



ITEM FOR ENVIRONMENTAL BOARD AGENDA

**BOARD MEETING
DATE REQUESTED:**

April 1, 2015

**Name & Number
OF PROJECT:**

70 PASCAL LANE
SP-2014-0144D

**NAME OF APPLICANT
OR ORGANIZATION:**

Armbrust & Brown, LLP.
Amanda Morrow, (512) 435-2368

LOCATION:

70 Pascal Lane

PROJECT FILING DATE:

April 17, 2014

**WPD/ERM
STAFF:**

SCOTT HIERS, 974-1916
scott.hiers@austintexas.gov

**PDRD/Environmental
STAFF:**

JIM DYMKOWSKI, 974-2707
james.dymkowski@austintexas.gov

**PDRD/
CASE MANAGER:**

Michael Simmons-Smith, 974-1225
michael.simmons-smith@austintexas.gov

WATERSHED:

Lake Austin (Water Supply Suburban),
Drinking Water Protection Zone

ORDINANCE:

Watershed Protection Ordinance

REQUEST:

1) To allow the construction of a tram within a 150 foot Critical Environmental Feature buffer (Canyon Rimrock/Bluff) to provide a single point of shoreline access to a proposed boat dock that is outside of the buffer. 25-8-281 (C) (2) (B).

STAFF RECOMMENDATION: Approve with condition.

REASONS FOR RECOMMENDATION:

The findings of fact have been met if implemented with conditions.



MEMORANDUM

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

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

DATE: April 1, 2015

SUBJECT: 70 Pascal Lane – SP-2014-0144D

On your April 1, 2015 agenda is a request for consideration and possible recommendation for one variance to allow the construction of a tram within a 150 foot Critical Environmental Feature (Canyon Rimrock/Bluff) buffer to provide a single point of shoreline access to a proposed boat dock that is outside of the buffer. 25-8-281 (C) (2) (B).

Description of Property

The subject property is a 1.926 acre platted lot located in the Lake Austin Watershed, is classified as Water Supply Rural, and is located in the Drinking Water Protection Zone. According to City of Austin GIS, the site is not located over the Edwards Aquifer Recharge Zone. The subdivision, Rob Roy Phase 2, was recorded in 1979. The property is located within the Full Purpose Planning Jurisdiction and the lot is zoned LA. According to Travis County Appraisal District records, the existing residence was constructed in 1989. The site does not have any existing dock or structural shoreline access from the home. All work proposed is new construction. This lot, as well as the others along the shoreline in this subdivision, is subject to a restrictive covenant limiting construction to the shoreline below the bluff and prohibiting construction on the bluff itself. During a recent variance request on a property close to this one, the City and the homeowners association both determined that they would not be enforcing this restriction in this covenant.

Existing Topography/Soil Characteristics/Vegetation

According to City of Austin GIS, the lot elevation ranges from the Lake Austin shoreline at 492.8 feet mean sea level (msl), to approximately 780 feet msl at the back of the house (three hundred and six foot rise). The type of soils located on this site were identified in the Environmental Resource Inventory as Speck-Tarrant association which consists of shallow, stony, loamy soils and very shallow, stony clay soils overlying limestone. The slope vegetation contains many existing native trees, (Live oak, Ashe juniper, Shin oak) and an understory of elbowbush and greenbriar vine. The site does contain a Canyon Rimrock/Bluff Critical Environmental Feature approximately a third of the way down the slope.

Critical Environmental Features/CWQZ

There is a Canyon Rimrock/Bluff Critical Environmental Feature (CEF) located approximately a third of the way down the slope away from the existing residence. The project is located within the Critical Water Quality Zone of Lake Austin, which is a 75 foot buffer from the 492.8 feet shoreline elevation. The proposed dock and access are allowed by code within the Critical Water Quality Zone. No endangered species were identified in the Environmental Resource Inventory.

Project Background

The site plan under review was submitted on April 17, 2014 and proposes the construction of a new shoreline access by tram with landing directly onto the footprint of a new two slip boat dock. Because of the LA zoning the applicant also has requested a Board of Adjustment variance which was denied, but the applicant has requested reconsideration of that request after action by the Environmental Board on the CEF variance.

Environmental Code Variance Request

According to 25-8-281 (C) (2) (B), construction is prohibited within the 150 CEF buffer. The requested variance is to allow the construction of a tram within a 150 foot Critical Environmental Feature buffer (Canyon Rimrock/Bluff) to provide a single point of shoreline access to a proposed boat dock that is outside of the buffer. The Canyon Rimrock/Bluff CEF will not be disturbed by tram construction and the buffer width will be maintained.

Conditions for Staff Approval

1. No tram support will be placed into the Canyon Rimrock/Bluff and shall not have contact with the Canyon Rimrock/Bluff within 5' of the crest and 1' of the toe of the Canyon Rimrock/Bluff. Prior to site plan approval the applicant will provide a letter from a structural engineer certifying that the tram can be constructed as shown on the plans spanning the bluff with a 5' setback from the crest and a 1' setback from the toe.

Recommendation

Staff recommends approval of the environmental variance because the Findings of Fact (enclosed herein) have been met.



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

Project: 70 Pascal Lane- SP-2014-0144DS

Ordinance Standard: Land Development Code Section 25-8-281(C) (2) (b)

Variance Request: To allow construction of a tram within a canyon rimrock/bluff Critical Environmental Feature (CEF) buffer in order to have access to the shoreline.

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. There are other properties with frontage along Lake Austin that possess extreme slopes. These frequently contain stairs or trams to access a boat dock along the shoreline.

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. Property owners are allowed one access to the shoreline as a necessary access. The Canyon Rimrock/Bluff critical environmental feature spans the entire width of the property. Therefore, any proposed access would have to go through the buffer and across the feature itself. The construction of the tram uses minimal impervious cover and disturbance and City code requires revegetation of all disturbed areas and that the tram design include screening with the use of existing vegetation and painting of the tram to the surrounding environment.

- 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 construction of tram for shoreline access is currently the method that uses the least amount of impervious cover and site disturbance. The tram structure is a minimal increase in impervious cover to provide the property owner access to the shoreline and the proposed boat dock.

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

Yes. The construction of a tram is a typical means of access to the shoreline for properties along the lake with steep slopes. For this site, the construction of the tram will have less impervious cover and less environmental impact compared to the construction of stairs or a permanent path. The appropriate sedimentation and erosion controls are proposed and all disturbed area will be revegetated with native plants that are similar to current vegetation growing on steep slopes.

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

Yes. The construction of the tram uses minimal impervious cover and site disturbance. The Land Development Code requires revegetation of all disturbed areas. The appropriate sedimentation and erosion controls are proposed and revegetation of all disturbed areas after construction will be completed. The water quality should be at least equal to the current water quality condition.

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:



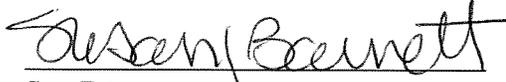
Jim Dymkowski

Hydrogeologist Reviewer:



Scott Hiers

Environmental Program Coordinator:



Sue Barnett

Environmental Officer:



Chuck Lesniak

Date: March 26, 2015

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

70 Pascal Lane- SP-2014-0144DS
Driving Directions

Beginning at Austin City Hall 301 W 2nd Street:

Turn right onto W Cesar Chavez St/Water Ave

Continue to follow W Cesar Chavez St 1.2 mi

Keep left at the fork, follow signs for TX-1 Loop S and merge onto TX-1 Loop S
0.7 mi

Follow TX-1 Loop S and TX-360 Loop N to Pascal Ln
9 min (7.5 mi)

