Agenda item 6b

ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING DATE REQUESTED:	AUGUST 21, 2013
NAME & NUMBER OF PROJECT:	STONERIDGE SP-2013-0096D
NAME OF APPLICANT OR ORGANIZATION:	LOC Consultants, LLP (Contact: Sergio Lozano 512-499-0908)
LOCATION:	8907 FM 2244 Road
PROJECT FILING DATE:	March 18, 2013
WPDR/ENVIRONMENTAL STAFF:	Jim Dymkowski, 974-2707 james.dymkowski@austintexas.gov
WPDR/ CASE MANAGER:	Brad Jackson, 974-3410 brad.jackson@austintexas.gov
WATERSHED:	Barton Creek Watershed (Barton Springs Zone) Drinking Water Protection Zone
ORDINANCE:	Comprehensive Watershed Ordinance (Current Code)
REQUEST:	Variance request is as follows: 1. To omit the roadway deduction from the calculation of allowable impervious cover for this site plan. LDC Section 25-8-65

STAFF RECOMMENDATION: Approved with conditions.

REASONS FOR RECOMMENDATION: Findings of fact have been met.

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: August 21, 2013

SUBJECT: Stoneridge - SP-2013-0096D

On the August 21, 2013 agenda is a request for the consideration of one variance from LDC 25-8-65- to omit the roadway deduction in the calculation of allowable impervious cover for the Stoneridge commercial/office development.

Description of Property
The subject property is located in the Barton Creek Watershed, which is classified as the Barton Springs Zone (Contributing), within the Drinking Water Protection Zone. It is within the City of Austin 2 mile ETJ. The eastern portion of the property contains an unclassified tributary of Barton Creek, with less than 64 acres of drainage area to the tributary and therefore does not contain a Critical Water Quality Zone (CWQZ) or Water Quality Transition Zone (WQTZ). The closest classified waterway to the site is a minor tributary of Barton Creek approximately 560 feet to the south. The shape of the property has changed from rectangular to triangular as a portion of the northern property was acquired by TXDOT to complete the curve softening of FM 2244 Bee Cave Road. This work left the property with a much longer ROW frontage as compared to the depth from the roadway and removed a much of the buildable 0-10% slope areas formerly on-site.

Existing Topography/Soil Characteristics/Vegetation
The property contains slopes greater than 15% that grade toward the unclassified tributary on-site. Vegetation generally consists of Live oak and Ashe juniper. According to the Environmental Assessment, geology at this site is characterized by the Glen Rose formation and soils consist of Brackett soils and Rock outcrop.

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.

Description of Project
There is existing office retail development on the property. Although within the City's jurisdiction at the time, the development was not permitted through the City of Austin and is currently in violation. It

currently exceeds the allowable impervious cover of 20% of the net site area within the Barton Creek Watershed of 16,252 square feet. This project consists of permitting the illegally built existing development as well as new commercial office construction, including drives and parking. It complies fully with SOS water quality standards. The proposed impervious cover for the development is 15,059 square feet or 18.58% of the net site area. This will only be possible if the variance is granted. If the variance is not granted the roadway deduction limits any development to 714 square feet only .009% of the net site area.

Environmental Code Variance Request

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

1. To omit the roadway deduction from the calculation of allowable impervious cover. LDC 25-8-65.

Conditions for Staff Approval

1) Install rainwater collection system and additional native landscape per the City of Austin 609s revegetation criteria as shown on Sheet 19 of the proposed site plan.

Recommendation

Staff recommends approval of the variance with conditions as the Findings of Fact have been met (see attached)

Similar Cases

1. Affordable Climate Control Storage – SP-2011-0261D. Was a site plan to construct commercial buildings, parking, and drives, on a similarly shaped triangular lot. The roadway deduction would have removed the majority of the site allowable impervious cover. The case was recommended by the Environmental board June 19, 2012.

2. Ridgewood Addition – C8-2009-0048.0A. Was a single family subdivision of one lot into two lots. The roadway deduction reduced the allowable impervious cover to the point neither lot could have had a house constructed on it. The case was recommended by the Environmental Board November 19, 2009.

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

Project:	**Stoneridge - SP-2013-0096D**
Ordinance Standard:	**Land Development Code Section 25-8-65**
Variance Request:	**To omit the roadway deduction in the calculation of allowable impervious cover for this commercial/office development.**

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.

   Yes. Strict adherence to the code would deprive the applicant of the privilege to develop the property in a manner similar to other commercial properties. The topography and unique shape of the property with its long ROW frontage creates a total roadway deduction that if taken from the allowable impervious cover 16,252 square feet leaves only 714 square feet for commercial use.

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 variance is not based on the method chosen by the applicant to develop the property. The re-configuration of this property from a rectangular to a triangular shape by TXDOT for the Bee Caves road alignment softening removed not only a large portion of the property's buildable 0-10% slopes, but also left it with a disproportional frontage length to the overall property size.

   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. This is the minimum change necessary to allow for reasonable use of and safe access to the site. The applicant and owner have worked with staff to propose this

design that included the removal of one of the buildings originally proposed to reduce the overall impervious cover below the 20% watershed limit to 18.58%

c) Does not create a significant probability of harmful environmental consequences; and
Yes. They are proposing to comply fully with SOS water quality standards. Although the site has slopes greater than 15%, these slopes will only be minimally impacted with water lines associated with water quality and storm water detention.

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. They are proposing to comply fully with SOS water quality standards.

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: July 26, 2013

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

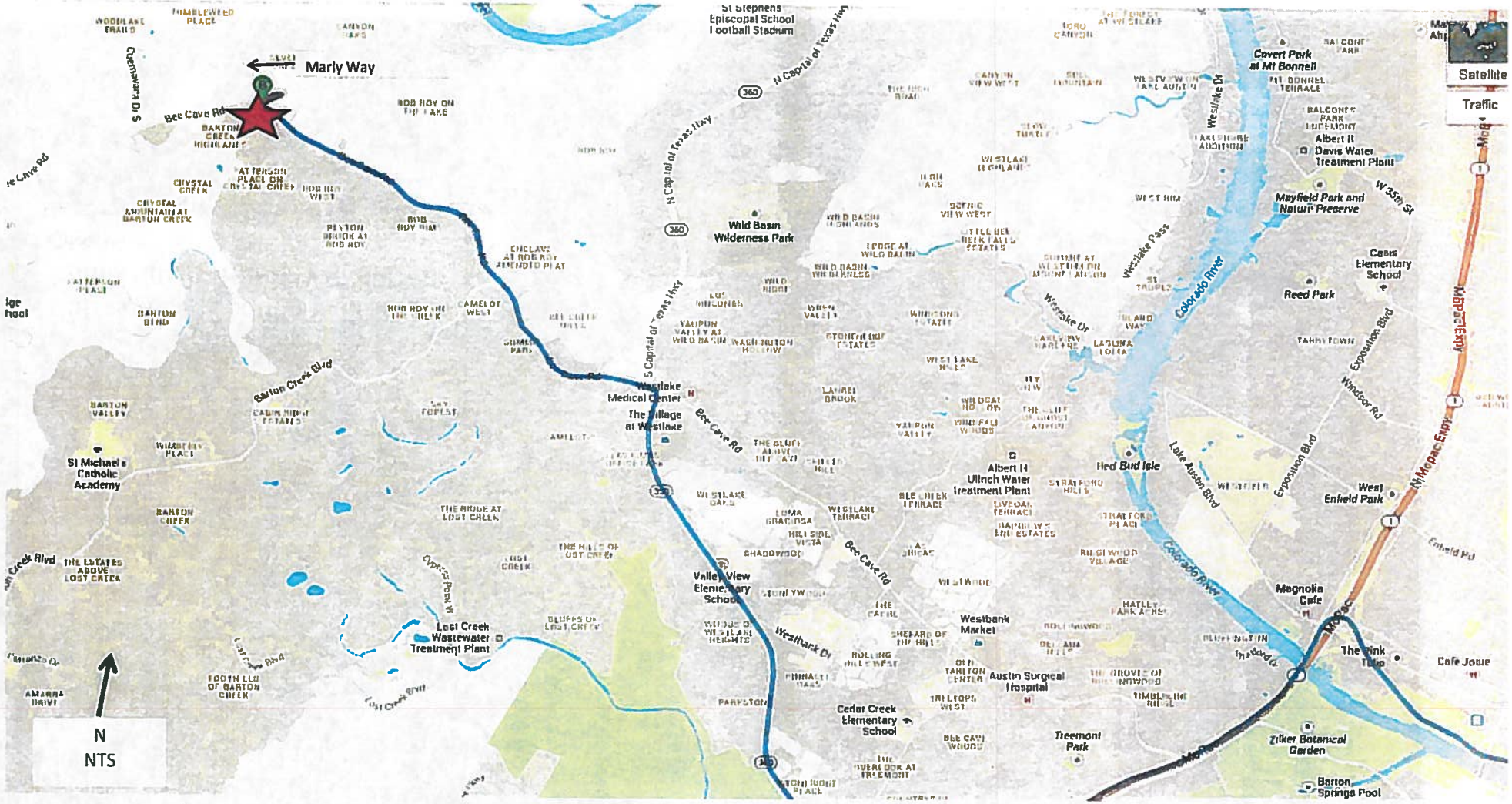
Stoneridge
SP-2013-0096D
Driving Directions

Beginning at Austin City Hall 301 W 2nd Street:

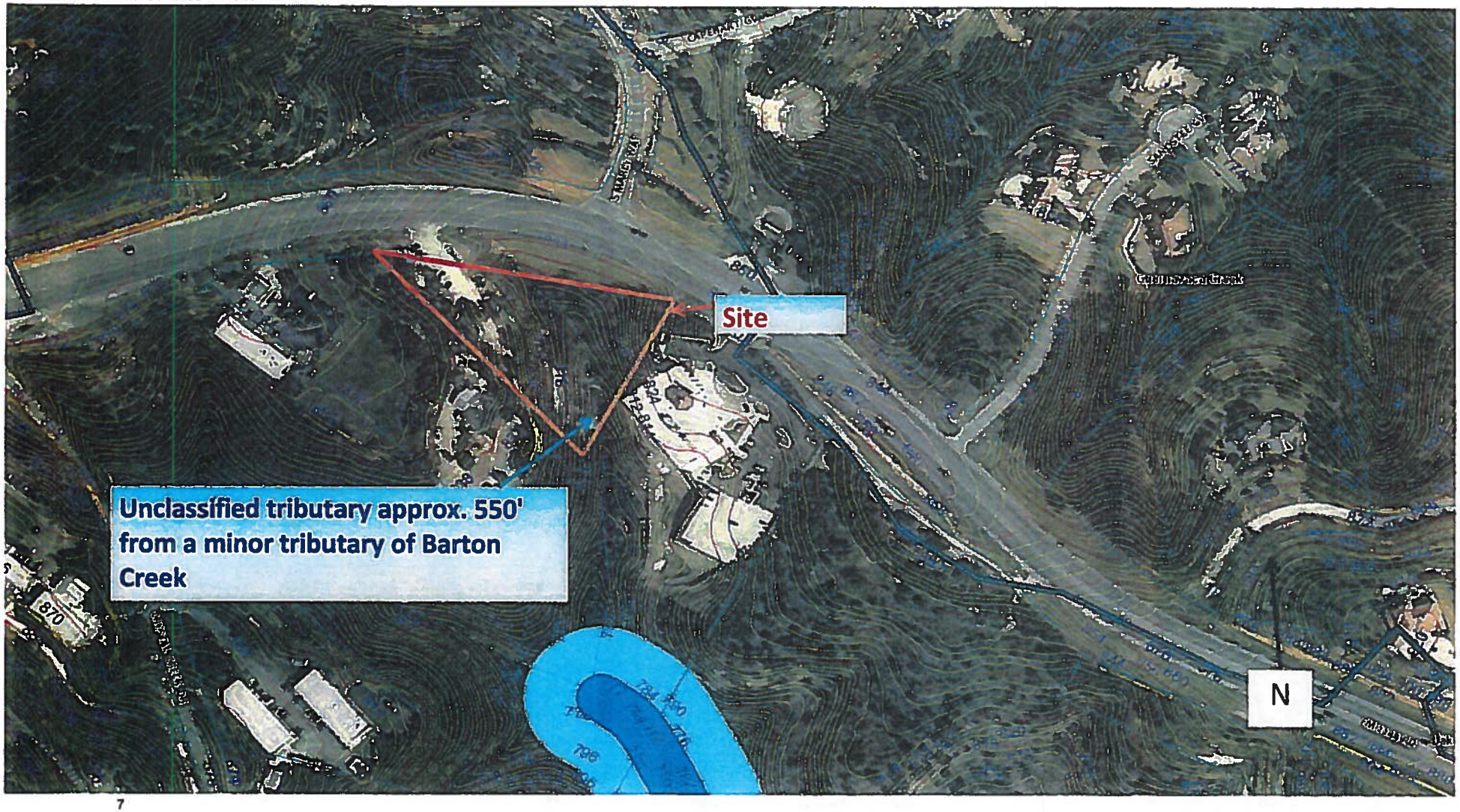
Go west on Cesar Chavez approximately 1.2 miles.
Go south on Mopac Loop 1 approximately 2.8 miles to exit for FM 2244/Bee Caves Road.
Turn right and go east on 2244 approximately 3.3 miles.

