



ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING
DATE REQUESTED: June 6, 2007

NAME AND NUMBER OF PROJECT: 4600/4604 Island Cove
SP-2007-0202D

NAME OF APPLICANT OR ORGANIZATION: Aupperle Company
Bruce Aupperle, P.E. (422-7838)

LOCATION: 4600/4604 Island Cove

PROJECT FILING DATE: April 4, 2007

WPDR/ENVIRONMENTAL STAFF: Betty Lambright, 974-2696
betty.lambright@ci.austin.tx.us

WPDR/ CASE MANAGER Chris Yanez, 974-1810
chris.yanez@ci.austin.tx.us

WATERSHED: Lake Austin (Water Supply Rural)

ORDINANCE: Comprehensive Watershed Ordinance (Current Code)

REQUESTS: Variance requests are as follows:
(1) To fill in 3 existing man-made boat slips and cut 2 new boat slips; LDC Sections 25-8-261 (Critical Water Quality Zone Development) and 25-8-452 (Critical Water Quality Zone); and
(2) To exceed the maximum allowable cut of 4' ;LDC Section 25-8-341 (Cut Requirements)

STAFF RECOMMENDATION: Recommended.

B-1



MEMORANDUM

TO: Betty Baker, Chairperson
Members of the Zoning and Platting Commission

FROM: Betty Lambright, Environmental Review Specialist Sr.
Watershed Protection and Development Review Department

DATE: June 6, 2007

SUBJECT: 4600/4604 Island Cove/SP-2007-0202D

Description of Property

The subject property is located in the Lake Austin Watershed, which is classified as a Water Supply Rural Watershed. The site is not located over the Edwards Aquifer Recharge Zone. It is within the City of Austin's jurisdiction, and is zoned SF-2. The proposed improvements include sheet pile and stacked-rock bulkheads at the shoreline and fill of three (3) existing slips and cut and sheet pile for two (2) new boat slips. Under the amended plat, the locations and number of existing boat slips, which were constructed with the original subdivision, are no longer workable for the new lot configurations.

Existing deed restrictions for the subdivision prohibit the construction of boat docks that extend into the lake more than five (5) feet, which requires that the boat slips be cut into the shoreline and the need for variances.

Critical Environmental Features/Endangered Species

There are no Critical Environmental Features on or within 150' of the property.

Variance Requests

The applicant is proposing to fill existing manmade boat slips and construct new boat slips in the Critical Water Quality Zone. The project will require variances from Sections 25-8-261 (Critical Water Quality Zone Development), 25-8-452 (Critical Water Quality

Zone; Water Supply Rural Watershed) and 25-8-341 (Cut Requirements). Section 25-8-452 states that no development is allowed within a Critical Water Quality Zone of a Water Supply Rural Watershed unless it is allowed under Section 25-8-261. This type of development is not allowed under 25-8-261, so it is necessary to ask for a variance from both code sections. In addition, the applicant is requesting a cut allowance of 6 feet.

Recent Variance

The Environmental Board recommended conditional approval of the following project on 11/17/04 by a vote of 5-0-0-2: Palmer Boat Dock/SP-04-0291D.

Staff conditions were to provide a restrictive covenant that states the enclosed area beneath the proposed stairwell will never include any plumbing or plumbing fixtures.

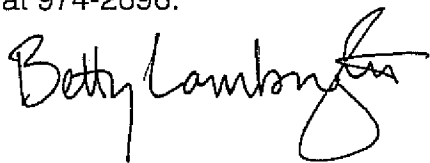
Board conditions were:

- (1) Sequence of construction will proceed as follows:
 - (a) Bulkhead sheeting
 - (b) Deploy silt boom as needed to minimize suspension and distribution of silt in water outside of fill area
 - (c) Drive pilings
 - (d) Set steel
- (2) Water will be filtered before being returned to lake

Recommendations

Staff recommends the variances for the demolition of the existing boat slips and construction of the new boat slips because the findings of fact have been met.

If you have any questions or need additional information, please feel free to contact me at 974-2696.



Betty Lambright, Environmental Review Specialist Sr.
Watershed Protection and Development Review

Environmental Lead:


Ingrid McDonald

Environmental Officer:


Pat Murphy



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

Application Name: 4600/4604 Island Cove
Application Case No: SP-2007-0202D
Code Reference: LDC 25-8-261 and 25-8-452
Variance Requests: Construction in the Critical Water Quality Zone

**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. Other property owners along the lake with existing boat slips cut into the shoreline prior to current regulations have been granted similar variances.

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. As stated above, the existing slips were installed prior to current regulations. Abandonment of these slips is not allowed without these variances.

- 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. A variance from these sections of the code, along with the proposed construction, is the minimum change necessary to allow the applicant privileges given to other property owners with similar site constraints.

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

Yes. The proposed construction associated with these variances will not create a significant probability of harmful environmental consequences.

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

Yes. Water Quality should remain unchanged on the property.

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;

Yes. The criteria listed above for granting a variance has been met.

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

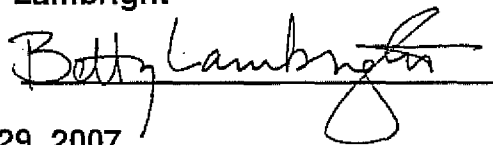
Yes. Disapproval of the variances will result in the applicant's inability to enjoy similar variances given to other property owners.

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

Yes. The variances are the minimum change necessary to allow a reasonable use of lake access.

Reviewer Name: Betty Lambright

Reviewer Signature:



Date:

May 29, 2007

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



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

Application Name: 4600/4604 Island Cove
Application Case No: SP-2007-0202D
Code Reference: LDC 25-8-341
Variance Request: To exceed the maximum 4' cut/fill

**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. Existing deed restrictions prohibit the construction of a boat dock that extends into the lake more than 5 feet. The boat slips must therefore be cut into the shoreline, with a maximum cut of 6 feet.

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. Other property owners along the lake with existing boat slips cut into the shoreline prior to current regulations have been granted similar variances.

- 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. A variance from this section of the code is the minimum change necessary to allow the applicant privileges given to other property owners with similar site constraints.

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

Yes. The cuts will be stabilized with structural bulkheads.

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

Yes. Water quality should remain unchanged on the site.

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

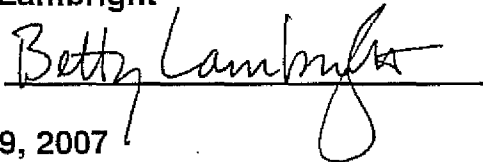
N/A.

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

N/A.

Reviewer Name: Betty Lambright

Reviewer Signature:



Date:

May 29, 2007

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



Aupperle Company

10088 Circleview Drive, Austin, Texas 78733
Phone: 512-422-7838 Fax: 512-263-3765
Email: bsponline@email.msn.com

March 23, 2007

Ms. Victoria Hsu, P.E.
Director of Watershed Protection and Development Review
City of Austin
P.O. Box 1088
Austin, Texas 78767

Re: Engineer's Summary and Variance Request Letter
Shoreline Modifications for Boat Slips at 4600 & 4604 Island Cove
Lots 23-A and 24-A, Island at Mt. Bonnell Shores, Amended Plat of Lots 23-25
Site Plan Permit with Variances to Art. 7, Div. 1, Paragraphs 25-8-452 and 25-8-261

Dear Director Hsu:

At the request of the owner we are submitting this permit application to remove three (3) existing boat slips and replace them with two (2) new boat slips at 4600 and 4604 Island Cove, Lots 23-A and 24-A, Island at Mt. Bonnell Shores, Amended Plat of Lots 23-25, Subdivision. The proposed improvements include sheet pile and stacked-rock bulkheads at the shoreline and fill of the three (3) existing slips and cut and sheet pile bulkheads for two (2) new boat slips. Under the amended plat, the locations and number of existing boat slips, which were constructed with the original subdivision, are no longer workable for the new lot configurations. Existing deed restrictions for the subdivision prohibit the construction of boat dock that extends into the lake more than five feet, which requires the boat slips be cut into the shoreline and the need for the referenced variances.

Approximate 60 linear feet of lakeside bulkhead and 172 linear feet of boat slip bulkhead will be installed. The net cut and fill would be approximately 48 cubic yards of fill. The net change in the surface area of water within these slips will be a reduction of approximately 330 square feet. The average depth of fill will be 4 feet. The average depth of cut will be 6 feet. At this time only the slip area construction is proposed. Construction of the boat docks is not proposed.

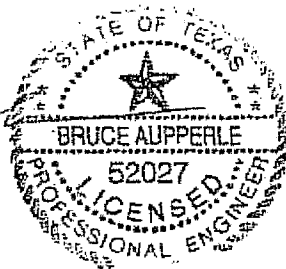
Vegetation Element: A tree survey of the area of the bulkhead has been performed and the tree locations, types and sizes are shown on the site plan. One ten inch ash tree will be removed for the construction of the boat slip on Lot 24-A. *Geologic Element:* The site is located in Lake Austin and the soils are predominantly sedimentary. There are no known karsts or other critical environmental features within 150 feet. This site is not known to contain habitat for endangered fauna or flora. *Wastewater Element:* No wastewater service is proposed for this project.

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. We are requesting that you approve the variances and bulkhead construction as proposed and issuance a site plan permit. If you have any questions, please feel free to call.

Very truly yours,

Aupperle Company

Bruce S. Aupperle, P.E.



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Aupperle Company

11088 Circleview Drive, Austin, Texas 78723

Phone: 512-423-7838 Fax: 512-263-3763

Email: bsacoinline@emailmsn.com

APPENDIX U FINDINGS OF FACT

Administrative Variances – Findings of Fact

Project: 4600 & 4604 Island Cove, Shoreline Modifications for Boat Slips, Case No. Pending

Ordinance Standard: 25-8-341(A) – Cut Requirements

§ 25-8-341 CUT REQUIREMENTS.

- (A) Cuts on a tract of land may not exceed four feet of depth, except:...
- (B) A cut must be restored and stabilized. ...

JUSTIFICATION:

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

Section 25-8-341 (A) Does not allow for the construction of a boat dock and necessary access and appurtenance landward or lake side if the cut exceeds four (4) feet. There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the ones proposed for 4600 & 4604 Island Cove, especially within the same subdivision. Existing deed restrictions for the subdivision prohibit the construction of boat dock that extends into the lake more than five feet, which requires the boat slips be cut into the shoreline and the need for the referenced variance.

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

There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove. Section 25-8-341 (A) Does not allow for the construction of a boat dock and necessary access and appurtenance landward or lake side if the cut exceeds four (4) feet. The proposed cut is six(6) feet and the cuts will be stabilized with structural bulkheads. As proposed there are no departures from the terms of the current code and no significant probabilities of harmful environmental consequences will occur from the construction of the proposed boat dock.

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

The owner of the property will not enjoy any special privileges not enjoyed by other similar properties. There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove, especially in the same subdivision.

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

There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove. Without the approved variance a reasonable depth to the boat slip area can not be achieved. A shallow boat slip area would diminish the land owners' property rights and the property owners' reasonable and economic use of the property for a boat dock.

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance?

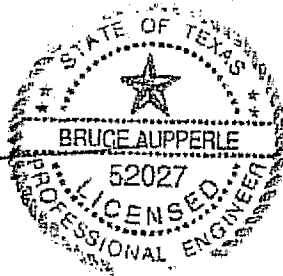
NOT APPLICABLE

No variances for this section are proposed within the Barton Springs Zone.

Submitted by:

Aupperle Company


Bruce S. Aupperle, P.E.





Aupperle Company

10085 Circleview Drive, Austin, Texas 78733
Phone: 512-422-7838 Fax: 512-263-3763
Email: hsaonline@emuni.msu.com

APPENDIX U FINDINGS OF FACT

Administrative Variances – Findings of Fact -

Project: 4600 & 4604 Island Cove, Shoreline Modifications for Boat Slips, Case No. Pending

Ordinance Standard: 25-8-261(C) – Critical Water Quality Zone Development

§ 25-8-261 CRITICAL WATER QUALITY ZONE DEVELOPMENT...

(C) Along Lake Travis, Lake Austin, or Town Lake:

(1) a boat dock, pier, wharf, or marina and necessary access and appurtenances, is permitted in a critical water quality zone; and

JUSTIFICATION:

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

There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the ones proposed for 4600 & 4604 Island Cove. Section 25-8-261 (C) (1) permits the construction of a boat dock and necessary access and appurtenance within the Critical Water Quality Zone of Lake Austin, landward or lake side. The Special Circumstances are attributable to City staff. Staff chooses to enforce policies applicable to boat docks which are not available to the public and that prohibit certain aspects of a boat dock, i.e. any portion of a dock over land. Strict application of staff policies would deprive this property owner of the boat dock as proposed which is allowed under Section 25-8-261 (C).

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

There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove. Section 25-8-261 (C) (1) permits the construction of a boat dock and necessary access and appurtenance within the Critical Water Quality Zone of Lake Austin, landward or lake side. As proposed there are no departures from the terms of

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the current code and no significant probabilities of harmful environmental consequences will occur from the construction of the proposed boat dock.

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

The owner of the property will not enjoy any special privileges not enjoyed by other, similar properties. There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove. Section 25-8-261 (C) (1) permits the construction of a boat dock and necessary access and appurtenance within the Critical Water Quality Zone of Lake Austin, landward or lake side.

