ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING DATE REQUESTED:	MARCH 2, 2011
NAME & NUMBER OF PROJECT:	AVERY STATION PRELIMINARY PLAN C8-07-0043.01
NAME OF APPLICANT OR ORGANIZATION:	Bury & Partners, Inc. (David Miller 328-0011)
LOCATION:	N Lakeline Blvd
PROJECT FILING DATE:	January 13, 2010
WPDR/ENVIRONMENTAL STAFF:	Mike McDougal, 974-6380 mike.mcdougal@ci.austin.tx.us
WPDR/ CASE MANAGER:	David Wahlgren, 974-6455 david.wahlgren@ci.austin.tx.us
WATERSHED:	South Brushy Creek (Suburban) Desired Development Zone
ORDINANCE:	Comprehensive Watershed Ordinance applicable on the original filing date of February 5, 2007 and the Leander Rehabilitation Planned Unit Development
REQUEST:	Variance request is as follows: To allow cut in excess of 4 feet but not to exceed 12 feet (LDC Section 25-8-341)

STAFF RECOMMENDATION: Recommended for consent.

REASONS FOR RECOMMENDATION:	Findings of fact have been met.

MEMORANDUM

TO: Dave Sullivan, Chairperson
Members of the Planning Commission

FROM: Mike McDougal, Environmental Review Specialist Sr.
Planning and Development Review Department

DATE: March 2, 2011

SUBJECT: Avery Station Subdivision Preliminary Plan – C8-07-0043.01

Variance Request: Variance from LDC 25-8-341 – To allow cut in excess of 4 feet but not to exceed 12 feet within a Suburban Watershed

Project Area Description

The applicant is currently seeking City of Austin approval of a preliminary plan for Avery Station Subdivision. The proposed development requires the construction of two open cut drainage channels: one north channel with a proposed length of approximately 1900 feet and one south channel with a proposed length of approximately 1300 feet. The attached cut exhibit shows the location of the two proposed channels, which drain from west to east and terminate at the proposed regional wet pond.

The proposed channel design includes cut up to 12 feet in each channel. This is requested for many reasons, specifically:

- Cut up to 12 feet is required in each channel to achieve the minimum slope required per the City of Austin Drainage Criteria Manual.
- Cut up to 12 feet provides capacity for the 100 year storm event.
- Existing topography varies from approximately 940 feet MSL in the western portion of the property to approximately 890 feet MSL in the eastern portion of the property. The two proposed channels and one proposed regional wet pond are designed to work with existing topographical constraints. Both channels generally drain surface water from west to east to the proposed regional wet pond.

- The alternative to 12 feet of cut for the construction of open channels would be the installation of box culverts. According to City of Austin Environmental Resource Management staff, the proposed open cut drainage channels are considerably superior to box culverts. Open cut channels maintain natural and traditional character, provide a potential for water quality improvement, and offer wildlife benefits. Box culverts would completely enclose the channels, completely shade the channels, and would provide none of the aforementioned open cut channel benefits.

- Channel revegetation consisting of 604S.6 native seeding is required along channel slopes.

This preliminary plan consists of approximately 177 acres to be developed into 838 lots consisting of single family, multifamily, and commercial use. Slopes within the preliminary plan area are limited to 15% or less. The property has dense tree canopy coverage. Live oaks (*Quercus fusiformis*) and Ashe Juniper (*Juniperus ashei*) are the dominant woody vegetation. Post Oak (*Quercus stellata*) and Cedar Elms (*Ulmus crassifolia*) are present, but less abundant.

The project is located within the South Brushy Creek Watershed, which is classified as a Suburban Watershed. It is located over the Edwards Aquifer Recharge Zone. The site is located within the City of Austin full purpose jurisdiction.

Water/Wastewater
Water and wastewater service will be provided by Austin Water Utility.

Waterways
Two unnamed tributaries of South Brushy Creek are located within the Avery Station preliminary plan.

