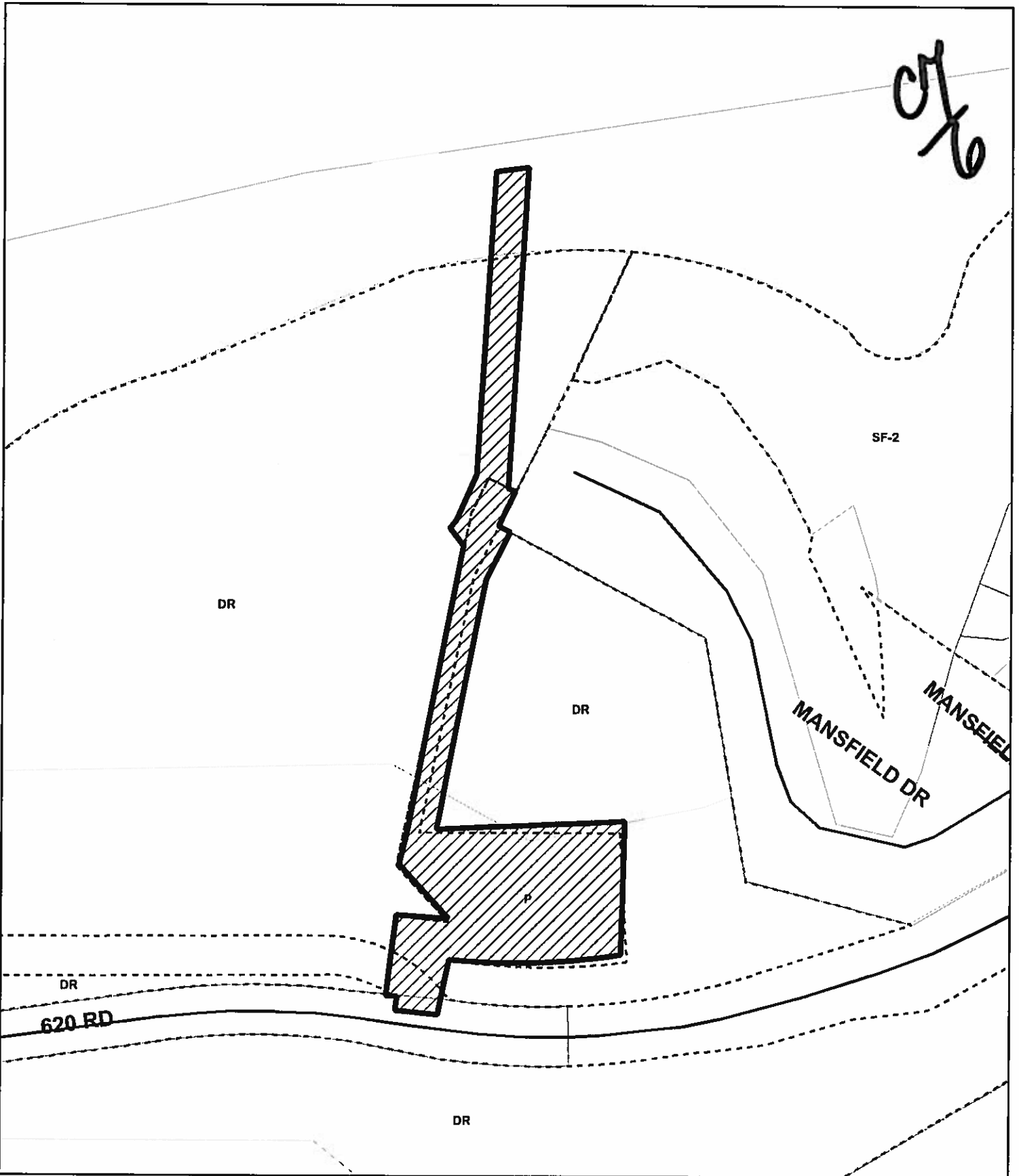
Abstained:

Absent: Walker

Attested by:

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

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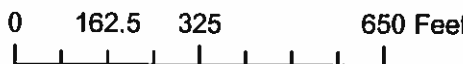


**SITE PLAN**

CASE#: SPC-2012-0429C  
 ADDRESS: 4506 N 620 Rd.  
 CASE NAME: WCID No. 17 - Mansfield Water Treatment Plant  
 MANAGER: Donna Galati



 **SUBJECT TRACT**  
 **ZONING BOUNDARY**



This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.

This product has been produced by the Planning and Development Review Department for the sole purpose of geographic reference. No warranty is made by the City of Austin regarding specific accuracy or completeness.

OPERATOR: Donna Galati





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**ITEM FOR ENVIRONMENTAL BOARD AGENDA**

**BOARD MEETING DATE REQUESTED:** DECEMBER 18, 2013

**Name & Number OF PROJECT:** Water Control and Improvement District No. 17 –  
Mansfield Water Treatment Plant  
SPC-2012-0429C

**NAME OF APPLICANT OR ORGANIZATION:** River City Engineering  
(Contact: David Kneuper - 512-442-3008)

**LOCATION:** 4506 N FM 620 Rd

**PROJECT FILING DATE:** December 19, 2012

**WPDR/Environmental STAFF:** Jim Dymkowski, 974-2707  
james.dymkowski@austintexas.gov

**WPDR/ CASE MANAGER:** Donna Galati, 974-2733  
Donna.Galati@austintexas.gov

**WATERSHED:** Lake Travis and Lake Austin Watersheds (Water Supply Rural)  
Drinking Water Protection Zone

**ORDINANCE:** Comprehensive Watershed Ordinance

**REQUEST:** Variance request is as follows:  
1. To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93%  
LDC Section 25-8-454(D) (1) (a)

**STAFF RECOMMENDATION:** The variance is not recommended.

**REASONS FOR RECOMMENDATION:** Findings of fact have not been met.





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## MEMORANDUM

**TO:** Mary Gay Maxwell, Chairperson and Members of the Environmental Board

**FROM:** Jim Dymkowski, Environmental Review Specialist Senior  
Planning and Development Review Department

**DATE:** November 20, 2013

**SUBJECT:** Water Control and Improvement District No. 17 – Mansfield Water Treatment Plant - SPC-2012-0429C

On the December 18, 2013 agenda is a request for the consideration of one variance from LDC Section 25-8-454(D) (1) (a) – To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93%.