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

There are many similarly situated Lake Austin properties with boat docks with configurations, access and appurtenances similar to the one proposed for 4600 & 4604 Island Cove. Section 25-8-261 (C) (1) permits the construction of a boat dock and necessary access and appurtenance within the Critical Water Quality Zone of Lake Austin, landward or lake side. Therefore, the requirement to require an approved variance to construct a boat dock as proposed in the Critical Water Quality Zone would diminish the land owners' property rights and the property owners' reasonable and economic use of the property.

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance?

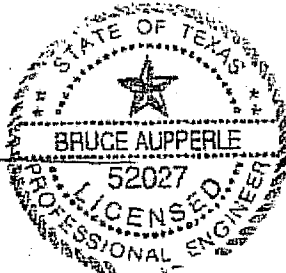
NOT APPLICABLE

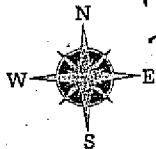
No variances for this section are proposed within the Barton Springs Zone.

Submitted by:

Aupperle Company

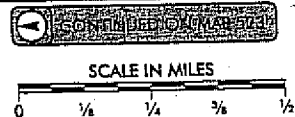
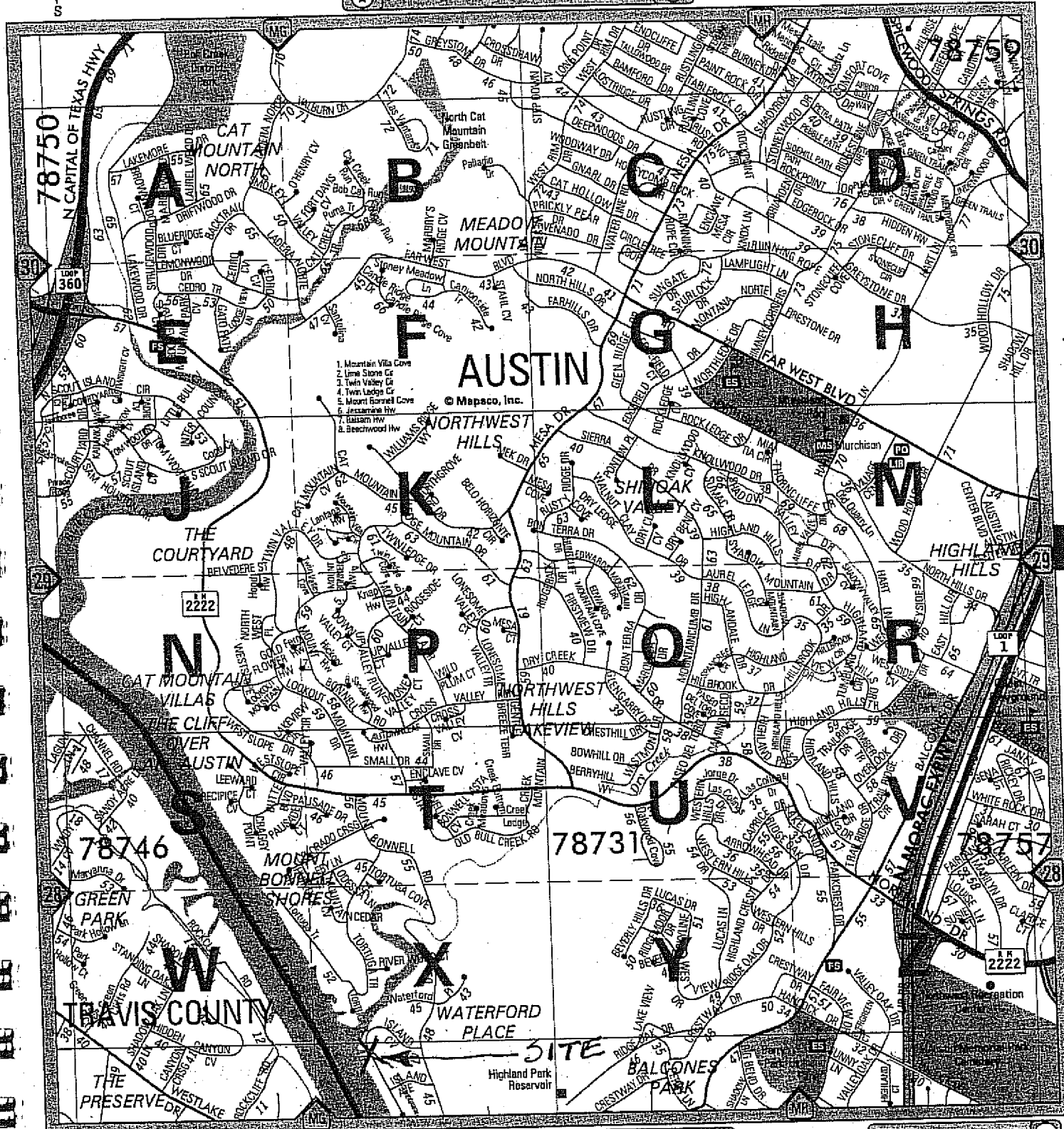

Bruce S. Aupperle, P.E.



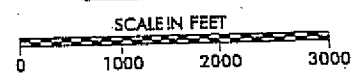


TURN LEFT ON MT. BONNELL AND PROCEED TO ISLAND COVE.

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BOOK PAGE 1166

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ENVIRONMENTAL BOARD MOTION 060607-B1

Date: June 06, 2007

Subject: Aupperle Company 4600/4604 Island Cove

Motioned By: John Dupnik, P. G.

Seconded by: Phil Moncada

Recommendation

The Environmental Board recommends **approval with conditions** of a variance to: 1) LDC Section 25-8-261 and LDC Section 25-8-452 – To allow construction in the Critical Water Quality Zone; and 2) LDC 25-8-341 – To exceed the maximum allowable cut of 4' (cut requirements) for the Aupperle Company at 4600 and 4604 Island Cove

Staff Conditions

1. Deploy silt boom as needed to minimize suspension and distribution of silt in water outside of fill area.

Rationale

2. Findings of Fact have been met.

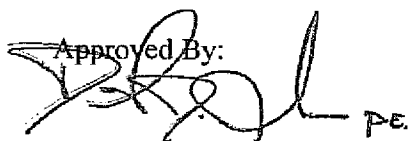
Vote 7-0-0-1

For: Anderson, Neely, Moncada, Curra, Ahart, Jenkins, Dupnik and Maxwell

Against:

Abstain:

Absent: Beall

Approved By:  P.E.

Dave Anderson P.E., CFM
Environmental Board Chair



ITEM FOR ENVIRONMENTAL BOARD AGENDA

BOARD MEETING

DATE REQUESTED: June 6, 2007

NAME AND NUMBER OF PROJECT: Canyons at Lake Travis
C8J-2007-0063

NAME OF APPLICANT OR ORGANIZATION: TCB
Dan Edwards, P.E. (472-4519)

LOCATION: 4235 ½ N. FM 620

PROJECT FILING DATE: April 3, 2007

WPDR/ENVIRONMENTAL STAFF: Betty Lambright, 974-2696
betty.lambright@ci.austin.tx.us

WPDR/ CASE MANAGER David Wahlgren, 974-6455
david.wahlgren@ci.austin.tx.us

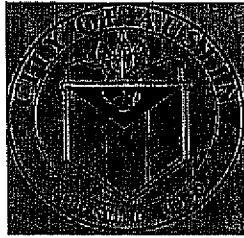
WATERSHED: Lake Austin (Water Supply Rural)

ORDINANCE: Comprehensive Watershed Ordinance (Current Code)

REQUESTS: Variance requests to:
(1) Construct driveways on slopes greater than 15%; 30-5-301
(2) Construct buildings on steep slopes; 30-5-302
(3) Exceed the maximum 4' cut; 30-5-341
(4) Exceed the maximum 4' fill; 30-5-342

STAFF RECOMMENDATION: Recommended with conditions.

B-2



MEMORANDUM

TO: Betty Baker, Chairperson
Members of the Zoning and Platting Commission

FROM: Betty Lambright, Environmental Review Specialist Senior
Watershed Protection and Development Review Department

DATE: June 6, 2007

SUBJECT: Canyons at Lake Travis/C8J-2007-0063
4235 ½ N. FM 620

Description of Property

This proposed subdivision preliminary plan is composed of 63 single family lots and one drainage lot on 126 acres in the Lake Austin Watershed, west of Mansfield Dam and south of FM 620 in the City of Austin's 2 Mile ETJ. It is not located over the Edwards Aquifer Recharge Zone and there are no floodplains associated with the site. The site is surrounded on the east, north and south by residential development, with undeveloped land located immediately to the west. This land is in the Drinking Water Protection Zone. An electric easement transverses the southern portion of the site.

The Lake Austin Watershed is classified as a Water Supply Rural Watershed. According to LDC 30-5-454, the allowable density for single family development is one unit per 2 acres Net Site Area (NSA). Critical Water Quality Zone, Water Quality Transition Zone, and steep slopes reduce the NSA to 91.01 acres and thus 45.5 single family lots would be allowed. However, LDC 30-5-455 allows transfer of development intensity of one unit for each acre set aside from the CWQZ, WQTZ, and CEF buffer acreage. This transfer provides the applicant with an additional 19 units (see Table Q-3 on the exhibit), which brings their total allowed units to 64.

Per LDC 30-5-211, water quality controls are required if impervious cover exceeds 20% NSA. The proposed impervious cover is 16.3%, so the applicant is not required to provide water quality treatment. As one of the conditions of the variances, the applicant is providing water quality through the use of vegetated filter strips. There will be a detention pond facility on the property.

Existing Topography/Soil Characteristics/Vegetation

Site elevations range from 665 to 841 feet mean sea level (msl). Surface runoff flows south and east into unnamed tributaries of the Colorado River (Lake Austin). Approximately 35% of the land contains slopes of over 15% gradient, with the majority of the steepest slopes associated with the tributaries.

The soils on the site are listed as Brackett Soils and Rock Outcrop (BoF, BiD) and Tarrant Soils (TaD). The Brackett Soils and Rock Outcrop consists of very shallow, light colored soils that developed over soft limestone interbedded with hard limestone, creating a "stairstep" appearance. The soils are well-drained, and erosion is active in most areas. The Tarrant Soils are stony soils that are very shallow and gently undulating to steep. They have rapid surface drainage and low water holding capacity. Water erosion is a hazard.

The project site has a moderate to heavy vegetative cover with small open grassy areas scattered throughout the tract. Live oak, Ashe juniper, post oak, and mesquite are the predominant trees. Little bluestem, KR bluestem, big muhly and winter grass were the predominant grasses.

Critical Environmental Features/Endangered Species

The City of Austin defines Critical Environmental Features as features of critical importance to the protection of environmental resources, and includes bluffs, canyon rimrocks, caves, sinkholes, springs and wetlands. A canyon rimrock was located in an area associated with one of the tributaries, and has been provided the standard setback of 150 feet.

Water/Wastewater

The applicant proposes to utilize on-site septic for wastewater, which triggers the state-mandated requirement of a minimum one acre per lot. Water will be supplied by a water utility district.

Recent Variance

The Environmental Board recommended a similar variance on April 5, 2006 for Coldwater Section 4, Phase A (C8J-97-0025.17A), with the following staff and Board conditions:

1. No development or disturbance of native vegetation is allowed within the CEF setback.
2. The allowable building envelope for Lots 12 and 13 will be identified by metes and bounds in a restrictive covenant in order to provide compliance with building construction on slopes.
3. The game fence built according to BCP specifications will be constructed prior to any residential construction.
4. An IPM plan will be provided by restrictive covenant.
5. The applicant will provide structural containment of any unstable cuts.
6. Maintenance of the fence will be identified by a restrictive covenant.

Variance Requests

The variances requested by this project are to LDC Sections:

1. Variance from LDC 30-5-301 (Construction of a Roadway or Driveway)

"(A) A person may not construct a roadway or driveway on a slope with a gradient of more than 15% unless the construction is necessary to provide primary access to: (1) at least two contiguous acres with a gradient of 15% or less; or (2) building sites for at least five residential units. (B) For construction described in this section, a cut or fill must be revegetated, or if a cut or fill has a finished gradient of more than 33%, stabilized with a permanent structure. This does not apply to a stable cut."

2. Variance from LDC 30-5-302 (Construction of Building or Parking Area)

"(A) A person may not construct: (1) a building or parking structure on a slope with a gradient of more than 25%; or (2) except for a parking structure, a parking area on a slope with a gradient of more than 15%. (B) A person may construct a building or parking structure on a slope with a gradient of more than 15% and not more than 25% if the requirements of this subsection are met. (1) Impervious cover on slopes with a gradient of more than 15% may not exceed 10% of the total area of the slopes. (2) The terracing techniques in the Environmental Criteria Manual are required for construction that is uphill or downhill of a slope with a gradient of more than 15%. (3) Hillside vegetation may not be disturbed except as necessary for construction, and disturbed areas must be restored with native vegetation. (4) For construction described in this section, a cut or fill must be revegetated, or if a cut or fill has a finished gradient or more than 33%, stabilized with a permanent structure. This does not apply to a stable cut."

3. Variance from LDC 30-5-341 (Cut Requirements)

"Cut on a tract of land may not exceed 4' of depth."

4. Variance from LDC 30-5-342 (Fill Requirements)

"Fill on a tract of land may not exceed 4' of depth".

Recommendations

Staff recommends granting these variances because the findings of fact have been met.