Merge onto TX-1 Loop S
2.0 mi

Take the exit toward Texas 360 Loop N/Capital of Tx Hwy
0.1 mi

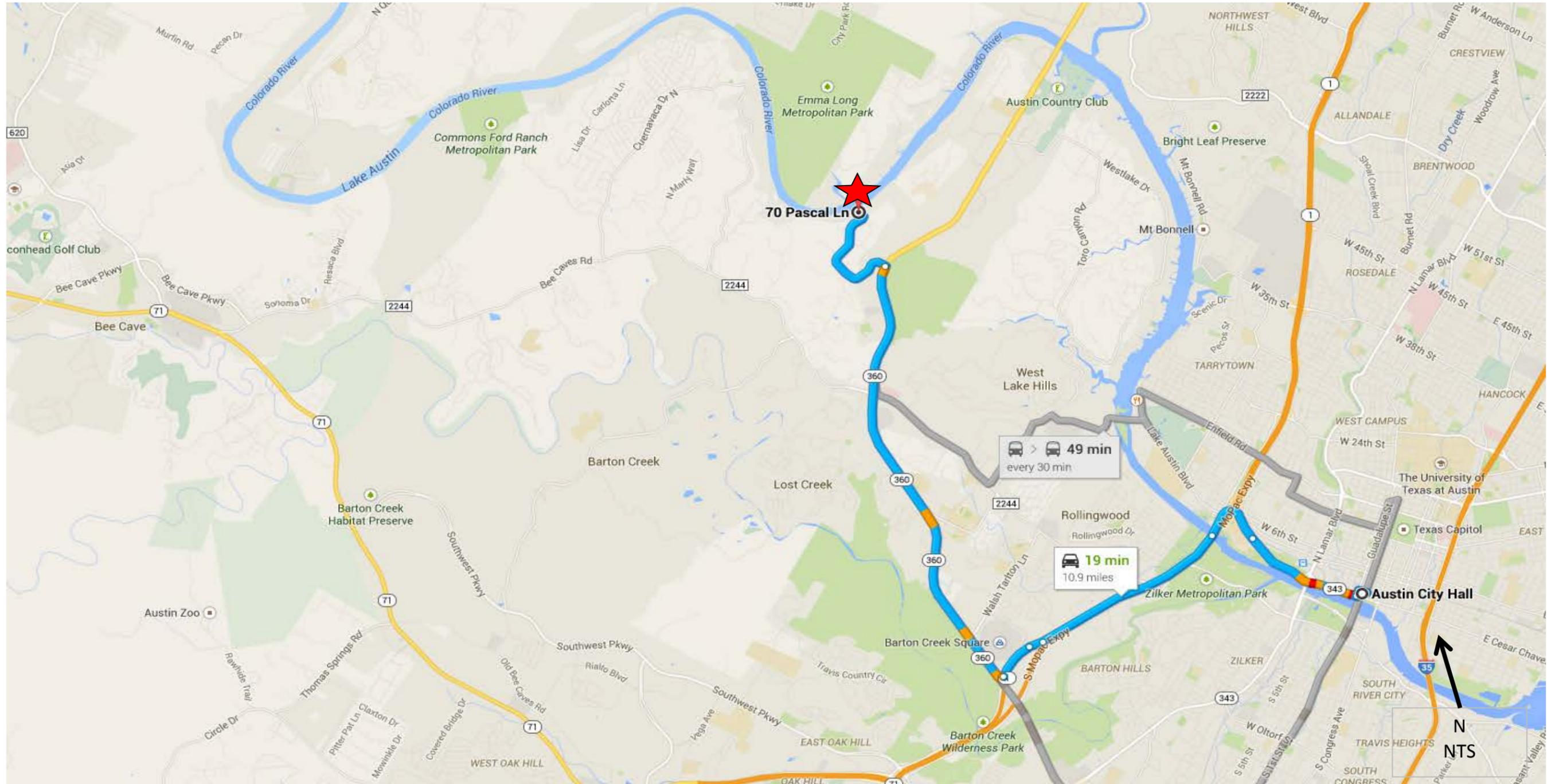
Turn right onto TX-360 Loop N
4.9 mi

Turn left onto Pascal Ln

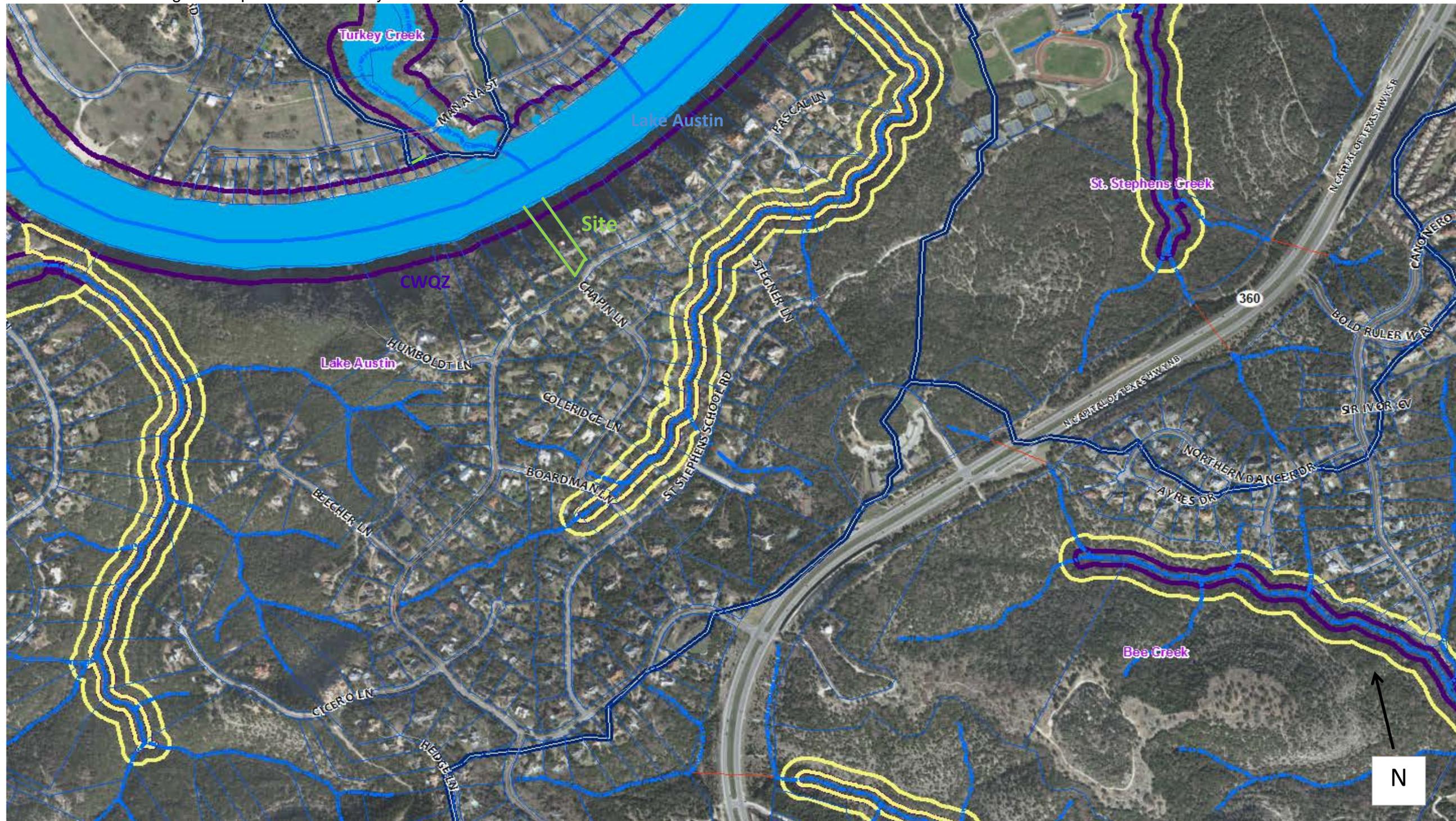
Destination will be on the left

70 Pascal Ln
Austin, TX 78746

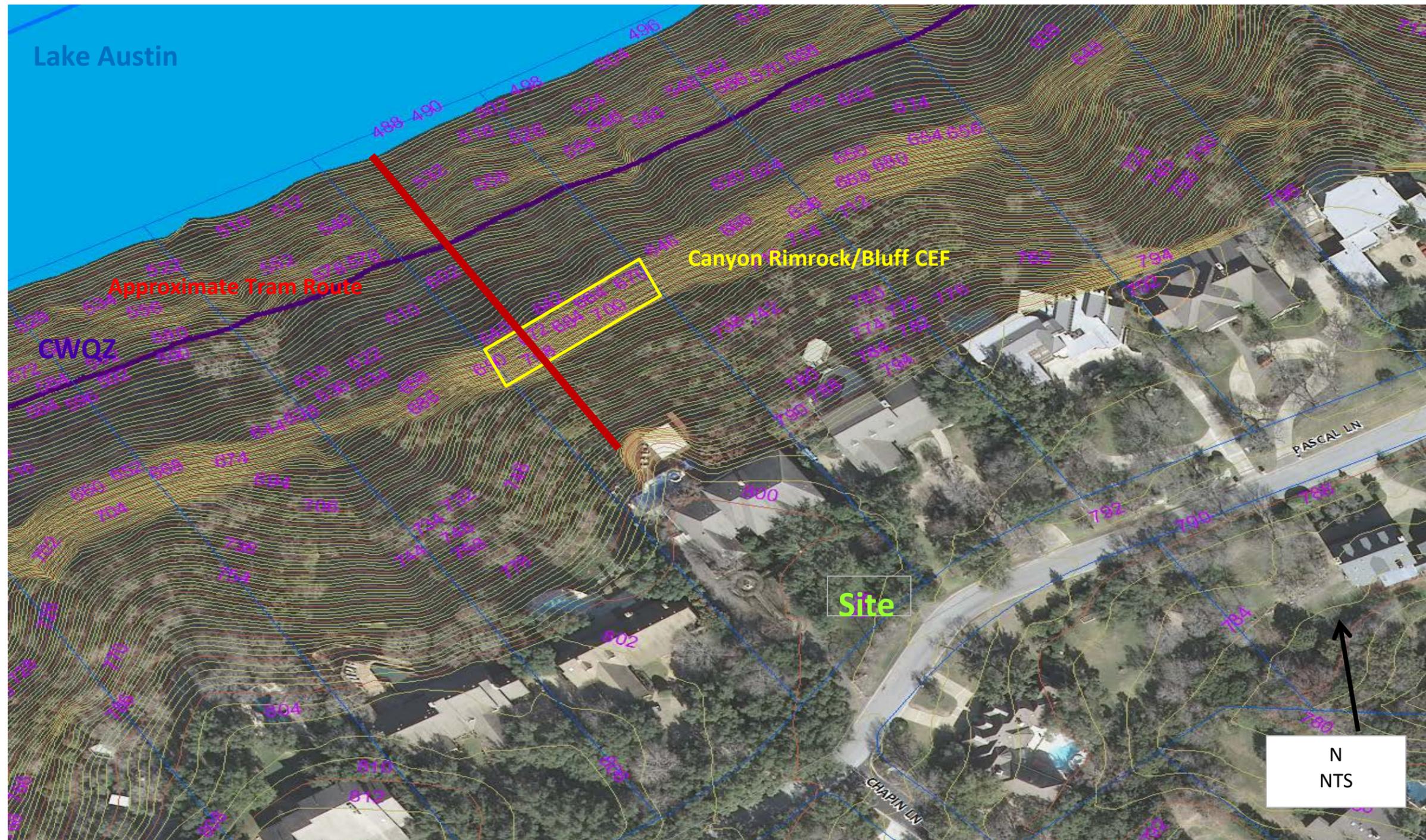
70 Pascal Lane
SP-2014-0144DS
Site Location



70 Pascal Lane
SP-2014-0144DS
Surrounding Development and Nearby Waterways



70 Pascal Lane
SP-2014-0144DS
Existing site conditions and topography



70 Pascal Lane
SP-2014-0144DS
Site Photos



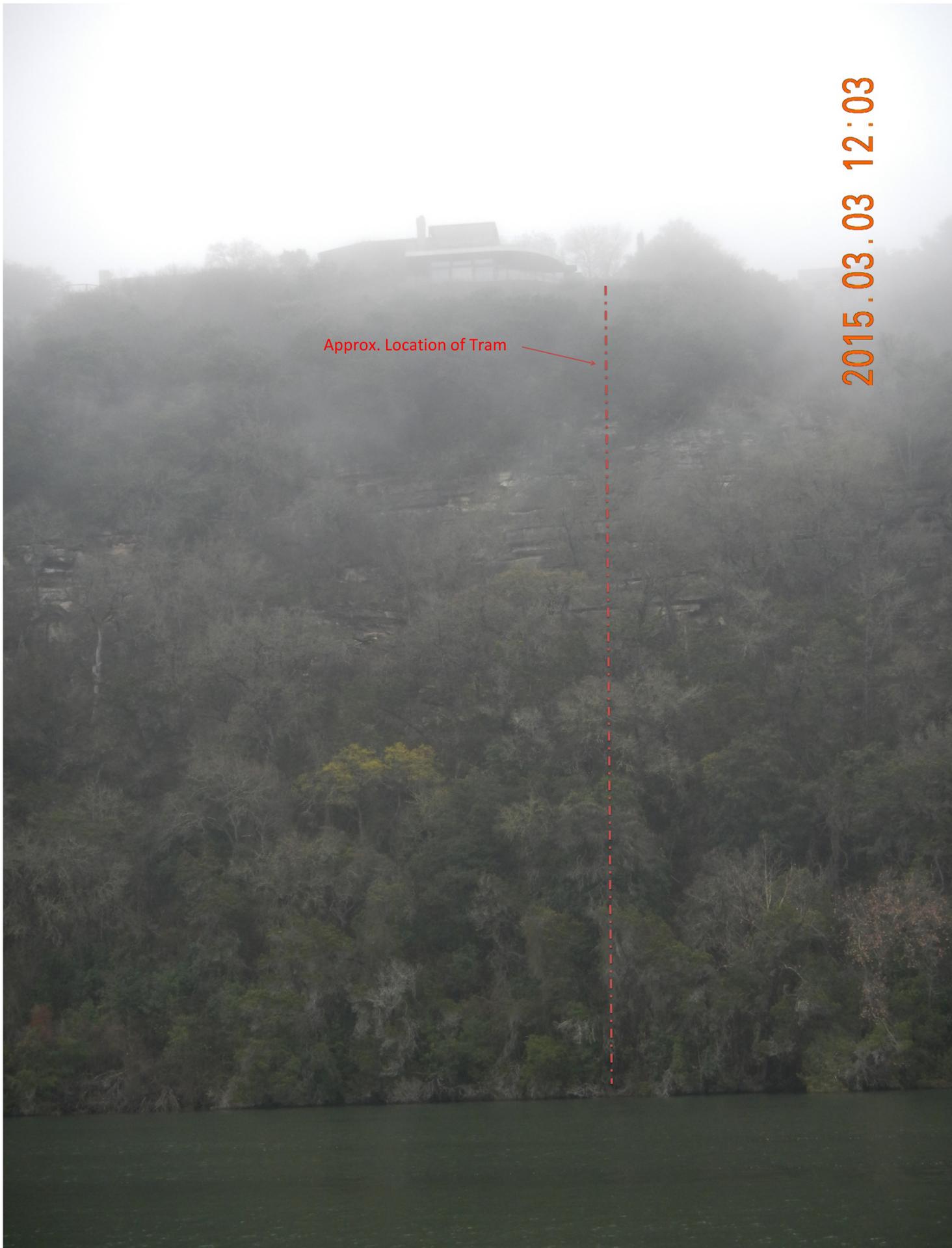
Tram landing near home above lake

70 Pascal Lane
SP-2014-0144DS
Site Photos



View of tram route from landing above lake

70 Pascal Lane
SP-2014-0144DS
Site Photos



View of tram landing at boat dock location in shoreline



View of the canyon rimrock critical environmental feature

ARMBRUST & BROWN, PLLC

ATTORNEYS AND COUNSELORS

100 CONGRESS AVENUE, SUITE 1300
AUSTIN, TEXAS 78701-2744
512-435-2300

FACSIMILE 512-435-2360

Amanda Morrow
(512) 435-2368
amorrow@abaustin.com

March 25, 2015

VIA HAND DELIVERY

Jim Dymkowski
City of Austin
505 Barton Springs Road
4th Floor
Austin, Texas 78701

70 Pascal Lane; Exhibits For Environmental Board Consideration

Dear Jim:

The following information is attached in order to assist the Environmental Board in its determination of the proposed variance for 70 Pascal Lane.

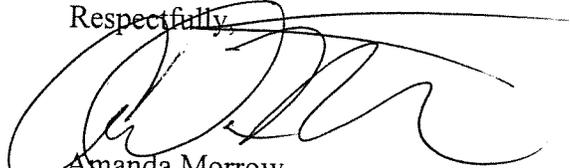
- A. Engineers summary letter.
- B. Variance request letter from Bruce Aupperle.
- C. Environmental Board Variance Application Template.
- D. Aerial photos of site.
- E. Context map – showing location of approved boat docks.
- F. Photographs of approved boat docks and trams within the vicinity of the property.
- G. Site photos.
- H. Aerial photos of vicinity.
- I. Topographic map.
- J. Proposed site plan.

{W0651916.1}

- K. Environmental map.
- L. Environmental Assessment.

Should you have any questions, please do not hesitate to contact me.

Respectfully,

A handwritten signature in black ink, appearing to read 'Amanda Morrow', written over the word 'Respectfully,'.

Amanda Morrow
Land Development Consultant

Attachments

ATTACHMENT A
ENGINEERS SUMMARY LETTER



Aupperle Company

10088 Circleview Drive, Austin, Texas 78733
Phone & Fax (512) 329-8241
Email: Aupperle@att.net
Texas Board of Professional Engineers Registration Number F-1994

March 11, 2015

Director of Planning and Development Review
City of Austin
P.O. Box 1088
Austin, Texas 78767

Re: Second Amended Environmental Resource Inventory, Engineer's Floodway Encroachment Certification and Summary Letter for a Single-Family Boat Dock on Lake Austin at 70 Pascal Lane, Austin Texas

Dear Director:

This project proposes to construct a new boat dock, tram and appurtenances. A general description of the proposed project follows.

Overview

This project is situated approximately three-quarter mile north of the intersection of Loop 360 and Pascal Lane intersection. The property is located within the city limits of the City of Austin. The principle residence associated with this residential dock will be at 70 Pascal Lane. The project site is located within the Lake Austin watershed. The new dock widths will total 27 feet or 20% of the shoreline width. Access for construction activities will be by water and land. All piles will be 6-5/8" driven steel piles. All piles will be driven to 0.5" refusal per blow. There will be no shoreline improvements. The dock improvements will be built this coming winter.

Environmental Resource Inventory

The project site is not located over a karst aquifer, is not within an area draining to a karst aquifer or reservoir, is not within a water quality transition zone, is within a critical water quality zone, is located on slopes with a gradient more than 15 percent, however, is located within the 100-year flood plain of Lake Austin. The F.E.M.A. flood plain information is attached and F.I.R.M information is included on the Cover Sheet. The Hydrogeologic Element and Vegetation Element of the ERI are contained in the attached Terracon report dated September 22, 2014 for the site.

Wastewater Element: No wastewater or water service is proposed for this project. Therefore, justifications, explanations, descriptions, techniques, standards or calculations regarding wastewater service are not included herein.

Engineer's Certification - Floodway Encroachment - LDC 25 -12 G103.5

The proposed dock will not increase the rate of storm runoff within the Colorado River watershed. The openness and profile of the proposed dock will not adversely obstructive flood flows relative to the existing shoreline protrusions and improvement and will not increase the level of the design flood of the adjacent Colorado River.

March 11, 2015
Director of Planning and Development Review

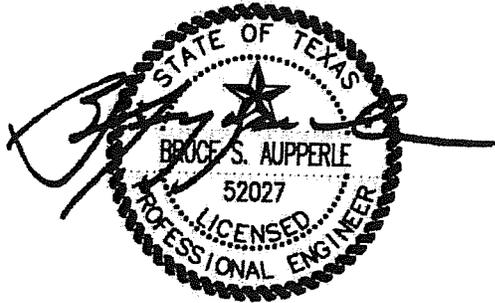
Page 2 of 2

Variances, Waivers & Conclusions

The dock construction is located within the critical water quality zone, but a variance to construct the dock facilities in the CWQZ is not required. The dock width does not exceed 20% of the shoreline width. The dock will not extend beyond 30' from the shoreline. The dock will not encroach into the 10-foot side yard setback. Access to the dock will be via a proposed tram which crosses a rim rock/bluff and rim rock/bluff buffer and will require a variance to construct. The project as designed is in substantial compliance with the applicable requirements of the City of Austin Development Code. There will be no adverse impact on the natural and traditional character of the land or waterways. If you have any questions, please feel free to call.

Very truly yours,

Bruce S. Aupperle, P.E.



ATTACHMENT B

VARIANCE REQUEST LETTER FROM BRUCE AUPPERLE



Aupperle Company

10088 Circleview Drive, Austin, Texas 78733

Phone & Fax (512) 329-8241

Email: Aupperle@att.net

March 23, 2015

Director of Planning and Development Review
City of Austin
P.O. Box 1088
Austin, Texas 78767

Re: 70 Pascal Lane
Request for Variance to LDC Section 25-8-281(C)(2)
Construction within a Critical Environmental Features Buffer Zone

Director:

The proposed construction includes a two-slip boat dock, necessary access and appurtenances at the referenced address. No bulkhead construction is proposed. The site contains a critical environmental features as defined by the current Land Development Code, rim rock/bluffs. The rim rock/bluff are located on land. The proposed boat dock and tram, i.e. necessary access, are located within 150 feet of the critical environmental features. The strict adherence of 150-foot buffer zone for the critical environmental features would prohibit most construction on this tract and all construction along the shoreline.

Please note that this subdivision, Rob Roy, was not platted under the current land development code. This lot in Rob Roy was platted and is subject to the Lake Austin Watershed Ordinance. The Lake Austin Watershed Ordinance does not require setbacks or buffers for critical environmental features.

This letter is provided to you in support of a variance to allow construction within the critical environmental feature buffer zone. For the referenced project we submit the following support arguments for variance to Section 25-8-281(C)(2) related to project at 70 Pascal Lane.

- 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/No This application is requesting to construct a safe method of shoreline access within a CEF setback. The proposed construction is over very steep slopes to gain access to the Lake Austin shoreline and a dock thereon. There are currently many shoreline accesses that traverse CEF setback areas as defined by Code that were either grandfathered or were granted this variance administratively.
 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/No This subdivision, Rob Roy, was not platted under the current land development code. This lot in Rob Roy was platted and is subject to the Lake Austin Watershed Ordinance. The Lake Austin Watershed Ordinance does not require setbacks or buffers for critical environmental features.

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~~/No This application proposes to construct shoreline access in order to safely access the shoreline. Without adequate and safe shoreline access the property owners would not have the enjoyment of their lot's shoreline area or a dock facility. The proposed shoreline access construction is necessary and is an appurtenances to the dock and the shoreline area and as is permitted construction within the CWQZ.

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

~~Yes~~/No The construction methodology has a minimum footprint, does not propose to remove any trees greater than 8" diameter, disturbed areas will be re-vegetated and properly screened as required by Code with herbaceous and woody plants.

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

~~Yes~~/No This application proposes to re-vegetate any disturbed areas and the impervious cover is nominal. The resulting water quality will not be degraded.

Your support of the requested variance will be greatly appreciated. Please call if you have any questions.

Very truly yours,

Aupperle Company



Bruce S. Aupperle, P.E.

ATTACHMENT C

ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE



ENVIRONMENTAL BOARD VARIANCE APPLICATION TEMPLATE

Insert Applicant Variance Request Letter here.