### Description of Property

The subject property is located approximately three miles west of FM 2222 on the north side of RR 620, just east of Mansfield Dam. It is predominantly in the Lake Travis Watershed, with a small portion of the southern property near the access drive off RR 620 draining to the Lake Austin Watershed. Both watersheds are classified the Water Supply Rural within the Drinking Water Protection Zone. It is within the City of Austin limited purpose jurisdiction. The gross site area as given in the plan set is 6.849 acres granted as an easement from LCRA, the larger surrounding property owner, to WCID 17. Water and wastewater service will be provided by Travis County WCID 17. It is bordered to the north by undeveloped rangeland and Lake Travis, to the south by RR 620, to the east also by undeveloped rangeland and single family housing and to the west by Mansfield Dam.

Many years ago, the site was used and disturbed during the construction of Mansfield Dam. There is also remnant evidence of a structure that was removed from the site in the area of the proposed Membrane & Lab Building. The remainder of the site has restored itself to a natural system consistent with its hill country location.

### Existing Topography/Soil Characteristics/Vegetation

The property predominately contains slopes of 0-10% with some small upland pockets of slopes greater than 15%. The project has been sited on the highpoint of the land and slopes in all directions from that highpoint. Vegetation consists of Ashe juniper, Live oak, Texas Madrone, twisted leaf yucca, Milkweed, and native grasses. According to the Environmental Assessment, geology at this site is characterized by the Glen Rose formation and soils consist of Tarrant formation.

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**Critical Environmental Features/Endangered Species**

As stated in the environmental assessment and confirmed by the Watershed Protection Department Environmental Resource Management (ERM) staff, no Critical Environmental Features were found on or adjacent to the site. The 100' Critical water quality zone limit has been placed on the plan landward of the 681 lake elevation line.

**Description of Project**

The proposed project will be constructed in four phases for a 12 million gallon per day membrane water treatment plant. Phase 1 and phase 2 will be constructed together and include the raw water pump station and intake facilities, line to the plant, main membrane and lab building, chemical feed facility, flocculation basin, one clearwell, high service pump station, storage building and associated drives and parking. Phase 3 and 4 will consist of the expansion of the flocculation basis and an additional clearwell. The allowable impervious cover for this site is 20% of the NSA of 5.982 equaling 1.173 acres. The proposed impervious cover for the development is 36.19% of the NSA equaling 2.165.

The project is also requesting waivers from the Hill Country Roadway requirements of zoning sections of the land development code 25-2. These waiver requests are reviewed by the Zoning and Plating Commission.

**Environmental Code Variance Request**

The following variance to the land development code is being requested:

1. To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93%. LDC 25-8-454 (D) (1) (a)

**Recommendation**

Staff does not recommend approval of the variance as the Findings of Fact have not been met (see attached)



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**Planning and Development Review Department  
Staff Recommendations Concerning Required Findings  
Water Quality Variances**

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**Project:** Water Control and Improvement District No. 17 – Mansfield Water Treatment Plant - SPC-2012-0429C  
**Ordinance Standard:** Land Development Code Section 25-8-454(D) (1) (a)  
**Variance Request:** To allow impervious cover greater than 20% of the net site area allowed by code not to exceed 36.93%.

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**Findings:**

A. Land Use Commission variance determinations from Chapter 25-8, Subchapter A – Water Quality of the City Code:

1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development.

**No. The requirement would not deprive a privilege or safety given to others. There are two similar developments; WCID 17 District Plant office and building improvements SP-05-1269D and the City of Austin water treatment plant 4 SP-2009-0252D that were reviewed under different situations. Although the previous WCID permit was granted a variance to exceed the 20% allowable impervious cover, the variance was granted largely for after the fact constructed impervious cover. A large portion of the impervious cover on that project existed prior to the site coming into the City of Austin's ETJ and jurisdiction and was not required to be removed. Water treatment plant 4 was not granted a variance under 25-8. City Council passed a special ordinance to aid in development.**

2. The variance:

- a) Is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance;

**No. The variance is based on the method chosen by the applicant to develop the property. The amount of impervious cover required is based on the service capacity needed for the plant. The method of development in trying to site this known amount of impervious cover on this undersized piece of property creates this variance. Although the project has attempted to limit its impervious cover, and is providing improved water quality treatment by capturing building and some drive runoff and treating it to drinking water standards in the plant itself, staff does not believe that there is a greater overall environmental protection. The building and drive runoff captured and treated will leave the plant at a higher standard than code required water quality but it will be**

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removed from the natural system and not be returned to the land as potential base flow for surrounding water bodies. Also, staff does not believe that the increased water quality pollutant removal is a greater benefit over the large increase in site disturbance proposed by the increased impervious cover.

b) Is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property;  
**No. Staff does not believe this is a reasonable use for the size of the property chosen. The applicant has not shown a loss of privilege given to other property owners or a loss of reasonable use of the property.**

c) Does not create a significant probability of harmful environmental consequences; and  
**No. The overall land disturbance will be greater associate with the request for the increase impervious cover in the drinking water protection zone. The building and drive runoff captured and treated by the plant for water quality will be removed from the natural system and not be returned to the land as potential base flow for surrounding water bodies.**

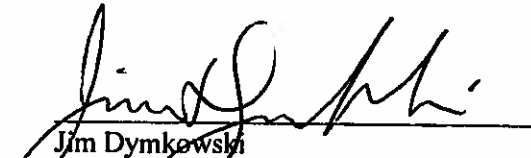
3. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.  
**Yes. Development with the variance will result in water quality that is at least equal to the water quality achievable without the variance.**

B. Additional Land Use Commission variance determinations for a requirement of Section 25-8-393 (Water Quality Transition Zone), Section 25-8-423 (Water Quality Transition Zone), Section 25-8-453 (Water Quality Transition Zone), or Article 7, Division 1 (Critical Water Quality Zone Restrictions):

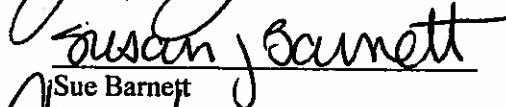
- 1. The above criteria for granting a variance are met;  
*N/A.*
- 2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and  
*N/A.*
- 3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

*N/A.*

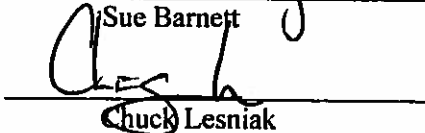
Environmental Reviewer:

  
Jim Dymkowski

Environmental Program Coordinator:

  
Sue Barnett

Environmental Officer:

  
Chuck Lesniak

Date: December 4, 2013

**Staff may recommend approval of a variance after answering all applicable determinations in the affirmative (YES).**



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December 5, 2013

CHAIRMAN OF THE ZONING AND PLATTING COMMISSION  
301 West 2<sup>nd</sup> Street  
Austin, Texas 78701

**RE: Travis County W.C & I.D. No. 17  
Mansfield Water Treatment Plant  
SPC-2012-0429C  
Request for Variance to §25-8-454(D)(1)(a) of *The Code of the City of Austin*  
Uplands Zone - Allowable Impervious Cover**

Dear Chairman:

Travis County W.C.&I.D. No. 17 (the District) is proposing to construct the Mansfield Water Treatment Plant Project. This project consists of expanding the District's water treatment capacity by constructing a 12-million gallon per day, at full build-out, membrane water treatment plant. This project consists of improvements that will allow the District to meet health and safety guidelines and serve its existing and future customers. This project proposes to construct impervious cover in the amount of 37% which exceeds the 20% allowed in the Uplands Zone within a Water Supply Rural Watershed. Travis County W.C.&I.D. No. 17 is requesting a variance to §25-8-454(D)(1)(a) of *The Code of the City of Austin*, Uplands Zone – Allowable Impervious Cover may not exceed 20%. As noted herein, the District's Eck Lane Water Treatment Plant received a similar variance in 2005. **Failure to grant this variance request will effectively preclude the District's ability to construct this much needed and critical public water supply project.**

The proposed improvements, which make up the Mansfield Water Treatment Plant Project for the District, include a Membrane and Lab Building, Chemical Feed Facility, High Service Pump Station, Raw Water Pump Station, Storage Building, and associated site improvements. Phase 1 of the project consists of the construction of the Raw Water Pump Station, Raw Water Intake Facility, and a portion of the Raw Water Line to the treatment plant site. Phase 2 will consist of the construction of the main Membrane and Lab Building, Chemical Feed Facility, Flocculation Basin, Clearwell, High Service Pump Station, Storage Building and additional associated site improvements. Future phases will complete construction of the project and will consist of the expansion of the Flocculation Basins and the construction of a second Clearwell. The phase 1 and 2 portions of the project will be constructed simultaneously and are proposed to deliver approximately 6-million gallons of treated water daily for the District's use. With the completion of future Phases 3 & 4, the plant will be able to produce an approximate maximum capacity of 12-million gallons of

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treated water daily. These proposed improvements are vital to enable the District to meet TCEQ requirements and serve its existing and future customers.

The Mansfield Water Treatment Plant Project site is located at 4506 and 4506 B North F.M. 620 Road in Travis County, Texas. The project consists of six permanent easements obtained from the Lower Colorado River Authority (LCRA) totaling 6.849 acres of gross site area. Additional temporary construction easements were also obtained from LCRA. The project is located within the Lake Travis Watershed which is classified as a rural water supply watershed. A portion of the project is located within a FEMA defined floodplain as shown on the flood insurance rate map for Travis County, community map no. 48453C0220H, dated September 26, 2008. The project does not lie within the City of Austin Recharge Zone. The site is zoned P – Public.

Travis County W.C.&I.D. No. 17 is requesting a variance to §25-8-454(D)(1)(a) of *The Code of the City of Austin*, which states that for a commercial or multi-family use development in an Uplands Zone, impervious cover may not exceed 20%. Although this project zoning use is considered a Major Utility Facility, the project proposes to construct 37% of impervious cover.

The District selected this site for the proposed Water Treatment Plant for several reasons. Site selection was difficult because of the lack of availability and high cost of developable land in the Lake Travis / Lake Austin area for this public works project. The site needed to be located within the District service area, on the east side of Mansfield Dam and in close proximity to existing District major utility system facilities. Finally, the site location needed to be within close proximity to Lake Travis, the Water Treatment Plant's source of raw water. This is the only site that satisfied all these requirements.

The proposed improvements required for the design and implementation of the Water Treatment Plant were carefully placed and footprints minimized not only in order to reduce the amount of proposed impervious cover but to also reduce the number of existing trees needing to be removed. For example basins normally located outside of the footprint of the main Membrane building were incorporated into the building design and placed beneath the building to reduce impervious cover. Even with this careful planning, the proposed effective site impervious cover, based on the net site area, is 37%. However, all or portions of most of the proposed drainage areas will be captured and treated within the Membrane Water Treatment Plant. The captured impervious cover includes storm water run-off from roofs, driveway and drive aisle run-off, and miscellaneous concrete run-off. Capturing the run-off from this impervious cover reduces the effective site impervious cover to 16.5%.

Due to the finiteness of available land that meets the District's requirements for the proposed Water Treatment Plant, it is vital that this site be used. Additionally, alternative locations and sizes of these improvements on the site will not alleviate the need for this variance.

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Listed below are the Findings of Fact, as listed in the City of Austin Land Development Code Section §25-8-41, and an explanation of each applicable finding of fact:

1. The requirement will deprive the applicant of a privilege or the safety of property given to owners of other similarly situated property with approximately contemporaneous development? YES

- Requiring Section §25-8-454(D)(1)(a) of *The Code of the City of Austin* would prevent the ability to construct the proposed necessary major utility facility improvements. This site is the only site Travis County W.C.&I.D. No. 17 was able to locate and acquire that met the special site design requirements including needing to be within the District service area, located on the east side of Mansfield Dam and in close proximity to existing District utility system facilities. Additionally, the site needed to be within close proximity to Lake Travis, the Water Treatment Plant's source of raw water.

The District's original Water Treatment Plant (SP-05-1269D) that serves the western half of the District, located at 3812 Eck Lane, was granted a similar variance in 2005 that allowed for 56% impervious cover on the site that also was originally limited to 20% impervious cover. Furthermore, the project was granted three additional variances that allowed for parking on a slope with more than 15% gradient, building a structure on a slope with more than 35% gradient and not providing a 40% downstream buffer.