Conditions

1. The applicant will provide water quality treatment through the implementation of vegetated filter strips, as identified in the accompanying exhibit. These areas will be further identified as water quality easements in a restrictive covenant.
2. The applicant will set aside 16.59 acres of land, identified on the exhibit as "Natural Preserve Area", in a conservation easement.

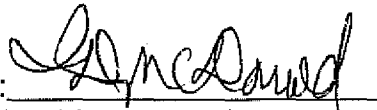
4

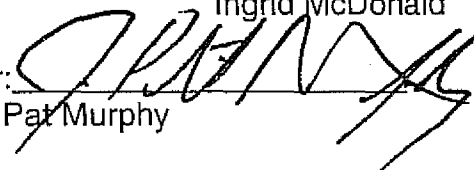
3. According to LDC 30-5-455(A)(1), the applicant will dedicate in fee simple to the City, County or another entity approved by the single office the 4.05 acres in the Critical Water Quality Zone utilized as part of the transfer of development intensity.
4. The applicant will implement an IPM plan.
5. Any unstable cuts will be structurally contained.

If you need further details, please contact me at 974-2696.



Betty Lambright, Environmental Review Specialist Sr.
Watershed Protection and Development Review

Environmental Program Coordinator: 
Ingrid McDonald

Environmental Officer: 
Pat Murphy



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

Application Name: **Canyons at Lake Travis**
Application Case No: **C8J-2007-0063**
Code Reference: **LDC 30-5-301**
Variance Request: **To allow construction of drives on slopes greater than 15%**

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

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

Yes. The topographical constraints of this property are similar to others in the area, and the variance does not provide the applicant with a special privilege not given to owners with similar site characteristics.

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 site's stair-step topography forces driveways to cross steeper slopes in order to reach more buildable portions of the lots. In addition, the applicant has agreed to set aside 16.59 acres as a conservation easement.

- 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. Of the 63 lots, eight (8) lots would require driveways crossing slopes over 15%. This is the minimum change necessary to avoid depriving the applicant a reasonable economic use of the property.

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

Yes. The applicant is providing water quality through the use of vegetated filter strips, and has agreed to implement an IPM plan.

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 applicant is not required to provide water quality, but is doing so as a condition of the variance. Additionally, the natural preserve area will provide water quality for a portion of the adjacent upslope property.

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

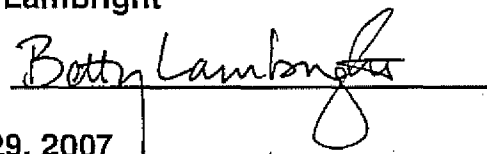
N/A.

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

N/A.

Reviewer Name: Betty Lambright

Reviewer Signature:



Date:

May 29, 2007

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



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

Application Name: *Canyons at Lake Travis*
Application Case No: C8J-2007-0063
Code Reference: LDC 30-5-302
Variance Request: To allow construction of buildings on steep slopes

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

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

Yes. The topographical constraints of this property are similar to others in the area, and the variance does not provide the applicant with a special privilege not given to owners with similar site characteristics.

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. Site constraints (CWQZ, WQTZ, and CEF buffer) and the need for at least one acre for septic requirements require the lots to be configured in this manner. In addition, the applicant has agreed to set aside 16.59 acres as a conservation easement.

- 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. Out of the 63 proposed single family lots, 16 would require this variance. The proposed total impervious cover is 16.3% NSA and 11.8% gross site area, so this is the minimum change necessary to allow the applicant a reasonable use of the property.

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

Yes. The applicant is providing water quality through the use of vegetated filter strips, and has agreed to implement an IPM plan.

8

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 applicant is not required to provide water quality, but is doing so as a condition of the variance. Additionally, the natural preserve area will provide water quality for a portion of the adjacent upslope property.

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

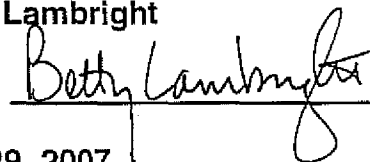
N/A.

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

N/A.

Reviewer Name: Betty Lambright

Reviewer Signature:



Date: May 29, 2007

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



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

Application Name: *Canyons of Lake Travis*
Application Case No: C8J-2007-0063
Code Reference: LDC 30-5-341 and 342
Variance Request: To exceed the maximum 4' cut/fill

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

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

Yes. The topographical constraints of this property are similar to others in the area, and the variance does not provide the applicant with a special privilege not given to owners with similar site characteristics.

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;

Crossing steeper slopes, and the associated cut/fill, is a result of the site topography and not as a result of the method chosen to develop the property. In addition, the applicant has agreed to set aside 16.59 acres as a conservation easement.

- 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;

Of the 63 single family lots, 10 of the lots will require cut/fill over 4' for construction not associated with the building foundation. Without this variance, the applicant would not be able to develop the property in a reasonable manner.

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

Yes. The applicant is providing water quality through the use of vegetated filter strips, and has agreed to implement an IPM plan.

10

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 applicant is not required to provide water quality, but is doing so as a condition of the variance. Additionally, the natural preserve area will provide water quality for a portion of the adjacent upslope property.

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

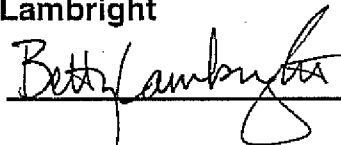
N/A.

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

N/A.

Reviewer Name: Betty Lambright

Reviewer Signature:

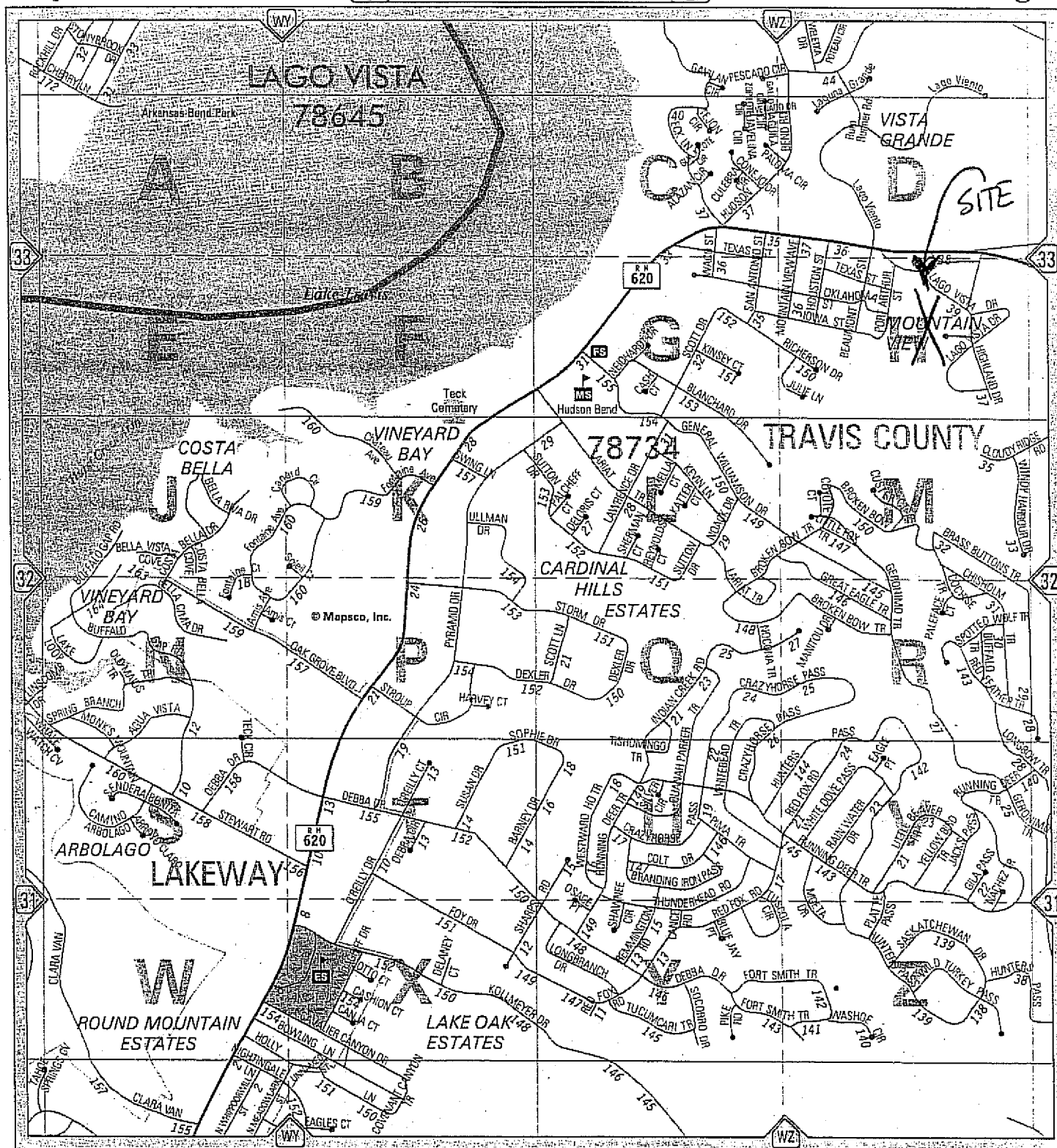


Date:

May 29, 2007


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

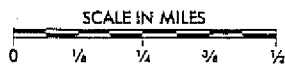
CONTINUED ON MAP 460



CONTINUED ON MAP 489

CONTINUED ON MAP 520

CONTINUED ON MAP 491 



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BOOK PAGE 1142

May 30, 2007

Ms. Betty Baker
Zoning and Platting Commission
City of Austin
505 Barton Springs Road
Austin, TX 78704

RE: Request for Variance LDC 30-5-301
Canyons at Lake Travis Subdivision

Dear Ms Baker:

On behalf of Newmark LP, I am requesting a variance from LDC 30-5-301 standard for the referenced project. I have attached the "Findings of Fact" form for your consideration. If you should require any additional information, please have the City staff contact me at the earliest opportunity.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Birdwell".

Brian Birdwell
Agent
Newmark LP

BB:de

attachments

FINDINGS OF FACT

APPLICANT

Watershed Variances – Findings of Fact

As required in LDC Section 25-8-41, in order to grant a variance the Planning Commission must make the following findings of fact: Include an explanation with each applicable finding of fact.

Project: The Canyons at Lake Travis Subdivision

Ordinance Standard: LDC 30-5-301 – Request variance to construct roads and driveways on grades that exceed 15%.

JUSTIFICATION:

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

The proposed development is consistent with the nature of other developments in the area. There are areas on this site that have very narrow bands with slopes greater than 15% for a height of three feet or less which could only otherwise be accessed by roadways. Some portions of the site are not accessible or fall within the buffer zone of a CEF which further restricts areas where single family lots can be proposed or accessed. To maintain access to a reasonable alignment of the planned roadways that while maintaining minimum one acre lot sizes required for individual septic and attempting to comply with roadway alignment criteria, the variance request is necessary. Strict compliance with the ordinance would deprive the owner of the beneficial use and privileges of the property afforded to adjacent land owners.

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

It is anticipated that only 8 of the proposed 64 driveways within the preliminary plan require variance from the ordinance standard with less than 18% of the total residential lot area consisting of slopes in excess of 15% and less than 15% of the proposed roadway areas exceeding 15% slopes. This variance request is based upon 64 platted lots with a proposed density of 15.74% impervious cover. In a condominium regime (as had been previously submitted on this site), approximately 23.80% impervious cover would be obtainable with many more locations requiring slope variance requests. By changing the proposed development from a site plan to a subdivision, water quality improves as the amount of impervious cover has decreased by 33.87%.

3. The proposal does not provide special privileges not enjoyed by other similarly situated properties with similarly timed development, and is not based on a special or unique condition which was created as a result of the method by which a person voluntarily subdivided land. NO
The property has not been subdivided by the owner or purchased from the former owner to create special or unique conditions.

4. For a variance from the requirements for development within the Critical Water Quality Zone and/or Water Quality Transition Zone: Does the application of restrictions leave the property owner without any reasonable, economic use of the entire property? YES/NO

Not applicable

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance? YES/NO

Not applicable

May 7, 2007

Ms. Betty Baker
Zoning and Platting Commission
City of Austin
505 Barton Springs Road
Austin, TX 78704

RE: Request for Variance LDC 30-5-302
Canyons at Lake Travis Subdivision

Dear Ms. Baker:

On behalf of Newmark LP, I am requesting a variance from LDC 30-5-302 standard for the referenced project. I have attached the "Findings of Fact" form for your consideration. If you should require any additional information, please have the City staff contact me at the earliest opportunity.

Sincerely,

A handwritten signature in dark ink, appearing to read "B. Birdwell".

Brian Birdwell
Agent
Newmark LP

BB:de

attachments

FINDINGS OF FACT

APPLICANT

Watershed Variances – Findings of Fact

As required in LDC Section 25-8-41, in order to grant a variance the Planning Commission must make the following findings of fact: Include an explanation with each applicable finding of fact.

Project: The Canyons at Lake Travis

Ordinance Standard: 30-5-302 – Request variance for to construct residential units on areas with slopes greater than 25 percent but less than 35 percent.

JUSTIFICATION:

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

The proposed development is consistent with the nature of other developments in the area. Based upon the boundary of the property and the constraints required to design public access to the proposed platted lots, strict compliance with the ordinance would deprive the owner of the beneficial use and privileges of the property afforded to adjacent land owners. The current Preliminary Plan includes 64 single family lots with a minimum lot size of 1 acre for individual septic. Some portions of the site are not accessible or fall within the buffer zone of a CEF which further restricts areas where single family lots can be proposed.