PROJECT DESCRIPTION

Applicant Contact Information

Name of Applicant	Chris & Debbie Pacitti
Street Address	70 Pascal Lane
City State ZIP Code	Austin, TX 78746
Work Phone	512-435-2300 Amanda Morrow
E-Mail Address	amorrow@abaustin.com

Variance Case Information

Case Name	70 Pascal Lane
Case Number	SP-2014-0144D
Address or Location	70 Pascal Lane
Environmental Reviewer Name	James Dymkowski
Applicable Ordinance	25-28-281(C)(2)
Watershed Name	Lake Austin
Watershed Classification	<input type="checkbox"/> Urban <input type="checkbox"/> Suburban <input type="checkbox"/> Water Supply Suburban <input checked="" type="checkbox"/> Water Supply Rural <input type="checkbox"/> Barton Springs Zone
Edwards Aquifer Recharge Zone	<input type="checkbox"/> Barton Springs Segment <input type="checkbox"/> Northern Edwards Segment <input checked="" type="checkbox"/> Not in Edwards Aquifer Zones

Edwards Aquifer Contributing Zone	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Distance to Nearest Classified Waterway	Zero feet
Water and Waste Water service to be provided by	None required or proposed
Request	The variance request is as follows (Cite code references:25-8-281(C)(2))

Impervious cover	Existing	Proposed
square footage:	<u>NA</u>	<u>NA</u>
acreage:	<u>NA</u>	<u>NA</u>
percentage:	<u>NA</u>	<u>NA</u>
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)	See attached Engineer's Summary Letter.	

Clearly indicate in what way the proposed project does not comply with current Code (include	Construction of shoreline access will cross CEF setback.
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maps and exhibits)	
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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: 70 Pascal Lane

Ordinance: 25-8-281(C)(2)

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/No *This application is requesting to construct a safe method of shoreline access within a CEF setback. The proposed construction is over very steep slopes to gain access to the Lake Austin shoreline and a dock thereon. There are currently many shoreline accesses that traverse CEF setback areas as defined by Code that were either grandfathered or were granted this variance administratively.*

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/No *This subdivision, Rob Roy, was not platted under the current land development code. This lot in Rob Roy was platted and is subject to the Lake Austin Watershed Ordinance. The Lake Austin Watershed Ordinance does not require setbacks or buffers for critical environmental features.*

- 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/No *This application proposes to construct shoreline access in order to safely access the shoreline. Without adequate and safe shoreline access the property owners would not*

have the enjoyment of their lot's shoreline area or a dock facility. The proposed shoreline access construction is necessary and is an appurtenances to the dock and the shoreline area and as is permitted construction within the CWQZ.

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

Yes/No The construction methodology has a minimum footprint, does not propose to remove any trees greater than 8" diameter, disturbed areas will be re-vegetated and properly screened as required by Code with herbaceous and woody plants.

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

Yes/No This application proposes to re-vegetate any disturbed areas and the impervious cover is nominal. The resulting water quality will not be degraded.

~~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;~~

~~Yes/No [summary of basis for determination]~~

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

~~Yes/No [summary of basis for determination]~~

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

March 10, 2015

Yes/No ~~_____~~ [summary of basis for determination]

**Variance approval requires all above affirmative findings.

ATTACHMENT D
AERIAL PHOTOS OF SITE

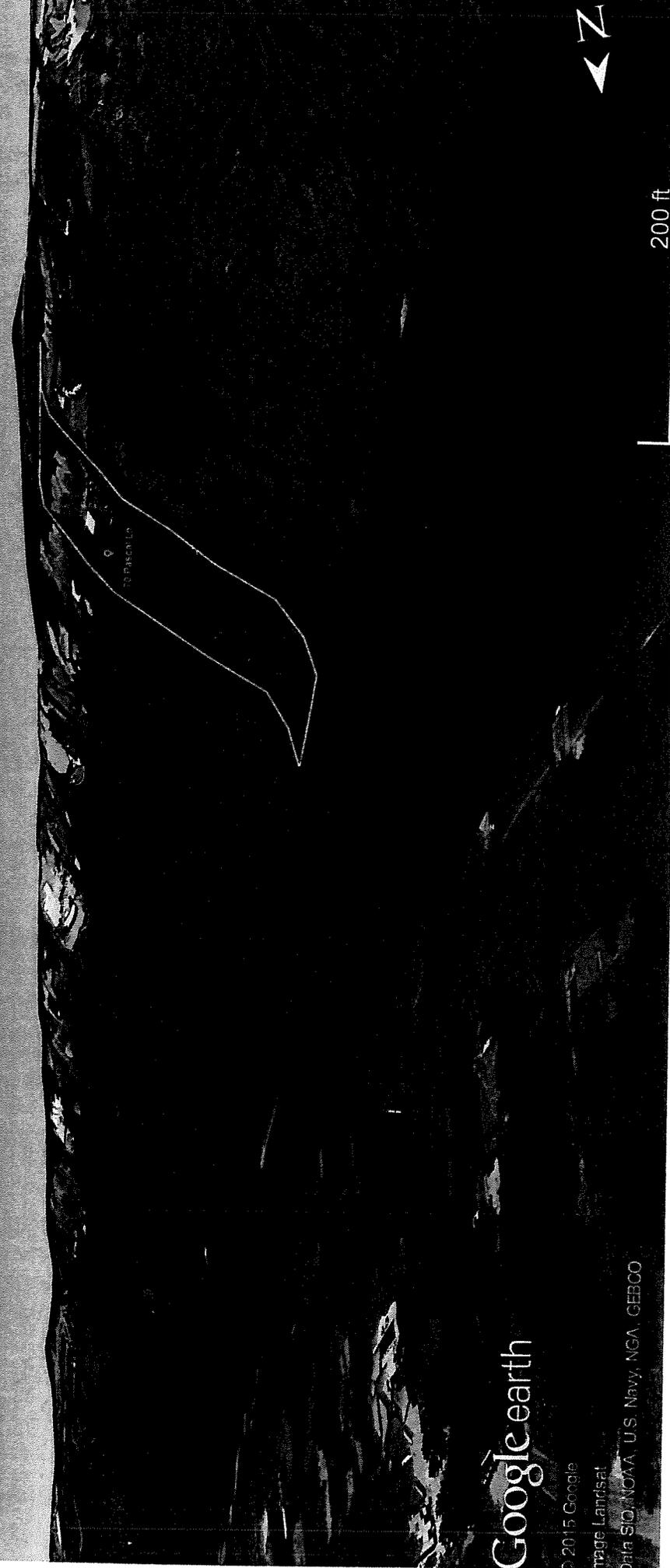
Legend

- 70 Pascal Ln
- Untitled Path

Google earth

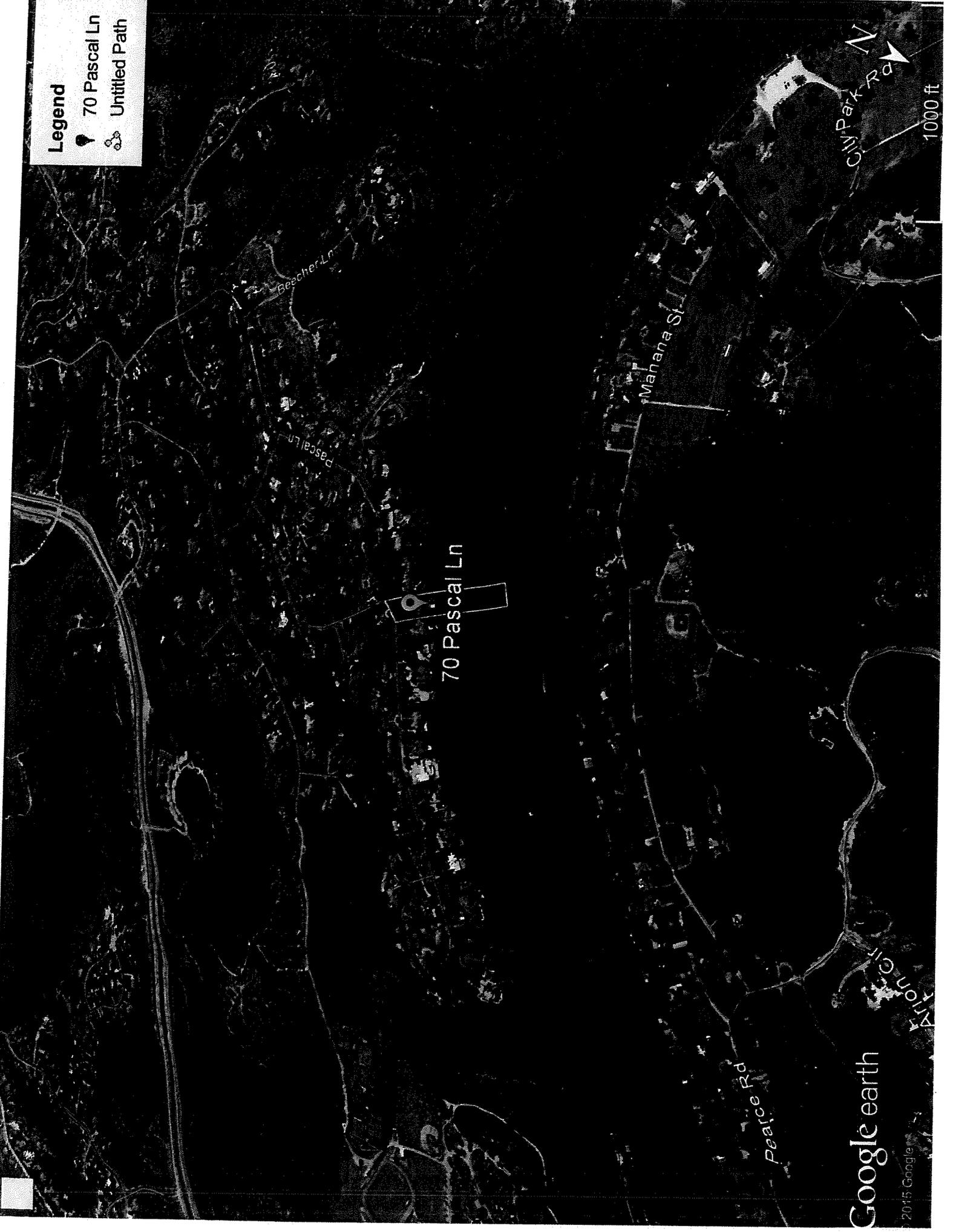
© 2015 Google
Image Landsat
Data SIO, NOAA, U.S. Navy, NGA, GEBCO

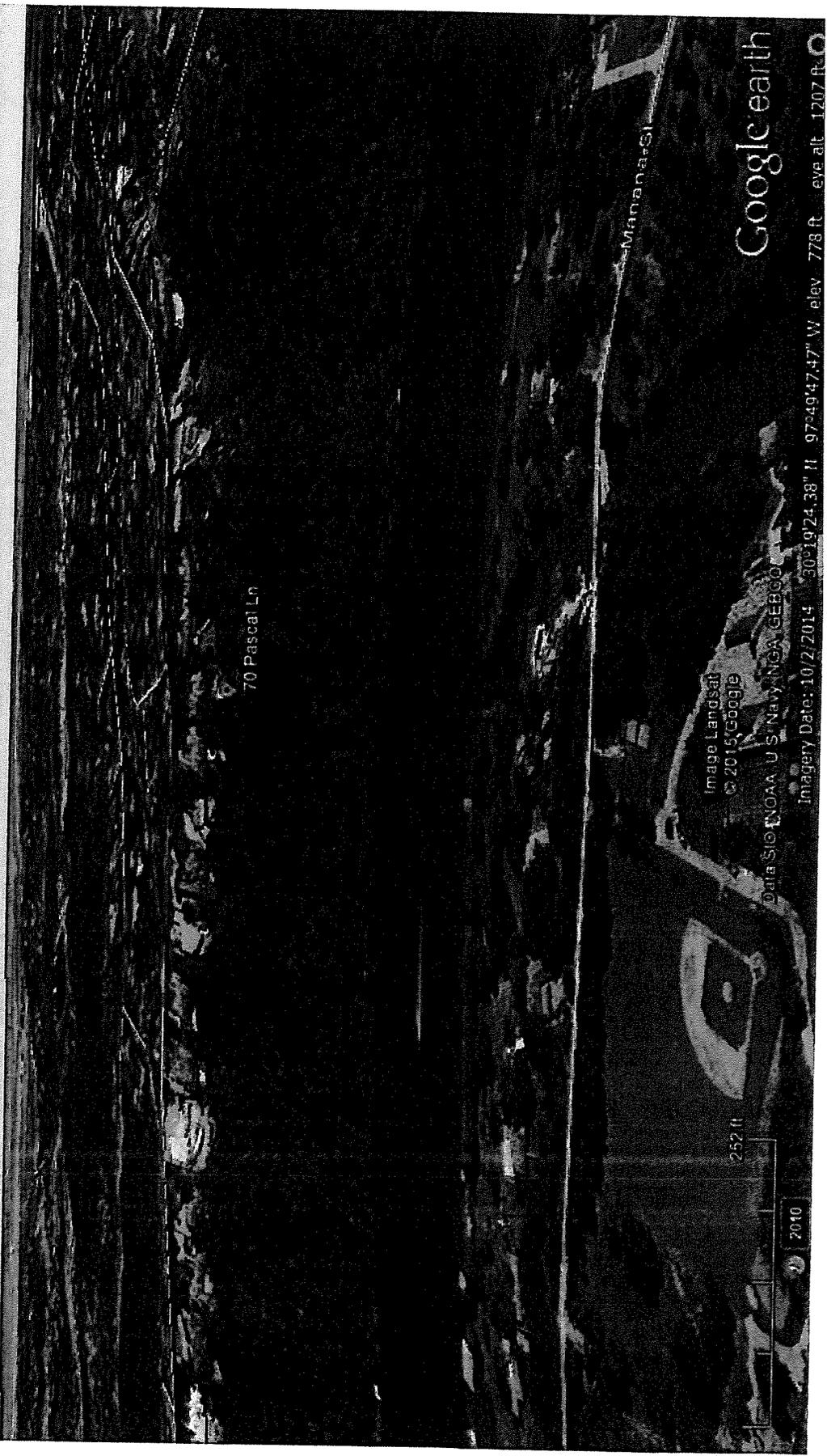
200 ft



Legend

- 70 Pascal Ln
- Untitled Path





70 Pascal Ln

Manana-St

252 ft



2010

Image Landsat
© 2015 Google

Data SIO NOAA U.S. Navy NGA GEBCO

Imagery Date: 10/2/2014 30°19'24.38" N 97°49'47.47" W elev. 778 ft eye alt. 1207 ft