8907 Bee Caves Rd will be near the intersection of FM 2244 and Marly Way on the left side of the road

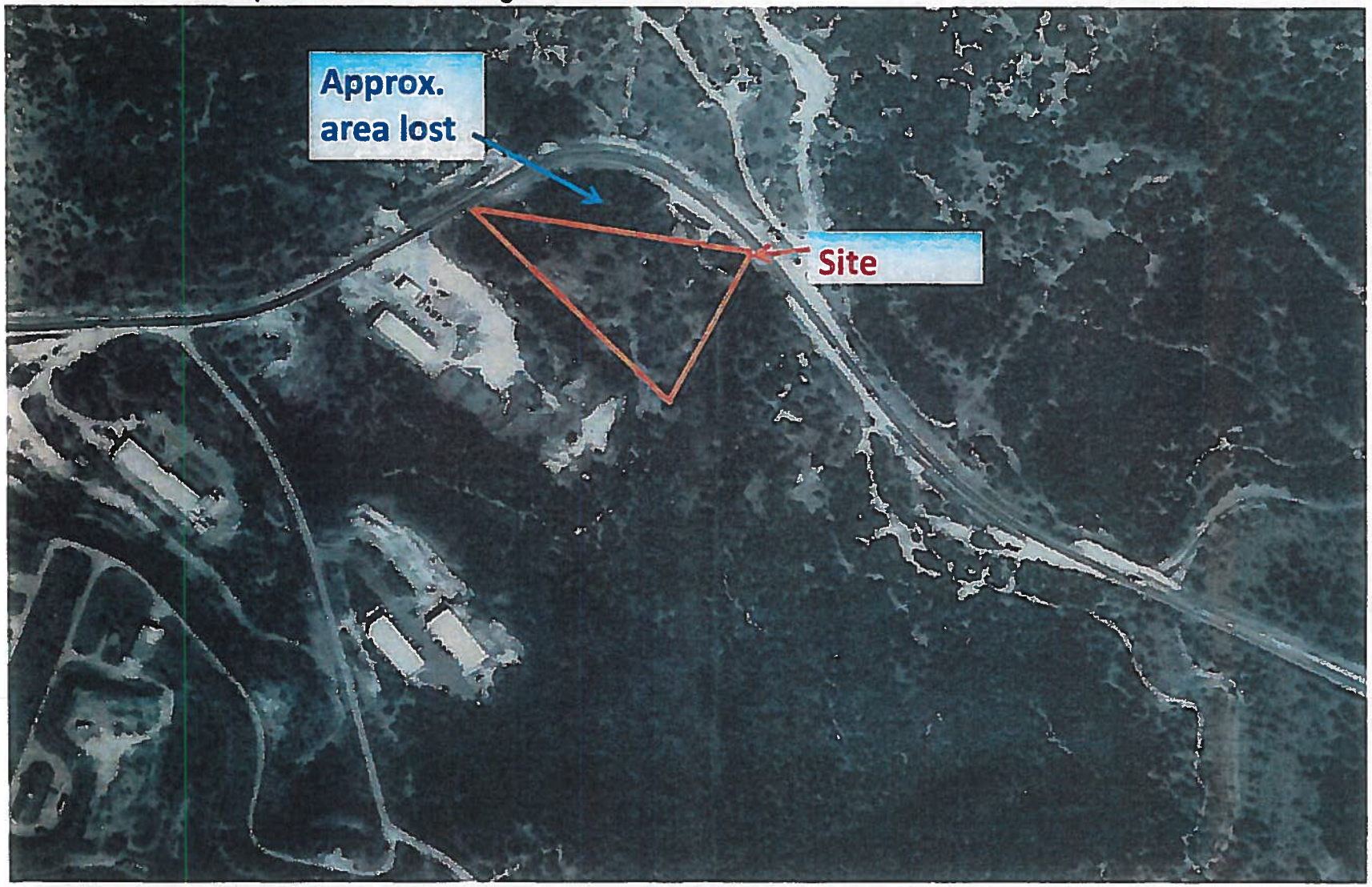
Stoneridge
SP-2013-0096D
Site Location



Stoneridge
SP-2013-0096D
Aerial Site View



Stoneridge
SP-2013-0096D
1987 view prior to road reconfiguration



200'
MARLY
425
85'
SITE
2007 FM 2424
190
105
242

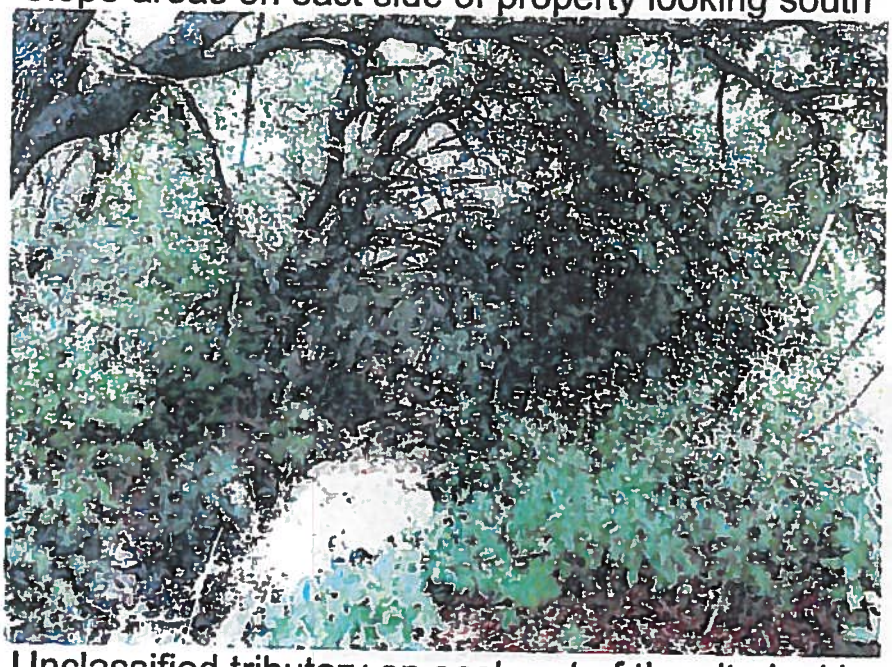
Stoneridge
SP-2013-0096D
Site Photos

North perimeter frontage along FM 2244 to traffic light

Existing commercial development onsite

Stoneridge
SP-2013-0096D
Site Photos - Continued

Slope areas on east side of property looking south



Unclassified tributary on east part of the site looking south

PERIMETER ROAD ADJUSTMENT

ROW (AVG.)	=	192'
PAVEMENT IN ROW	=	85'
AMOUNT OF FRONTAGE IN ROW	=	667'
AMOUNT OF IMPERVIOUS COVER ALLOWED IN WATERSHED	=	20%
IMPERVIOUS COVER ON ROW	=	56,695 S.F.
ROW	=	128,064 S.F.
ROW @ 20% IC	=	25,613 S.F.
PERIMETER ROADWAY DEDUCTION	=	31,082 S.F. / 2
PERIMETER ROADWAY DEDUCTION	=	15,541 S.F.

APPENDIX Q-1

TOTAL GROSS SITE AREA=		2.7580	AC		
SITE DEDUCTIONS:					
CRITICAL WATER QUALITY ZONE (CWQZ)=		0.0000	AC		
WATER QUALITY TRANSITION ZONE (WQTZ)=		0.0000	AC		
WASTE WATER IRRIGATION AREAS=		0.1917	AC		
DEDUCTION SUBTOTAL=		0.3084	AC		
UPLAND AREA =		2.5663	AC		
NET SITE AREA CALCULATION:					
AREA OF UPLANDS WITH SLOPES 0-15%=	1.6940	ACx1.00 =		1.6940	AC
AREA OF UPLANDS WITH SLOPES 15-25%=	0.2939	ACx0.40 =		0.1175	AC
AREA OF UPLANDS WITH SLOPES 25-35%=	0.2716	ACx0.20 =		0.0543	AC
AREA OF UPLANDS WITH SLOPES >35% =	0.3068	ACx0.00 =		0.0000	AC
NET SITE AREA (SUBTOTAL)=				1.8658	AC

APPENDIX Q-2
IMPERVIOUS COVER

ALLOWABLE IMPERVIOUS COVER

IMPERVIOUS COVER ALLOWED AT ____% X WQTZ =		0.0000	ACRES
IMPERVIOUS COVER ALLOWED AT 20 % X NSA =		0.3731	ACRES
DEDUCTIONS FOR PERIMETER ROADWAY =		N/A	ACRES
TOTAL IMPERVIOUS COVER =		0.3731	ACRES

PROPOSED TOTAL IMPERVIOUS COVER

IMPERVIOUS COVER IN WQTZ =	0.000	ACRES =	0.000	%
IMPERVIOUS COVER IN UPLANDS ZONE =	0.3595	ACRES =	19.27	%
TOTAL PROPOSED IMPERVIOUS COVER =			0.3595	ACRES

PROPOSED IMPERVIOUS COVER ON SLOPES

SLOPE CATEGORIES	ACRES	PROPOSED IMPERVIOUS COVER: BUILDING AND OTHER IMPERV. COVER ACRES	% OF CATEGORY	DRIVEWAYS ROADWAYS ACRES
0-15%	1.5793	0.1417	8.97	0.2178
15-25%	0.2939	0	0	0
25-35%	0.2716	0	0	0
OVER 35%	0.3068	0	0	0
TOTAL SITE AREA	2.4516			

NOT APPLYING PERIMETER ROAD REDUCTION

PERIMETER ROAD ADJUSTMENT

ROW (AVG.)	=	192'
PAVEMENT IN ROW	=	85'
AMOUNT OF FRONTAGE IN ROW	=	667'
AMOUNT OF IMPERVIOUS COVER ALLOWED IN WATERSHED	=	20%
IMPERVIOUS COVER ON ROW	=	56,695 S.F.
ROW	=	128,064 S.F.
ROW @ 20% IC	=	25,613 S.F.
PERIMETER ROADWAY DEDUCTION	=	31,082 S.F. / 2
PERIMETER ROADWAY DEDUCTION	=	15,541 S.F.

APPENDIX Q-1

TOTAL GROSS SITE AREA=		2.7580	AC		
SITE DEDUCTIONS:					
CRITICAL WATER QUALITY ZONE (CWQZ)=		0.0000	AC		
WATER QUALITY TRANSITION ZONE (WQTZ)=		0.0000	AC		
WASTE WATER IRRIGATION AREAS=		0.1917	AC		
DEDUCTION SUBTOTAL=		0.3084	AC		
UPLAND AREA =		2.5663	AC		
NET SITE AREA CALCULATION:					
AREA OF UPLANDS WITH SLOPES 0-15%=	1.6940	ACx1.00 =		1.6940	AC
AREA OF UPLANDS WITH SLOPES 15-25%=	0.2939	ACx0.40 =		0.1175	AC
AREA OF UPLANDS WITH SLOPES 25-35%=	0.2716	ACx0.20 =		0.0543	AC
AREA OF UPLANDS WITH SLOPES >35% =	0.3068	ACx0.00 =		0.0000	AC
NET SITE AREA (SUBTOTAL)=				1.8658	AC

APPENDIX Q-2
IMPERVIOUS COVER

ALLOWABLE IMPERVIOUS COVER

IMPERVIOUS COVER ALLOWED AT ____% X WQTZ =		0.0000	ACRES
IMPERVIOUS COVER ALLOWED AT 20 % X NSA =		0.3731	ACRES
DEDUCTIONS FOR PERIMETER ROADWAY =		0.3567	ACRES
TOTAL IMPERVIOUS COVER =		0.0164 (714 S.F.)	ACRES

PROPOSED TOTAL IMPERVIOUS COVER

IMPERVIOUS COVER IN WQTZ =	0.000	ACRES =	0.000	%
IMPERVIOUS COVER IN UPLANDS ZONE =	0.0164	ACRES =	0.87	%
TOTAL PROPOSED IMPERVIOUS COVER =			0.0164	ACRES

PROPOSED IMPERVIOUS COVER ON SLOPES

SLOPE CATEGORIES	ACRES	PROPOSED IMPERVIOUS COVER: BUILDING AND OTHER IMPERV. COVER ACRES	% OF CATEGORY	DRIVEWAYS ROADWAYS ACRES
0-15%	1.5793	0.0164	1.04	0
15-25%	0.2939	0	0	0
25-35%	0.2716	0	0	0
OVER 35%	0.3068	0	0	0
TOTAL SITE AREA	2.4516			

IF WE APPLY PERIMETER ROADWAY DEDUCTION

July 11, 2013

ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE

June 11, 2013

Members of the Land Use Commission.
Mr. Chuck Lesniak
Mr. James Dymkowski
505 Barton Springs Rd.
Austin, Texas 78704.

Re: **Stoneridge Principal Road Adjustment Variance. SP 2013-0096D**

Ladies and Gentleman:

LOC Consultants, LLP, the Engineering Firm of Record for the above referenced project, is respectfully requesting your review and approval of the variance to perimeter road deduction for the above referenced project.