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

YES

It is anticipated that only 16 of the 64 planned residential units will require this variance. The total potential area of all the lots within the subdivision with slopes within the 25% to 35% range represents less than 8% of the proposed residential lot area. The actual area will be much less. This variance request is based upon 64 platted lots with a proposed density of 15.74% impervious cover. In a condominium regime (as had been previously submitted on this site), approximately 23.80% impervious cover would be obtainable with many more locations requiring slope variance requests. By changing the proposed development from a site plan to a subdivision, water quality improves as the amount of impervious cover has decreased by 33.87%.

3. The proposal does not provide special privileges not enjoyed by other similarly situated properties with similarly timed development, and is not based on a special or unique condition which was created as a result of the method by which a person voluntarily subdivided land. YES
The property has not been subdivided by the owner or purchased from the former owner to create special or unique conditions.

4. For a variance from the requirements for development within the Critical Water Quality Zone and/or Water Quality Transition Zone: Does the application of restrictions leave the property owner without any reasonable, economic use of the entire property? YES/NO

Not applicable

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance? YES/NO

Not applicable

May 7, 2007

Ms. Betty Baker
Zoning and Platting Commission
City of Austin
505 Barton Springs Road
Austin, TX 78704

RE: Request for Variance LDC 30-5-341
Canyons at Lake Travis Subdivision

Dear Ms. Baker:

On behalf of Newmark LP, I am requesting a variance from LDC 30-5-341 standard for the referenced project. I have attached the "Findings of Fact" form for your consideration. If you should require any further information, please have the City staff contact me at the earliest opportunity.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Birdwell", is written over a horizontal line.

Brian Birdwell
Agent
Newmark LP

BB:de

attachments

FINDINGS OF FACT

APPLICANT

Watershed Variances – Findings of Fact

As required in LDC Section 25-8-41, in order to grant a variance the Planning Commission must make the following findings of fact: Include an explanation with each applicable finding of fact.

Project: The Canyons at Lake Travis

Ordinance Standard: 30-5-341 – Request variance for cuts for roadways exceeding four feet.

JUSTIFICATION:

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

The proposed development is consistent with the nature of other developments in the area. The current Preliminary Plan includes 64 single family lots with a minimum lot size of 1 acre for individual septic. Some portions of the site are not accessible or fall within the buffer zone of a CEF which further restricts areas where single family lots can be proposed. Adjacent neighborhoods have either requested no roadway connections to maintain their limited traffic flow or the condition of the adjacent roadways are substandard to current design criteria. Therefore, the points of access has been limited to a single connection. Based upon this single point of connection, the boundary of the property and the constraints required to design public access to the proposed platted lots, strict compliance with the ordinance would deprive the owner of the beneficial use and privileges of the property afforded to adjacent land owners.

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

The owner's intent is to minimize the cuts to the maximum extent possible to minimize the amount of restoration needed and subsequently the cost of constructing the roadway. Efforts will be made to contain the limits of the cut within the roadway rights-of-way/easements thru the use of retaining walls or stabilized slopes to minimize the area of disturbance. None of these proposed cuts are adjacent to any critical environmental features or environmentally sensitive areas. Runoff from these areas will be collected in roadside swales and detention provided for any increased runoff. In addition, approximately 36 acres or 29% of the site will be kept in the natural state.

3. The proposal does not provide special privileges not enjoyed by other similarly situated properties with similarly timed development, and is not based on a special or unique condition which was created as a result of the method by which a person voluntarily subdivided land. YES
The property has not been subdivided by the owner or purchased from the former owner to create special or unique conditions.

4. For a variance from the requirements for development within the Critical Water Quality Zone and/or Water Quality Transition Zone: Does the application of restrictions leave the property owner without any reasonable, economic use of the entire property? YES/NO

Not applicable

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance? YES/NO

Not applicable

May 7, 2007

Ms. Betty Baker
Zoning and Platting Commission
City of Austin
505 Barton Springs Road
Austin, TX 78704

RE: Request for Variance LDC 30-5-342
Canyons at Lake Travis Subdivision

Dear Ms. Baker:

On behalf of Newmark LP, I am requesting a variance from LDC 30-5-342 standard for the referenced project. I have attached the "Findings of Fact" form for your consideration. If you should require any additional information, please have the City staff contact me at the earliest opportunity.

Sincerely,

A handwritten signature in black ink, appearing to read "B. Birdwell".

Brian Birdwell
Agent
Newmark LP

BB:de

attachments

FINDINGS OF FACT

APPLICANT

Watershed Variances – Findings of Fact

As required in LDC Section 25-8-41, in order to grant a variance the Planning Commission must make the following findings of fact: Include an explanation with each applicable finding of fact.

Project: The Canyons at Lake Travis

Ordinance Standard: 30-5-342 – Request variance for fills for roadways exceeding four feet.

JUSTIFICATION:

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

The proposed development is consistent with the nature of other developments in the area. The current Preliminary Plan includes 64 single family lots with a minimum lot size of 1 acre for individual septic. Some portions of the site are not accessible or fall within the buffer zone of a CEF which further restricts areas where single family lots can be proposed. Adjacent neighborhoods have either requested no roadway connections to maintain their limited traffic flow or the condition of the adjacent roadways are substandard to current design criteria. Therefore, the points of access has been limited to a single connection. Based upon this single point of connection, the boundary of the property and the constraints required to design public access to the proposed platted lots, strict compliance with the ordinance would deprive the owner of the beneficial use and privileges of the property afforded to adjacent land owners.

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

The owner's intent is to minimize the cuts to the maximum extent possible to minimize the amount of restoration needed and subsequently the cost of constructing the roadway. Efforts will be made to contain the limits of the fill within the roadway rights-of-way/easements thru the use of retaining walls or stabilized slopes to minimize the area of disturbance. None of these proposed fills are adjacent to any critical environmental features or environmentally sensitive areas. Runoff from these areas will be collected in roadside swales and detention provided for any increased runoff. In addition, approximately 36 acres or 29% of the site will be kept in the natural state.

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

The property has not been subdivided by the owner or purchased from the former owner to create special or unique conditions.

4. For a variance from the requirements for development within the Critical Water Quality Zone and/or Water Quality Transition Zone: Does the application of restrictions leave the property owner without any reasonable, economic use of the entire property? YES/NO

Not applicable

5. For variances in the Barton Springs Zone, in addition to the above findings, the following additional finding must be included: Does the proposal demonstrate water quality equal to or better than would have resulted had development proceeded without the variance? YES/NO

Not applicable



ENVIRONMENTAL BOARD MOTION 060607-B2

Date: June 06, 2007

Subject: Canyons at Lake Travis

Motioned By: Rodney Ahart

Seconded by: Phil Moncada

Recommendation

The Environmental Board recommends **approval with conditions** of variances to: 1) LDC Section 30-5-301 – To construct driveways on slopes greater than 15%; 2) LDC Section 30-5-302 – To construct buildings on slopes greater than 25%; and 3) LDC Section 30-5-342 – To exceed the maximum 4' cut for the Canyons at Lake Travis.

Staff Conditions

1. The applicant will provide water quality treatment through the implementation of vegetated filter strips, as identified in the accompanying exhibit. These areas will be further identified as water quality easements in a restrictive covenant.
2. The applicant will set aside 16.59 acres of land, identified on the exhibit as "Natural preserve Area", in a conservation easement.
3. According to LDC 30-5-455 (A)(1), the applicant will dedicate in fee simple to the City, County or another entity approved by the single office the 4.05 acres in the Critical Water Quality Zone utilized as part of the transfer of development intensity.
4. The applicant will implement an IPM Plan.
5. Any unstable cuts will be structurally contained.

Rationale

Findings of fact have been met.

Vote 5-1-0-2

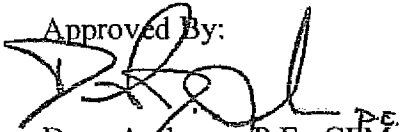
For: Curra, Maxwell, Moncada, Ahart, and Dupnik

Against: Neely

Abstain:

Absent: Anderson*, Beall

Approved By:



Dave Anderson P.E., CFM
Environmental Board Chair

* Dave Anderson recused himself on this project.

The Canyons at Lake Travis

PROPOSED DRAINAGE AREA: Total Site

Contributing Drainage Area Size (ac.): 126.16
Drainage Area Impervious Cover (%): 15.55
Recharge Zone? (Y/N): N
Land Use? (SF, MF, or CO): SF

								BMP - NATURAL VEGETATIVE FILTER STRIPS		
Column	A	B	C	D	E	F	G	H	I	J
	Developed Pollutant Concentrations ² (mg/L) (C)	Baseline Unit Area Pollutant Load ¹ (lb/ac.yr) (Bp)	Developed Unit Area Pollutant Load ² (lb/ac.yr) (Dp)	Baseline Total Load ¹ (lb./yr) (Up)	Developed Total Load ² (lb./yr) (Tp)	Pollutant Reduction Required ³ (%) (Rp)	Pollutant Load Reduction Required (lb./yr) (Tp - Up)	BMP Removal Efficiencies ⁴ (%)	BMP Load Reduction ⁵ (lb./yr)	Pollutant Load Remaining After First BMP (lb./yr) (Column E - I)
Pollutant										
TSS	110	19.9	76.03	2510.58	9592.14	73.8%	7081.55	0.0%	0.00	9592.14

Rainfall Runoff Coefficient (Rr) = 0.094

PROPOSED DRAINAGE AREA: Natural Preserve Area

Contributing Drainage Area Size (ac.): 16.59
Drainage Area Impervious Cover (%): 5
Recharge Zone? (Y/N): N
Land Use? (SF, MF, or CO): SF

								BMP - NATURAL VEGETATIVE FILTER STRIPS		
Column	A	B	C	D	E	F	G	H	I	J
	Developed Pollutant Concentrations ² (mg/L) (C)	Baseline Unit Area Pollutant Load ¹ (lb/ac.yr) (Bp)	Developed Unit Area Pollutant Load ² (lb/ac.yr) (Dp)	Baseline Total Load ¹ (lb./yr) (Up)	Developed Total Load ² (lb./yr) (Tp)	Pollutant Reduction Required ³ (%) (Rp)	Pollutant Load Reduction Required (lb./yr) (Tp - Up)	BMP Removal Efficiencies ⁴ (%)	BMP Load Reduction ⁷ (lb./yr)	Pollutant Load Remaining After First BMP (lb./yr) (Column D - I)
Pollutant										
TSS	82.5	19.9	28.79	330.14	477.64	30.9%	147.50	85.0%	280.62	49.52

Rainfall Runoff Coefficient (Rr) = 0.047

PROPOSED DRAINAGE AREA: Vegetated Filter Strip Areas

Contributing Drainage Area Size (ac.): 28.25
Drainage Area Impervious Cover (%): 13.15
Recharge Zone? (Y/N): N
Land Use? (SF, MF, or CO): SF

								BMP - NATURAL VEGETATIVE FILTER STRIPS		
Column	A	B	C	D	E	F	G	H	I	J
	Developed Pollutant Concentrations ² (mg/L) (C)	Baseline Unit Area Pollutant Load ¹ (lb/ac.yr) (Bp)	Developed Unit Area Pollutant Load ² (lb/ac.yr) (Dp)	Baseline Total Load ¹ (lb./yr) (Up)	Developed Total Load ² (lb./yr) (Tp)	Pollutant Reduction Required ³ (%) (Rp)	Pollutant Load Reduction Required (lb./yr) (Tp - Up)	BMP Removal Efficiencies ⁶ (%)	BMP Load Reduction ⁵ (lb./yr)	Pollutant Load Remaining After First BMP (lb./yr) (Column E - I)
Pollutant										
TSS	82.5	19.9	49.95	562.18	1411.13	60.2%	848.95	54.0%	762.01	649.12

Rainfall Runoff Coefficient (Rr) = 0.082

Calculation of Efficiency Reduction Factor from ECM Criteria (Pg 154)

For 13.15% Impervious Cover, 0.25 acre of required VFS / acre of Contributing Drainage Area

Required VFS (ac) 0.25 (SOS requirement) x 28.25 = 7.06
Available VFS (ac) 4.45

Removal Efficiency (4.45 / 7.06) x 0.85 = 54.00%

Percent Total Site Load Reduction

14.72%

Notes:

Calculation Method Source: City of Austin Environmental Criteria Manual

¹Baseline Load: Unit Area Pollutant Load, Source Table 1-10 (1.6.9.3 COA ECM); Up = A x Bp (Where A = Acres) Equation 2 (1.6.9.3)

²Developed Load: Unit Area Pollutant Load, Source Table 1-11 (1.6.9.3 COA ECM); Dp = Rr(32.5)(C)(0.2267) Equation 3 (1.6.9.3), Rr based on Table 1-9 (1.6.9.3); Tp = A x Dp Equation 4 (1.6.9.3)