Google earth

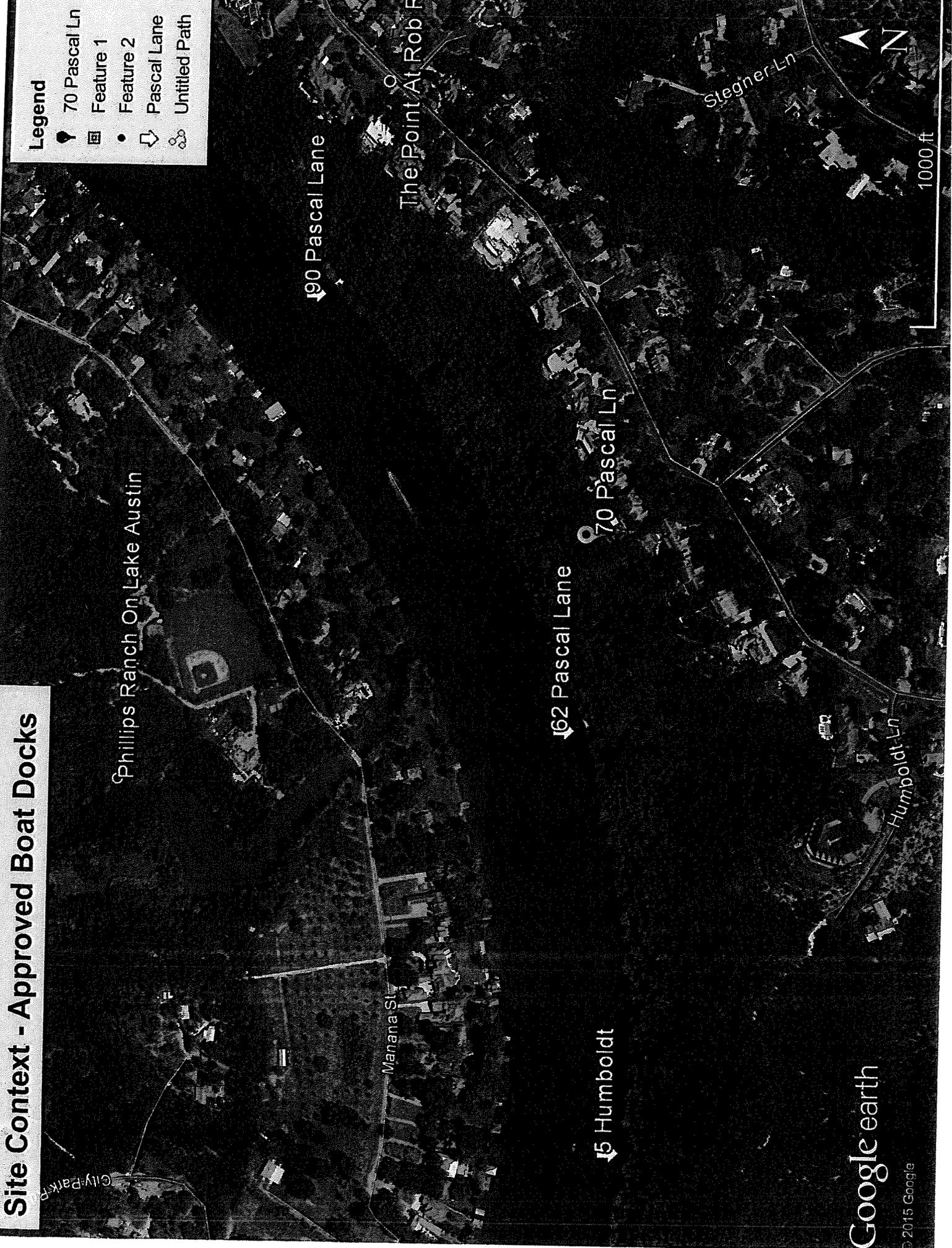
ATTACHMENT E

**CONTEXT MAP IDENTIFYING LOCATION OF APPROVED BOAT DOCKS – SUMMARY
OF SAME**

Site Context - Approved Boat Docks

Legend

- 70 Pascal Ln
- Feature 1
- Feature 2
- Pascal Lane
- Untitled Path



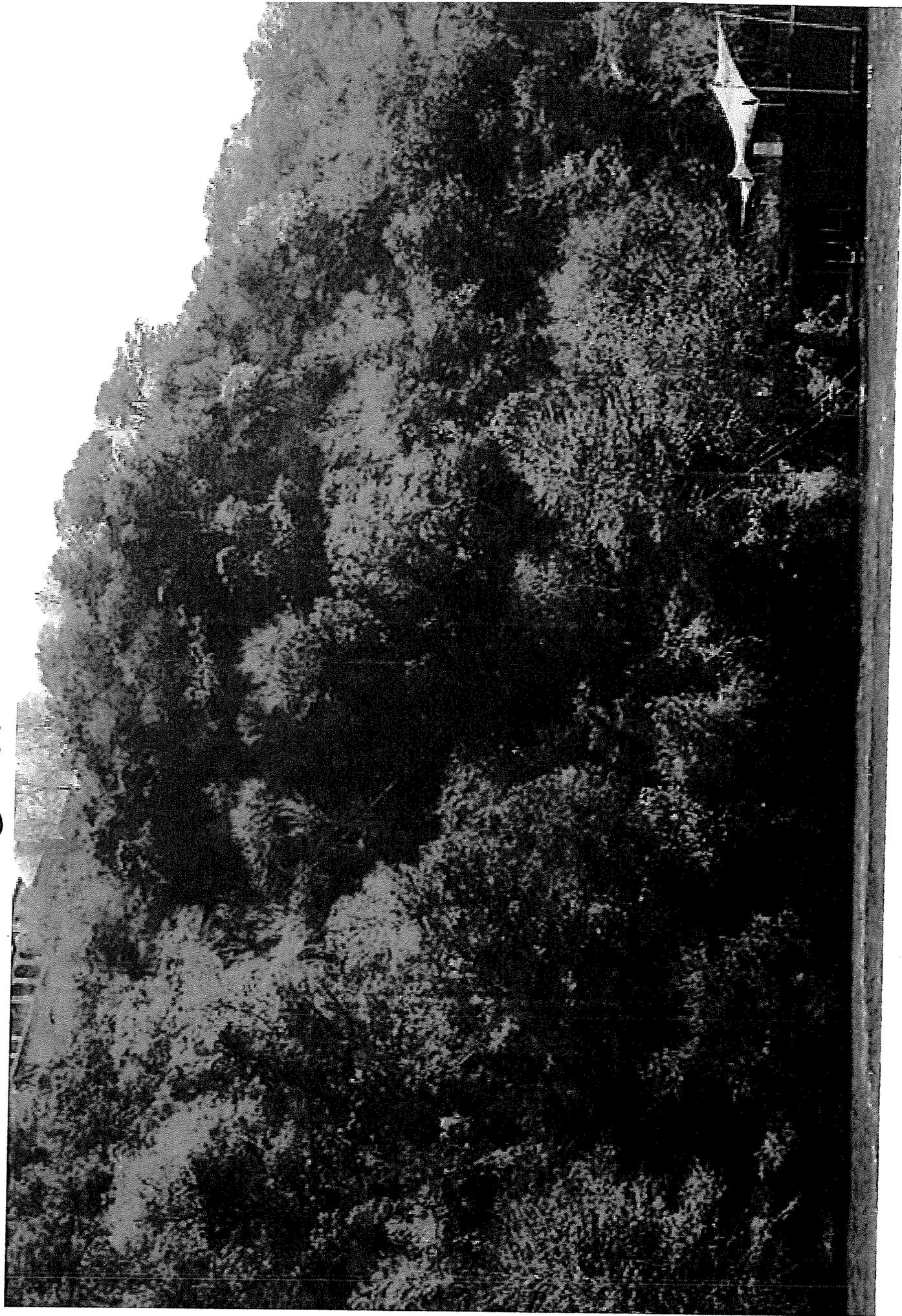
APPROVED BOAT DOCK IN THE SURROUNDING AREA

Address	Subdivision	Subdivision Recording Date	COA Site Plan Case Number	Site Plan Approval Date	Notes
90 Pascal Lane	Davenport West PUD, Tract C-3, Section 2, The Point at Rob Roy	8-29-1979	SP-00-2517DS	5-30-2001	Tram and dock constructed within rimrock CEF buffer.
62 Pascal Lane	Rob Roy Phase 2	5-15-1991	SP-06-0666DS	6-6-2007	Variance to reduce CEF setback to 25 feet in order to construct a dock boat dock.
5 Humboldt	Rob Roy Phase 2	8-29-1979	SP-2013-0133D	4-25-2014	Variance to construct boat dock and access trail within a rimrock CEF buffer.