Critical Environmental Features
Four categories of geologic critical environmental features (CEFs) have been identified on the preliminary plan: (1) solution cavities; (2) a collapse sinkhole; (3) a cave; and (4) solution enlarged fractures. Geologic critical environmental feature buffers have been provided in accordance with Environmental Resource Management staff review and taking into consideration a previously approved preliminary plan. Four CEF buffers have been established to protect CEFs. No construction is permitted within these buffers and each buffer will have a perimeter fence.

Wetlands were identified within Avery Station. Additional wetland species planting is proposed within the regional wet pond to provide wetland mitigation.

Ordinance
The Avery Station Preliminary Plan has been reviewed for compliance with the Leander Rehabilitation Planned Unit Development. For environmental review items not

specifically addressed by the Leander Rehabilitation Planned Unit Development, the City of Austin Land Development Code in effect on the original application filing date of February 5th, 2007 is applicable[1]. The Leander Rehabilitation Planned Unit Development does not address maximum allowable cut, therefore channel cut is limited to 4 feet per Land Development Code 25-8-341.

Variance Requests

The variance being requested with this site plan is as follows:

1. To allow cut in excess of 4 feet but not to exceed 12 feet (LDC Section 25-8-341).

Recommendations

This variance is recommended for consent; the findings of fact have been met. Staff recommends approval of this variance with the following conditions:

1. No concrete pilot channels will be constructed within the proposed drainage channels.
2. 609S.5 seeding is required within the channel bottom.
3. Channel slopes will be constructed with natural materials. Concrete walls will not be permitted except as necessary to preserve existing specimen trees along the channel.
4. As part of the preliminary plan submittal, the applicant will provide channel drainage calculations that demonstrate a sufficiently high roughness coefficient (Manning's n value) that will support the growth of dense herbaceous material and woody plants.

If you need further details, please feel free to contact me at 974-3410.

Mike McDougal, Environmental Review Specialist Sr.
Planning and Development Review Department

Environmental Program Coordinator: Ingrid McDonald

Environmental Officer: Jean Drew for Patrick Murphy

[1] The original application filing date is February 5th, 2007 per the City of Austin Project Application H.B. 1704/Chapter 245 Determination.

Similar Cases

The following project had similar construction issues and received recommendations from the Environmental Board that were subsequently approved by the Zoning and Platting Commission:

Ben White/IH 35 Bioretention/Extended Detention Pond (SP-2008-0227D)

The Environmental Board recommended approval of the project on October 15th, 2008 by a vote of 7-0-0-0.

Staff Conditions:

1. Revegetate all disturbed areas within the CWQZ with City of Austin Specifications 609S for seeding and planting or other alternative as approved by Environmental Resource Management.
2. Provide only native/drought tolerant plants from the City of Austin GrowGreen guide for all mitigation trees (excluding area within Texas Department of Transportation right-of-way).

Additional Board Conditions:

None.

Watershed Protection and Development Review Department
Staff Recommendations Concerning Required Findings
Water Quality Variances

Application Name:	**Avery Station Preliminary Plan**
Application Case No:	**C8-07-0043.01**
Code Reference:	**Land Development Code Section 25-8-341**
Variance Request:	**To allow cut up to 12 feet**

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.
   Yes. The variance is necessary to achieve surface water drainage to the regional wet pond while preserving natural and traditional character.

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;

   Yes. The surface water drainage to the regional wet pond can be achieved with open cut channels or with box culverts. Twelve feet of cut is necessary to construct the open cut channels. Open cut channels preserve natural and traditional character and provide greater overall environmental protection than is achievable with box culverts.

   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;

   Yes. Regional wet ponds are frequently constructed on developments over 20 acres in size. The proposed cut up to 12 feet is the minimum necessary to achieve the required channel slope to provide surface water drainage to the regional wet pond and to provide capacity for the 100 year storm event.

   c) Does not create a significant probability of harmful environmental consequences; and

Yes. This variance does not create a significant probability of harmful environmental consequences.

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

Yes. Erosion/sedimentation controls will be installed to maintain water quality during the cut activities. The channels will be revegetated and stabilized.