We firmly believe that this project will be deprived in its entirety from development should the variance not be granted. Very specific and special circumstances exist in particular to the unusual and excessive ratio of length versus width, with frontage of (667 feet) of which 480 feet are not usable due to the location of a guard rail and drainage features in relation the average depth of the lot 300 feet.

Also a substantial amount of Land that was dedicated for R.O.W in order to realign a portion of FM 2244, approximately 3,18 acres of land before the adoption of the S.O.S ordinance or the perimeter road adjustment were in effect. Attached you will find our findings of fact as well as support documentation for your review and consideration.

I will be happy to discuss this matter during the public hearings, however should you have any questions or comments, do not hesitate to contact me at 512-587-7236.

Sincerely:

Sergio Lozano, P.E

Principal

PROJECT DESCRIPTION

Applicant Contact Information

Name of Applicant	Sergio Lozano
Street Address	1000 East Cesar Chavez St
City State ZIP Code	Austin, TX 78702
Work Phone	512-499-0908
E-Mail Address	Sergio@loccivil.com

Variance Case Information

Case Name	**Stoneridge**
Case Number	**SP-2013-0096D**
Address or Location	8907 Bee Cave Road, Austin, Travis County, TX
Environmental Reviewer Name	James Dymkowski
Applicable Ordinance	COA LDC 25-8
Watershed Name	Barton Creek Watershed
Watershed Classification	☐ Urban ☐ Suburban ☐ Water Supply Suburban ☐ Water Supply Rural X Barton Springs Zone
Edwards Aquifer Recharge Zone	☐ Barton Springs Segment ☐ Northern Edwards Segment X Not in Edwards Aquifer Zones
Edwards Aquifer Contributing Zone	X Yes ☐ No
Distance to Nearest Classified Waterway	Apprx 1.25 miles to Barton Creek
Water and Waste Water service to be provided by	West Travis County Public Utility Agency (Water) On-site Septic (Wastewater)
Request	The variance request is as follows: A Land Use Variance to Section 25-8-65 of the COA Land Development Code,

July 11, 2013

Impervious cover	Existing	Proposed
square footage:	22,240 SF	15,061 SF
acreage:		_____
percentage:	27.35%	18.53%

Provide general description of the property (slope range, elevation range, summary of vegetation / trees, summary of the geology, CWQZ, WQTZ, CEFs, floodplain, heritage trees, any other notable or outstanding characteristics of the property)

Property is located along the south side of Bee Cave Road and consists of approximately 2.77 acres of partially developed land, and portions of the property are sparsely to densely vegetated with medium- to old-growth live oak and cedar trees. No heritage trees are proposed to be removed. The topographic elevation ranges from 857 to 803 feet above mean sea level running from a west to south. The western half of property slopes to the east and drops toward the center of property and the eastern portion slopes toward the west. The geology of the property is the Glen Rose Formation (Kgr) which is reported to consist of limestone and dolomite. Based on observations made across the entire property no CEF's were identified. None including CWQZ, floodplain, or WQTZ are with this site. The Project complies with watershed protection regulations as stated in the LDC.

Clearly indicate in what way the proposed project does not comply with current Code (include maps and exhibits)

If the perimeter Road adjustment is applied to the net site area calculations, the maximum impervious cover allowed on the site will be only be 714 SF

July 11, 2013

FINDINGS OF FACT

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

Include an explanation with each applicable finding of fact.

Project:

Ordinance:

A. Land Use Commission variance determinations from Chapter 25-8-41 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 ***As demonstrated by the impervious cover table, the proposed development will maintain a maximum impervious cover of 15,061 SF or 18.53% which is less than the Maximum allowed of 20%. If the perimeter Road adjustment figure (15,541 SF) is applied to the net site area calculations, the maximum impervious cover allowed on the site will be only be 714 SF, therefore depriving his development privileges.***

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 request for this variance is based on a condition that was not created by the property owner or the development. The cause of the variance is due to a large amount of the property that was dedicated as R.O.W for the realignment of FM 2244 in order to soften the curvature of the road. After the dedication the configuration of the land is disproportionally shape with a very large frontage and very narrow depth which makes this request unique. The amount of R.O.W. Dedicated 3.18 acres is mostly in the uplands hence reducing completely the development potential. If the perimeter road adjustment deduction is applied, the owner will only be able to develop 714 SF of his property.***

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 ***The only other property owner affected by the R.O.W. dedication only dedicated 0.23 acres of R.O.W which is about 6% of the total dedicated by Stoneridge tract.***

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

Yes ***By approving the variance, the proposed development will be constructing water quality facilities that are in Full Compliance with the Water Quality Requirements of the SOS ordinance and achieves at least water quality treatment via rainwater harvesting with the understanding that Rain Harvesting is an unquantifiable measure.***

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

Yes ***As mentioned above the proposed development is proposing water quality treatment in full conformance with the SOS Ordinance. The net result of pollutant load discharges will be at least equal to the existing conditions. If the variance is not approved, the existing development will not provide any water quality***

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 criteria for granting a variance in Section A 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

**Variance approval requires all above affirmative findings.

Exhibits for Board Backup and/or Presentation

Please attach and paginate.

- Aerial photos of the site (backup and presentation)
- Site photos (backup and presentation)
- Aerial photos of the vicinity (backup and presentation)
- Context Map—A map illustrating the subject property in relation to developments in the vicinity to include nearby major streets and waterways (backup and presentation)
- Topographic Map - A topographic map is recommended if a significant grade change on the subject site exists or if there is a significant difference in grade in relation to adjacent properties. (backup and presentation)
- For cut/fill variances, a plan sheet showing areas and depth of cut/fill with topographic elevations. (backup and presentation)
- Site plan showing existing conditions if development exists currently on the property (presentation only)
- Proposed Site Plan- full size electronic or at least legible 11x17 showing proposed development, include tree survey if required as part of site or subdivision plan (backup and presentation)
- Environmental Map – A map that shows pertinent features including Floodplain, CWQZ, WQTZ, CEFs, Setbacks, Recharge Zone, etc. (backup and presentation)
- An Environmental Assessment pursuant to ECM 1.3.0 (if required by 25-8-121) (backup only)
- Applicant's variance request letter (backup only)

AERIAL PHOTOS (3)