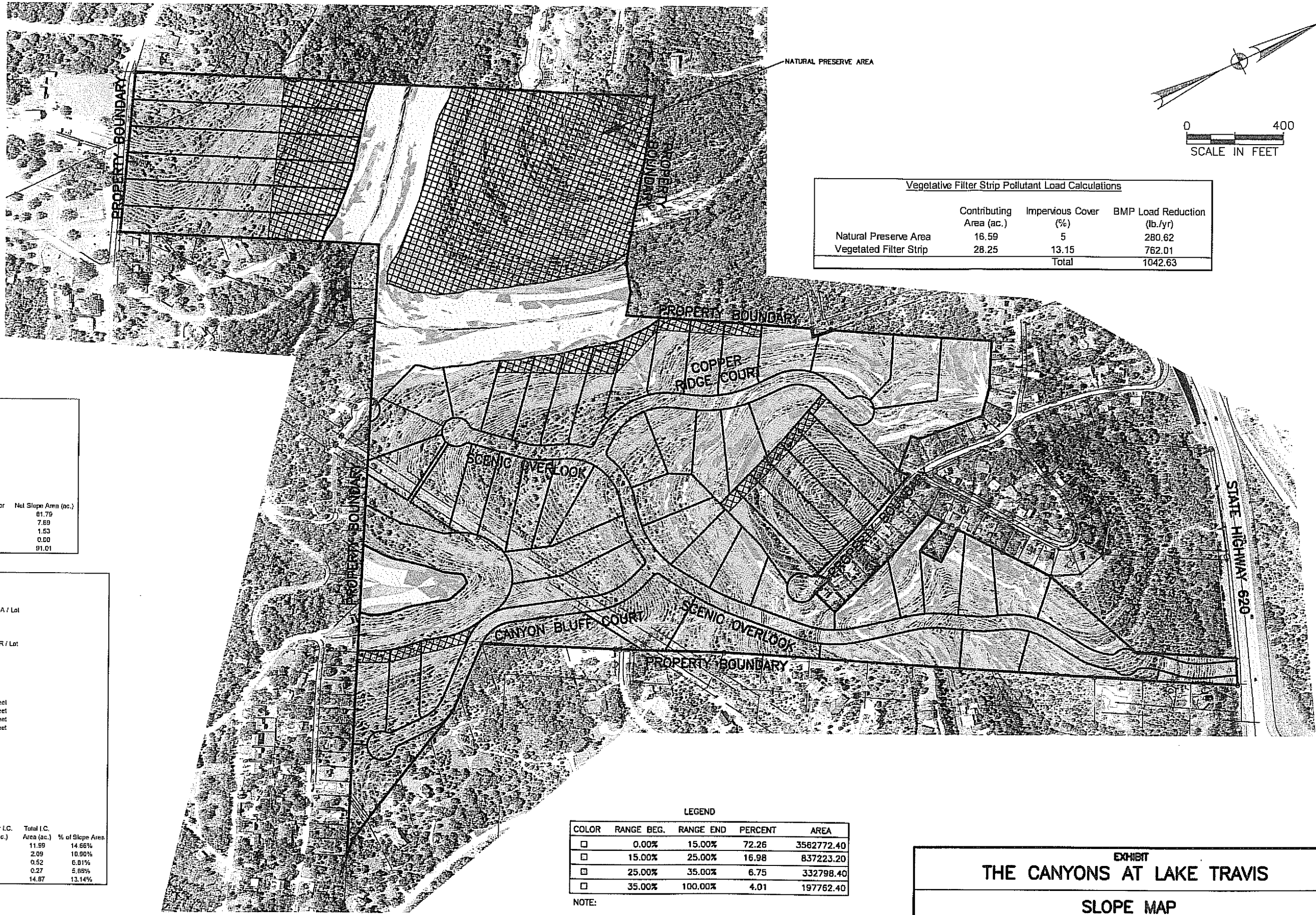
³Reduction % Required: Rp = (Tp-Up)/Tp x 100 Equation 5 (1.6.9.3 COA ECM)

⁴BMP Vegetative Filter Strip Efficiency, Source: COA Water Quality Control Technologies Inventory, prepared by Espey Consultants Inc., dated July 2004

⁵BMP Load Reduction: Provided Pollutant Load Reduction = BMP Removal Efficiency x Efficiency Reduction Factors (if applicable) x Pollutant Load

⁶Please see above calculation based on COA Environmental Criteria Manual

⁷BMP Load Reduction: Provided Pollutant Load Reduction = BMP Removal Efficiency x Efficiency Reduction Factors (if applicable) x Baseline Pollutant Load



Vegetative Filter Strip Pollutant Load Calculations			
	Contributing Area (ac.)	Impervious Cover (%)	BMP Load Reduction (lb./yr)
Natural Preserve Area	16.59	5	280.62
Vegetated Filter Strip	28.25	13.15	762.01
		Total	1042.63

TABLE Q-1: NET SITE AREA			
Total gross site area =	Area (ac)		
	126.20		
Site Deductions:	Area (ac)		
Critical water quality zone (CWQZ) =	4.05		
Water quality transition zone (WQTZ) =	8.96		
Deduction subtotal =	13.01		
Upland area (Gross area - Deduction total) =	113.19		
Net Site Area Calculation:	Area (ac)	NSA Factor	Net Slope Area (ac.)
Area of Uplands with Slopes 0-15% =	61.79	100%	61.79
Area of Uplands with Slopes 15-25% =	19.22	40%	7.69
Area of Uplands with Slopes 25-35% =	7.64	20%	1.53
Area of Uplands with Slopes > 35% =	4.54	0%	0.00
Net Site Area (subtotal) =			91.01

TABLE Q-2: IMPERVIOUS COVER			
Allowable Impervious Cover / Density: (Water Supply Rural Watershed)			
Minimum Lot Density Required =	2.00	Acres NSA / Lot	
Net Site Area =	91.01	Acres	
Allowed NSA No. Lots =	45.50	SF Lots	
Minimum Lot Density Required =	1.00	Acres TDR / Lot	
Transfer of Development Rights Area =	19.12	Acres	
Allowed TDR No. Lots =	19.12	SF Lots	
Total No. Lots Allowed =	64	SF Lots	
Total No. Lots Planned =	63	SF Lots	
Assumed I.C. per Lot =	7,000	Square Feet	
Total Lot I.C. =	441,000	Square Feet	
Total Roadway I.C. =	206,898	Square Feet	
Total Planned I.C. =	647,898	Square Feet	
Total Planned I.C. =	14.87	Acres	
Allowable Impervious Cover Breakdown by Slope Category:			
Total acreage 15-25% = 19.22 Acres x 10% =	1.922	Acres	
Proposed Total Impervious Cover:			
Impervious cover in WQTZ =	0	Acres	
Impervious cover in Uplands Zone =	14.07	Acres	
Total Impervious cover =	14.07	Acres	
Proposed Impervious Cover on Slopes:			
Slope Category	Slope Area (ac.)	Est. Building I.C. Area (ac.)	Roadway I.C. Area (ac.)
0-15%	61.79	5.11	3.58
15-25%	19.22	1.42	0.67
25-35%	7.64	0.39	0.13
Over 35%	4.54	0.20	0.07
Total Net Site Area	113.19	10.12	4.75
			14.87
			13.14%

TABLE Q-3: TRANSFER OF DEVELOPMENT RIGHTS (30-5-455A)			
Single Family Residential Development			
Transfer Category	Transfer Area (ac.)	Transfer Acres / Lot	Transfer SF Lots
WQTZ	5.96	1	6.95
CWQZ	4.05	1	4.05
CEP Buffer	6.11	1	6.11
Total	16.12		17.11

LEGEND				
COLOR	RANGE BEG.	RANGE END	PERCENT	AREA
□	0.00%	15.00%	72.26	3562772.40
□	15.00%	25.00%	16.98	837223.20
□	25.00%	35.00%	6.75	332798.40
□	35.00%	100.00%	4.01	197762.40

NOTE:
TABLE DOES NOT INCLUDE AREAS FROM THE CRITICAL WATER QUALITY AND TRANSITIONAL WATER QUALITY ZONES.

VEGETATED FILTER STRIP AND NATURAL PRESERVE AREA

EXHIBIT

THE CANYONS AT LAKE TRAVIS

SLOPE MAP

TCB | AECOM

TCB
400 WEST 15th STREET, SUITE 500
AUSTIN, TEXAS 78701
WWW.TCB.AECOM.COM

Travis County Conservation Development Concept Ordinance

October 24, 2006

Key Conservation Development Characteristics:

- Open Space Designed For Community Assets
- Maintains Reduced Development Density
- Allows Cluster Development
- Requires Management of Open Space
- Provides option to traditional approach

Conservation Development Land Planning Steps:

- Identify area to be protected as open space in the subdivision
(from detailed ecological assessment)
- Set building sites outside of the open space
- Align roadways and pedestrian ways
- Adjoin lot lines as necessary

Travis County Orientation:

- Protect Rural or Natural Assets
(unincorporated, non-FTH areas)
- Reduce Density and Promote Clustering
(impervious cover limits)
- Promote Resource Sustainability/Conservation
- Promote Commercial Nodes
(Designated Commercial Development Areas)
- Maximize Development Certainty
(“by-right” provision)
- Provide Incentives for Landowners and Developers
(Admin. Variances and Approvals, Financial Incentives)

I. Minimum standards for a Conservation Development:

a. Conservation Space Design

- At least 50% of the property in open space
- At least 150 feet wide with half at least 300 feet wide
- At least 20 acres in size
- Up to 5% may be rural character buffers
- Up to 10% may be recreation areas
- Up to 50% may be primary conservation areas
- Wastewater disposal may be up to 5% or 10% depending on watershed area
- Buffered from impervious cover, rights-of-way and easements by 25 feet

b. Subdivision Design

- Rural Character buffers of 75 feet (property boundary & roadways)
- Historic Preservation buffers of 100 feet
- Impervious cover limit of 15% of property's total acreage
- Reduced roadway and driveway standards
- "Reserved Uses" are prohibited unless approved by Commissioners (big box retail, manufacturing and industrial uses, non-compatible uses, noxious uses)

c. Energy Conservation

- 15% residential and 20% commercial savings
- New development meet "dark sky" lighting standards

d. Water Conservation

- 15% indoor savings above state code
- Toilet and shower requirements
- Landscape irrigation meet design criteria

e. Materials Conservation

- Construction to be 10% by value of recycled, reclaimed or rapidly renewable material
- At least 50% of construction debris diverted from landfills

II. Preferred commercial development areas have alternate minimum standards for Conservation Development:

• Areas Designated by Commissioners Court

- "Reserved Uses" are prohibited unless approved by Commissioners (big box retail, manufacturing and industrial uses, non-compatible uses, noxious uses)
- Reduces some standards to accommodate commercial development (30% percent open space, minimum 2 acres open space, 15% impervious cover, etc.)

III. Application Process

- Includes administrative approval provisions:
 - Admin. approval if no variances
 - Admin. approved with admin. variances and no Commissioners action within 30 days
 - Commissioners Court approves all cases beyond admin. authority

IV. Limited authority for administrative adjustments to open space designs

V. Limited authority for administrative variances

- All requests that exceed delegated administrative authority must be approved by the Commissioners Court

VI. Conservation Development Agreement (Contract)

- a. Runs with the land
- b. Requires development be consistent with Conservation Development standards
- b. Specifies financial incentives
- c. May be executed in advance of development interest

VII. Ordinance Incentives are proposed to promote the conservation development option:

- a. Development permit fees reimbursed/waived
- b. Preliminary Plan & Final Plat Fees
Construction Plan Review & Driveway Permit Fees
- c. Application process assistance
County Staff facilitator
- d. Grandfathered subdivision standards
- e. Unused impervious cover and excess conservation space transfers

VII. Ordinance Incentives (cont.):

f. Dedication and Fee-In-Lieu Exemptions

Parkland dedication

g. Conservation Development Marketing
"Travis County Approved Conservation Development"

VIII. Staff Proposed Pilot Program Incentives:

- a. Pilot Program limited to approved budget authority and not to exceed 5 properties; Program expires automatically in 5 years.
- b. Conservation Development Agreement Payments
 - Annual Payments - \$5 per min. conservation space ac.
 - Lump Sum Annuity Payments - \$600 per min. Conservation space ac. And not to exceed \$500,000
 - Payments only for property areas that have agriculture or wildlife exemptions; payments terminate for portions that lose exemption
- c. Conservation Space Rebates
 - not to exceed \$40,000
- d. Conservation Space Management Grants
 - Assistance to preserve ecological assets - not to exceed \$5,000

Contact Information

- View concept ordinance at Travis County
Web Site: www.co.travis.tx.us
- Joseph L. Lessard
(work) 512-636-0154
(fax) 512-288-1909
(e-mail) lessard89@austin.rr.com

ORDER OF THE TRAVIS COUNTY COMMISSIONERS COURT

WHEREAS, the Travis County Commissioners Court finds that adoption of a conservation development ordinance will promote the health, safety morals, and general welfare of the County and the safe, orderly, and healthful development of the unincorporated area of the County, will help reduce the threat of flooding by limiting the amount of development in watersheds, will help conserve endangered species habitat, and will encourage the type of economic development the County desires to promote;

WHEREAS, Section 232.101, Local Government Code, authorizes Travis County to adopt rules governing plats and subdivisions to promote the health, safety morals, or general welfare of the County and the safe, orderly, and healthful development of the unincorporated area of the County; Section 251.003, Transportation Code, authorizes Travis County to make and enforce all reasonable rules and orders for the maintenance of public roads; Subchapter I, Chapter 16, Water Code, authorizes Travis County to employ regional and watershed approaches to floodplain management and adopt rules the County determines are necessary for planning and appropriate to protect public health and safety; Subchapter B, Chapter 83, Parks and Wildlife Code, authorizes Travis County to implement a habitat conservation plan for endangered species; and Chapter 381, Local Government Code, authorizes Travis County to develop and administer a program of economic development; and

WHEREAS, newspaper notice of the rules was published as required by law;

NOW, THEREFORE, the Commissioners Court hereby:

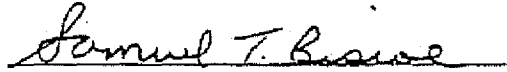
1. Designates the following subchapters of Chapter 82, Travis Code:

Subchapter A	Section 82.001-.107
Subchapter B	Section 82.201-.209
Subchapter D	Section 82.301-.303
Subchapter E	Section 82.401-.501
Subchapter F	Section 82.601-.603
Subchapter G	Section 82.701-.901;

2. Adopts new Subchapter C, Chapter 82, Travis County Code, as attached hereto, to be effectively immediately;
3. Amends Section 82.002, Travis County Code, to add the definitions attached hereto, to be effectively immediately; and

4. Adopts the Conservation Development Design Manual as attached hereto, to be effectively immediately.

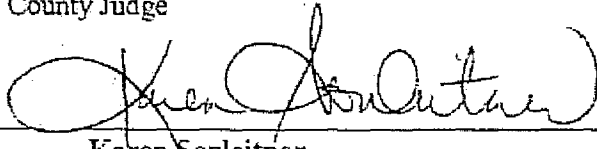
ORDERED this 19th day of December, 2006.