**The variance is needed in order to allow the District to proceed with this critical public water supply project to ensure a reliable municipal potable water supply during the area's continuing drought. Additionally, this Water Treatment Plant is needed to provide cooling water to the City of Austin's new Water Treatment Plant No. 4 and needs to be online prior to the completion of the City's plant.**

2.

a. The variance is not based on a condition caused by the method chosen by the applicant to develop the property, unless the development method provides greater overall environmental protection than is achievable without the variance? YES

- This variance is not based on a condition caused by the method chosen by the District to develop the property. This project requires specific, significant, project site requirements as noted above. LCRA owns the property and, after lengthy negotiations, provided the District permanent easements for the project. The District was unable to acquire any additional permanent site area from LCRA.

All or portions of most of the proposed drainage areas will be captured and treated within the Membrane Water Treatment Plant. The captured impervious cover

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includes storm water run-off from roofs, driveway and drive aisle run-off, as well as miscellaneous concrete run-off. By capturing nearly 56% of the total impervious cover run-off from the site, the effective site impervious cover is reduced to 16.5%. Vegetative Filter Strips have been proposed as additional water quality controls for the remainder of the proposed impervious cover. By using these two innovative approaches, the development provides water quality greater than would have resulted had development proceeded without this variance and alleviates the need for a conventional water quality pond.

Additionally, along with the construction of the proposed site improvements, an off-site force main (GP-2013-0052.D17) will be constructed to serve the plant. The proposed force main will be located within the adjacent Travis Vista Subdivision, providing sewer service to the area and removing the last direct discharge into Lake Travis.

- b. This variance is the minimum change necessary to avoid the deprivation of a privilege given to other property owners and to allow a reasonable use of the property? YES
- This variance is the minimum change necessary. The proposed Water Treatment Plant was designed in order to minimize the amount of Impervious cover required for the safe and efficient operation of this type of major utility facility as well as avoiding the removal of existing trees and minimizing project area disturbance. One example includes basins normally located outside of the footprint of the main Membrane building being incorporated into the building design and placed beneath the building to reduce Impervious cover. A second example is the membrane technology utilized, which requires a smaller footprint than conventional treatment methods. Finally, the impervious pavement width of the raw water pump station access drive was minimized by the use of pervious reinforced geotextile matting.
- c. This variance does not create a significant probability of harmful environmental consequences? YES
- By using the Plant's Membrane technology, 100% of the pollutant load from 20.5% captured impervious cover storm water run-off will be removed, not only exceeding City requirements, but also returning site area that would normally be used for a water quality facility into undisturbed natural buffer area. Granting of this variance does not create significant probabilities of harmful environmental consequences.

Additionally, the District has contracted with Bartlett Tree Experts to provide a tree protection plan and services for the site. The services include root invigoration, fertilization, monthly pest management inspection during construction, dead wood pruning and a special Texas Madrone protection and improvement plan. The 10-inch Texas Madrone tree located on-site extremely rare in the native Austin landscape and the plan is designed around protecting and even improving the tree during the construction process.



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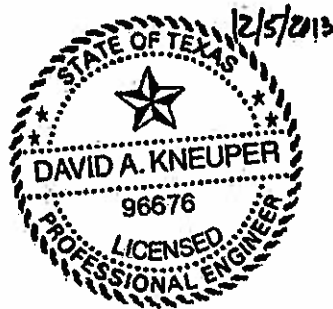
3. Development with this variance will result in water quality that is at least equal to the water quality achievable without this variance.
- As noted above in 2a, the District plans to treat a high percentage of proposed impervious cover storm water run-off within the Water Treatment Plant. The District also plans on providing additional water quality controls for the remainder of the proposed impervious cover. Development with this variance will result in water quality greater than would have been achieved had development proceeded without this variance or if the project proceeded with an impervious cover less than 20%.

If you have any questions, or need additional information, please do not hesitate to contact me at (512) 442-3008, ext. 108.

Sincerely,



David Kneuper, P.E.





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December 23, 2013

CHAIRMAN OF THE LAND USE COMMISSION  
301 West 2<sup>nd</sup> Street  
Austin, Texas 78701

**RE: Travis County W.C & I.D. No. 17  
Mansfield Water Treatment Plant  
SPC-2012-0429C  
Request for Waiver to §25-2-1124 of *The Code of the City of Austin*  
Building Height**

Dear Chairman:

Travis County W.C.&I.D. No. 17 (the District) is proposing to construct the Mansfield Water Treatment Plant Project. This project consists of expanding the District's water treatment capacity by constructing a 12-million gallon per day, at full build-out, membrane water treatment plant. This project consists of improvements that will allow the District to meet health and safety guidelines and serve its existing and future customers. This project proposes to construct its main Membrane and Lab Building within 200-feet of the Right-of-Way of F.M. 620, a Hill Country Roadway Corridor. Travis County W.C.&I.D. No. 17 is requesting a waiver to §25-2-1124 of *The Code of the City of Austin*, Building Height. **Failure to grant this waiver request will effectively preclude the District's ability to construct this much needed and critical public water supply project.**

The proposed improvements, which make up the Mansfield Water Treatment Plant Project for the District, include a Membrane and Lab Building, Chemical Feed Facility, High Service Pump Station, Raw Water Pump Station, Storage Building, and associated site improvements. Phase 1 of the project consists of the construction of the Raw Water Pump Station, Raw Water Intake Facility, and a portion of the Raw Water Line to the treatment plant site. Phase 2 will consist of the construction of the main Membrane and Lab Building, Chemical Feed Facility, Flocculation Basin, Clearwell, High Service Pump Station, Storage Building and additional associated site improvements. Future phases will complete construction of the project and will consist of the expansion of the Flocculation Basins and the construction of a second Clearwell. The phase 1 and 2 portions of the project will be constructed simultaneously and are proposed to deliver approximately 6-million gallons of treated water daily for the District's use. With the completion of future Phases 3 & 4, the plant will be able to produce an approximate maximum capacity of 12-million gallons of treated water daily. These proposed improvements are vital to enable the District to meet TCEQ requirements and serve its existing and future customers.

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The Mansfield Water Treatment Plant Project site is located at 4506 and 4506 B North F.M. 620 Road in Travis County, Texas, considered a low-intensity zone Hill Country Roadway. The project consists of six permanent easements obtained from the Lower Colorado River Authority (LCRA) totaling 6.849 acres of gross site area. Additional temporary construction easements were also obtained from LCRA. The project is located within the Lake Travis Watershed which is classified as a rural water supply watershed. A portion of the project is located within a FEMA defined floodplain as shown on the flood insurance rate map for Travis County, community map no. 48453C0220H, dated September 26, 2008. The project does not lie within the City of Austin Recharge Zone.