ATTACHMENT F

PHOTOGRAPHS OF APPROVED BOAT DOCKS AND TRAMS WITHIN THE VICINITY
OF THE PROPERTY

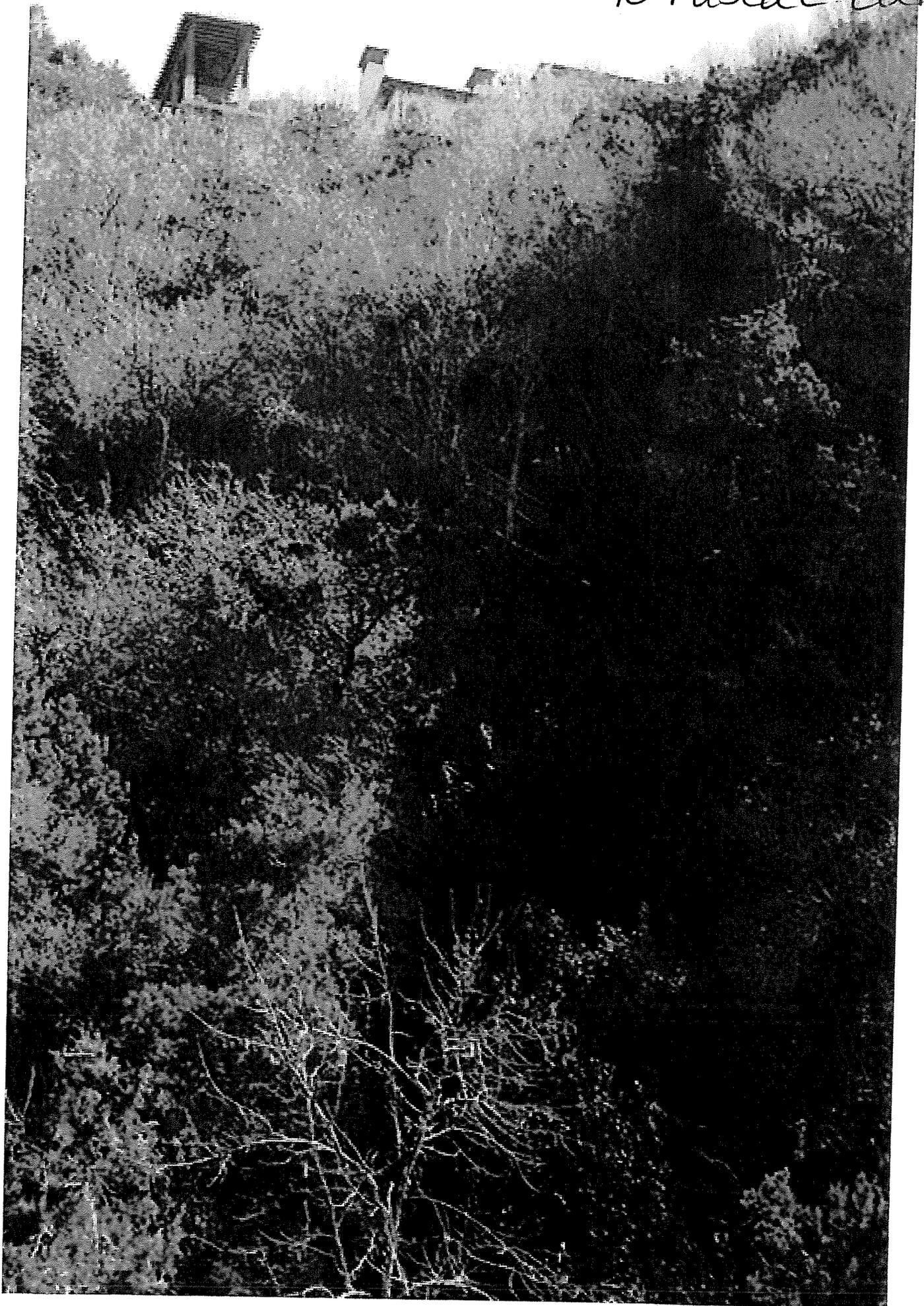
40 Pascal Lane



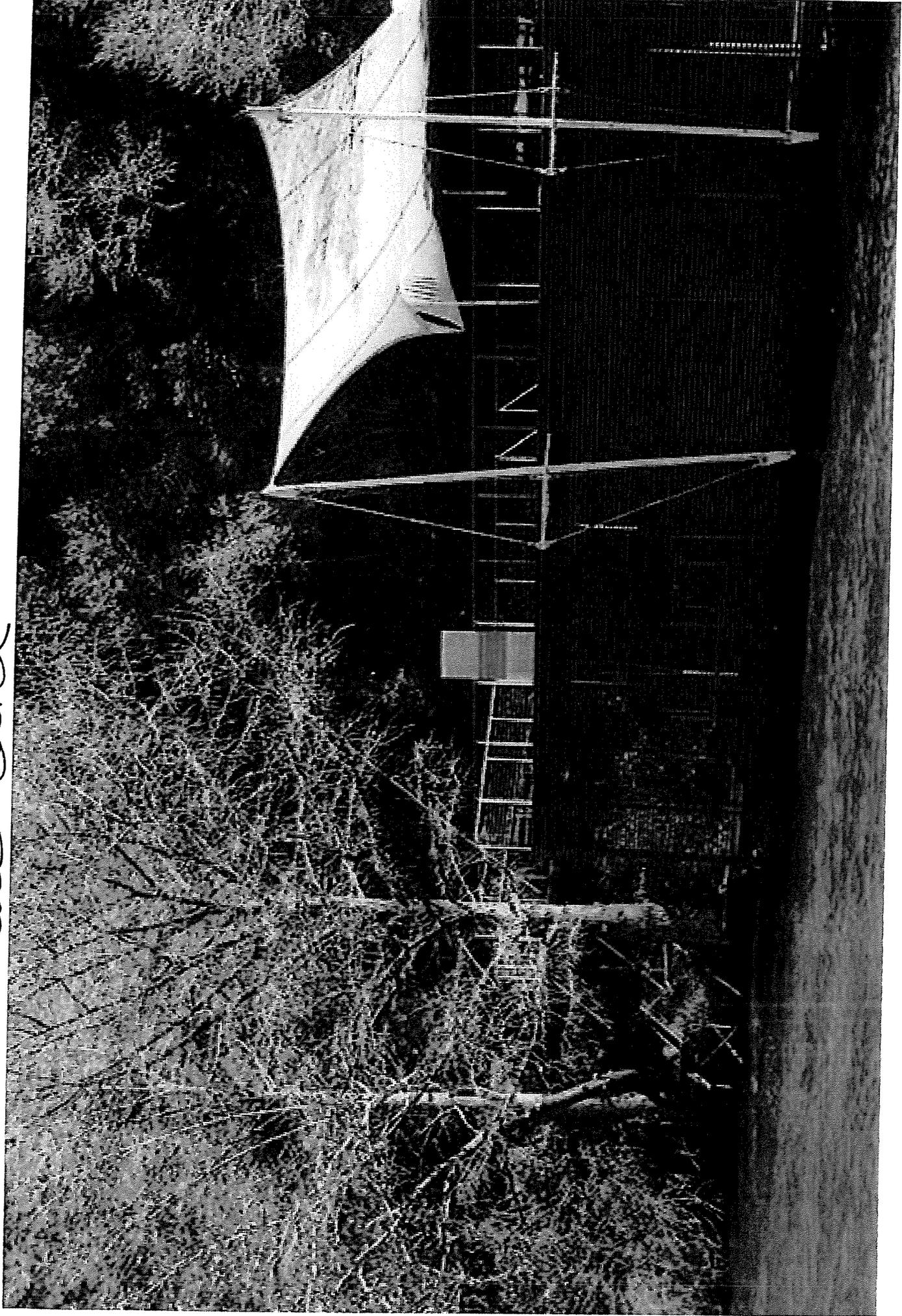
40 - Pascal lane



70 FASCAL Lane



90 Pascal Lane



ATTACHMENT G

SITE PHOTOS



Photo 1 View towards Lake Austin to the adjoining north

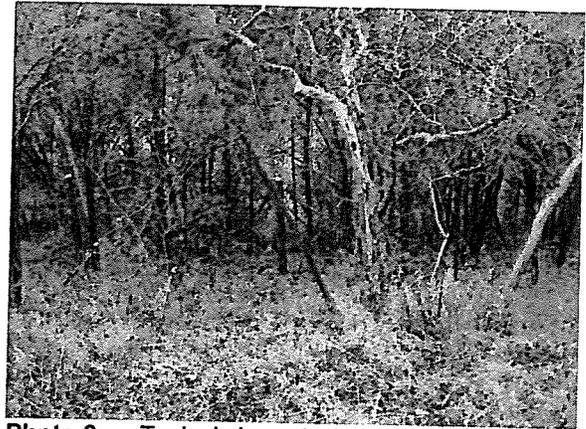


Photo 2 Typical view of vegetation on-site



Photo 3 Typical view of vegetation on-site

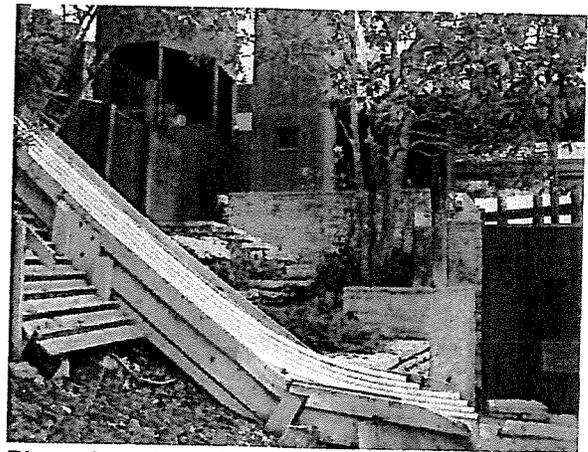
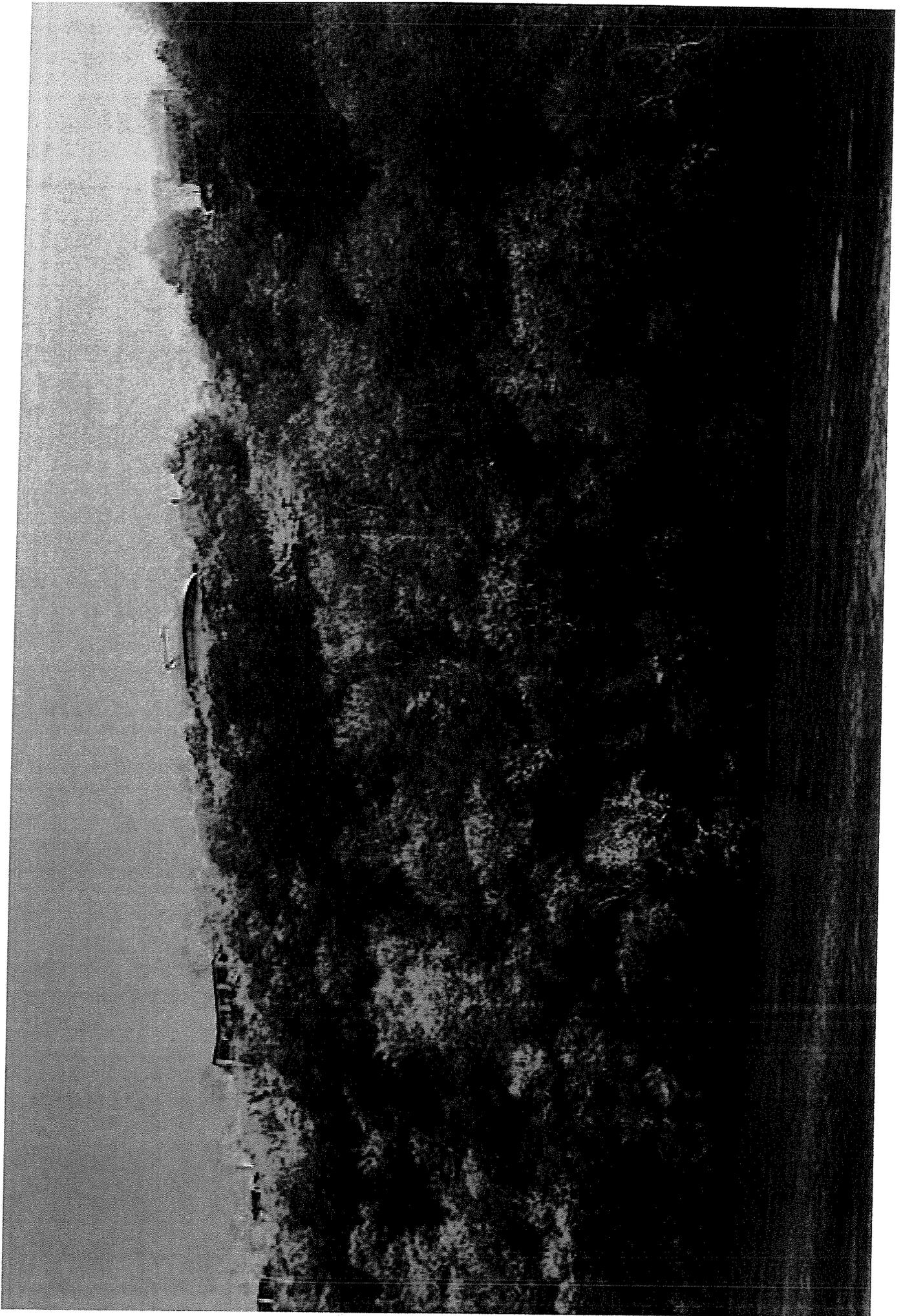
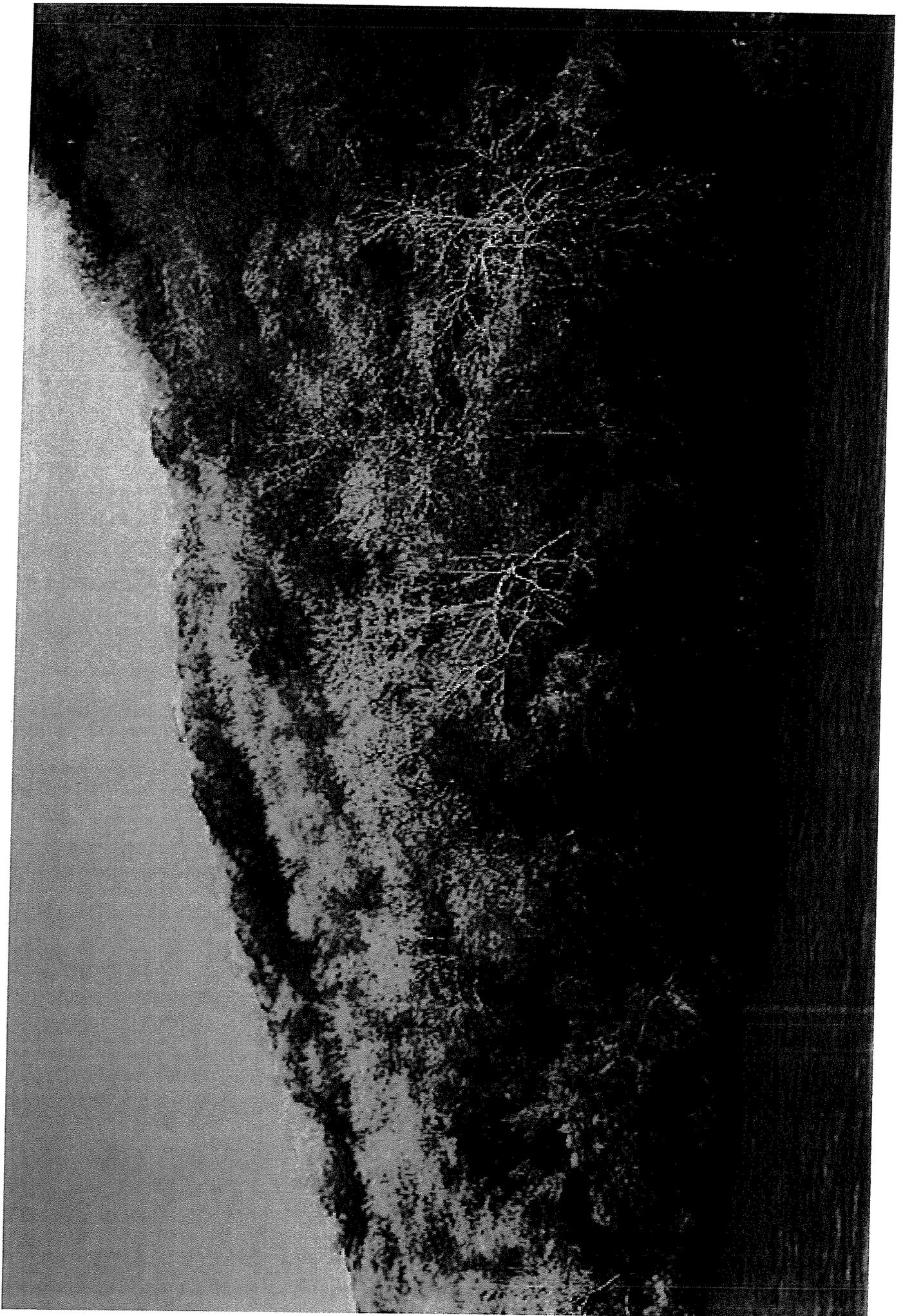
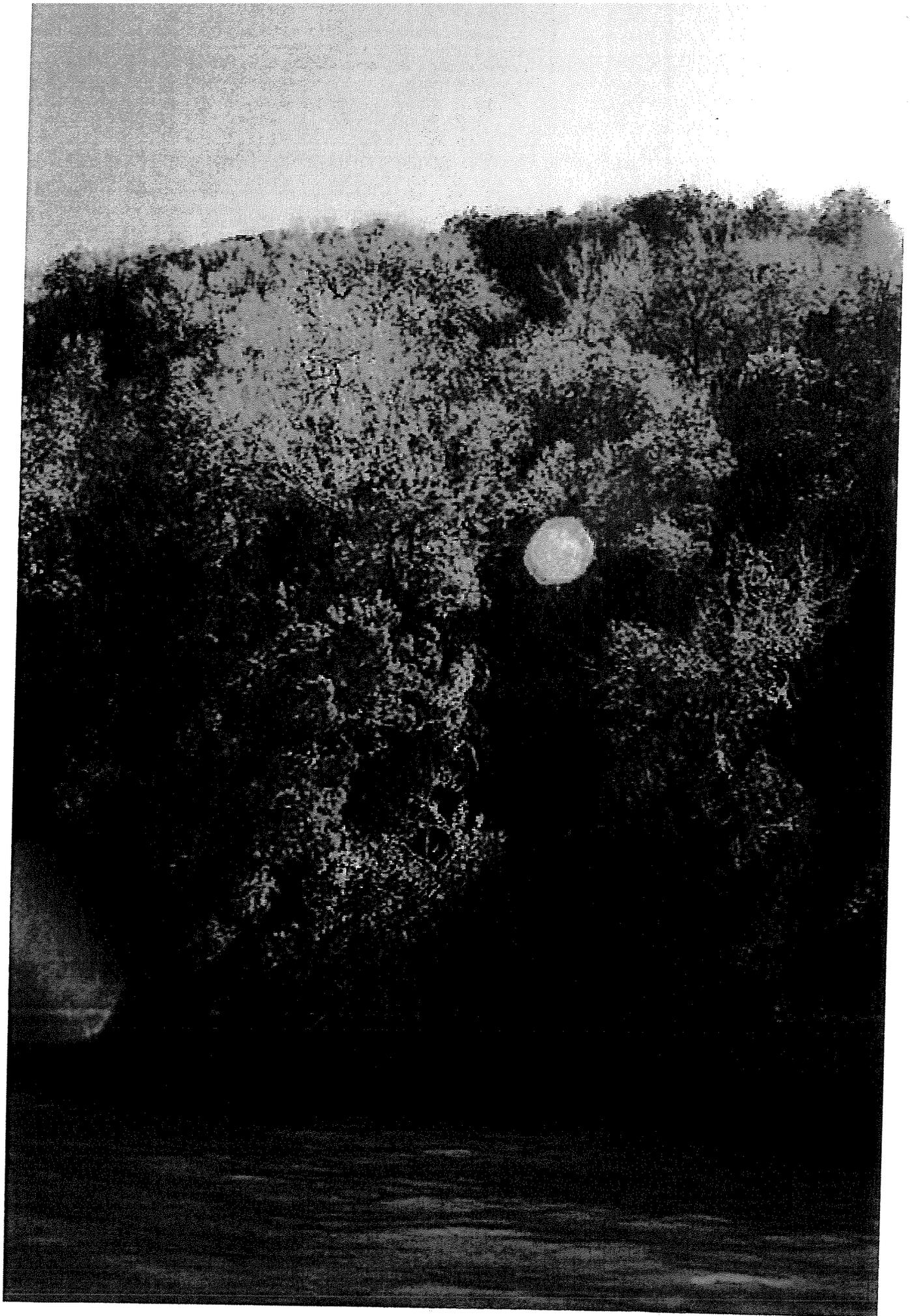