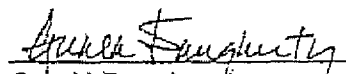
Samuel T. Biscoe
County Judge



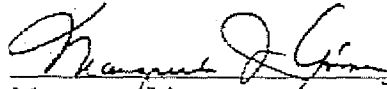
Ron Davis
County Commissioner, Precinct 1



Karen Sonleitner
County Commissioner, Precinct 2



Gerald Daugherty
County Commissioner, Precinct 3



Margaret Gomez
County Commissioner, Precinct 4

CHAPTER 82. SUBCHAPTER A.

Section 82.002. DEFINITIONS.

Commercial development All development other than single-family and duplex residential development.

Conservation Area An undeveloped or historic area that is to be preserved in its existing state or enhanced and that comprises a single lot or multiple contiguous lots set aside from development by means of a conservation easement in a manner consistent with this chapter.

Conservation Development Design Manual The technical manual, as adopted and amended from time to time by the Commissioners Court, that establishes standards and guidance for the implementation of Subchapter C.

Contiguous Abutting or connected to one another, or immediately adjacent if separated only by a local road, utility corridor, pipeline, or localized aquatic feature such as a creek, pond, or small lake.

Creditable acreage Acreage within a conservation area for which credit is given in determining whether the minimum meets the minimum requirements of Section 82.226 for the size of a conservation area. Some acreage within a conservation area may receive no credit or only partial toward meeting the minimum size requirements.

Impervious cover Roads, driveways, parking areas, buildings, concrete and other impermeable construction covering the natural land surface as defined in Title 30, Austin/Travis County Subdivision Regulations. Impervious cover is calculated on a gross site area basis.

Post-consumer When used in reference to recycled or reclaimed waste material means a material or finished product that has been used by an end consumer (e.g. household, business, industry) for its intended purpose/function and has been discarded for disposal or recovery, being that it can no longer be used for its intended purpose. Post-consumer waste materials include items such as construction and demolition debris, materials collected through curbside and drop-off recycling programs, broken pallets from a pallet refurbishing company, discarded products (e.g. furniture, cabinetry and decking) and urban maintenance waste (e.g. leaves, grass clippings, tree trimmings). Examples of products that include post-consumer material content include ceiling tiles, carpeting, cellulose insulation made with/from old newsprint, steel rebar from crushed cars and aluminum window frames made with/from used beverage cans.

Pre-consumer When used in reference to recycled or reclaimed waste material means a material or product diverted from the waste stream during the manufacturing process that has not been distributed to an end consumer. This definition excludes recovered or reutilized material such as rework, regrind or scrap capable of being

reclaimed within the same process that generated it. Pre-consumer materials include items such as planer shavings, plytrim, sawdust, chips, bagasse, seed hulls and nut shells, culls, trimmings and cuttings, print overruns, over-issue publications and obsolete inventories. Examples of products that include pre-consumer material content include fly ash from coal burning plants, sheathing and board product made with/from waste agriculture straw and drywall made with/from synthetic gypsum.

Preferred commercial development area An area designated by the Commissioners Court in the Conservation Development Design Manual and designed to attract and accommodate high levels of development intensity or land uses as specified by the Commissioners Court, including general commercial uses, government services, neighborhood retail, multifamily residential, regional multi-use town center locations, or other uses.

Primary conservation areas Setbacks, set-asides, buffers or preserve areas that state, federal, or local law requires to be preserved as undeveloped or minimally disturbed, including endangered species habitat, floodplains, and setbacks or buffers around waterways and environmentally valuable or critical features.

Property owners' association An organization established for the purpose of owning and managing the common land or amenities of a property, including a homeowners association.

Public commons A publicly accessible park, community plaza, town square, village green, or similar area provided as an amenity to a commercial development under Subchapter C.

Recreation space Playing fields, playgrounds, recreational bikeways, golf courses or other land areas or facilities intended for sports or active recreational uses, as well as their immediately adjacent landscaped or maintained areas. Recreation space constitutes development under Subchapter C.

Reserved use Any one of the following:

Big box retail--Building spaces designed for single user retail in excess of 50,000 square feet.

Manufacturing and industrial uses--Raw material extraction or, manufacturing/processing that incorporates product assembly or raw material processing or, utilizes flammable or explosive materials or, incorporates on-site storage and distribution activities. This definition is not intended to include custom or craft manufacturing or assembly intended for local sale or distribution and utilizing hand tools or domestic mechanical equipment not exceeding two (2) horsepower or a single kiln not exceeding eight (8) kilowatts. Custom or craft manufacturing examples include ceramic studios, candle-making shops and custom jewelry manufacturing.

Non-compatible development--Development that is potentially incompatible with the purposes or intent of this subchapter to preserve the rural or natural character areas of Travis County, including non-commercial building height in excess of twenty-eight (28) feet and commercial building height in excess of forty (40) feet, buildings or areas with exterior lighting requirements that can not meet the Dark Skies Lighting provisions in the Conservation Development Design Manual, any establishment selling alcohol for on-site consumption except as an accessory to the sale of food, any use other than by a governmental or educational entity likely to create peak noise levels that exceed seventy (70) db at the property line. Height means the vertical distance from the average of the highest and lowest grades adjacent to the building to the highest point of the coping of a flat roof, the deck line of a mansard roof, the average height of the highest gable for a pitched or hip roof, or the highest point of the building for other roof styles.

Noxious uses--Uses that are inappropriate or offensive for inclusion in, or proximity with residential or public use areas or activities, including sexually oriented businesses, poultry processing, stockyards, rendering plants, kennels, auto junkyards, recycling centers, scrap or salvage services, landfills, sludge farms, asphalt/concrete plants, mines and quarries.

Secondary conservation area Areas other than primary conservation areas that are included in a conservation area and where development is restricted to meet the creditable acreage requirements of this subchapter.

Trails A pedestrian way, not for motorized vehicle use and distinguishable from sidewalks associated with streets, that is intended to provide passive recreational use such as hiking or walking and community connectivity and/or access to preserved areas that have only minimal improvements necessary for health, safety and property protection and intended primarily.

Travis County Parks and Natural Areas Master Plan A plan or set of community goals or guidelines adopted by the Commissioners Court to identify desirable areas or features for conservation within protected open space and establishing criteria for identifying, configuring and acquiring open space within Travis County.

View shed An area of such size, depth and/or breadth, as to afford panoramic scenic views from multiple locations along its perimeter and/or from accessible locations within its interior.

CHAPTER 82. SUBCHAPTER C.

Section 82.220. CONSERVATION DEVELOPMENT: GEOGRAPHIC SCOPE

(a) This subchapter applies only outside the ETJ.

Section 82.221. CONSERVATION DEVELOPMENT AGREEMENT.

(a) An owner that intends to develop property pursuant to this subchapter shall enter into a conservation development agreement with the County. The agreement may be executed before the owner files a preliminary plan or final plat application for the property, but shall be executed no later than the earlier of either preliminary plan approval or final plat approval for the property.

(b) The conservation development agreement shall:

- (1) require the property to be developed only in compliance with this subchapter as it exists at the time the agreement is executed;
- (2) include a metes and bounds description of the conservation area by a registered public land surveyor;
- (3) include such other provisions that the County determines are necessary to ensure compliance with this subchapter;
- (4) constitute a conservation easement and covenant running with the property in favor of the County;
- (5) include provisions for any conservation development incentive payments under Sections 82.237 through 82.241;
- (6) be approved or amended only by the Commissioners Court; and
- (7) be recorded in the Official Public Records of Travis County.

Section 82.222. CONSERVATION DEVELOPMENT APPLICATION PROCESS.

(a) An owner proposing to enter into a conservation development agreement with the County and/or to file a preliminary plan or final plat application under this subchapter shall follow each step of the process below in sequence unless steps are combined by the Executive Manager.

(b) The owner shall prepare and submit to the Executive Manager preliminary drafts of an ecological assessment of and a conceptual land plan for the property meeting the requirements of the Conservation Development Design Manual.

(b) No sooner than fifteen (15) days after submitting the preliminary drafts of the ecological assessment and conceptual land plan, the owner shall meet with the Executive Manager and County staff in a pre-application meeting to acquaint them with the proposed development, including its ecological assessment and conceptual land plan, to obtain preliminary staff comments, and to identify major issues or needs for additional information. The Executive Manager may require the owner to visit the property with County staff.

(c) At any time after the pre-application meeting, the owner may file a preliminary plan or final plat application meeting the requirements of the Travis County Code and shall provide with it the following materials and information meeting the requirements of the Conservation Development Design Manual.

- (1) Ecological assessment.
- (2) Land plan delineating the conservation area and setting out planned development of the remainder of the property.
- (3) Scenic view preservation plan.
- (4) If historic structures or sites are located on the property, a historic site preservation plan and/or historic structure or relocation or preservation plan.
- (5) Integrated pest management plan.
- (6) Ecological assets management plan.
- (7) Any variance, waiver, and exemption requests.
- (8) A list and copies of all legal documents necessary for the proposed development, including the following.
 - (A) Draft conservation development agreement, if not yet executed by the owner and the County.
 - (B) Conservation easement for the conservation area, if not yet executed by the owner and the County.
 - (C) Title commitment including copies of all relevant deeds, easements, etc., if not yet provided to the County.
 - (D) Conditions, covenants and restrictions.

- (E) Excess or available creditable acreage or impervious cover transfer documents, with an accompanying narrative explaining the document's general provisions, purpose or justification.
 - (F) Property owners association documents, including charter, bylaws, and any architectural and landscape design standards.
- (9) Any additional information required by the Executive Manager to demonstrate compliance with this subchapter.

(d) To be considered complete, an application filed under this subchapter must indicate that approval under this subchapter is sought and must include the items in Subsection (c). The Executive Manager shall issue an attachment to Exhibit 82.201(C) adding the items required under this section to the documentation and other information that must be submitted in sufficient detail for technical review of an application to begin.

Section 82.223. APPROVAL OF A CONSERVATION DEVELOPMENT.

(a) An application under this subchapter shall meet all requirements of the Travis County Code except as expressly or modified, waived, or exempted by this subchapter or the Conservation Development Design Manual. If a provision of this subchapter or the Conservation Development Design Manual is inconsistent or conflicts with any provision in another subchapter or chapter of the Travis County Code, the provision of this subchapter or the Conservation Development Design Manual shall control.

(b) Unless otherwise specifically authorized by the Commissioners Court, for a development project to receive approval under this subchapter, reserved uses must be prohibited by covenants, conditions, and restrictions or other means approved by the County.

(c) The conservation development agreement, preliminary plan and/or final plat application, and all items required to be submitted under Section 82.222(c) are subject to the approval of the County. To implement this subchapter and ensure both that development will comply with this subchapter and that the ecological, historic, and other values of the conservation area and buffers will be maintained, the owner must establish legally binding mechanisms, such as preliminary plan and plat notes, contracts, licenses, covenants, conditions, and restrictions, or property owners' association charters and bylaws enforceable by the County and other entities deemed necessary by the County. Historic structures or sites ranked as significant features in the ecological assessment may only be relocated or removed as approved by the County. A property owners association or other entity established in association with development of the property may be required to hold a license or enter into another contract for the operation and maintenance of the stormwater management facilities and/or the maintenance of the conservation area and historic and rural buffers.

(d) If the Executive Manager determines that a preliminary plan or final plat application meets all requirements of the Travis County Code, the Executive Manager may approve it administratively. If the application is for a final plat, it is not subject to Section 82.201(b)(3)(A).

(e) If the Executive Manager determines that a preliminary plan or final plat application meets all requirements of the Travis County Code except for one or more matters for which the owner requests an administrative variance under Section 82.225, the Executive Manager may proposed to approve the application administratively by sending written notice of proposed approval to the Commissioners Court. If the application is for a final plat, the Executive Manager shall send the notice when the determination under Section 82.201(b)(3)(A) is made and the Executive Manager's proposed approval becomes final if the Commissioners Court does not approve or deny the application within fifteen (15) days of such notice. For preliminary plans, the Executive Manager's proposed approval becomes final if the Commissioners Court does not approve or deny the application within thirty (30) days of such notice.