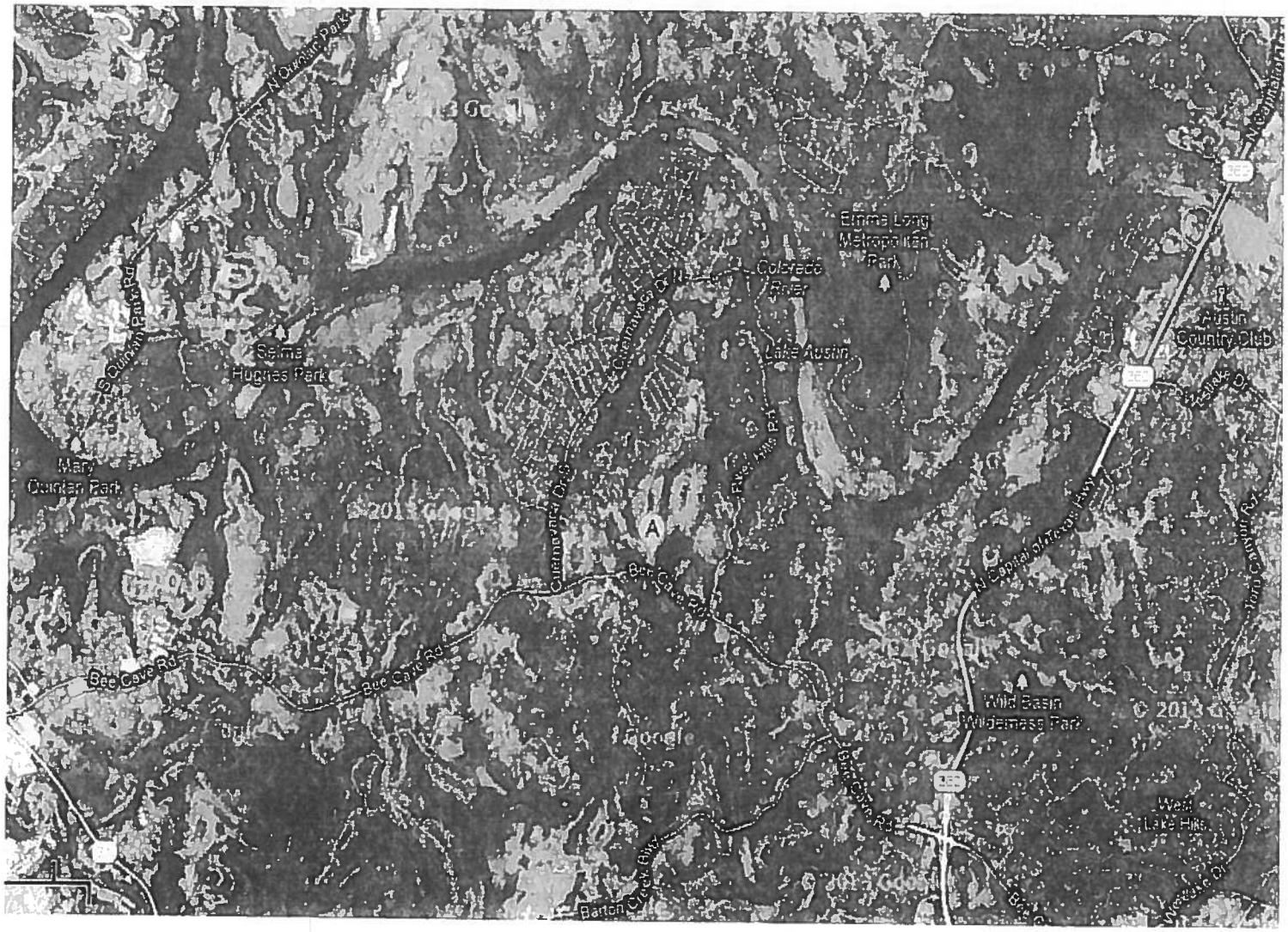


Figure 1 Site Proximity to Area Highways

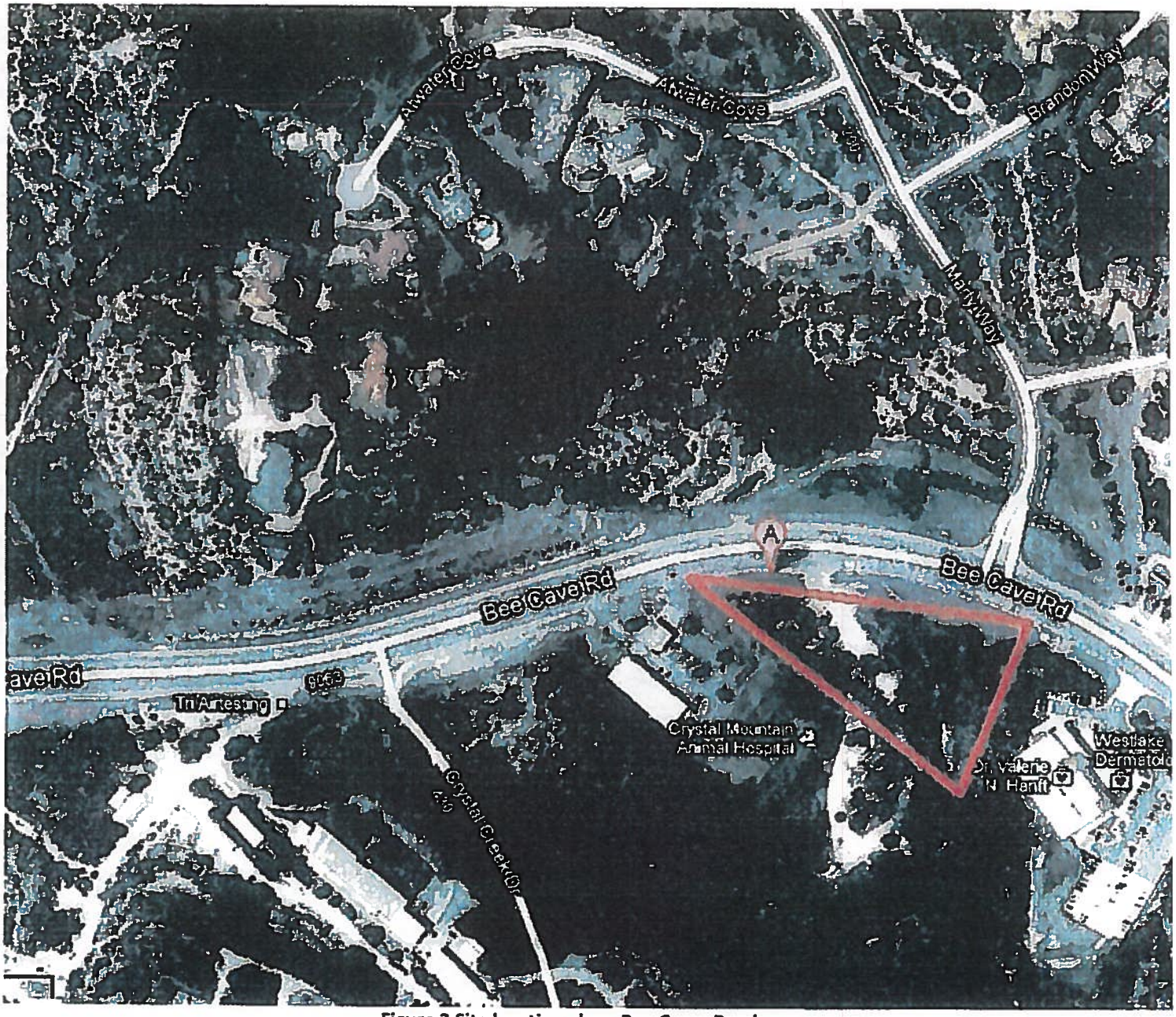


Figure 2 Site location along Bee Caves Road

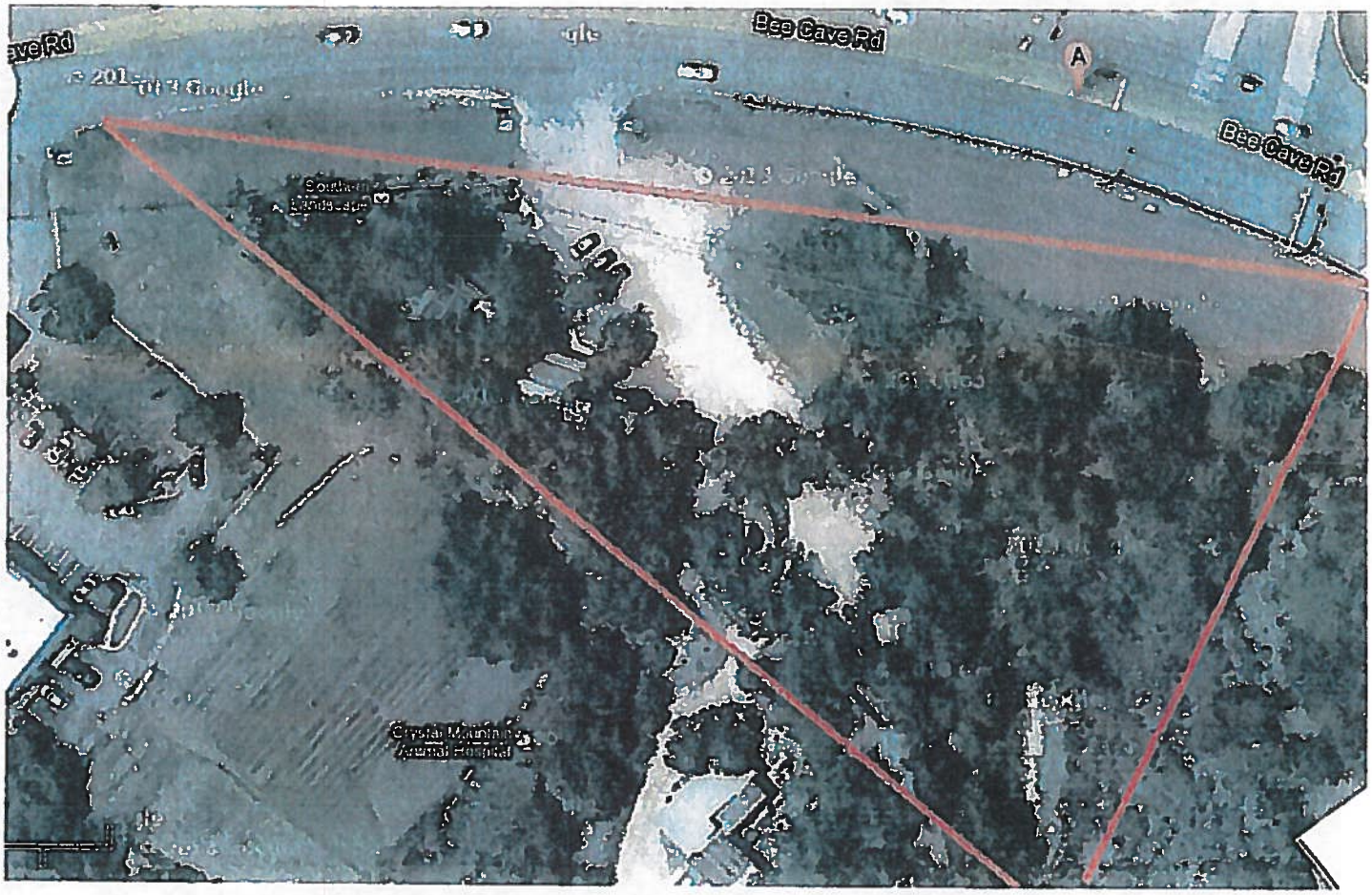


Figure 3 Site Photo

SITE PHOTOS (5)

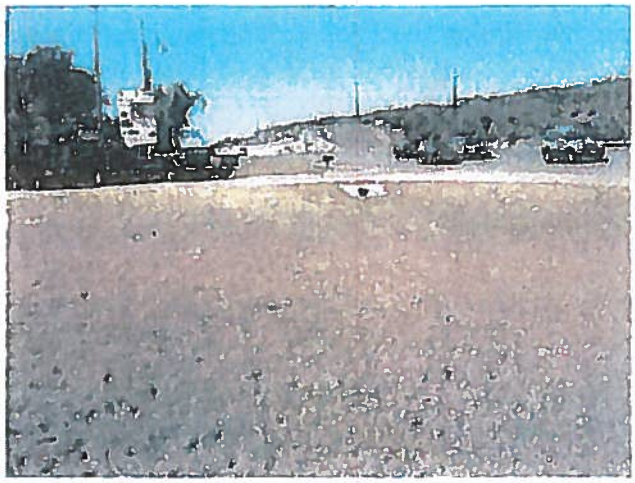


Figure 4 Drainage/Gaurdrail ROW

Figure 6 Existing Structure

AERIAL PHOTO/VICINITY (3)

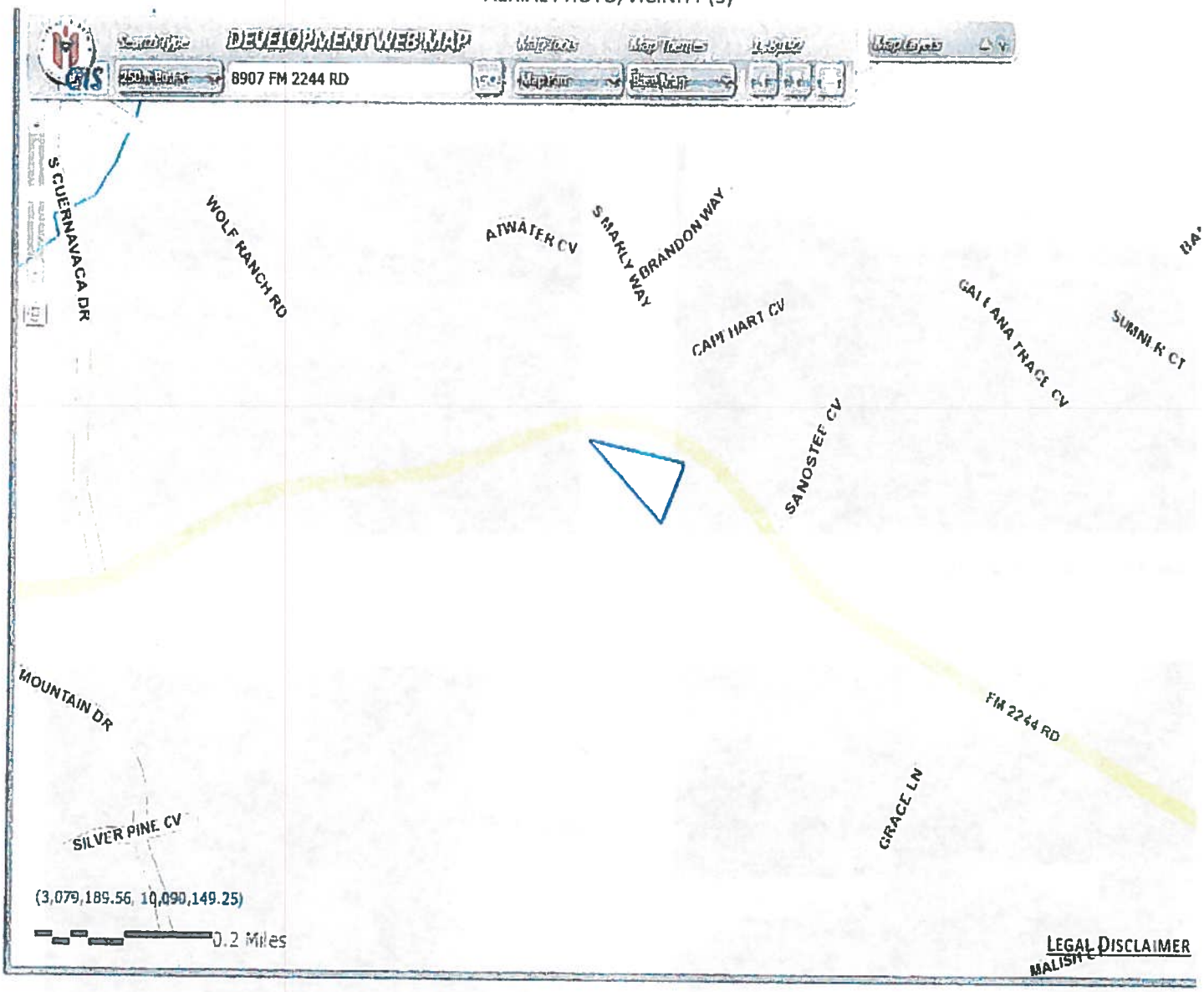


Figure 9 City of Austin GIS map

Figure 10 Vicinity Map. Property in relation to other developments and major streets

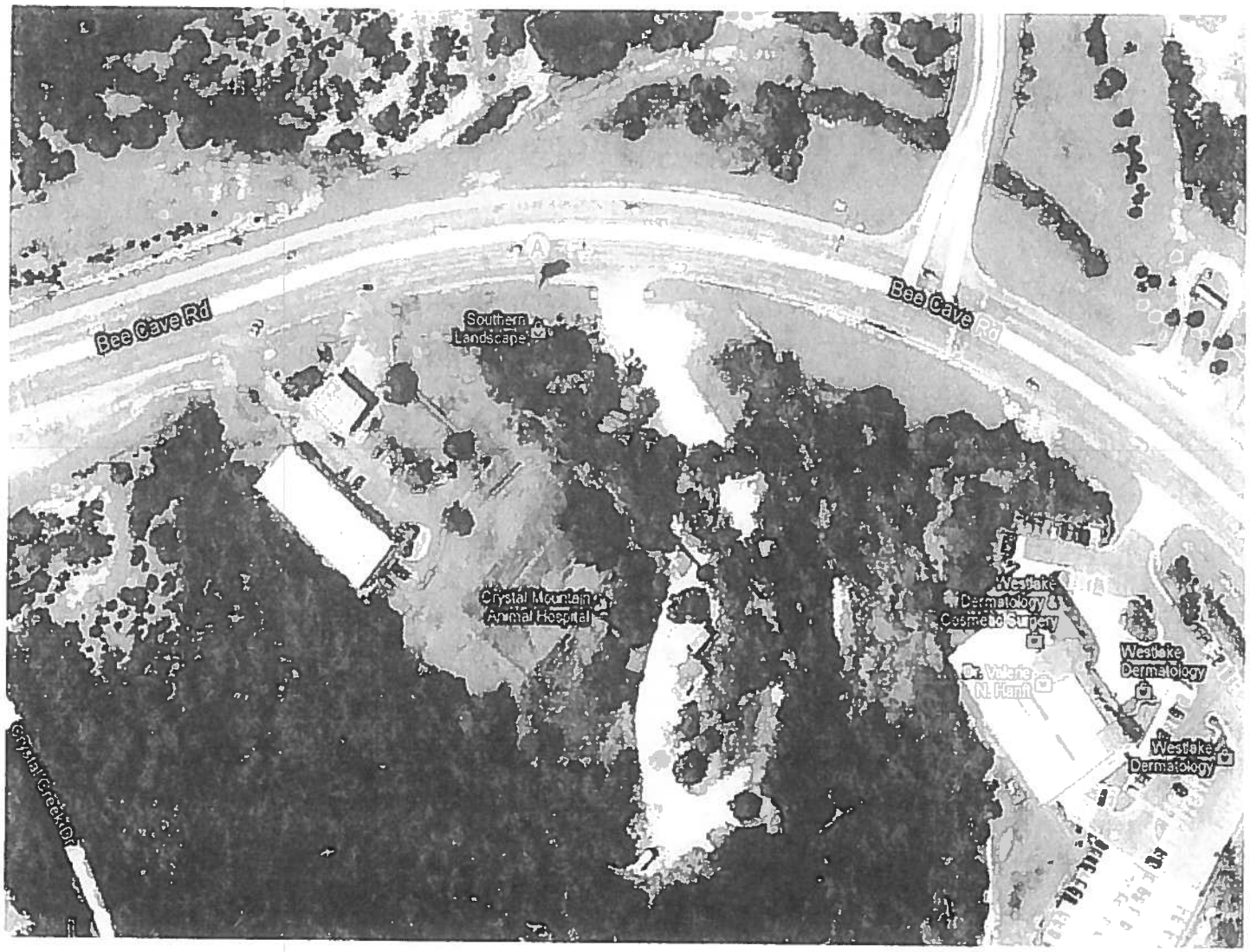


Figure 11 Site photo with adjacent commercial

July 11, 2013

ENVIRONMENTAL MAP:

Map Non existent for Critical Water Quality Zone or Water Quality Transition Zone. No CEF's exist and the property is not over the Recharge Zone

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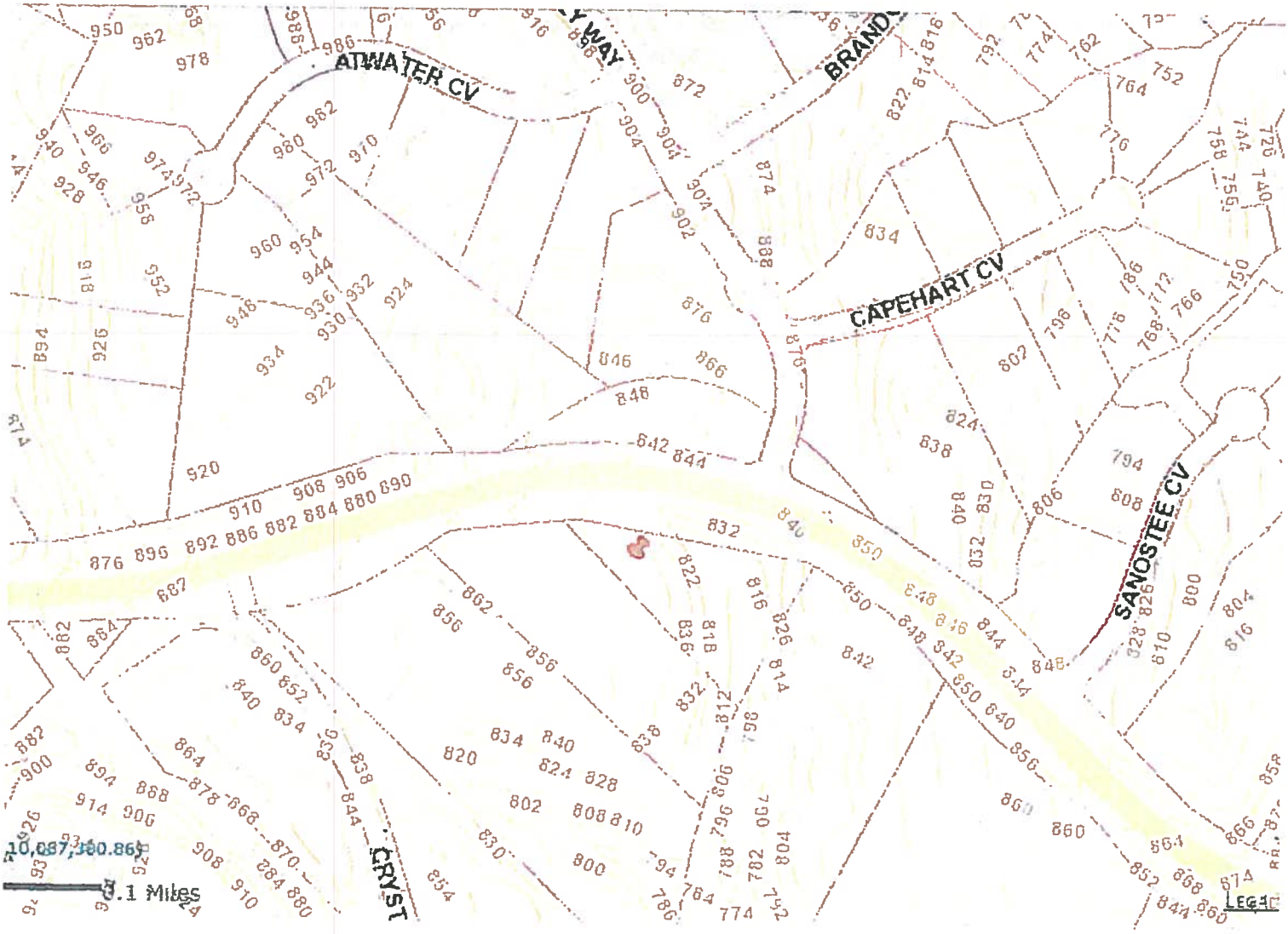
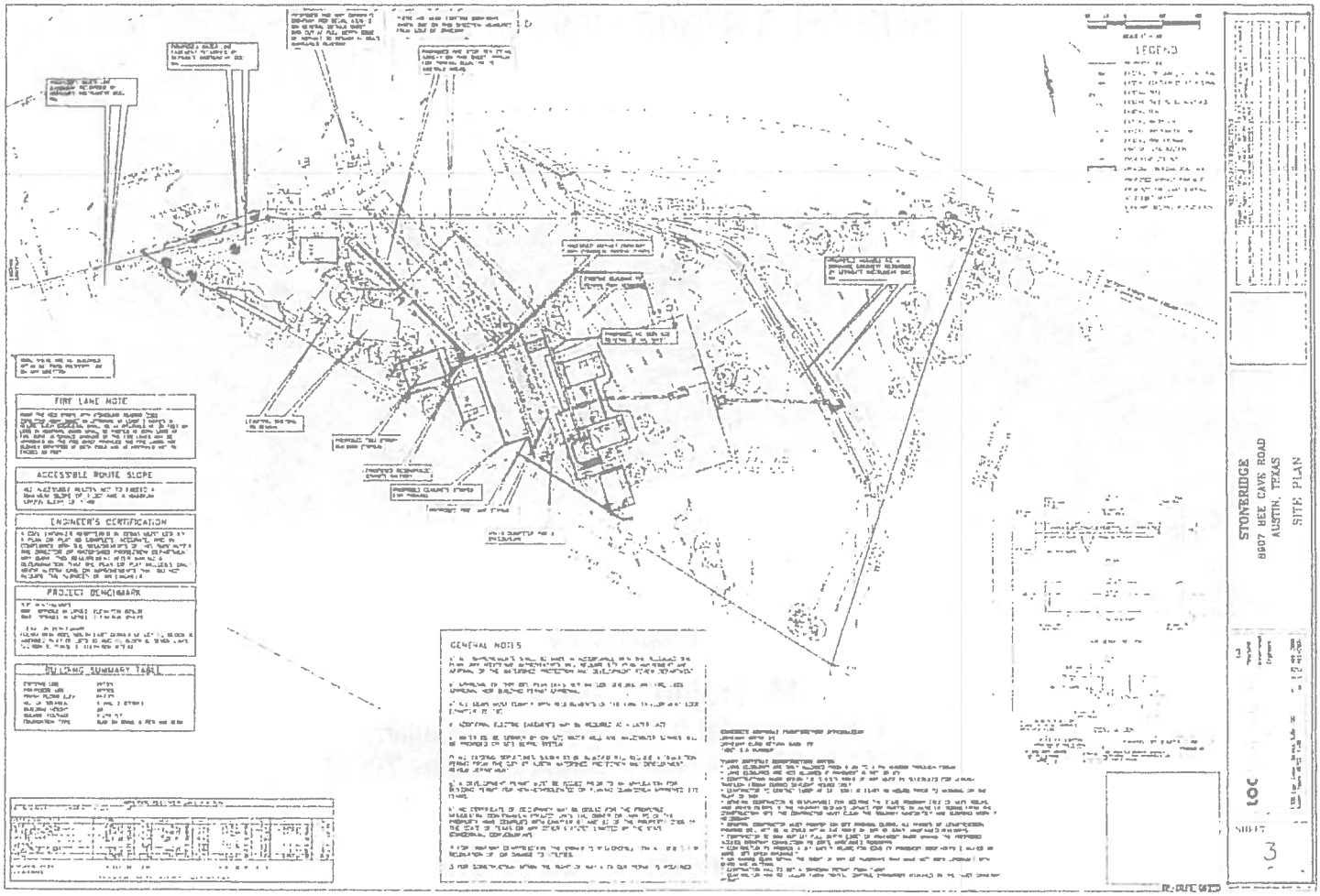
TOPOGRAPHIC MAP



SITE PLAN


FIRE LANE NOTE
ACCESSIBLE ROUTE SLOPE
ENGINEER'S CERTIFICATION
PROJECT BENCHMARK
BUILDING SUMMARY TABLE
GENERAL NOTES
STONEBRIDGE
8607 BEE CAVE ROAD
AUSTIN, TEXAS
SITE PLAN
LOC
SHEET
3

REPORT OF
CITY OF AUSTIN
ENVIRONMENTAL ASSESSMENT

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS

Prepared For

Miguel Guillen
5601 Sunset Ridge
Austin, Texas 78735

Prepared By

M. Trojan & Associates
Environmental & Engineering Consulting
8244 Lime Creek Road, Leander, Texas 78641

MTA Project No. MQ-09-012

March 2, 2009

Privileged & Confidential Document

mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting

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Mr. Miguel Guillen
5601 Sunset Ridge
Austin, Texas 78735

Subject: City of Austin *Environmental Assessment*
2.77-Acre Partially Developed Property
8907 Bee Cave Road
Austin, Travis County, Texas
MTA Project No. MQ-09-012

Mr. Guillen:

This letter provides the environmental information required for the City of Austin submittal for proposed improvements on a 2.77-acre lot located at 8907 Bee Cave Road in Austin, Travis County, Texas. The information provided herein addresses certain "environmental elements" that the City of Austin may require as part of your site development plan submittal as well as for potential future re-development plan submittals. This *Environmental Assessment* was prepared in accordance with the City of Austin *Environmental Criteria Manual*, Water Quality Management Section 1.3.0.

OVERVIEW

The subject property is located along the south side of Bee Cave Road (refer to Figures 1, 2 and 3 of Appendix A). The subject property consists of approximately 2.77 acres of partially developed land, and portions of the property are sparsely to densely vegetated with medium- to old-growth live oak and cedar trees. Currently, the property is developed as several small businesses, including a landscaping company, real estate office, and dog grooming business. These businesses occupy relatively small buildings on the western and western-central portion of the property (refer to Figures 2 and 3 of Appendix A). Other improvements include gravel driveways and parking areas and minor site drainage improvements. The property lies in an area of primarily commercial development along Bee Cave Road.

Based on review of the site development plan provided by LOC Consultants, the proposed development on the subject property will include improvements in areas of the developed portion of the property. Proposed improvements include a two-story building, 30,000-gallon pool for fire protection water, upgrade/expansion of existing driveway and parking spaces, and sidewalk improvements (refer to Figure 2 of Appendix A). All improvements are proposed for areas of the property (western portion) that have been previously disturbed by construction of buildings, driveways other support structures and landscaping.

M. TROJAN & ASSOCIATES
8244 Lime Creek Road, Leander, Texas 78641
(512) 258-6606 / mtrojan@austin.rr.com

This *Environmental Assessment* was conducted on February 24, 2009 by Mr. Michael Trojan, a Professional Geologist/Hydrogeologist certified by the Texas Board of Professional Geoscientists. Mr. Trojan has a total of 24 years experience in all aspects of the environmental field and 14 years (1994 – present) direct experience in conducting vegetation surveys, geologic assessments over the Edwards Aquifer Recharge and Transition Zones and other karst terrain, Critical Environmental Features (CEFs) assessments, and endangered species assessments for land developers in the Central Texas area.

The following sections discuss the essential environmental "elements" associated with the subject property, including hydrogeologic element, vegetative element, utilities element and "Critical Environmental Features." In addition, rare plant species are addressed as part of the vegetative element and endangered species are addressed at the end of the report.

HYDROGEOLOGIC ELEMENT
***Environmental Criteria Manual*, Water Quality Management, Section 1.3.1**
Land Development Code Section 25-8-122

Topography and Surface Hydrology

According to a USGS topographic map and a land survey map provided by LOC Consultants, topographic elevations on the subject property range between approximately 857 and 803 feet above mean sea level (msl), with the highest elevations located at the western corner of the property and the lowest elevations at the southern corner in a wet-weather drainage feature (refer to Figure 2 of Appendix A). The western half of the property slopes gently to the east and abruptly drops toward the center of the property. The eastern portion of the property slopes toward the west.

All storm water runoff from the property flows across the property as sheet flow toward a north-to-south trending wet-weather drainage feature located in the east-central part of the property (refer to Figure 3 of Appendix A). The wet-weather drainage feature collects storm water runoff primarily from a relatively significant water shed to the north of Bee Cave Road, and serves as a tributary to Barton Creek located approximately one mile south of the subject property. According to review of a FEMA Flood Insurance Rate Map, no portion of the subject property lies within the 100-year floodplain. However, based on evidence of high-water markings along the wet-weather drainage feature, it is believed that a significant volume of runoff flows via this feature across the subject property during significant precipitation events.