Photo 4 View of on-site residence





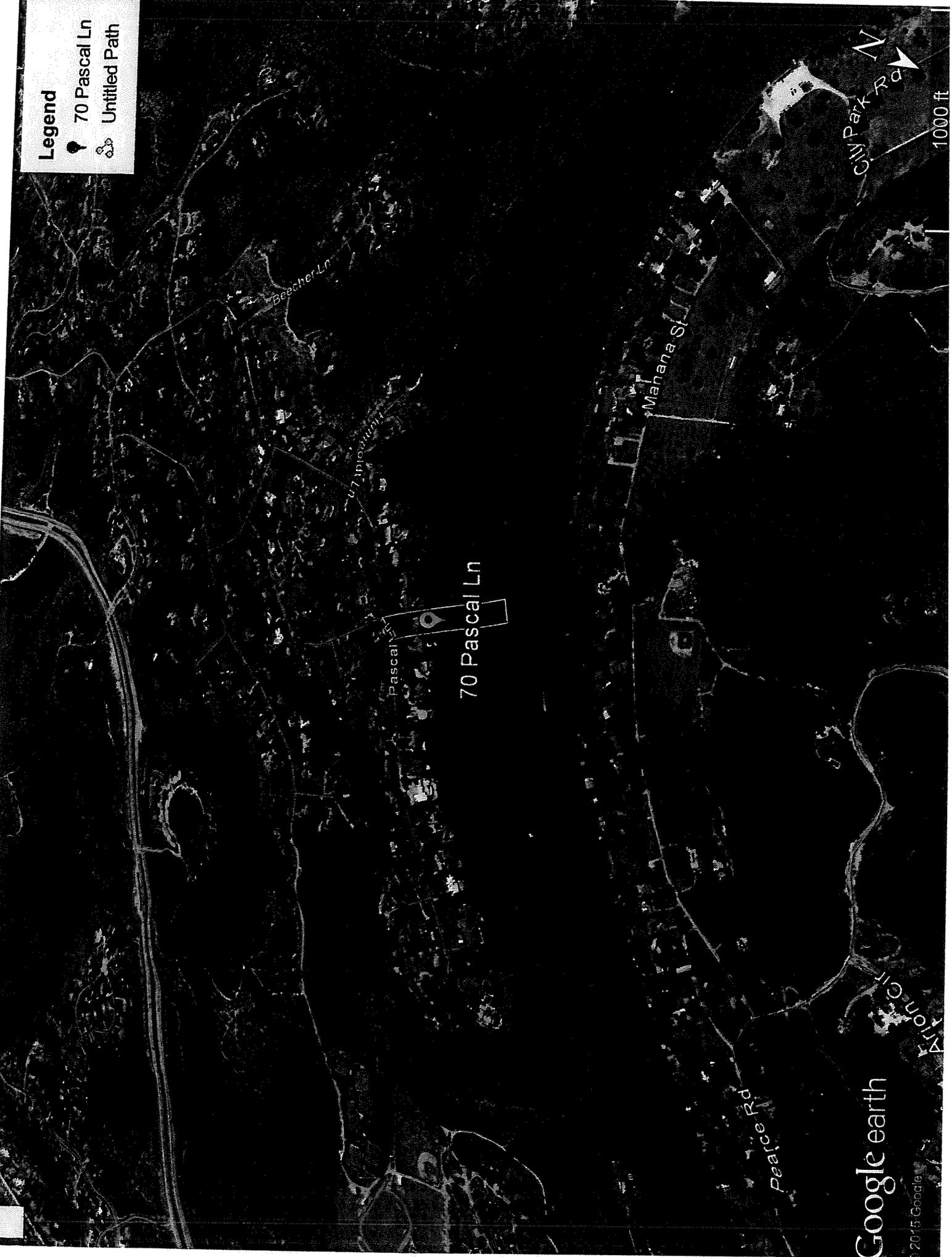


ATTACHMENT H
AERIAL PHOTOS OF VICINITY

Legend

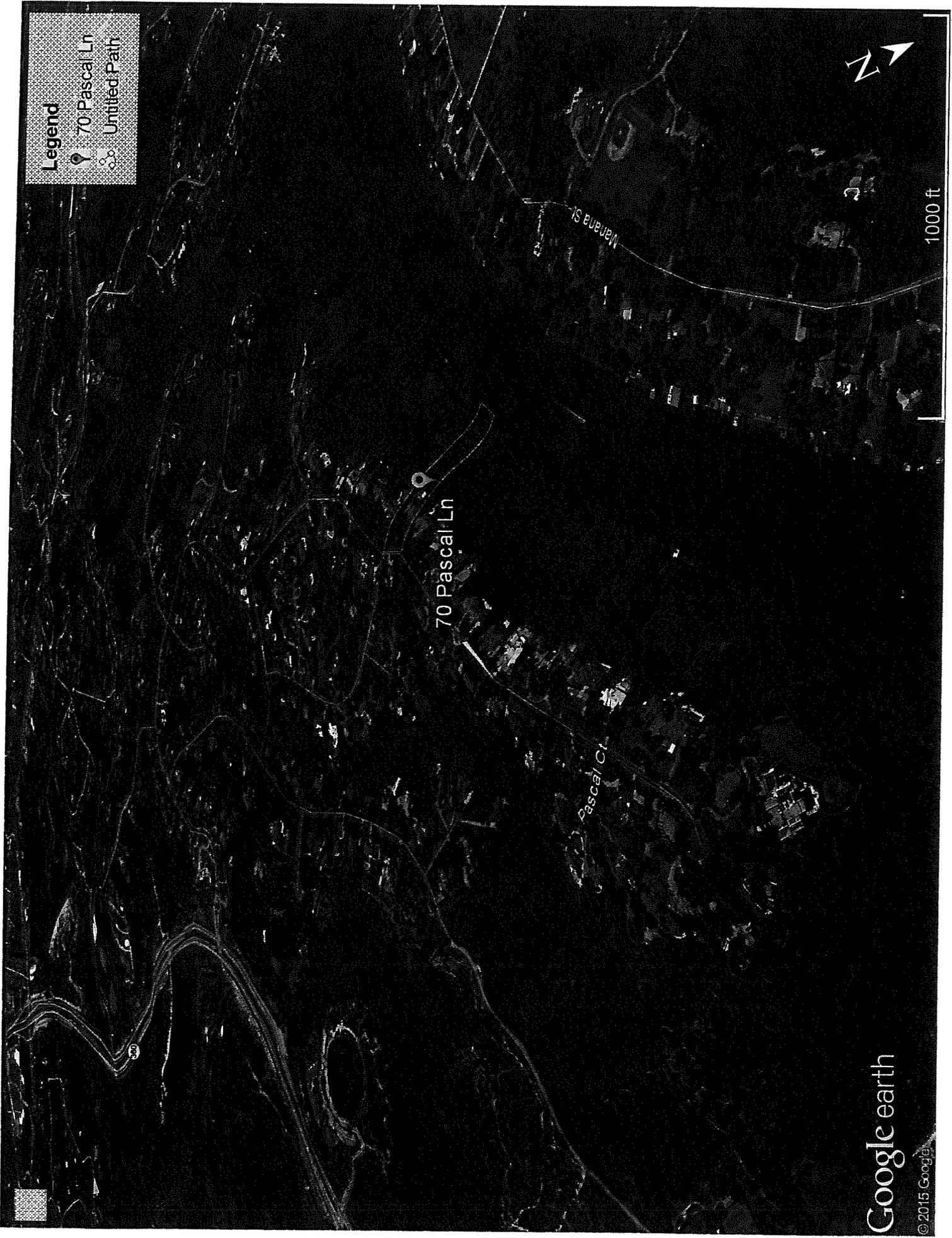
📍 70 Pascal Ln

🚶 Untitled Path



Google earth

© 2015 Google



Legend

- 70 Pascal Ln
- United Path

1000 ft

Google earth

© 2015 Google

ATTACHMENT I
TOPOGRAPHIC MAP



(property lines approximate)

Austin West, Texas

2013
 USGS Topographic Quadrangle
 7.5 Minute Series

Scale: 1:24,000



Terracon

70 Pascal Lane
 Austin, Travis County, Texas

Terracon Project No. 96147115

Figure 1

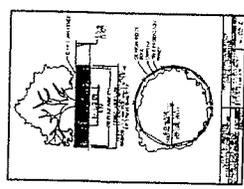
ATTACHMENT J
PROPOSED SITE PLAN

70 Pascal Lane

County: Arapahoe, Lot # 152
 Proposed Rock Work = 20% of 152 = 27
 Proposed Rock Work = 27
 Proposed Soil Test Areas = 10

Source of Topography: COA GIS, COA Datam

- NOTES:
1. ALL WORK SHALL BE CONFORMANT WITH ALL APPLICABLE REGULATIONS AND ORDINANCES.
 2. A DOCK MUST HAVE AT LEAST TWO (2) LEGS EXTENDING TO THE SHORELINE AND BE LOCATED ON THE LAND OF THE DOCK AND ON THE SHORELINE. THE DOCK SHALL BE CONSTRUCTED TO A POINT OF ATTACHING ANCHORAGE.
 3. WORKING LIGHT SHALL BE PLACED AT A MINIMUM HEIGHT OF 10 FEET ABOVE THE WATER SURFACE. WORKING LIGHT SHALL BE PLACED AT A MINIMUM HEIGHT OF 10 FEET ABOVE THE WATER SURFACE.
 4. ALL WORK SHALL BE CONFORMANT WITH ALL APPLICABLE REGULATIONS AND ORDINANCES.
 5. THE DOCK SHALL BE CONSTRUCTED TO A POINT OF ATTACHING ANCHORAGE.
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 11. THE DOCK SHALL BE CONSTRUCTED TO A POINT OF ATTACHING ANCHORAGE.
 12. WORKING LIGHT SHALL BE PLACED AT A MINIMUM HEIGHT OF 10 FEET ABOVE THE WATER SURFACE.



ATTENTION INSPECTOR NOTES:

1. ALL WORK SHALL BE CONFORMANT WITH ALL APPLICABLE REGULATIONS AND ORDINANCES.
2. A DOCK MUST HAVE AT LEAST TWO (2) LEGS EXTENDING TO THE SHORELINE AND BE LOCATED ON THE LAND OF THE DOCK AND ON THE SHORELINE.
3. WORKING LIGHT SHALL BE PLACED AT A MINIMUM HEIGHT OF 10 FEET ABOVE THE WATER SURFACE.
4. ALL WORK SHALL BE CONFORMANT WITH ALL APPLICABLE REGULATIONS AND ORDINANCES.
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11. THE DOCK SHALL BE CONSTRUCTED TO A POINT OF ATTACHING ANCHORAGE.
12. WORKING LIGHT SHALL BE PLACED AT A MINIMUM HEIGHT OF 10 FEET ABOVE THE WATER SURFACE.

Approx. Colorado River Gradient Boundary Line
 Shoreline @ Elev. 4922.6
 100 Yr Flood Plan @ Elev. 4998'
 75' LA Setback & CWOZ
 Navigation Lights
 Proposed Dock 32' x 30'

Disturbance in this area requires native grassland seeding and planting per City of Austin Standard Specification 6095.6 including topsoil and seed bed preparation, temporary irrigation & weed maintenance.

Mulch Sock @ 10' Increments or Below each Set of Rail Supports, whichever is less in Distance, TYP.

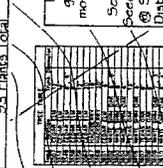
Plant Screen along Train: Uniform Mts of 1-Gallon Texas Perennial (Diospyros Texana), 1-Gallon Blackfoot Daisy (Melanthera leucanthemum) and 1-Gallon Iron Green Yarrow (Rhus verticillata) @ Min. 10' C-C. 9:1 Ratio Total

Trimming of trees 8' or greater is limited to no more than 25% of canopy.

Seeded Earth Recovery Seed Mix USA Item #: 1016 @ 9/16" to be utilized for Disturbed Soil Revegetation

Trim to be Pruned: Dark Gray to Camouflage & Blend with the Existing Boulder & Trees.

Tree Fence Each Side of Train, TYP.



70 Pascal Lane
 LOT 61 & TABLE FOR LOT 62
 70 Pascal Lane
 Use by: Suga Company
 Residence

HELD RTK (2100) = CONN 2007 ROTATED TC

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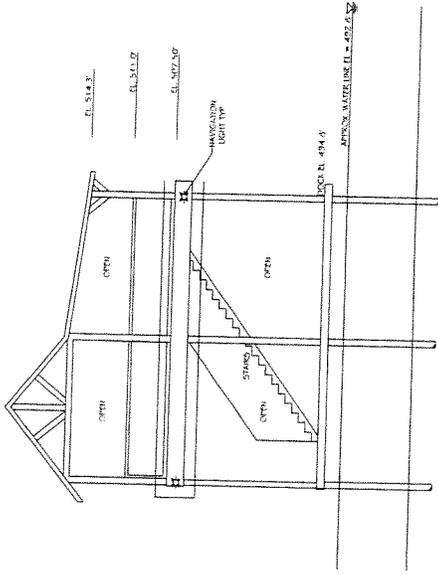
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 13.11' ±

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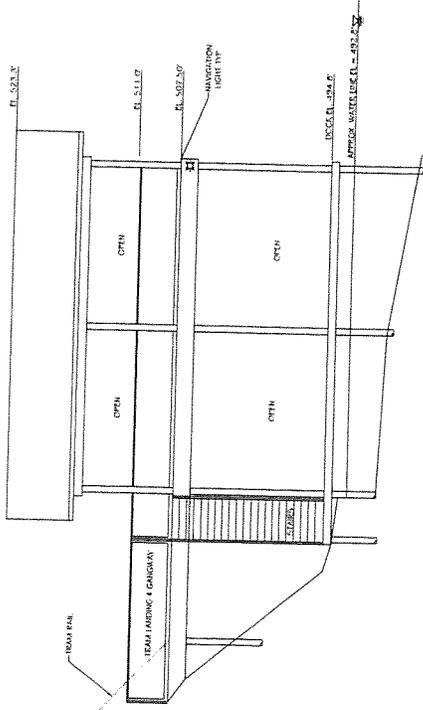
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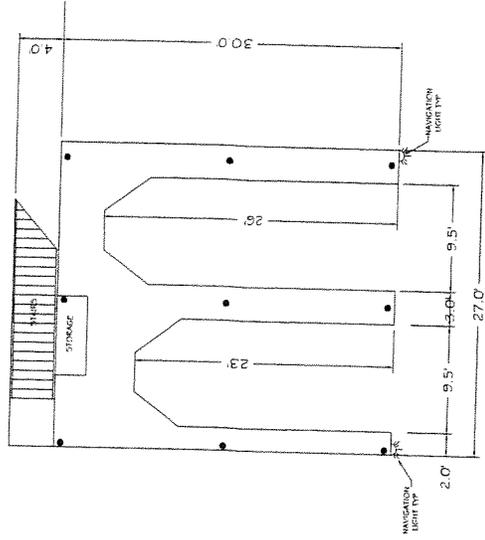
70 Pascal Lane



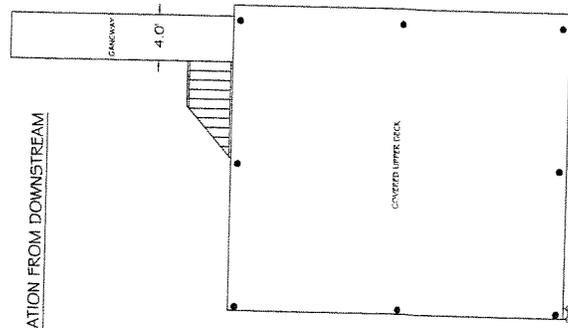
ELEVATION FROM LAKE



ELEVATION FROM DOWNSTREAM



DOCK FIRST FLOOR PLAN



DOCK SECOND FLOOR PLAN

NO.	DATE	REVISION



AUPPERLE COMPANY
 Engineering, Planning & Development Services
 10088 Cretchley Drive, Austin, Texas 78733 512 329 8241
 Trade Show (7) Professional Engineer Registration Number: 7194

70 Pascal Lane
 DOCK PLAN & ELEVATIONS

DESIGNED BY: [Blank]
 DRAWN BY: [Blank]
 SCALE: 1" = 5'-0"
 DATE: 04/11/2015
 SHEET: 3 of 4

SP-2014-102-3

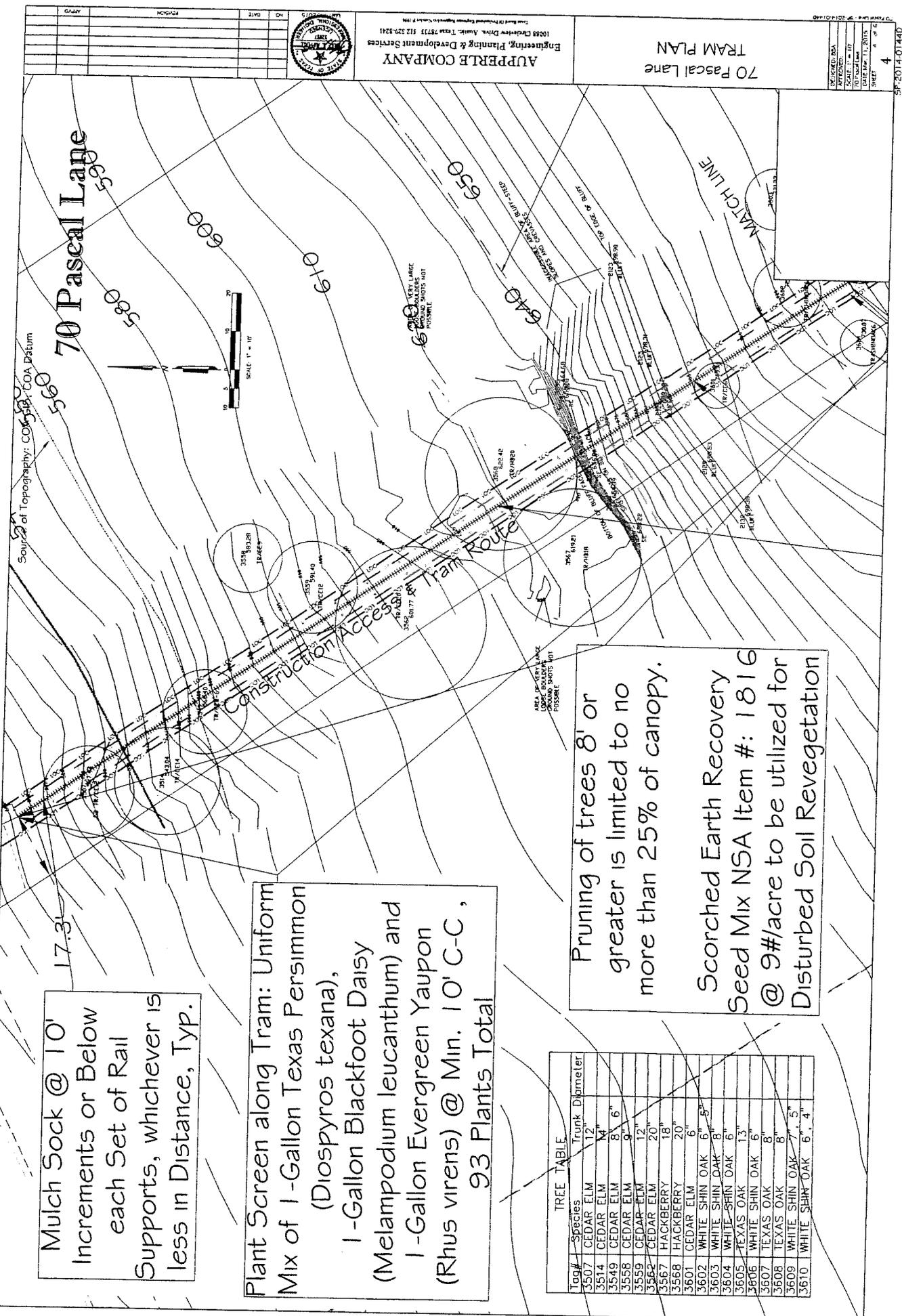
Mulch Sock @ 10' Increments or Below each Set of Rail Supports, whichever is less in Distance, Typ.