Travis County W.C.&I.D. No. 17 is requesting a waiver to §25-2-1124 of *The Code of the City of Austin*, which states that a person may not construct a building that is more than 28 feet in height if the building is 200 feet or less from the nearest Right-of-Way boundary of a hill country roadway or in a low intensity zone. This project proposes to construct the Water Treatment Plant's main Membrane and Lab Building at a height of 30-feet, 10 1/2-inches, see attached Administration/Membrane Filter Building Height Cross Section exhibits.

The design and operational requirements of a water treatment plant present unique site challenges. The District selected this site for the proposed Water Treatment Plant for several reasons. Site selection was difficult because of the lack of availability and high cost of developable land in the Lake Travis / Lake Austin area. The site needed to be located within the District's service area, on the east side of Mansfield Dam and in close proximity to existing District major utility system facilities. Finally, the site location needed to be within close proximity to Lake Travis, the Water Treatment Plant's source of raw water. This is the only site that satisfied all these requirements.

The proposed improvements required for the design and implementation of the Water Treatment Plant were carefully placed and footprints reduced not only in order to lower the amount of proposed impervious cover but to also reduce the number of existing trees needing to be removed and minimizing site area disturbance.

Listed below are the Waiver Requirements, as listed in *The Code of the City of Austin*, and an explanation of each applicable requirement:

- A. The applicant must demonstrate that the height provision imposes an undue hardship because of location, topography, or peculiar configuration of the tract.
  - Strict application of §25-2-1124 of *The Code of the City of Austin* would impose an undue hardship because of location and a peculiar configuration of the tract. This site is the only site Travis County W.C.&I.D. No. 17 was able to locate and acquire that met the special site design requirements including proximity to existing District utility system facilities and be located on the east side of Mansfield Dam, as well as

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being within close proximity to Lake Travis, the Water Treatment Plant's source of raw water.

The Water Treatment Plant specific site easement consists of a rectangular 4-acre permanent easement located 100-feet from the Right-of-Way (ROW) of F.M. 620. LCRA owns the property and, after lengthy negotiations, provided the District the permanent easements for the project. LCRA was not only very specific on the easement configuration and location, but also unwilling to provide any additional permanent site easement area.

The site is also unique in that although the majority of the site is heavily wooded, the center of the site has a reduced number of mature trees. The main Membrane and Lab Building, the largest building on site, is located in a way that is not only needed for the efficient design and operation of the Water Treatment Plant, but to also take advantage of the lack of existing adjacent mature trees in the center of the site. The building is located between 167-feet and 318-feet from the adjacent ROW.

**The waiver is needed in order to allow the District to proceed with this critical public water supply project to ensure a reliable municipal potable water supply during the area's continuing drought. Additionally, this Water Treatment Plant is needed to provide cooling water to the City of Austin's new Water Treatment Plant No. 4 and needs to be online prior to the completion of the City's plant.**

C. If the waiver is approved, the development will equal or exceed a development that is in compliance with this article in terms of:

1) Environmental Protection:

- The proposed development includes the capture and treatment of a high percentage of the site's proposed impervious cover storm water run-off within the Water Treatment Plant. By using the Plant's Membrane technology, 100% of the pollutant load from captured impervious cover storm water run-off will be removed, not only exceeding City requirements, but also returning site area that would normally be used for a water quality facility into undisturbed natural buffer area.

As mentioned above, the main Membrane and Lab Building is located in a way that is not only needed for the efficient design and operation of the Water Treatment Plant, but to also take advantage of the lack of existing adjacent mature trees in the center of the site.

Along with the construction of the proposed site improvements, an off-site force main (GP-2013-0052.D17) will be constructed to serve the plant. The proposed force main will be located within the adjacent Travis Vista

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Subdivision, providing sewer service to the area and removing the last direct discharge into Lake Travis.

Additionally, the District has contracted with Bartlett Tree Experts to provide a tree protection plan and services for the site. The services include root invigoration, fertilization, monthly pest management inspection during construction, dead wood pruning and a special Texas Madrone protection and improvement plan. The 10-inch Texas Madrone tree located on-site extremely rare in the native Austin landscape and the plan is designed around protecting and even improving the tree during the construction process.

## 2) Aesthetic Enhancement

- There are specific operational, equipment, structural, space, and layout needs with the design of a membrane water treatment plant that dictate building height requirements. The District's Water Treatment Plant main Membrane and Lab building maximizes these design requirements, see attached Administration/Membrane Filter Building Height Cross Section exhibits. The building materials (painted concrete tilt walls) and roof design (sloped standing seam metal roof system with galvalume coated finish) that are being implemented have been carefully chosen to protect the water treatment equipment, chemicals and finished drinking water from contamination by the elements and public.

A natural and restored buffer surrounding the site improvements that accounts for over 41% of the net site area has been located in a manner to not only provide natural aesthetic enhancement to the site, but to also shield the Membrane and Lab Building from view. This is a unique project with unique requirements. In order to not only meet strict health and safety guidelines, but to also meet federally required security measures, only authorized personnel will be allowed to enter into the facility.

Additionally, a 100-foot natural buffer between the F.M. 620 Right-of-Way and the site boundary line has been left, providing additional natural screening for the Water Treatment Plant. Although not included in this projects site area, the 100-foot buffer will remain intact and be subject to the City's Hill Country Corridor rules.

Due to these measures to shield the site from the public, only a small view of the facility will be seen through the dense trees/vegetation looking from the east to the west along F.M. 620, see attached Street View Location exhibit. Any additional aesthetic enhancements, changes in building materials, etc. will not be able to be seen by the public and could potentially compromise the integrity of the water treatment equipment, chemicals and finished drinking water.

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3) Land Use Compatibility

- The District's permanent easement area is zoned P – Public. The zoning use is classified as a Major Utility Facility. This land use is compatible with site's zoning. Additionally, the surrounding property, owned and operated by LCRA, is zoned DR – Development Reserve.

4) Traffic Considerations

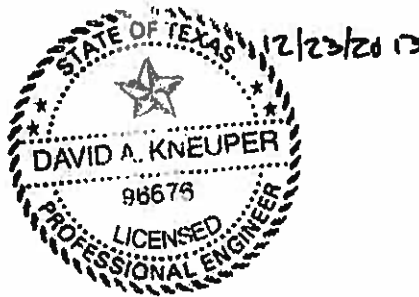
- Traffic to the site will be minimal by design. Only authorized personnel will be allowed to enter into the facility due to federally required security measures. The development will expand an existing driveway that is located off of F.M. 620. It is anticipated that an average of fewer than 20 combined trips per day will be made to and from the facility.