(f) The Executive Manager may administratively approve amendments to a preliminary plan or final plat approved under this subchapter as provided in Subsections (d) and (e).

Section 82.224. ADMINISTRATIVE ADJUSTMENTS TO CONSERVATION AREA.

(a) If it furthers the purposes of this subchapter and neither increases the size of the owner's proposed conservation area nor imposes an unreasonable economic hardship on the owner, the Executive Manager may require the adjustment or modification of the proposed design or configuration of a conservation area to:

- (1) include preferred ecological or cultural features;
- (2) maximize the ecological value of habitat areas;
- (3) improve the connectivity of the conservation area with current or potential conservation and open space on adjacent land;
- (4) assure the conservation area furthers implementation of or is consistent with this subchapter and/or the Travis County Parks And Natural Areas Master Plan;
- (5) reduce conservation area ecological fragmentation and provide for or improve the connectivity of conservation area within the property;
- (6) improve the alignment and continuity of design of the conservation area;
- (7) improve the efficiency and/or effectiveness of management of the conservation area;

- (8) improve the sustainability of the conservation area and/or protect it from undesirable or unmanaged access and use; or
- (9) mitigate unintended consequences arising from conflicts between provisions of this subchapter, the Conservation Development Design Manual and/or other regulatory requirements.

(b) The owner may appeal adjustments or modifications to the Commissioners Court.

Section 82.225. ADMINISTRATIVE VARIANCES.

(a) An owner requesting a variance shall submit a written request to the Executive Manager that specifies the nature of the variance and the justification for the variance.

(b) The Executive Manager may grant the following variances administratively.

- (1) The conservation area may be in more than one contiguous or noncontiguous tract or lot or may be provided under a conservation easement on developable but undeveloped land not included in the subdivision.
- (2) Storm water credit for impervious cover calculations as provided for in the Lower Colorado River Authority Highland Lakes Watershed Ordinance and related technical manual may be granted for developments utilizing porous and permeable cover, rainwater harvesting and disconnection of roof top runoff techniques.
- (3) Historic buffers may be reduced to fifty (50) feet if access is controlled by measures approved by the Executive Manager based on specific property/site considerations.
- (4) Maximum percentage of primary conservation area that may be included as creditable acreage in the conservation area may be increased up to twenty-five percent (25%) to include on-site endangered species habitat or floodplain area that if excluded could render development of the property as a conservation development infeasible.
- (5) The minimum percentage of significant features required to be included in the conservation area may be reduced by up to one third based on specific site specific considerations.
- (6) Minimum requirements for a conservation area lot or buffers may be reduced based on site specific considerations for a property that is less than forty (40) acres in total size and is not within a preferred commercial development area as follows.

- (A) Minimum conservation area area size may be waived.
 - (B) Requirements for conservation area width in excess of one hundred and fifty (150) feet may be waived.
- (7) Secondary conservation areas may include recreation space up to twenty-five percent (25%) of the secondary conservation area portion of the conservation area if the recreation space will use significant volumes of harvested rainwater, grey water or wastewater effluent for its irrigation.
 - (8) Wastewater disposal may be included in a secondary conservation area, excluding recreation space, up to twenty-five percent (25%) of the of the conservation area to accommodate preservation of existing vegetation or fit topographic or soil conditions.
 - (9) Environmentally valuable feature buffer zones may be adjusted in size and configuration due to drainage and topographic considerations.
 - (10) The number of dwelling units, including single-family dwelling units, served by a joint use driveway under Section 82.302(c)(10) may be increased based on site specific considerations.
 - (11) The height limit for non-commercial buildings in the definition of reserved uses may be increased up to no more than forty (40) feet if the building is more than two hundred (200) feet from the boundary of the property and the Executive Manager determines that it will not materially and detrimentally affect a scenic view or view shed.
 - (12) Rural and historic buffer sizing requirements may be reduced by up to forty percent (40%) if the Executive Manager determines either that another vegetative screening buffer is additionally required along the same property boundary or right-of-way as a rural buffer, or the reduced buffers will adequately maintain the area's rural character due to the topography and/or type and level of native vegetation screening the property's development.
 - (13) The maximum percentage of conservation area that may be comprised of rural and historic buffers may be increased to a maximum of ten percent (10%) of the total conservation area.
 - (14) Rural buffer spacing requirements for driveways for commercial developments may be reduced if the Executive Manager determines the reduced spacing requirements will adequately maintain the area's rural character and adequate provisions have been made to retain/protect rural buffers and traffic flow will be improved without impairing the public safety.

- (15) Road and driveway design standards in the Conservation Development Design Manual may be utilized within a preferred commercial development area if a civil or traffic engineer demonstrates public safety will not be compromised and that the standards are as appropriate as normally applicable road and driveway standards.
- (16) Recreation space may be accepted in place of parkland as creditable acreage for commercial developments based on site specific considerations.
- (17) Application process and submittal requirements may be waived if deemed unnecessary to meet the intent of this subchapter or duplicative.
- (18) Conservation area may be approved as having met the requirement for preservation of significant features in the ecological assessment if it substantially fulfills the purpose and intent of this subchapter.

(c) To grant an administrative variance, the Executive Manager must find that:

- (1) the variance will improve the overall functionality of development on the property;
- (2) the variance will maintain or improve the overall functionality, viability, or sustainability of the conservation area;
- (3) the variance is consistent with overall purpose and intent of or will resolve a conflict between a provision of this subchapter or the Conservation Development Design Manual and a provision of the Travis County Code, the Travis County Parks and Natural Areas Master Plan, or other regulatory requirements;
- (4) the variance is the most reasonable and practical alternative available to fulfill the overall purpose and intent of this subchapter; and
- (5) all necessary and appropriate conditions or requirements have been imposed to mitigate any potential detrimental effects of the variance.

(d) In determining whether to grant a variance the Executive Manager may also consider:

- (1) the configuration of the conservation area and the extent to which it furthers implementation of or is consistent with the Travis County Parks and Natural Areas Master Plan or the Conservation Development Design Manual;

- (2) the extent to which wastewater from the development will be disposed of using drip irrigation;
- (3) the extent to which the development will apply landscape conservation measures;
- (4) the extent to which parks, recreation space, rural buffers, roadway or other landscaping is irrigated using wastewater, grey water or harvested rainwater;
- (5) the extent to which public access is provided to the conservation area;
- (6) the extent to which the ecological assets management plan, including any financial security provisions, exceeds minimal requirements; or
- (7) the extent to which the development employs design features or elements that are consistent with the characteristics or guidelines for sustainable communities, including new urbanist or traditional development concepts.

(c) The owner may appeal the denial of administrative variance request to the Commissioners Court.

Section 82.226. DESIGN REQUIREMENTS: CONSERVATION AREA.

(a) Except as provided in Subsection (b), a development shall include a conservation area:

- (1) that is at least twenty (20) acres;
- (2) at least half of which is at least three hundred (300) feet wide;
- (3) that is at no point less than one hundred and fifty (150) feet wide, except where there are contiguous rural or historic buffers;
- (4) that includes at least seventy-five percent (75%) of the significant features ranked in the ecological assessment; and
- (5) that includes creditable acreage equal to at least fifty percent (50%) of the total acreage of the property.

(b) A commercial development in a preferred commercial development area shall include a conservation area:

- (1) that is at least two (2) acres;
- (2) that is at no point less than one hundred (100) feet wide;

- (3) that includes at least forty percent (40%) of the ranked significant features identified in the final ecological assessment, provided that if any part of the conservation area is public commons not contiguous to the property, it must include at least seventy-five percent (75%) of such features; and
- (4) that includes creditable acreage equal to at least thirty percent (30%) of the total acreage of the property.

(c) Fee simple title to the conservation area and historic or rural buffers must be held by the owner, the property owners association for the development, or another entity approved by the County. The conservation easement encumbering the conservation area shall be held by the County, either individually or jointly with another entity approved by the County.

(d) The conservation area shall be managed and maintained by the owner, the property owners association for the development, or another entity approved by the County according to the final ecological asset management plan meeting the requirements of the Conservation Development Design Manual. Buffers not included in the conservation area shall be controlled and managed by the owner, the property owners association for the development, or another entity approved by the County.

(e) Access to all parts of the conservation area must be provided to the County, any other conservation easement holder, and the managing entity and must meet the requirements of the Conservation Development Design Manual.

Section 82.227. DESIGN REQUIREMENTS: CREDITABLE ACREAGE.

(a) All acreage within the conservation area upon which all development activities inconsistent with this subchapter are prohibited and that is outside primary conservation areas and buffer zones required under this subchapter is creditable acreage.

(b) The conservation area may include or encompass the areas described below, but such areas constitute creditable acreage only to the extent set out below.

- (1) Primary conservation areas shall be creditable acreage only to the extent they do not exceed fifty percent (50%) of the conservation area.
- (2) Areas encumbered by rights-of-way, access or utility easements, or other areas where alteration or disturbance of land or vegetation is not prohibited are allowed, provided they do not overly fragment the conservation area and there is a contiguous buffer of at least twenty-five (25) feet from the outermost limit of the area of alteration or disturbance in which development that is incompatible with the conservation area's natural character and planned uses is prohibited. Such areas are not creditable acreage. The Executive Manager may administratively waive

the foregoing buffer requirements for a commercial development where the conservation area is public commons.

- (3) Areas where impervious cover is not prohibited if compatible with the conservation area or where impervious cover already exists are allowed, provided they do not overly fragment the conservation area and there is a contiguous undisturbed buffer of at least twenty-five (25) feet from the outermost limit of the impervious cover that in which development that is incompatible with the conservation area's natural character and planned uses is prohibited. Such areas are not creditable acreage. The Executive Manager may administratively waive the foregoing buffer requirements for a commercial development where the conservation area is public commons.
- (4) Recreation space is allowed within a secondary conservation area and shall be creditable acreage only to the extent it does not exceed ten percent (10%) of the conservation area.
- (5) Wastewater disposal is allowed within a secondary conservation area that is either recreation space or a rural buffer and shall be creditable acreage only to the extent such areas, including regulatory setbacks, do not exceed five percent (5%) of the conservation area within a western watershed and ten percent (10%) of the conservation area within an eastern watershed.
- (6) Rural or historic buffers contiguous to the conservation area shall be creditable acreage to the extent they have a consistent width of at least one-hundred and fifty (150) feet. For commercial development in preferred commercial development areas, historic buffers contiguous to the conservation area shall be creditable acreage to the extent they have a consistent width of at least fifty (50) feet. Rural or historic buffers with less than the foregoing widths or that are allowed to be noncontiguous to the conservation area shall be creditable acreage only to the extent they do not exceed five percent (5%) of the conservation area.
- (7) For commercial development in preferred commercial development areas, public commons are allowed and constitute creditable acreage as described in and if they meet the requirements of Section 82.226(b)(3).
- (8) Trails approved by the Executive Director and meeting the requirements of the Conservation Development Manual may be included in the conservation area and are creditable acreage.

(c) Creditable acreage requirements may be met through the transfer of creditable acreage from another development approved under this subchapter that exceeds the minimum creditable acreage requirements of this section as provided in Section 82.236. However, for a commercial development in a preferred commercial development area receiving

transferred credits, no more than twenty-five percent (25%) of the creditable acreage may be provided through transfers.

Section 82.228. DESIGN REQUIREMENTS: RURAL AND HISTORIC BUFFERS.

(a) For single family or duplex residential, a rural buffer at least seventy-five (75) feet wide shall be established:

- (1) along the entire boundary of the property; and
- (2) on both sides of any road passing through the property that is identified either in the Capital Area Metropolitan Planning Organization (CAMPO) Transportation Plan or by the Executive Manager as an existing or potential arterial or collector.

(b) Rural buffers shall remain undisturbed except as provided in this subsection and shall be maintained and restored to the maximum natural vegetative state practicable to maintain the general rural or natural appearance of the property and roadways. Restoration may include landscaping with native plants and irrigation to improve screening of development from adjacent property and roadways. No development shall be allowed within a rural buffer except for directional or project entry signs, crossings by underground utilities, trails, drainage facilities, and driveways running generally perpendicular to a road or the property boundary and that are spaced not less than three hundred (300) feet apart.

(c) A historic buffer at least one hundred (100) feet wide from the edge of the site shall be established around all preserved historic or archeological sites ranked as significant features in the ecological assessment. No development shall be allowed in a historic buffer, except that wastewater disposal and trails may be approved by the Executive Manager.

(d) Natural vegetative cover within rural and historic buffers shall be retained and/or restored and enhanced to the maximum extent practicable. Rural buffers may be improved with the addition of native trees or other native vegetation and irrigation systems so as to obscure the property's buildings and other structures to the maximum extent practicable.

(e) Rural or historic buffers shall not be included in single-family or duplex residential lots.

Section 82.229. DESIGN REQUIREMENTS: IMPERVIOUS COVER.

(a) Impervious cover shall not exceed fifteen percent (15%) of the property's acreage for single family and duplex residential development and forty-five percent (45%) for commercial development in a preferred commercial development area.

(b) The following shall not be considered as impervious cover:

- (1) Trails within a conservation area that meet the requirements of the Conservation Development Design Manual.
- (2) Historic or archeological sites or structures, including remnants such as stone walls

(c) Impervious cover requirements may be exceeded through the transfer of impervious cover credits from another development approved under this subchapter that has impervious cover less than the requirements of this section, as provided in Section 82.236. However, for a commercial development in a preferred commercial development area receiving transferred credits, the impervious cover requirements of this section may not be exceeded by more than five percent (5%).