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;

Not applicable.

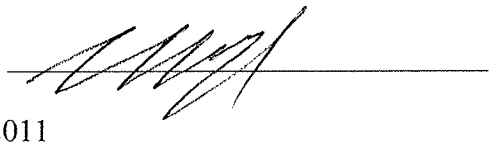
2. The requirement for which a variance is requested prevents a reasonable, economic use of the entire property; and

Not applicable.

3. The variance is the minimum change necessary to allow a reasonable, economic use of the entire property.

Not applicable.

Reviewer Name: Mike McDougal

Reviewer Signature: 

Date: February 10, 2011

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

Bury+Partners
ENGINEERING SOLUTIONS

February 3, 2011

Mr. Michael McDougal
City of Austin
Planning and Development Review Department
505 Barton Springs Road, 4th Floor
Austin, Texas 78704

RE: Non-Administrative Cut/Fill Variance Request
Avery Station Preliminary Plan
Austin, Williamson County, Texas
C8-07-0043.01

Dear Mr. McDougal:

Please accept this letter, attached exhibit and finding of facts as our formal request for a non-administrative variance to Section 25-8-341 of the City of Austin Land Development Code, for cut over four feet (4'). We are proposing to cut over four feet (4') within Block 12, Lot 4; Block 1, Lot 3; Block 2, Lot 19; and Block 11, Lot 2. All of these lots contain drainage channels that convey stormwater to the regional wet pond serving the Avery Station Subdivision.

We are proposing to cut up to four to twelve feet (4'-12') in the channel areas as delineated on the attached exhibit. The depth of the channels is controlled by several factors which prevent a shallower channel section.

1. The site is conveying off-site drainage areas of 25 and 57 acres which require 48"-54" RCP for ultimate conveyance. The upstream depth of the channels starts at an elevation of seven to eight foot (7'-8').
2. The channel was the minimum slope requirement listed in DCM 6.4.1C. If a flatter slope was available, the channel depth could be reduced only downstream, near the pond.
3. The 100-year Hydraulic Grade Line is the third reason for the depth of the channels. A decrease in depth would result in the 100-year HGL being unable to be contained within the Right-of-Way.

We appreciate your review and comment of this variance request. Should you have any questions or concerns, please do not hesitate to contact us.

Sincerely,

David Miller, P.E.
Senior Project Manager

I:\1713\05\Admin\Letters\2011\February\020311 McDougal.doc\drt

BURY+PARTNERS, INC.
221 West Sixth Street, Suite 600
Austin, Texas 78701

TEL (512) 328-0011
FAX (512) 328-0325

www.burypartners.com
TBPE No. F-1048

Watershed Variances - Findings of Fact

As required in LDC Section 25-8-41, in order to grant a variance the Planning Commission must make the following findings of fact:

Project: **Avery Station Preliminary Plan, C8-07-0043.01**

Ordinance Standard: **LDC 25-8-341, Cut Requirements**

JUSTIFICATION:

1. Are there special circumstances applicable to the property involved where strict application deprives such property owner of privileges or safety enjoyed by other similarly situated property with similarly timed development?

   Yes. The large area of offsite drainage that is being conveyed across the property through the channels requires 48"-54" pipe at the upstream end of the channels. This results in an inordinately deep depth at the beginning of the channels of approximately 7 feet. This depth then gradually increases as it approaches Staked Plains Drive to a depth of approximately 10' which is needed to control the 100-year HGL of the drainage system connecting to the box culvert under Staked Plains Drive.

   The subdivision to the north, Avery Ranch Far West, Phase 3, Section 2 (C8-2009-0026.1B) has a similar conveyance system on the south side running west to east. While a Watershed Variance was not required, the channel depth did exceed the 4 foot maximum in 25-8-341.

2. Does the project demonstrate minimum departures from the terms of the ordinance necessary to avoid such deprivation of privileges enjoyed by such other property and to facilitate a reasonable use, and which will not create significant probabilities of harmful environmental consequences?