Plant Screen along Tram: Uniform Mix of 1-Gallon Texas Persimmon (*Diospyros texana*), 1-Gallon Blackfoot Daisy (*Melampodium leucanthum*) and 1-Gallon Evergreen Yaupon (*Rhus virens*) @ Min. 10' C-C, 93 Plants Total

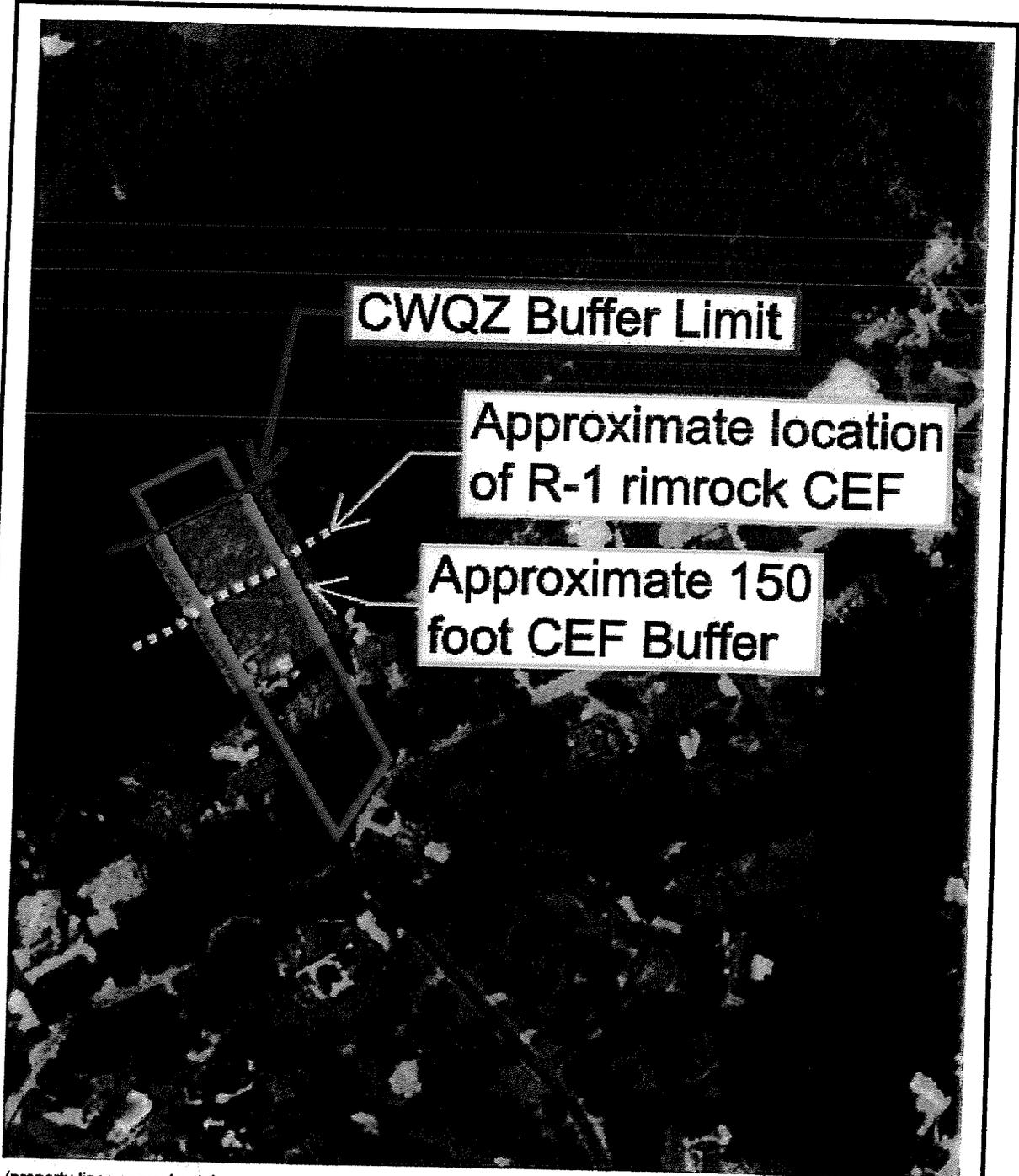
TREE TABLE

Tag#	Species	Trunk Diameter
3507	CEDAR ELM	12"
3514	CEDAR ELM	4"
3549	CEDAR ELM	8" 6"
3558	CEDAR ELM	9"
3559	CEDAR ELM	12"
3562	CEDAR ELM	20"
3567	HACKBERRY	18"
3568	HACKBERRY	20"
3601	CEDAR ELM	6"
3602	WHITE SHIN OAK	6" 5"
3603	WHITE SHIN OAK	8"
3604	WHITE SHIN OAK	6"
3605	TEXAS OAK	13"
3606	WHITE SHIN OAK	6"
3607	TEXAS OAK	8"
3608	TEXAS OAK	8"
3609	WHITE SHIN OAK	7" 5"
3610	WHITE SHIN OAK	6" 4"

Pruning of trees 8' or greater is limited to no more than 25% of canopy.
Scorched Earth Recovery
Seed Mix NSA Item #: 1816 @ 9#/acre to be utilized for Disturbed Soil Revegetation



ATTACHMENT K
ENVIRONMENTAL MAP



(property lines approximate)

DATE: 2012			Terracon 70 Pascal Lane Austin, Travis County, Texas Terracon Project No. 96147115
SOURCE: USDA			
Scale 1" = 250'			
Frame: N/A		Figure 2	

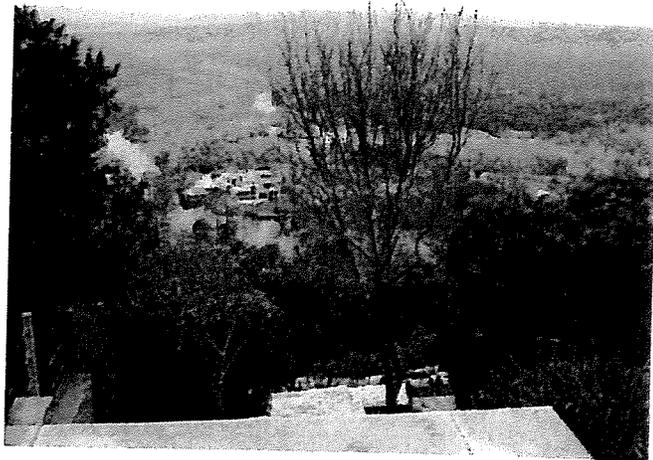
ATTACHMENT L
ENVIRONMENTAL ASSESSMENT

City of Austin Environmental Resource Investigation

70 Pascal Lane
Austin, Travis County, Texas

September 22, 2014

Terracon Project No. 96147115



Prepared for:

Mr. Chris Pacitti
c/o Armbrust & Brown, PLLC
Austin, Texas

Prepared by:

Terracon Consultants, Inc.
Austin, Texas

Offices Nationwide
Employee-Owned

Established in 1965
terracon.com

Terracon

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

September 22, 2014



Mr. Chris Pacitti
c/o Armbrust & Brown, PLLC
Attn: Ms. Amanda Morrow
100 Congress Avenue, Suite 1300
Austin, Texas 78701

Telephone: (512) 435-2368
Email: amorrow@abaustin.com

Re: Critical Environmental Feature and Hydrogeologic Portions of the City of Austin Environmental Resource Investigation
70 Pascal Lane
Austin, Travis County, Texas
Terracon Project No. 96147115

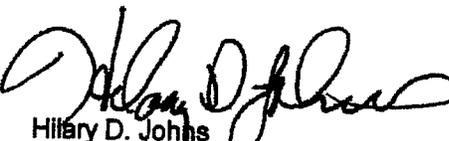
Dear Mr. Pacitti and Ms. Morrow:

Terracon Consultants, Inc. (Terracon) is pleased to provide this critical environmental feature (CEF) and hydrogeologic report portion of the City of Austin (COA) Environmental Resource Investigation (ERI), prepared for the above-referenced site.

The results of our consulting services are solely the professional opinion of Terracon based on the site conditions documented and observed at the time of the field investigation. It should be noted that some CEFs may be seasonal or ephemeral, indicating that their presence/absence and condition are dependent on various weather conditions (including rainfall) and other changes in the surrounding ecosystem. Terracon is not liable for ephemeral and/or seasonal CEFs that are exposed or created after Terracon's field investigation. Additionally, Terracon's opinion is based on the most current regulations; therefore, changes in regulations may require a re-evaluation of the findings of this report. It is recommended that if this report is not to be submitted promptly to the COA, an updated report (based on an additional field investigation) be prepared. We appreciate the opportunity to provide this report. Should you have any questions or require additional information, please call us at (512)442-1122.

Sincerely,
Terracon Consultants, Inc.


Arthur D. Potts
Field Environmental Scientist


Hilary D. Johns
Manager - Environmental Services

ENVIRONMENTAL RESOURCE INVESTIGATION

(Critical Environmental Feature and Hydrogeologic Elements)

70 PASCAL LANE

AUSTIN, TRAVIS COUNTY, TEXAS

Project No. 96147115

September 22, 2014

1.0 INTRODUCTION

This report presents Terracon Consultants, Inc.'s (Terracon) critical environmental feature (CEF) and hydrogeologic elements portion of the City of Austin (COA) Environmental Resource Investigation (ERI) prepared for the above-referenced site. The purpose of the ERI is to satisfy a COA, Land Development Code §25-8-121 *Environmental Resource Investigation Requirement*, which necessitates that an ERI be performed for any development: (1) over a karst aquifer; (2) within an area draining to a karst aquifer or reservoir; (3) in a water quality transition zone; (4) in a critical water quality zone; (5) in a floodplain; or (6) on a tract with a gradient of more than 15 percent.

Terracon personnel performed a field investigation of the site and surrounding areas (within approximately 150 feet of the site) on March 6, 2014. The field investigation was performed to evaluate the presence or absence of geologic, natural, or manmade features including: faults, fractures, riparian woodlands, water wells, borings, and excavations, as well as, COA CEFs (as defined by Land Development Code §25-8-1 *Definitions*) including: bluffs, canyon rimrocks, caves, sinkholes, springs, seeps, and wetlands. Terracon completed the investigation process by conducting a review of the existing literature. The following sections present the results of the ERI.

2.0 ENVIRONMENTAL SETTING

2.1 Site Description

The 1.92-acre site is located at 70 Pascal Lane in Austin, Travis County, Texas. The site location (in relation to the surrounding area) is depicted on Figure 1, which was reproduced from a portion of a United States Geological Survey (USGS) 7.5-minute series topographic map (attached). The site is partially improved with a residence and approximately one acre of the site adjacent to Lake Austin is undeveloped, steeply sloping, and heavily wooded. A recent aerial photograph (Figure 2) and photographs depicting current site conditions are also attached.

2.2 Land Use

Based on a review of historical black and white and infrared aerial photographs (1951, 1964, 1973, 1980, 1990, 1995, 2001, 2005, 2009), the site remained vacant, undeveloped land until the late 1980s when residential development began. Travis Central Appraisal District records indicate that the residence was constructed in 1989. With the exception of the residence, the site has remained relatively unchanged since prior to 1951, with dense, woody vegetation apparent. The area

surrounding the site includes residences to the east, south, and west and Lake Austin to the north. The site is bounded by Pascal Lane to the south.

2.3 Vegetation

The site is located within the Balcones Canyonlands region of the Edwards Plateau physiographic province (Amos and Gehlbach, 1988). The vegetation in the region is classified as Live Oak-Ashe Juniper Woods and is dominated by woodland vegetation. Mesic (moist) slopes generally support deciduous woodlands dominated by Texas oak (*Quercus texana*), plateau live oak (*Q. fusiformis*), and Ashe juniper (*Juniperus ashei*).

According to the TPWD's *Vegetation Types of Texas* maps, the site is located in an area designated as "Live Oak – Ashe Juniper Woods" (27). This vegetation type occurs in areas of heavy urban development which have drastically altered the local plant community. Dominant species associated with the "LiveOak – Ashe Juniper Woods" include Texas oak, plateau live oak, Ashe juniper, shin oak (*Quercus havardii*), cedar elm (*Ulmus crassifolia*), evergreen sumac (*Rhus virens*), escarpment cherry (*Prunus serrotina*), saw greenbrier (*Smilax bona-nox*), Texas mountain laurel (*Sophora secundiflora*), poison ivy (*Toxicodendron radicans*), twistleaf yucca (*Yucca rupicola*), elbowbush (*Foresteria pubescens*), cedar sedge (*Carex planostachys*), little bluestem (*Schizachyrium scoparium*), Neally grama (*Bouteloua uniflora*), Texas grama (*Bouteloua rigidiseta*), meadow dropseed (*Sporobolus drummondii*), Texas wintergrass (*Nassella leucotricha*), pellitory (*Parietaria pensylvanica*), noseburn (*Tragia urticifolia*), spreading sida (*Sida abutilifolia*), woodsorrel (*Oxalis acetosella*), and prostrate spurge (*Euphorbia prostrata*).

Based on visual observations made during the field investigation, dominant species observed on the site consist of plateau live oak, Ashe juniper, shin oak (*Quercus havardii*), mountain laurel/mescal bean (*Sophora secundiflora*), elbowbush (*Foresteria pubescens*), and saw greenbrier (*Smilax bona-nox*). Additionally, the southern portion of the site is dominated by non-native ornamental species. Overall canopy cover for the site is an estimated 75 percent.

2.4 Topography and Surface Water

This site is located within the Lake Austin Watershed and Suburban Zone. The site is not located within the Edwards Aquifer Recharge Zone as mapped by the City of Austin Development Web Map. Based on a review of the USGS Austin West, Texas 7.5 minute topographic map, the site ranges in elevation from approximately 500 to 810 feet above mean sea level, with the site steeply sloping towards the west. Lake Austin (depicted as an impounded lake) forms the northern site boundary. No other potential surface water bodies are depicted on or within 150 feet of the site.

As mapped by the Federal Emergency Management Agency (FEMA), the site is mapped as Zone X, which corresponds to areas outside of the 500-year floodplain. Lake Austin, to the adjoining north, is mapped as Zone AE which indicates areas where the Base Flood Elevation (water-surface elevation of the 1 percent annual chance flood) has been determined. Additionally, as mapped by

the National Wetland Inventory (NWI) map (prepared by the United States Fish and Wildlife Service [USFWS]), no potential wetlands are located on the site; however, Lake Austin, which is classified as Lacustrine – Limnetic – Open Water/Unknown Bottom – Permanently Flooded – Diked/Impounded (a lake), is present to the adjoining north of the site. No other potential wetlands are indicated on the site or in the immediate vicinity (within 150 feet of the site).

Terracon personnel were unable to observe the extreme northern portion of the site (including the Lake Austin shoreline) due to drastic topographic gradient. Though no wetland vegetation was observed on-site during the field investigation, it is possible that wetland vegetation may exist along the shoreline of Lake Austin. However, factors including a steep rock face which drops into the water, and the low fluctuation level of the lake limits potential suitable growing area to the immediate shoreline. No additional seeps, springs, wetlands, or biological resource buffers were identified on or within 150 feet of the site.

2.5 Geology

The site is not located within the Edwards Aquifer Recharge Zone as mapped by the Texas Commission of Environmental Quality (TCEQ) Recharge Zone Boundary Maps and by the City of Austin Watershed Regulation Areas Map. The surficial geologic unit present at the site has been identified as the Glen Rose Formation (Garner and Young, 1976). The Glen Rose Formation forms the lower confining unit to the Edwards Aquifer and consists of shale and marl alternating with thin beds of limestone and dolomite and the presence of marine megafossils is common. This alternating bedding of limestone and marl forms the typical “stair-step” topography observed in outcrops in the area and on the site. Thicknesses of about 600 feet are present in the area. The upper 100 feet is typically heavily weathered and contains abundant porous soft dolomite and burrowed limestone resulting in gentle slopes and many springs. The dolomitic portions of the upper member contain water and make up part of the upper Trinity Aquifer.