Given the general absence of natural vegetative barriers on the lower elevations of the subject property and the fact that all storm water runoff flows relatively short distances from the development portion of the property directly into the drainage feature on the property, and directly offsite, storm water runoff controls for future development/post-development activities on the property should take into consideration the potential for heavy rainfall

events. That is, storm water runoff control features should be adequate to prevent sediment runoff directly offsite. In addition to silt fencing, it may be necessary to install temporary features (e.g., rock berms) to slow runoff for added sediment "filtering."

Soils

According to the *Soil Survey of Travis County, Texas* (1974), the soils that are reported to be on the subject property are as follows (also refer to Figure 4 of Appendix A for soils locations and Appendix B for a soils photograph):

Soil Component Name:	Brackett soils, rolling (BID)
Soil Surface Texture:	Light brownish-gray gravelly clay loam to approximately 6 inches; underlain by very pale brown clay loam with scattered rock fragments to about 12 inches; underlying material is interbedded limestone and marl
Hydrologic Group:	Permeability is moderately slow; available water capacity is low
Soil Drainage Class:	Moderately well drained
Depth to Bedrock:	Approximately 10 – 12 inches (observed in the field)
Soil Component Name:	Brackett soils and Rock outcrop, steep (BoF)
Soil Surface Texture:	Approximately 35 percent Brackett soils, 21 percent rock outcrop, and 40 percent soils similar to Brackett soils.
Hydrologic Group:	Permeability is moderately slow; available water capacity is low
Soil Drainage Class:	Moderately well drained
Depth to Bedrock:	Approximately 5 – 12 inches (observed in the field)

As is depicted in Figure 4 of Appendix A, Brackett soils (BID) are reported to cover the northern-most portion of the property while the central and southern portions of the property are covered with Brackett soils and Rock outcrop. Using a shovel, several shallow excavations were made at various locations on the subject property and observations of the soil characteristics confirmed the presence of soils similar to those described in the *Soil Survey* (refer to the photograph in Appendix B). Areas of the property covered by gravel driveways were observed to have very thin underlying soils.

Geology

Based on *The Geologic Atlas of Texas, Austin Sheet* published by the Bureau of Economic Geology, the outcropping (near surface) geologic formation at the subject property is the Glen Rose Formation (Kgr) (refer to Figure 5 of Appendix A). The Glen Rose is reported to consist of limestone and dolomite. The limestone is light gray to yellowish-gray, aphanitic to fine-grained, hard to soft and marly. The dolomite is yellow-brown, fine-grained and porous. The thickness of the Glen Rose is reported to be up to 380 feet.

Given the soil cover on the subject property, only broken (loose) exposed rock fragments of the Glen Rose as well as isolated areas of true rock outcrops were observed, primarily along slope breaks. These geologic materials were observed to be comprised of light gray, hard to medium-hard limestone as well as medium-hard marly material (refer to photograph in Appendix B). The greatest concentration of exposed outcrops was observed just east of the development area – along the topographic slope break.

VEGETATIVE ELEMENT
***Environmental Criteria Manual*, Water Quality Management, Section 1.3.2**
***Land Development Code*, Section 25-8-123**

This section describes the general vegetation on the subject property as well as the presence of rare plant species, if any are present. Plant communities within the property boundaries were characterized according to the dominant plant taxa present. Qualitative observations of plant cover, structure, and spatial changes in vegetation species composition were also used to determine areas of common communities (if present).

Inspection of the subject property revealed that vegetation on the property is comprised of primarily Plateau live oak (*Quercus fusiformis*) and Ashe juniper (*Juniperus ashei)* (refer to Figure 6 of Appendix A for a vegetation map and Appendix B for photographs). The following describes the general vegetation on the property (Note: The Site Plan should include a tree survey):

Vegetation Zone A (Partially Developed Portion of the Property)

Large Vegetation:	Approximately 95% Plateau live oak (*Quercus fusiformis*); 4- to 10-inch trunk diameters; several trees with up to 16-inch trunk diameters Approximately 5% Ashe juniper (*Juniperus ashei*); 6- to 14-inch trunk diameters
Canopy:	80 – 90% high canopy in vegetated areas (Note: the northern and central portions of this zone are clear of all vegetation)
Ground Cover:	Sparse ground cover of unspecified native grasses and small shrubs in undeveloped areas of the zone
Notes:	Zone A represents the partially developed portion of the subject property, with primarily medium- to old-growth live oak trees. There is field evidence that most cedar had been historically removed. The grounds of this zone are generally maintained via trimming.

Vegetation Zone B (Undeveloped Portion of the Property)

Large Vegetation:	Approximately 70% Plateau live oak (*Quercus fusiformis*); 4- to 15-inch trunk diameters Approximately 30% Ashe juniper (*Juniperus ashei*); 3- to 8-inch trunk diameters
Canopy:	0 – 100% medium to high canopy; approximately 70% for the entire zone
Ground Cover:	Sparse to medium ground cover of unspecified native grasses and small shrubs
Notes:	Zone B represents medium to high topographic slopes and a relatively level wet-weather creek bottom, with medium- to old-growth live oak and cedar trees. There is field evidence that selected cedars had been historically removed from the zone.

The subject property was also inspected for eight rare plant species that are known to occur in Travis County. These include Texas amorpha (*Amorpha roemerana*), Texabama croton (*Croton alabamensis* var. *texensis*), Glass Mountains coral-root (*Hexalectris nitida*), Heller marbleseed (*Onosmodium helleri*), Canyon mock-orange (*Philadelphus ernestii*), Buckley tridens (*Tridens buckleyanus*), Bracted twistflower (*Streptanthus bracteatus*), and Tobusch fishhook cactus (*Ancistrocactus tobuschii*). The survey was accomplished by walking 25-foot spaced transects across the entire property. Based on the inspection, none of the rare plant species were observed on the property.

As mentioned previously, the proposed development (improvements to the existing developed area) on the subject property will entail construction of a two-story building, 30,000-gallon pool for fire protection water, upgrade/expansion of existing driveway and parking spaces, and sidewalk improvements (refer to Figure 2 of Appendix A). Based on the field reconnaissance, it is believed that the aforementioned development will not require removal of any old-growth trees, and in general will preserve all existing vegetation to the greatest extent practicable.

UTILITIES ELEMENT
***Environmental Criteria Manual*, Water Quality Management, Section 1.3.3**
***Land Development Code*, Section 25-8-124**

The intent of this element is for the wastewater report to provide environmental justification for a sewer line location in a CWQZ. As there is no CWQZ associated with the development area, this section does not apply. Still, installation of any underground infrastructure is believed not to have any adverse effects on site environmental conditions.

CRITICAL ENVIRONMENTAL FEATURES (CEFs)

According to the *Environmental Criteria Manual*, Water Quality Management, Section 1.3.0(B), an *Environmental Assessment* must identify CEFs and propose protective measures for such features. Accordingly, the field reconnaissance of the subject property also included search for and identification of CEFs, including springs/seeps, bluffs, canyon rimrocks, caves, sinkholes, and other types of potential recharge features. This was accomplished by walking 25-foot spaced transects across the entire property, as well as inspecting bordering portions of surrounding properties. The findings of this inspection are summarized below.

Springs/Seeps

The *Environmental Criteria Manual* defines a spring as a point or zone of natural groundwater discharge in upland and/or riparian zones which produce measurable flow down gradient of the source, or a pool, or both, or (during drought conditions) an area characterized by the presence of a mesic plant community.

Based on observations made across the entire subject property, no springs or seeps were identified.

Bluffs

The *Environmental Criteria Manual* defines a bluff as an abrupt vertical change in topography of more than 40 feet with an average slope steeper than four feet of rise for one foot of horizontal travel (approximately 75 degrees).

Based on observations made across the entire subject property, no bluffs were identified.

Canyon Rimrocks

The *Environmental Criteria Manual* defines canyon rimrock as an abrupt vertical rock outcrop of more than 60% slope (31 degrees), greater than four feet vertically, and a horizontal extent equal to or greater than 50 feet.

Based on observations made across the entire subject property, no canyon rimrocks were identified on the property.

Caves

The *Environmental Criteria Manual* defines a cave as an underground void large enough for an adult to enter.

Based on observations made across the entire subject property, no geologic rock outcrops or caves were identified on the property.

Sinkholes and Recharge Features

The *Environmental Criteria Manual* defines a sinkhole as a circular or oblong depression formed in soluble rock by the action of subterranean water which is a potential point of significant recharge (with or without a surface opening). The *Environmental Criteria Manual* also observes other features such as faults, solution cavities and enlarged fractures as potential points of recharge.

Based on observations made across the entire subject property, no sinkholes or other recharge features were identified on the property (Note: there was no evidence observed of "pooling" in the wet-weather drainage feature on the property).

Wetlands

The *Environmental Criteria Manual* defines a wetlands as land transitional between terrestrial and aquatic systems where the water table is usually at or near the surface or the land is covered by shallow water. An area is classified as a wetland if it meets the Army Corps of Engineers three parameter technical criteria as outlined in the US Army Corps of Engineers 1987 *Wetlands Delineation Manual*.

Based on observations made across the entire subject property, no wetlands were identified on the property.

Based on observations made across the entire property, no CEFs were identified (Note: As no CEFs were identified on the subject property, a City of Austin Critical Environmental Features Worksheet is not included in this *Environmental Assessment* report). Regarding recharge points, no defined points were located on the property, and overall recharge to the subsurface is believed to be moderate to slow as there is absence of CEFs, onsite soils were observed to be relatively fine-grained with reported moderately slow permeability, and the underlying Glen Rose Formation was observed to be fine-grained with a moderate to low porosity/permeability.

ENDANGERED SPECIES SURVEY

With the exception of inspecting the property for eight rare plant species, no formal endangered (wildlife) species "survey" was conducted as part of this *Environmental Assessment*. However, the property was inspected for suitable habitat for primarily the Golden-cheeked Warbler as well as for endangered cave species that are common to certain parts of Travis County. The Golden-cheeked Warbler and endangered cave species are addressed below.

Golden-cheeked Warbler

No formal Golden-cheeked Warbler "survey" was conducted as part of this *Environmental Assessment*. However, according to inquiries made at the Travis County Balcones Canyonlands Conservation Preserve (BCCP) office, the subject property lies within Golden-cheeked Warbler Zone 1 ("confirmed habitat"). Field reconnaissance of landform and vegetation on the subject property found the habitat on the eastern (non-development) portion of the property to marginally resemble Golden-cheeked Warbler habitat. Still, inspection of trees in this portion of the property did not identify any evidence of nesting that would warrant further field examination/study.

Endangered Cave Species

Based on BCCP endangered species maps, no portion of the subject property lies within an area designated as Endangered Cave Species Habitat – Karst Zones 1 and 2. Field reconnaissance of the property confirmed the absence of CEFs that could provide habitat for such endangered cave species.

Additionally, in an attempt to obtain information on any endangered species in the vicinity of the subject property, general inquiries were made at offices of the Travis County BCCP, local U.S. Fish & Wildlife Service (USFWS), and the Texas Parks & Wildlife Department (TPWD). Information made available by these agencies indicated that it is not likely that the subject property – and other similar properties in the vicinity – is supportive to any other known endangered species found in Travis County.

Thank you for providing me with the opportunity to assist you in environmental matters associated with the subject property. Should you have any questions, please feel free to contact me at 258-6606 or forward an email to mtrojan@austin.rr.com.