If you have any questions, or need additional information, please do not hesitate to contact me at (512) 442-3008, ext. 108.

Sincerely,



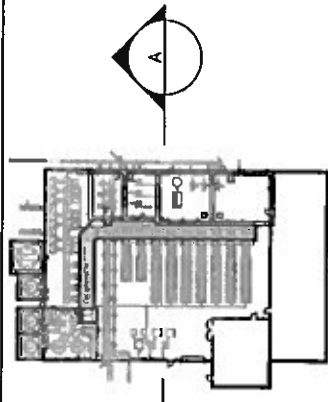
David Kneuper, P.E.



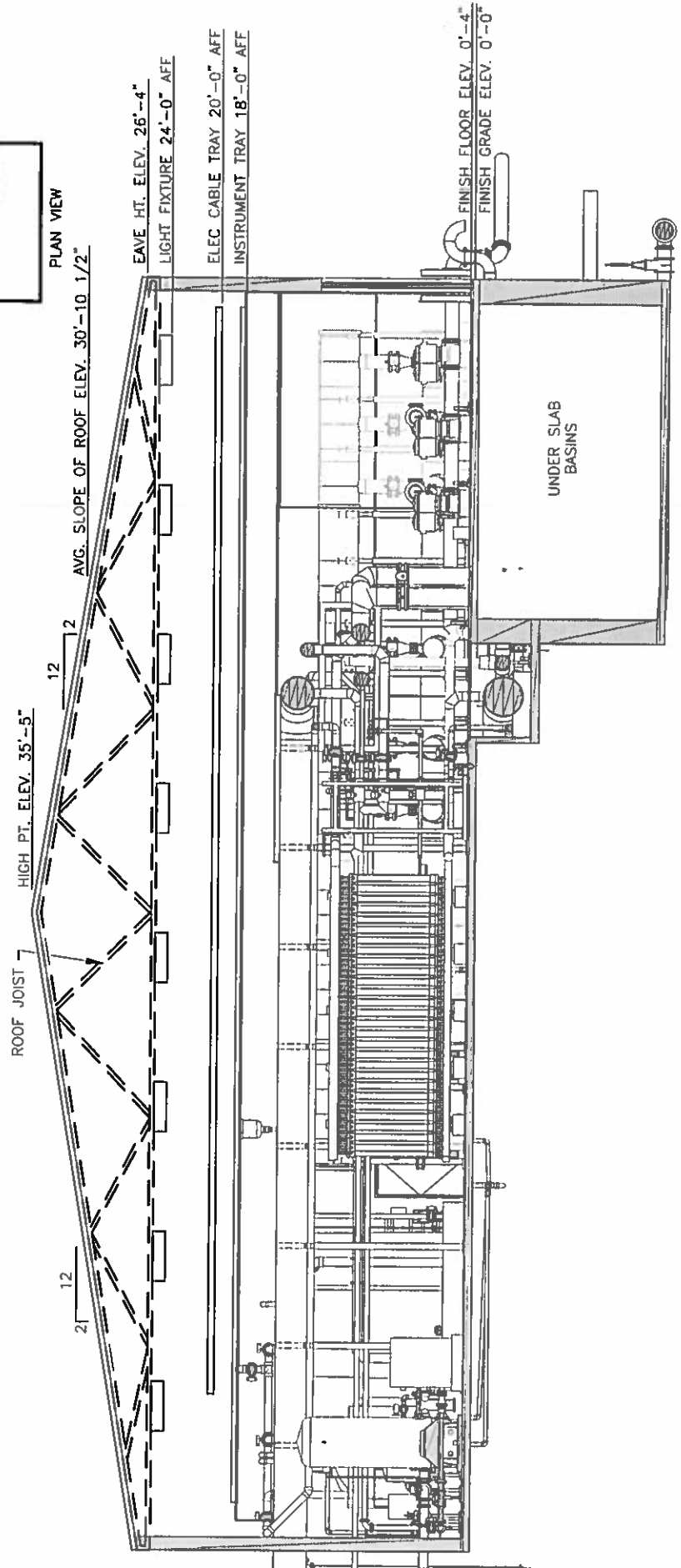
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PLAN VIEW



HIGH PT. ELEV. 35'-5"

AVG. SLOPE OF ROOF ELEV. 30'-10 1/2"

ROOF JOIST 12

12

EAVE HT. ELEV. 26'-4"

LIGHT FIXTURE 24'-0" AFF

ELEC CABLE TRAY 20'-0" AFF

INSTRUMENT TRAY 18'-0" AFF

FINISH FLOOR ELEV. 0'-4"

FINISH GRADE ELEV. 0'-0"