Surface exposure onsite of the Glen Rose is generally obscured by the presence of soil cover and dense vegetation. Several debris piles and small, broken outcrops, which included boulders are fragments of Glen Rose limestone, were observed on the site. No evidence of any faulting was observed on the site. However, based on available published geologic maps of the area, the Mount Bonnell fault is mapped as occurring on the site and trends towards the north-northeast. The Mount Bonnell Fault is the most significant fault associated with the Balcones fault zone in the Austin area. These faults consist primarily of en-echelon, normal, high-angle faults (generally down thrown to the southeast). The fault zone forms the dominant structural trend in the area. Direct evidence of the faulting (fault breccia, slickensides, etc.) was not observed offsite. No potential recharge features (caves, sinkholes, or significant solution cavities) were observed on the site.

2.6 Soils

As mapped by the Natural Resource Conservation Service’s *Soil Survey of Travis County, Texas*, the site is underlain by the Speck-Tarrant Association, which consists of shallow, stony, loamy soils

and very shallow, stony clay soils overlying limestone. Characteristics of specific on-site soils were obtained from the USDA's *Web Soil Survey* and are provided in the table below:

TABLE 1: SOILS

Soil Name	Soil Type	Soil Depth (FEET)	Underlying Material	Permeability	Available Water Capacity	Shrink-Swell Capacity	Hydric*
Brackett-Rock outcrop complex, 1 to 12 percent slopes (BID)	Gravelly clay loam / altered soils	0 to 1.0	Interbedded limestone and marl	Moderately slow	Low	Low	No
Tarrant-Rock outcrop complex, 18 to 50 percent slopes (TdF)	Stoney clay	0 to 0.6	Limestone	Moderately slow	Low	Low	No

*Please note that the hydric soil classification indicated above is determined by the USDA NCSS; however, localized hydric soils could be present in wetland areas (if applicable).

2.7 Water Wells and Other Man-made Excavations

A search was made for water wells, borings, and excavations on or within 150 feet of the site. Based on a review of Water Well Data (obtained from the Texas Water Development Board [TWDB] website), no water wells were recorded on or within 150 feet of the site. No water wells, borings, or excavations were identified in the immediate vicinity of the site (150 feet from the site) by visual reconnaissance from within site boundaries during Terracon's field reconnaissance.

3.0 CRITICAL ENVIRONMENTAL FEATURES

Due to steep gradient, Terracon personnel were unable to view the northern portion of the site which drops steeply into Lake Austin; however, a boat was utilized to view the shore area and make visual observations for CEFs. The shoreline and surface features were heavily obscured by vegetative growth and wetland vegetation was not readily identified. The COA defines canyon rimrock as an abrupt outcrop of more than 60 percent slope (31 degrees), greater than 4 feet vertically, and a horizontal extent equal or greater than 50 feet. An area of rimrock/bluff (referred to as R-1) was observed below the residences and extended across the site and onto adjoining properties. The approximate location of the rimrock is indicated on Figure 2 and is further described in the attached CEF Worksheet.

No additional bluffs, caves, sinkholes, seeps, springs, or wetlands (as defined by the COA) were identified on the site or within 150 feet of the site (as defined by the COA). Terracon's observation of the site was limited due to steep terrain, and it should be noted that the site could not be fully investigated.

Please note that the COA is the final authority on whether features are classified as CEFs. Therefore, the results of our consulting services are solely the professional opinion of Terracon based on conditions documented and observed at the time of the field investigation.

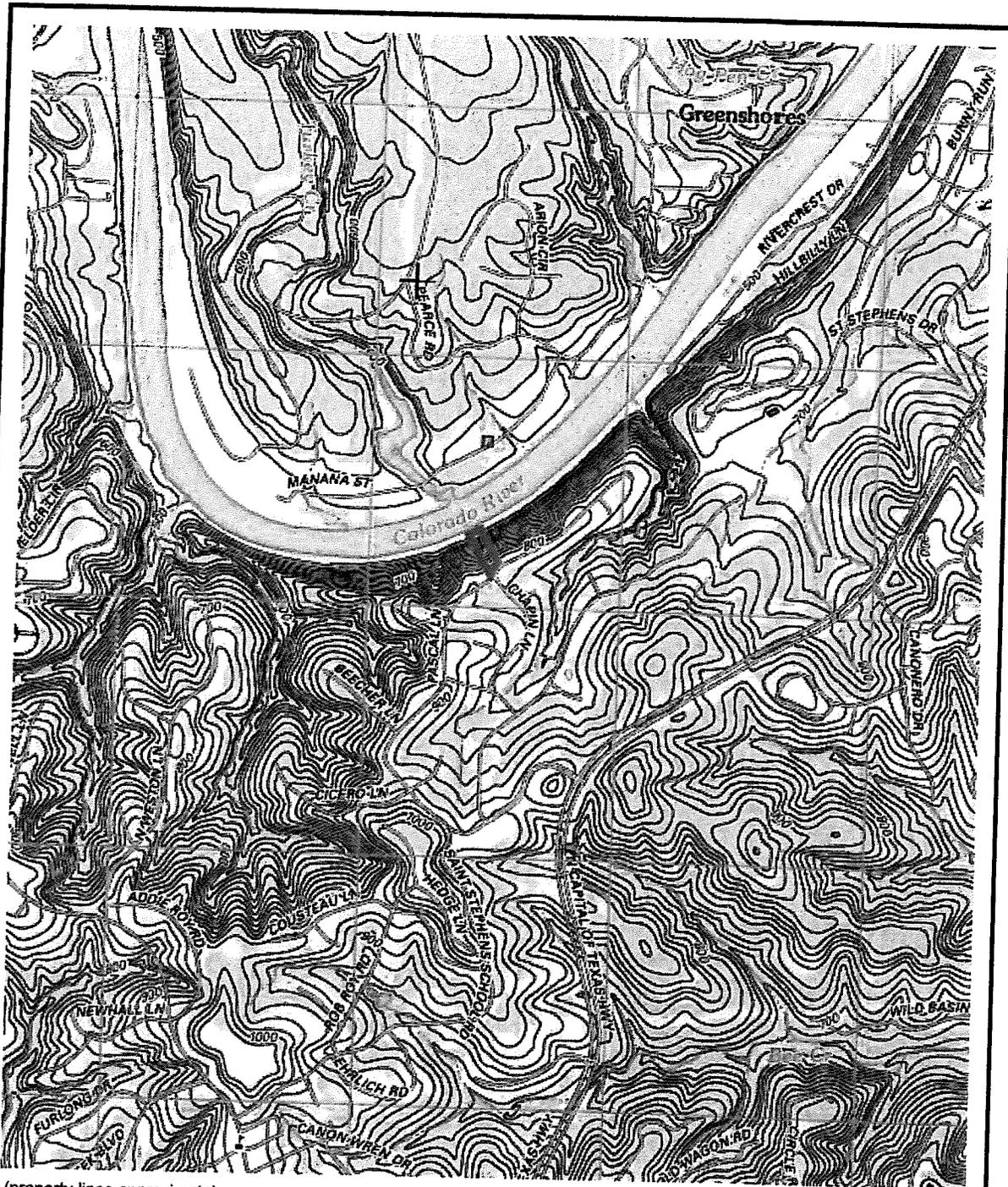
3.1 Proposed Protective Measures

Based on the results of the Environmental Resource Investigation, Terracon identified a rimrock CEF on the site. Presence of a CEF on-site typically requires a standard setback of 150 foot radius around the CEF; however, administrative approval to modify the setback may be an option. It is Terracon's understanding that the client is seeking to install a tramway to allow access to a boat dock which is proposed to be constructed on Lake Austin. Based on observations of several other properties in the vicinity with existing or currently under construction tramways which are constructed on and within rimrock CEFs, Terracon recommends that the CEF setback should be administratively reduced to allow for the proposed construction.

As noted above, Terracon did not identify evidence of significant recharge features or other voids during the field investigation; however, it should be noted that the COA has implemented Void and Water Flow Mitigation (Rule Nos. R161-08.04 through R161.08.06). If a void or cave is encountered during any future site excavation/development, construction activities should cease until a certified geologist can evaluate the feature and establish mitigation methods.

4.0 REFERENCES

- (Amos) Amos, B.B., and Gehlbach, F.R., Edwards Plateau Vegetation, Plant Ecological Studies in Central Texas, 1988.
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- (Gould) Gould, F.W., G.O. Hoffman, and C.A. Rechenthin. *Vegetational Areas of Texas*, 1960. College Station: Texas Agricultural Extension Service, Texas A&M University.
- (FEMA) Federal Emergency Management Agency. Flood Insurance Rate Map, Travis County, Community Panel Number 48453C0430H (dated September 26, 2008).
- (TCEQ) Texas Commission on Environmental Quality, formerly the Texas Natural Resource Conservation Commission. Edwards Aquifer Recharge Zone Boundary Maps. 1996. Accessed March 2014.
- (TPWD) Texas Parks and Wildlife Department. *The Vegetation Types of Texas, Including Cropland*. 1984.
- (TWDB) Texas Water Development Board. Water Well Drillers' Records. Accessed March 2014.
- (USFWS) US Fish and Wildlife Service. National Wetland Inventory (NWI) Wetland Mapper, available on-line: www.fws.gov/wetlands/Data/Mapper.html. Accessed March 2014.
- (USGS) US Geological Service 7.5 minute Topographic Quadrangle Map, Oak Hill, Texas, 1988.
- (UT-BEG) University of Texas – Bureau of Economic Geology. *Geologic Atlas of Texas, Austin Sheet*. The University of Texas at Austin. Reprinted 1981.
- (UT-BEG) *Geologic Map of the Austin Area*. Revised 1992.
- (Werchan) Werchan, Leroy E., A.C. Lowther, and Robert N. Ramsey. *Soil Survey of Travis County, Texas*. US Department of Agriculture, Soil Conservation Service, in cooperation with the Texas Agricultural Experiment Station, 1974.



(property lines approximate)

Austin West, Texas

2013
 USGS Topographic Quadrangle
 7.5 Minute Series

Scale: 1:24,000

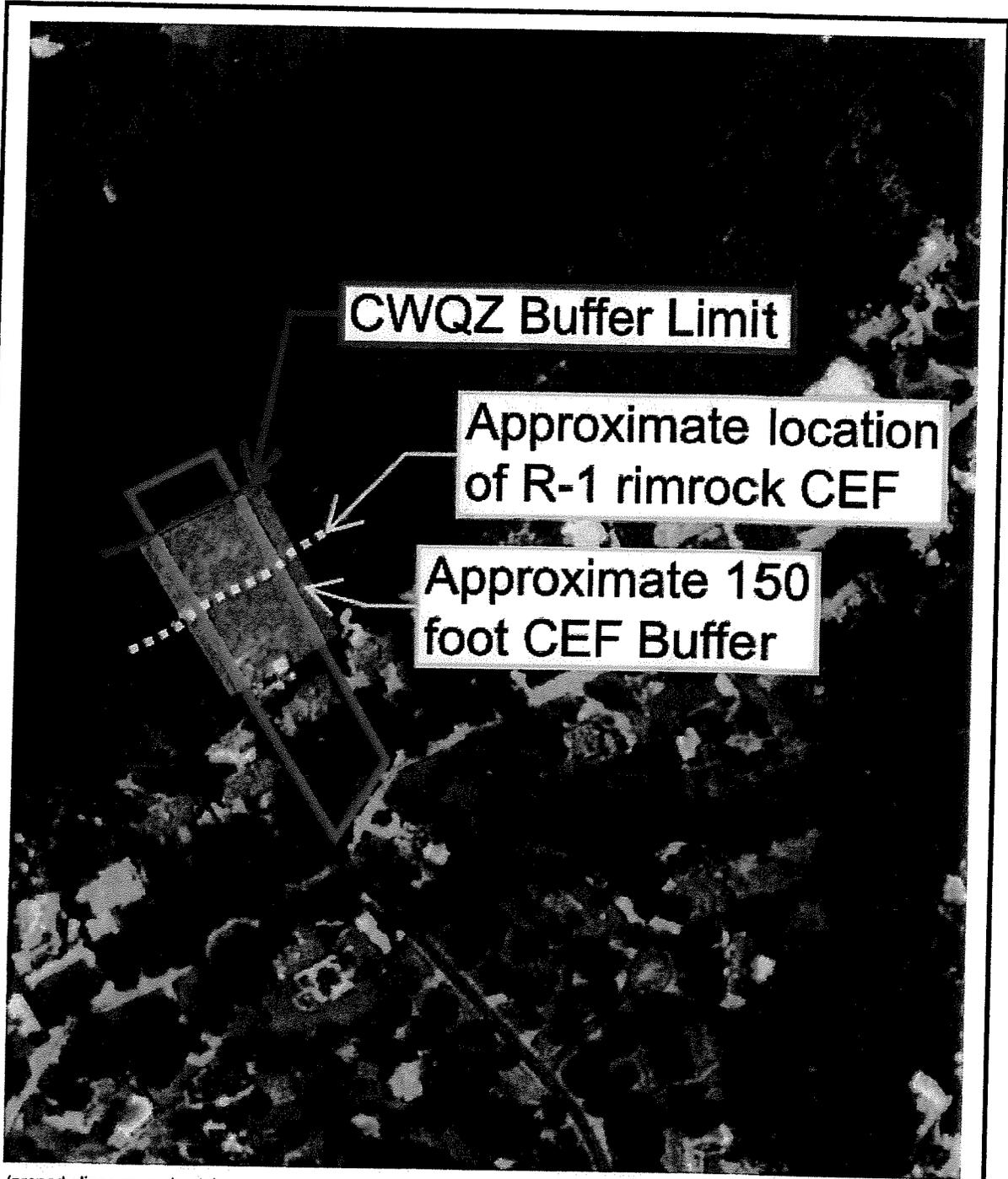


Terracon

70 Pascal Lane
 Austin, Travis County, Texas

Terracon Project No. 96147115

Figure 1



(property lines approximate)

DATE: 2012			Terracon 70 Pascal Lane Austin, Travis County, Texas Terracon Project No. 96147115
SOURCE: USDA	Scale 1" = 250'		
Frame: N/A			

Terracon Project No. 96147115

Figure 2

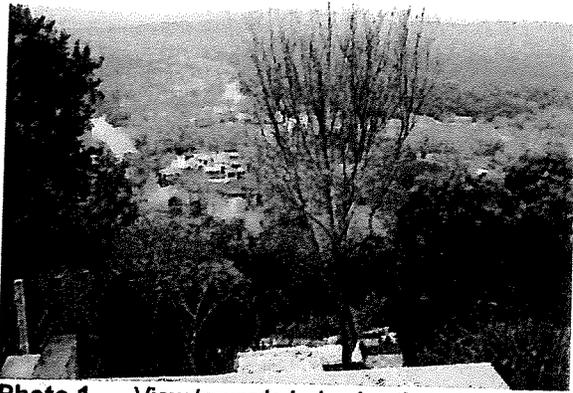


Photo 1 View towards Lake Austin to the adjoining north

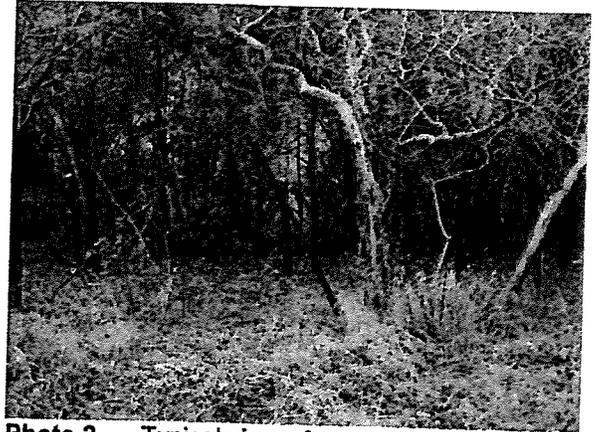


Photo 2 Typical view of vegetation on-site



Photo 3 Typical view of vegetation on-site



Photo 4 View of on-site residence