Respectfully,

STATE OF TEXAS
MICHAEL TROJAN
GEOLOGY
No. 1109
LICENSED
PROFESSIONAL GEOSCIENTIST

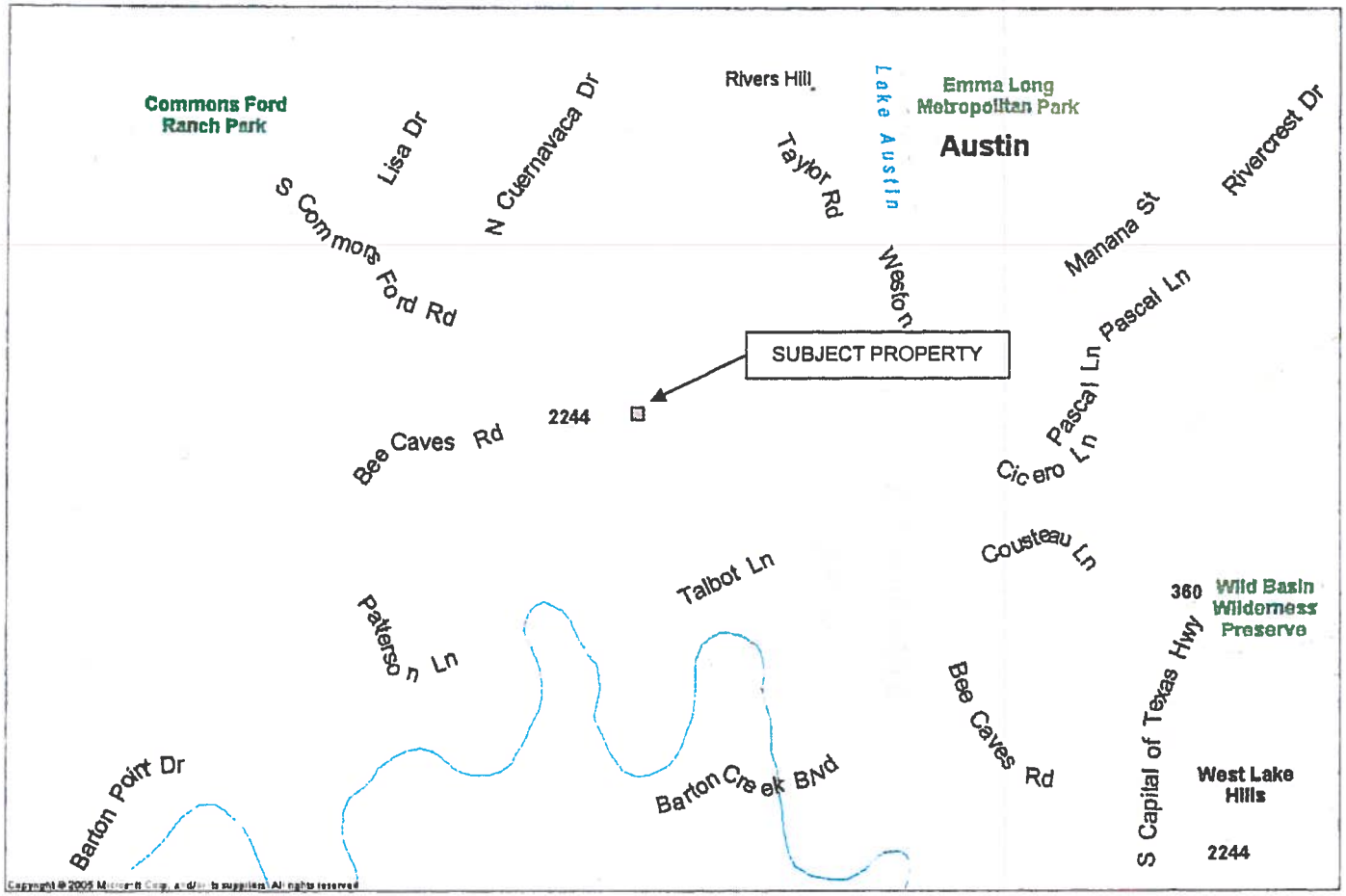
Michael Trojan, CPG
M. TROJAN & ASSOCIATES

Licensed Professional Geoscientist #1109

Attachments: Appendices A and B
c: MTA Project MQ-09-011 File

APPENDIX A

FIGURES



NOTE: Property location is approximate

NORTH

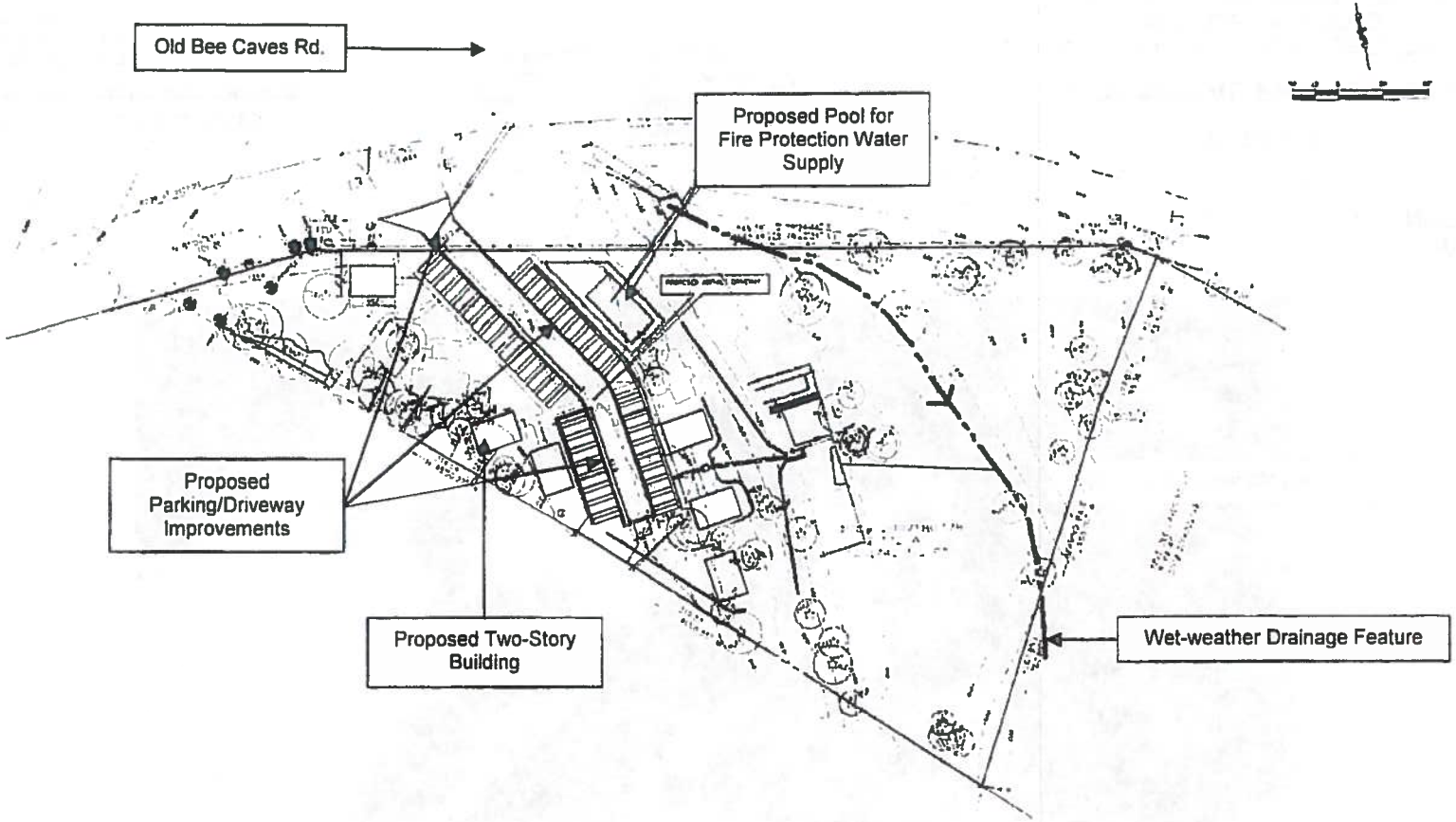
mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
(512) 258-6606

Scale: No Scale
Date: March 2, 2009
Project: City of Austin EA
MTA Project: MQ-09-012

FIGURE 1

SITE LOCATION MAP

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS



mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
(512) 258-6606

Scale:	Scale: 1" = 120' (approx.)
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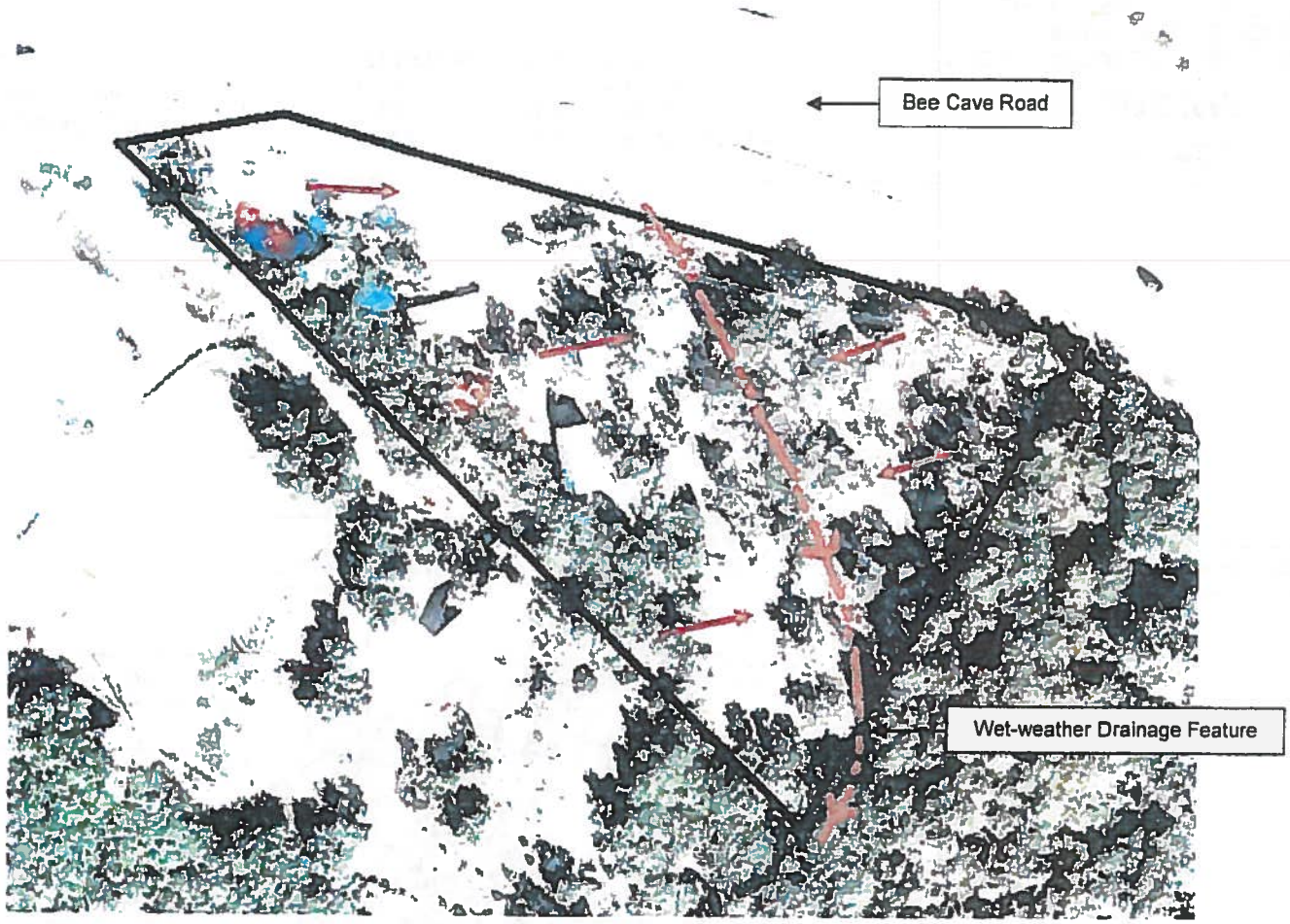
Project:	City of Austin EA
MTA Project:	MQ-09-012

FIGURE 2

SITE MAP

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS



Storm Water Runoff Direction

NORTH

M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
(512) 258-6606

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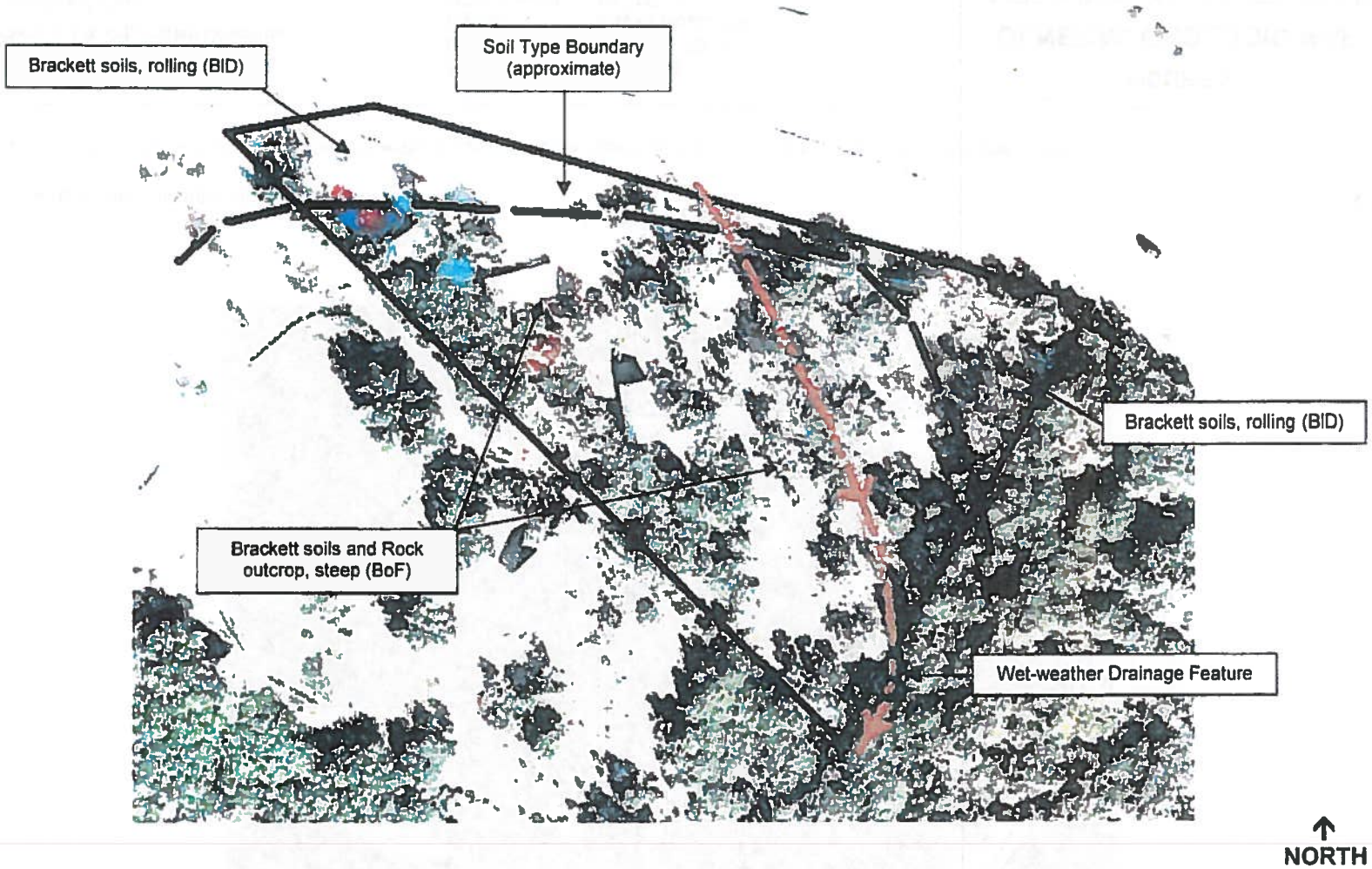
FIGURE 3