   Yes. Along the entire length of the channel two mitigation efforts are being included in the design for preservation and also environmental enhancement. Over 2,000 LF of varying height retaining walls are proposed to be constructed to preserve existing specimen trees along the channel. The channel will also be enhanced with a modified 609S.5 seeding within in the channel.

3. The proposal does not provide special privileges not enjoyed by other similarly situated properties with similarly timed development, and is not based on a special or unique condition which was created as a result of the method by which a person voluntarily subdivided land.

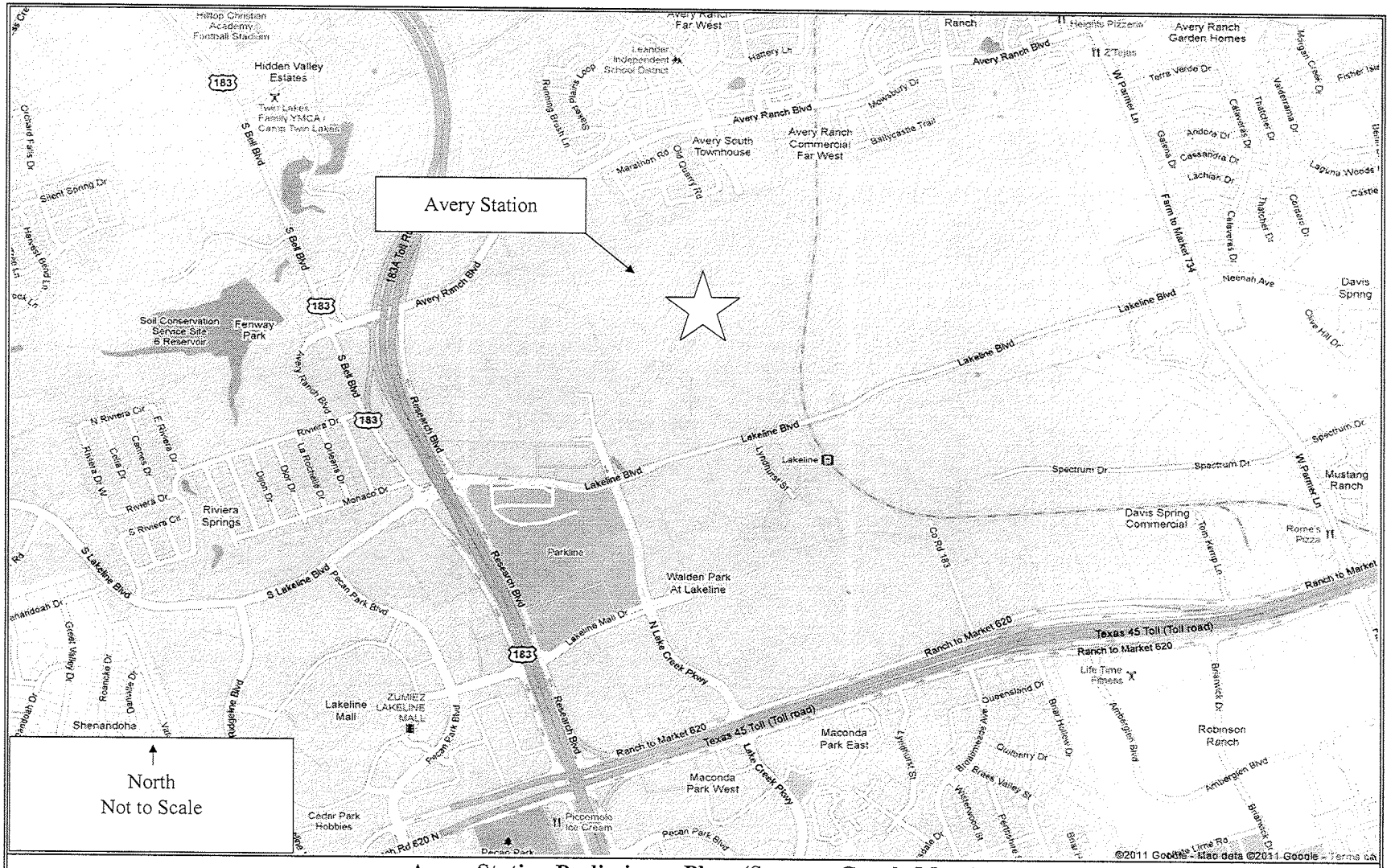
   Yes. The channels follow the natural drainage paths and we believe this is a better use of land than the previously approved preliminary plan. The previous plan proposed underground conduit to convey all of the stormwater to the pond.

4. Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance?

Yes. A regional wet pond will be constructed with this subdivision regardless of the method of conveyance. The previously approved preliminary plan for the property called for 100% underground conveyance to an identical method water quality treatment.

5. For a variance from the requirements for development within the Critical Water Quality Zone and/or Water Quality Transition Zone: Does the application of restrictions leave the property owner without any reasonable, economic use of the entire property?

N/A. This project is not located within the Critical Water Quality Zone or the Water Quality Transition Zone.

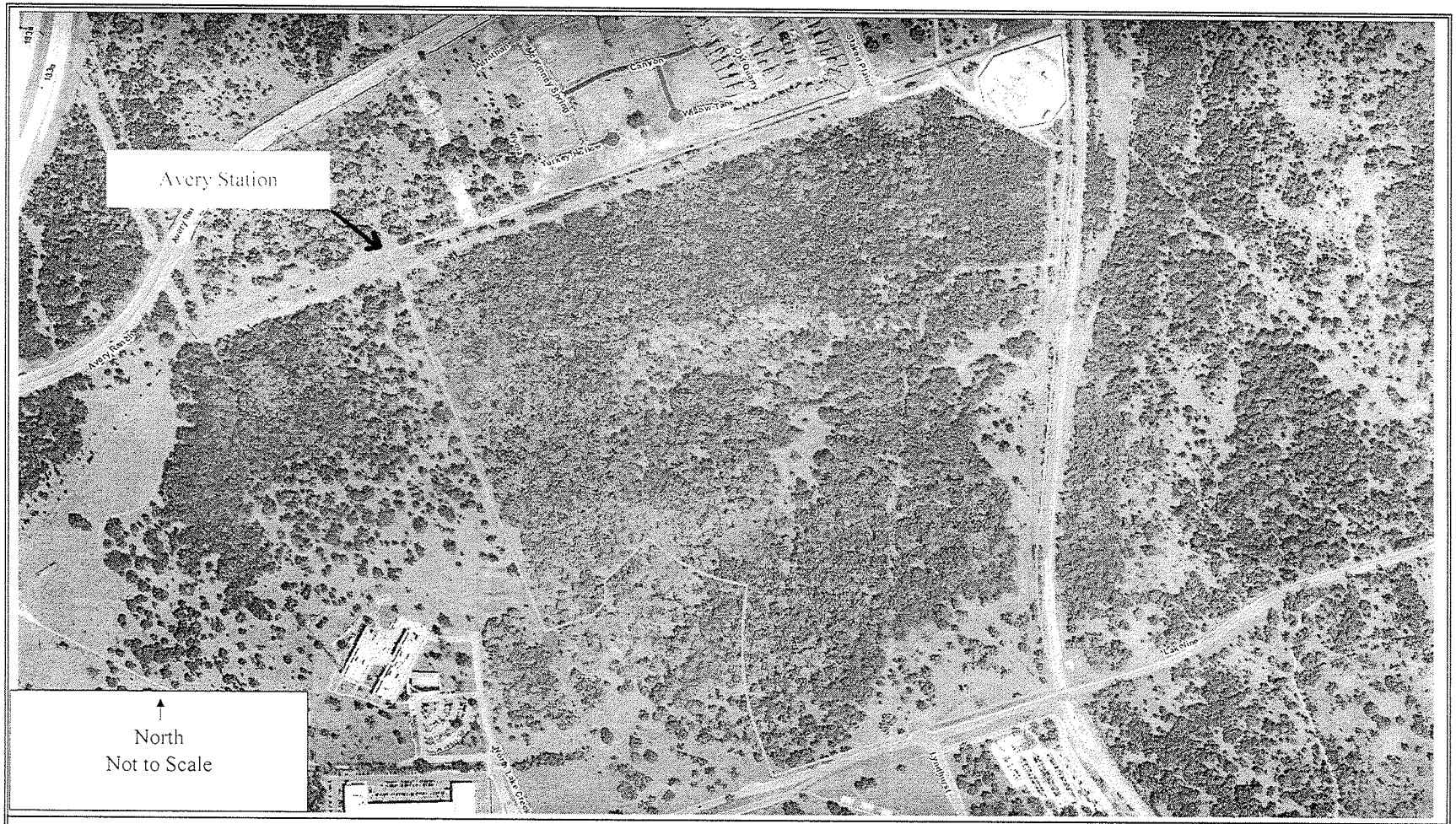


Avery Station Preliminary Plan (Source: Google Maps)
C8-07-0043.01

Avery Station Preliminary Plan
C8-07-0043.01
Driving Directions

Beginning on Mopac northbound at 15th St

- **Drive north on Mopac approximately 6.3 miles**
- **Exit on to US Highway 183 and drive for approximately 8.1 miles**
- **Take the Lakeline Mall Dr exit onto the frontage road and drive approximately 0.9 miles**
- **Turn right on Lakeline Blvd and drive approximately 0.8 miles**
- **The proposed Avery Station Subdivision will be on the left**



Avery Station Preliminary Plan Aerial Photograph (Source: COA GIS)
C8-07-0043.01

WATERSHED PROTECTION

Education

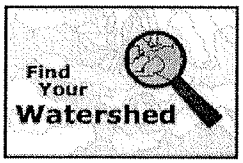
Flood | Erosion | Master Plan | Water Quality

- Hot Topics
- Features
- FAQs
- Watersheds
- Aquifer
- Green Neighbor
- Gardening
- School Programs
- Scoop the Poop
- Pollution Hotline
- How to Help
- Events
- Educational Materials
- Speakers Bureau
- About Us
- Education Home
- Watershed Home

Watershed Information