UNDER SLAB  
BASINS

ADMINISTRATION/MEMBRANE FILTER BUILDING  
HEIGHT CROSS SECTION A

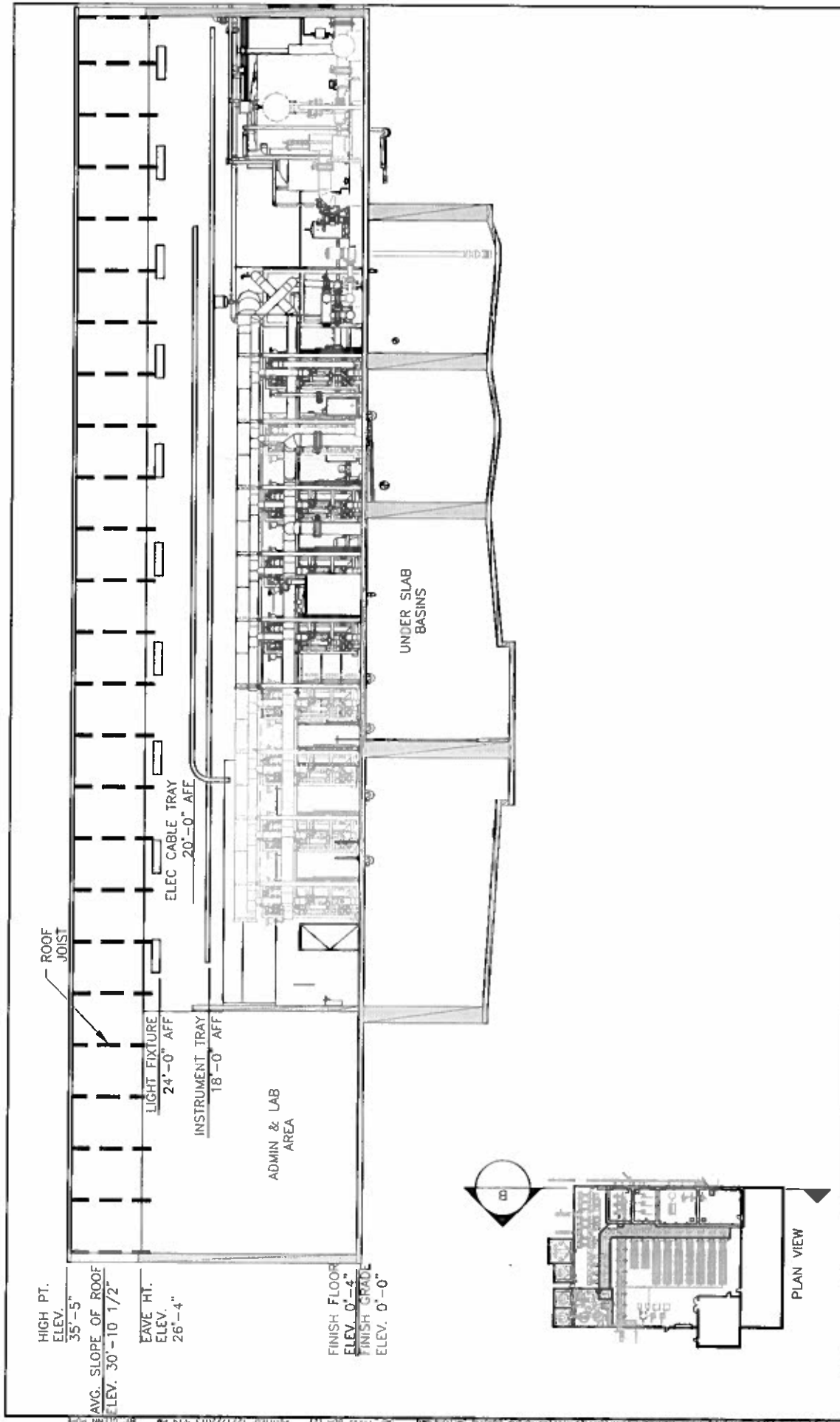
TRAVIS COUNTY WATER CONTROL &  
IMPROVEMENT DISTRICT NO. 17  
MANSFIELD WATER TREATMENT PLANT

ONE STATE STREET  
SUITE 100  
MANSFIELD, TX 76063  
TEL: (817) 442-8800  
FAX: (817) 442-8822

ONE P. COUNTY LITE BLDG. SUITE C  
MANSFIELD, TX 76063  
TEL: (817) 442-8800  
FAX: (817) 442-8800



Handwritten initials: SR/27



ADMINISTRATION/MEMBRANE FILTER BUILDING  
HEIGHT CROSS SECTION B

TRAVIS COUNTY WATER CONTROL & IMPROVEMENT DISTRICT NO. 17  
MANSFIELD WATER TREATMENT PLANT

3000 LAYTON ST. SUITE 407  
MANSFIELD, TX 75701  
714-261-1111  
WWW.RIVERCITYENGINEERING.COM  
714-261-1111



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2/6



December 5, 2013

CHAIRMAN OF THE LAND USE COMMISSION  
301 West 2<sup>nd</sup> Street  
Austin, Texas 78701

**RE: Travis County W.C & I.D. No. 17  
Mansfield Water Treatment Plant  
SPC-2012-0429C  
Request for Waiver to §25-2-1025(A) of *The Code of the City of Austin*  
Natural Area**

Dear Chairman:

Travis County W.C.&I.D. No. 17 (the District) is proposing to construct the Mansfield Water Treatment Plant Project. This project consists of expanding the District's water treatment capacity by constructing a 12-million gallon per day, at full build-out, membrane water treatment plant. This project consists of improvements that will allow the District to meet health and safety guidelines and serve its existing and future customers. The majority of this project is located within 1,000-feet of the Right-of-Way of F.M. 620, a Hill Country Roadway Corridor and proposes to provide less than the required natural state area. Travis County W.C.&I.D. No. 17 is requesting a waiver to §25-2-1025(A) of *The Code of the City of Austin*, Natural Area. **Failure to grant this waiver request will effectively preclude the District's ability to construct this much needed and critical public water supply project.**

The proposed improvements, which make up the Mansfield Water Treatment Plant Project for the District, include a Membrane and Lab Building, Chemical Feed Facility, High Service Pump Station, Raw Water Pump Station, Storage Building, and associated site improvements. Phase 1 of the project consists of the construction of the Raw Water Pump Station, Raw Water Intake Facility, and a portion of the Raw Water Line to the treatment plant site. Phase 2 will consist of the construction of the main Membrane and Lab Building, Chemical Feed Facility, Flocculation Basin, Clearwell, High Service Pump Station, Storage Building and additional associated site improvements. Future phases will complete construction of the project and will consist of the expansion of the Flocculation Basins and the construction of a second Clearwell. The phase 1 and 2 portions of the project will be constructed simultaneously and are proposed to deliver approximately 6-million gallons of treated water daily for the District's use. With the completion of future Phases 3 & 4, the plant will be able to produce an approximate maximum capacity of 12-million gallons of treated water daily. These proposed improvements are vital to enable the District to meet TCEQ requirements and serve its existing and future customers.

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The Mansfield Water Treatment Plant Project site is located at 4506 and 4506 B North F.M. 620 Road in Travis County, Texas, considered a low-intensity zone Hill Country Roadway. The project consists of six permanent easements obtained from the Lower Colorado River Authority (LCRA) totaling 6.849 acres of gross site area. Additional temporary construction easements were also obtained from LCRA. The project is located within the Lake Travis Watershed which is classified as a rural water supply watershed. A portion of the project is located within a FEMA defined floodplain as shown on the flood insurance rate map for Travis County, community map no. 48453C0220H, dated September 26, 2008. The project does not lie within the City of Austin Recharge Zone.