SITE AERIAL PHOTOGRAPH

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS



Source: *Soil Survey of Travis County* (1974).

mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
(512) 258-6606

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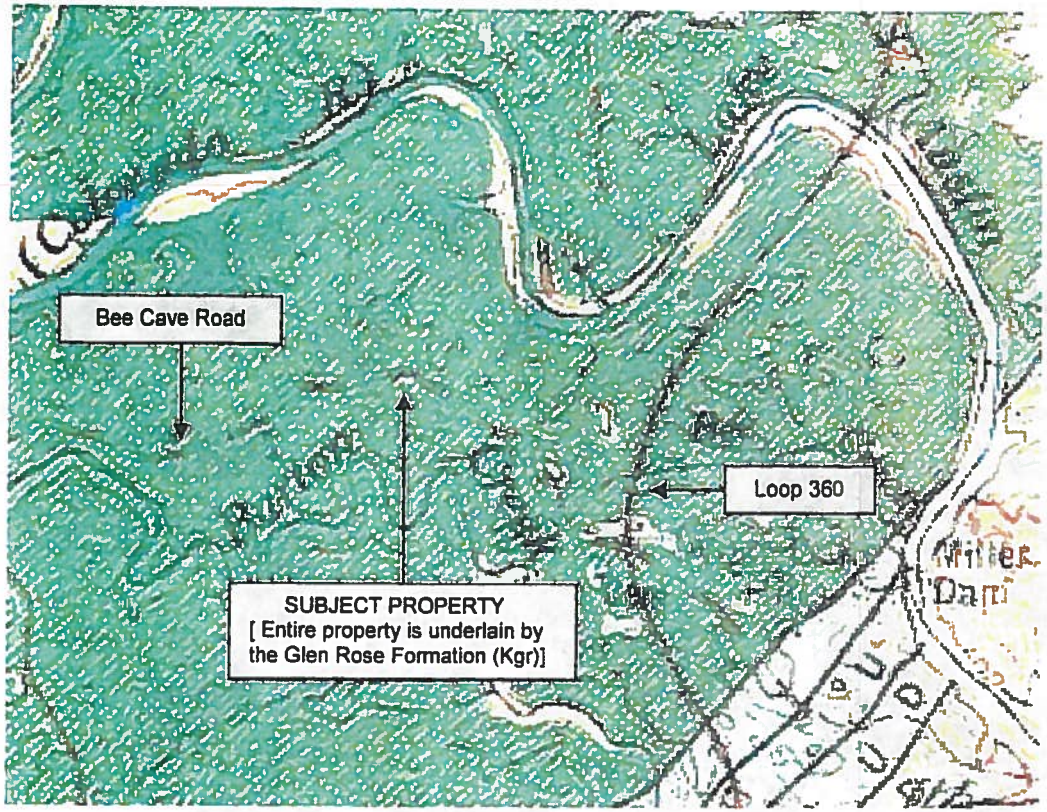
FIGURE 4

SITE SOILS MAP

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS



NOTE: Property location is approximate

NORTH

Source: *Geologic Atlas of Texas Austin Sheet*, The University of Texas at Austin, Bureau of Economic Geology, dated 1974, Reprinted 1995.

mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
(512) 258-6606

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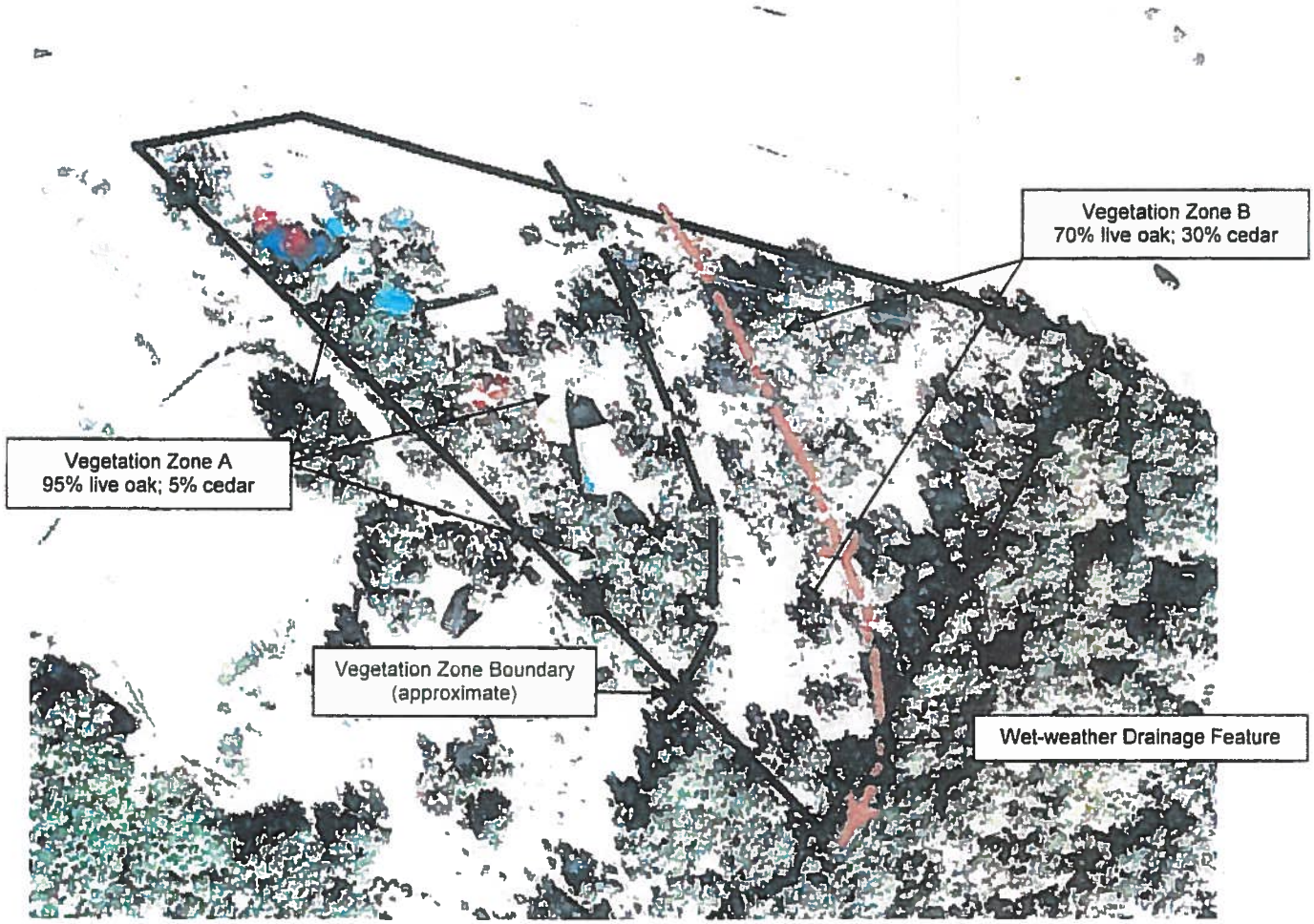
FIGURE 5

GENERAL GEOLOGIC MAP

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS



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mta M. TROJAN & ASSOCIATES
Environmental & Engineering Consulting
8244 Lime Creek Road
Leander, Texas 78641
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FIGURE 6

SITE VEGETATION MAP

2.77-ACRE PARTIALLY DEVELOPED PROPERTY
8907 BEE CAVE ROAD
AUSTIN, TRAVIS COUNTY, TEXAS

APPENDIX B

SITE PHOTOGRAPHS

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 1]

Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	View of the subject property with Bee Cave Road in the foreground. Photograph taken from Bee Cave Road facing south.

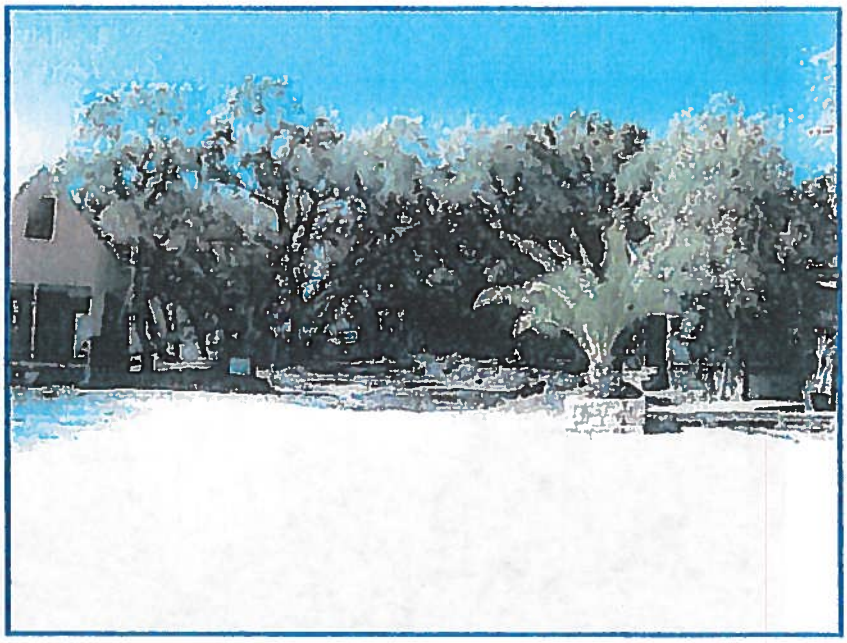
PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 2]

Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	View of the western (partially developed) portion of the subject property, developed with several small buildings and gravel driveway. Photograph taken from Bee Cave Road facing south-southeast.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 3]



Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	Typical view of large vegetation of Vegetation Zone A on the western portion of the subject property.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 4]

Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	Typical view of large vegetation of Vegetation Zone B on the eastern portion of the subject property, and clearing/soil storage area.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 5]

Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	View of the wet-weather drainage feature in the east-central portion of the subject property.

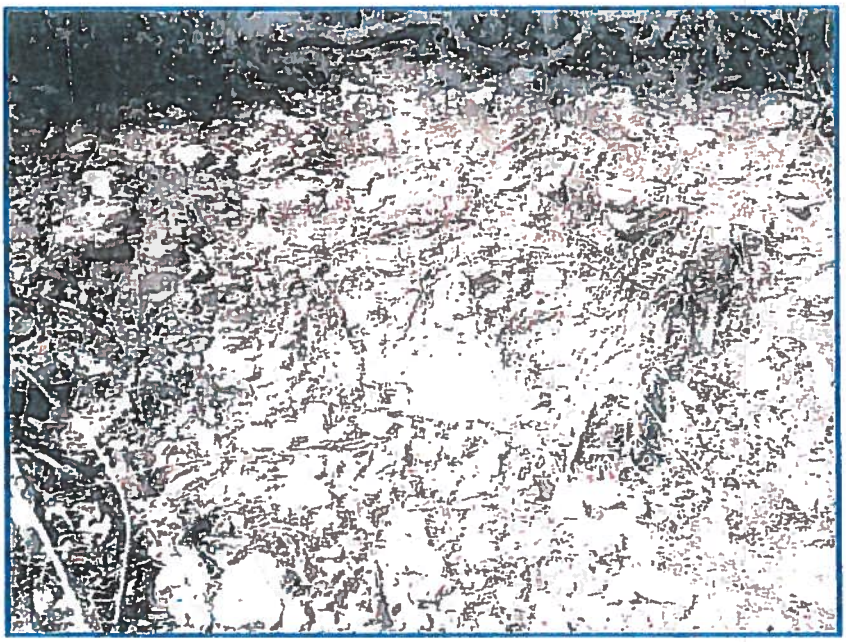
PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 6]

Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	View of typical soils on the subject property.

PHOTOGRAPHIC REPORTING DATA SHEET

[PHOTOGRAPH 7]



Project:	City of Austin Environmental Assessment
Site:	2.77-Acre Partially Developed Property
Location:	8907 Bee Cave Road, Austin, Travis County, Texas
Date Taken:	February 24, 2009
Photographer:	Michael Trojan, CPG
Description:	View of typical geologic outcrops on the subject property.