Austin is one of the few cities in the country that studies each of its creeks, giving us a good comparison of urban versus undeveloped streams with detailed information about flooding, erosion and water quality.

The City of Austin has developed a Watershed Viewer using GIS (Geographical Information System) mapping technology to allow you to find your watershed and learn about the health of your creek.



- See a map or aerial view of your watershed, (If you don't live in Austin, you can view the State Capitol under Find Your Watershed.)
- Find out whether or not you live in the recharge zone of the Edwards Aquifer. (*Recharge Zone: where water enters the Edwards Aquifer directly through sinkholes, caves and fractures.)
- Learn more about your creek's water quality issues

You can also learn more about the Austin's Creek watersheds.

Learn More About Austin Watersheds		
Barton	Fort Branch	Rinard
Bear	Gilleland	Shoal
Bee	Harpers Branch	Slaughter
Blunn	Harris Branch	South Boggy
Boggy	Hucks Slough	South Fork Dry
Bull	Johnson	Tannehill
Buttermilk	Lake	Taylor Slough North
Carson	Lake Austin	Taylor Slough South
Cottonmouth	Little Barton	Town Lake
Country Club	Little Bear	Waller
Decker	Little Bee	Walnut
Dry	Little Walnut	West Bouldin
Dry North	Marble	West Bull
Eanes	North Fork Dry	Williamson
East Bouldin	Onion	
Elm	Rattan	

PLEASE NOTE: This section of the variance packet normally includes a print out from the City of Austin website showing information about the watershed in which the variance is being requested. The requested variance is located in the South Brush Creek Watershed. As indicated above, information for the South Brushy Creek Watershed is unavailable.

http://www.ci.austin.tx.us/watershed/learn_ws.htm