Travis County W.C.&I.D. No. 17 is requesting a waiver to §25-2-1025(A) of *The Code of the City of Austin*, which states that at least 40 percent of the site, excluding dedicated right-of-way, must be left in a natural state. Natural areas within parking medians and in an area in which clearing is prohibited by Section §25-2-1023 (Roadway Vegetative Buffer) count toward this requirement. This project proposes to leave only 21% of the site in a natural state. However, 41% of the site will be left in either a natural state or restored to its natural state following construction of the proposed improvements.

The design and operational requirements of a water treatment plant present unique site challenges. The District selected this site for the proposed Water Treatment Plant for several reasons. Site selection was difficult because of the lack of available and developable land in the Lake Travis / Lake Austin area. The site needed to be located within the District's service area, on the east side of Mansfield Dam and in close proximity to existing District major utility system facilities. Finally, the site location needed to be within close proximity to Lake Travis, the Water Treatment Plant's source of raw water. This is the only site that satisfied all these requirements. Due to the finiteness of available land that meets the District's requirements for the proposed Water Treatment Plant, it is vital that this site be used. Additionally, alternative locations and designs of these improvements on the site will not alleviate the need for this waiver.

The proposed improvements required for the design and implementation of the Water Treatment Plant were carefully placed and footprints reduced not only in order to lower the amount of proposed impervious cover but to also reduce the number of existing trees needing to be removed and minimizing site area disturbance. The site has a net site area of 5.98 acres (260,576 sq. ft.). Based on section §25-2-1025(A) of *The Code of the City of Austin*, 40% or 2.39 acres (104,230 sq. ft.) is required to be retained in its natural state. The site plan proposes to retain 21% or 1.27 acres (55,169 sq. ft.) of the site. However, an additional 1.19 acres (51,746 sq. ft.) of the site will be restored to its natural state.

Listed below are the Waiver Requirements, as listed in *The Code of the City of Austin*, and an explanation of each applicable requirement:

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A. The applicant must demonstrate that the provision imposes an undue hardship because of location, topography, or peculiar configuration of the tract.

- Strict application of §25-2-1025 of *The Code of the City of Austin* would impose an undue hardship because of location and a peculiar configuration of the tract. This site is the only site Travis County W.C.&I.D. No. 17 was able to locate and acquire that met the special site design requirements including proximity to existing District utility system facilities and be located on the east side of Mansfield Dam, as well as being within close proximity to Lake Travis, the Water Treatment Plant's source of raw water.

The Water Treatment Plant specific site easement consists of a rectangular 4-acre permanent easement located 100-feet from the Right-of-Way (ROW) of F.M. 620. LCRA owns the property and, after lengthy negotiations, provided the District the permanent easements for the project. LCRA was not only very specific on the easement configuration and location, but also unwilling to provide any additional permanent site easement area.

The District's original Water Treatment Plant (SP-05-1269D) that serves the western half of the District, located at 3812 Eck Lane, was granted a variance in 2005 that removed the required 40% downstream buffer. Furthermore, the project was granted three additional variances that allowed for an increase in impervious cover to 56%, allowed for parking on a slope with more than 15% gradient and building a structure on a slope with more than 35%.

**This waiver is needed in order to allow the District to proceed with this critical public water supply project to ensure a reliable municipal potable water supply during the area's continuing drought. Additionally, this Water Treatment Plant is needed to provide cooling water to the City of Austin's new Water Treatment Plant No. 4 and needs to be online prior to the completion of the City's plant.**

C. If the waiver is approved, the development will equal or exceed a development that is in compliance with this article in terms of:

1) Environmental Protection:

- The proposed development includes the capture and treatment of a high percentage of the site's proposed impervious cover storm water run-off within the Water Treatment Plant. By using the Plant's Membrane technology, 100% of the pollutant load from captured impervious cover storm water run-off will be removed, not only exceeding City requirements, but also returning site area that would normally be used for a water quality facility into undisturbed natural buffer area.

Also, as mentioned above, the main Membrane and Lab Building is located in a way that is not only needed for the efficient design and operation of the

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Water Treatment Plant, but to also avoid the removal of existing trees and minimizing project area disturbance. One example includes basins normally located outside of the footprint of the main Membrane building being incorporated into the building design and placed beneath the building to reduce impervious cover and increase the area that can remain in a natural state. A second example is the membrane technology utilized, which requires a smaller footprint than conventional treatment methods. Finally, the impervious pavement width of the raw water pump station access drive was minimized by the use of pervious reinforced geotextile matting.

Along with the construction of the proposed site improvements, an off-site force main (GP-2013-0052.D17) will be constructed to serve the plant. The proposed force main will be located within the adjacent Travis Vista Subdivision, providing sewer service to the area and removing the last direct discharge into Lake Travis.

## 2) Aesthetic Enhancement

- Although this project proposes to leave only 21% of the site in a natural state, 41% of the project site will be left in either a natural state or restored to its natural state following construction of the proposed improvements. Additionally, a 100-foot natural buffer between the F.M. 620 Right-of-Way and the site boundary line has been left. Although not included in this projects site area, the 100-foot buffer will remain intact and be subject to the City's Hill Country Corridor rules.

As mentioned above, the project's water quality volume is proposed to be treated by the use of the Plant's Membrane technology and the use of natural vegetative filter strips. By using these types of innovative controls to treat the pollutant load from captured impervious cover storm water run-off, more area of the site will remain in a natural state than would have been possible if traditional water quality facilities were used.

Additionally, the District has contracted with Bartlett Tree Experts to provide a tree protection plan and services for the site. The services include root invigoration, fertilization, monthly pest management inspection during construction, dead wood pruning and a special Texas Madrone protection and improvement plan. The 10-inch Texas Madrone tree located on-site extremely rare in the native Austin landscape and the plan is designed around protecting and even improving the tree during the construction process.

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3) Land Use Compatibility

- The District's permanent easement area is zoned P – Public. The zoning use is classified as a Major Utility Facility. This land use is compatible with site's zoning. Additionally, the surrounding property, owned and operated by LCRA, is zoned DR – Development Reserve.

4) Traffic Considerations

- Traffic to the site will be minimal by design. Only authorized personnel will be allowed to enter into the facility due to federally required security measures. The development will expand an existing driveway that is located off of F.M. 620. It is anticipated that an average of fewer than 20 combined trips per day will be made to and from the facility.

If you have any questions, or need additional information, please do not hesitate to contact me at (512) 442-3008, ext. 108.

Sincerely,



David Kneuper, P.E.