Section 82.230. DESIGN REQUIREMENTS: ROADS & DRIVEWAYS; LANDSCAPING; RECREATION SPACE

(a) Road and driveway standards in the Conservation Development Design Manual shall apply to applications under this subchapter that are outside of a preferred commercial development area.

(b) Standards for landscaping and recreation space uses in the Conservation Development Design Manual shall apply to applications under this subchapter.

Section 82.231. DESIGN REQUIREMENTS: ENERGY CONSERVATION.

(a) Residential construction, including expansions and reconstruction but excluding purely cosmetic remodeling, shall achieve at least a fifteen percent (15%) energy use savings above the State of Texas Energy Code requirements or shall be in attainment of the minimal standards of the Environmental Protection Agency's Energy Star program.

(b) Non-residential construction, including expansions and reconstruction but excluding purely cosmetic remodeling, shall achieve at least a twenty percent (20%) energy use savings above the State of Texas Energy Code requirements.

(c) All construction, including residential and commercial expansions and reconstruction and all remodeling, shall comply with the Dark Sky Lighting Standards in the Conservation Development Design Manual.

Section 82.232. DESIGN REQUIREMENTS: WATER CONSERVATION.

(a) All new construction, including residential and commercial expansions and reconstruction but excluding cosmetic remodeling, shall achieve at least fifteen percent (15%) indoor water use savings above the Environmental Performance Standards for Plumbing Fixtures, Chapter 372 of the Texas State Health and Safety Code or any

applicable plumbing or fire code requirements of cities, counties, river authorities, or other entities authorized to regulate development of the property.

(b) Plumbing fixtures shall comply with the following, unless otherwise approved by the Executive Manager.

- (1) Toilets shall be selected from the City of Austin's Water Conservation Program Rebate Toilets list.
- (2) Total flow rate for multiple shower heads installed in a shower enclosures shall not exceed 2.75 gallons of water per minute.
- (3) All newly installed landscape and landscape irrigation systems shall be installed to meet the criteria or requirements in the Conservation Development Design Manual.

Section 82.233. DESIGN REQUIREMENTS: MATERIALS CONSERVATION.

(a) All new construction (building envelope, framing and flooring), including expansions and reconstruction but excluding cosmetic remodeling, shall be constructed of at least ten percent (10%) by value of recycled or reclaimed post-consumer content material or materials manufactured from rapidly renewable resources (renewable within ten years). Pre-consumer content material may be used to meet this provision but shall receive half credit for the value of the material used. At least ten percent (10%) by value of all new wood base materials shall be Forest Stewardship Council certified forest products.

(b) The builder shall employ construction practices to ensure diversion of at least fifty percent (50%) of construction debris from landfills.

Section 82.234. DESIGN REQUIREMENTS: ALTERNATIVE STANDARDS.

(a) In lieu of the requirements of Sections 82.231 through 82.233, new residential construction may comply with the standards established to achieve the conservation levels identified above by any of the following entities or programs.

- (1) National Association of Home Builders (NAHB) Green Building Guidelines or any one of the NAHB approved Texas programs for Dallas, Houston, or San Antonio.
- (2) U.S. Green Building Council, LEED Homes Program.
- (3) City of Austin, Austin Energy Green Building Program residential one star rating.
- (4) Green building programs approved by the Executive Manager as substantially meeting the standards of this subsection.

(b) In lieu of the requirements of Sections 82.231 through 82.233, new commercial construction may comply with the standards established to achieve the conservation levels identified above by any of the following entities or programs.

- (1) U.S. Green Building Council, LEED certification.
- (2) City of Austin, Austin Energy Green Building Program for Commercial Buildings.
- (3) Green Globes Environmental Assessment and Rating System.
- (4) Green building programs approved by the Executive Manager as substantially meeting the standards of this subsection.

Section 82.235. RESOURCE CONSERVATION VERIFICATION.

(a) The builder shall submit calculations, plans or other documentation acceptable to the Executive Manager showing/verifying that the building design and/or proposed installations of resource conserving materials; fixtures, appliances and equipment as well as all materials conservation activities will meet the resource conservation requirements of this subchapter; said calculations, plans or other documentation shall be sealed by a qualified engineer or architect or certified by a builder registered with the Texas Residential Construction Commission as designed to achieve the resource conservation requirements of this subchapter; all items to be constructed and/or installed to meet the calculations, plans or other documentation requirements shall be included on a builder's check list that shall be included in the builder's construction and/or sale contract representation and warranty provisions and for use in verification of installation by the final owner.

(b) During site development and building construction a copy of the builders check list shall be maintained at the development and/or building construction site; the applicant/owner will assure that the developer/builder has designated and assigned an individual to act as verification officer for the site/building to confirm receipt and installation of the item contained on the builders check list and to prepare, collect and retain all documentation necessary to verify compliance with the resource conservation provisions of this subchapter; the owner or the designated verification officer shall provide a copy of the builder's check list to the owners association, if applicable, at least fifteen (15) days prior to initiation of construction of the building; copies of calculations, plans or other documentation for any and all resource conservation activities not included in the builder's checklist will be provided to the owner/buyer and, if applicable, the owners association at least fifteen (15) days prior to initiation of construction of the building.

(c) A permanent certificate completed by the builder or registered design professional shall be posted on or in the electrical distribution panel of a building; The certificate

shall list the predominant R-values of insulation installed in or on ceiling/roof, walls, foundation (slab, basement wall, crawlspace wall and /or floor) and ducts outside conditions spaces; U-factors for fenestration and the solar heat gain of coefficient (SHGC) of fenestration; and efficiency of heating, cooling and service water heating equipment; where there is more than one value for each component, the certificate shall list the value covering the largest area.

(d) At or prior to the purchase or final acceptance of any new construction, including expansions or re-constructions or remodeling if applicable, by a final owner, the developer or builder of the new construction and the verification officer shall certify to said owner and, if applicable, related owners association in writing the construction or installation, and operation if applicable, and/or completion of all conservation measures necessary to meet the provisions of this subchapter for new construction. Certifications of commercial buildings shall be sealed by the buildings architect and/or engineer as having been constructed in compliance with the builders check list. All certifications shall have attached the original labels from all items installed/utilized to meet the resource conservation provisions of this subchapter as listed on the builder's check list. All other documentation of required resource conservation activities, including manifests verifying all related construction debris diversion activity, will also be attached to each certification or, in the case of activities applicable to multiple owner/buyer construction projects, provided to the owners association. The certification shall be signed and dated by the final owner as their acceptance and confirmation of the construction, installation and operability of the conservation measures and meet any requirements of the Conservation Development Design Manual. The developer/builder or the designated verification officer shall provide a copy of the final signed certification to the owner/buyer and, if applicable, the owners association no later than fifteen (15) days from its issuance and final signing, the owners/buyers certification shall include all original attachments.

(e) At the request of the County the property owners association shall confirm its receipt of, and make available for review all accepted builders checklists and other resource conservation activity plans, final certifications or other documents verifying resource conservation activities, including multiple owner/buyer construction debris diversion manifests. The property owners association shall review all such documents upon receipt for correctness and completeness prior to accepting them as complete from the owner, builder or verification officer. All verification documents for activities not included in, or covered by a owners/buyers certification shall be reviewed by the property owners association to assure compliance with the developer/builder resource conservation calculations, plans or other documentation.

(f) For new or reconstructed single-family and duplex residential buildings the owner or builder shall inform the County of the impending sale or occupancy, which ever occurs earliest, no later than thirty (30) days prior to its occurrence. The County shall retain the right, but not be obligated, to verify the construction or installation, and operation if applicable, of any and all conservation measures proposed or planned in order to meet the provisions of this subchapter through a building inspection up to thirty (30) days

following receipt of the builders notice. The County may inspect any and all verification documents up to twelve months from the date of original occupancy of any said building.

(g) For new or reconstructed commercial buildings, the County shall retain the right, but not be obligated, to verify the construction or installation, and operation if applicable, of any and all conservation measures proposed or planned in order to meet the provisions of this subchapter through a building and/or verification documents inspection up to twelve months from the date of original occupancy of any said building.

Section 82.236. PROCESS INCENTIVES FOR CONSERVATION DEVELOPMENT.

(a) A project for development of property that complies with this subchapter and the conservation development agreement between the owner and the County is a qualified project under this section. Incentives may be withheld at the discretion of the Executive Manager or Commissioners Court if the owner or the owner's successor or assignee does not comply with terms of this subchapter or the conservation development agreement between the owner and the County.

(b) The Executive Manager shall designate and assign a lead staff reviewer for each application who shall assist in facilitating the timely processing and review of the application.

(c) A qualified project:

- (1) shall be exempt from the park land dedication and/or fee-in-lieu requirements of this chapter;
- (2) shall be exempt from the following fees:
 - (A) Preliminary plan application fee
 - (B) Long form plat application fee
 - (C) Short form plat application fee
 - (D) Construction plan review fee
 - (E) Construction Inspection fee
 - (F) Driveway in right-of-way permit fee; and
- (3) may include statements identifying the project as an "Approved Travis County Conservation Development" or "Travis County Approved Conservation Development" in the property's marketing materials and advertising.

(d) Except as provided in Section 245.004, Local Government Code, as amended, if the owner of property that is the subject of a qualified project also submits a master plan for an alternative project that meets the requirements of Section 82.201(b)(9) and the County provides the notice required in Section 82.102(b), and the County either breaches or fails to make any incentive payments under Sections 82.237 through 82.241 under the conservation development agreement, then the alternative project described in the master plan is not subject to changes to this code that occur after the effective date of the conservation development agreement if a complete preliminary plan application for the alternative project is filed within 180 days after the County has received notice of and then failed to cure any such breach or failure to pay.

(e) If a qualified project outside of a preferred commercial development area for which a preliminary plan or final plat application is approved under this subchapter has creditable acreage exceeding the minimum size required by Section 82.226, credit for such excess may be transferred to another project for which a preliminary plan or final plat application is approved under this subchapter, provided the receiving project is either (i) within the same watershed or contiguous to the sending project, or (ii) within a preferred commercial development area that is within the same eastern or western watershed as the sending project. Creditable acreage that constitutes primary conservation areas may not be transferred.

(f) If a qualified project outside of a preferred commercial development area for which a preliminary plan or final plat application is approved under this subchapter has impervious cover less than the maximum allowed by Section 82.229, credit for the increment between the actual and the maximum allowed impervious cover may be transferred to another project for which a preliminary plan or final plat application is approved under this subchapter, provided the receiving project is either (i) within the same watershed or contiguous to the sending project, or (ii) within a preferred commercial development area that is within the same eastern or western watershed as the sending project.

(g) If a qualified project within a preferred commercial development area for which a preliminary plan or final plat application is approved under this subchapter has creditable acreage exceeding the minimum size required by Section 82.226, credit for such excess may be transferred to a commercial project within the same preferred commercial development areas for which a preliminary plan or final plat application is approved under this subchapter. Creditable acreage that constitutes primary conservation areas may not be transferred.

(h) If a qualified project within a preferred commercial development area for which a preliminary plan or final plat application is approved under this subchapter has impervious cover less than the maximum allowed by Section 82.229, credit for the increment between the actual and the maximum allowed impervious cover may be transferred to a commercial project within the same preferred commercial development areas for which a preliminary plan or final plat application is approved under this subchapter.

(i) Transfers made under this section shall be certified by the Executive Manager as corresponding to the County's official calculation/record of impervious cover or creditable acreage available for transfer. The right to transfer unused impervious cover or creditable acreage under this section resides with the owner that entered into the conservation development agreement with the county unless otherwise assigned by the owner.

Section 82.237. INCENTIVE PAYMENTS FOR CONSERVATION DEVELOPMENT.

(a) A project for development of property that complies with this subchapter and the conservation development agreement between the owner and the County is eligible for the incentive payments in Sections 82.238 through 82.241. Incentive payments shall be made to the owner only as provided in a conservation development agreement executed by the owner and the County.

(b) The owner's right to receive incentive payments is assignable. Acceptance of incentive payments is at the owner's option and approval of a preliminary plan or final plat application or conservation development agreement under this subchapter shall not be conditioned upon the acceptance of any incentive payment. The offer of financial incentive payments may be targeted at specific properties that are likely to maximize the potential for public benefits of a conservation development project. Incentives may be withheld at the discretion of the Executive Manager or Commissioners Court if the owner or the owner's successor or assignee does not comply with terms of this subchapter or the conservation development agreement between the owner and the County.

(c) Incentive payments shall:

- (1) be limited so that payments to be made in any fiscal year are subject to and will not exceed the funding available in that fiscal year's budget, and will be paid from funds budgeted or designated, if any, for that purpose in the County's operating or capital budget;
- (2) no longer be offered after the earlier of either five (5) years after this subchapter is adopted or five (5) projects are given incentives, unless otherwise approved by the Commissioners Court, provided incentive payments under conservation development agreements executed before that date shall continue to be made;
- (3) not exceed the estimated and/or appraised market value of the conservation easement granted to the County under the conservation development agreement; and
- (4) only be provided to properties that prohibit reserved uses, unless otherwise specifically authorized by the Commissioners Court.

Section 82.238. ANNUAL CONSERVATION PAYMENTS.

(a) Beginning in the fiscal year commencing after execution of the conservation development agreement, the County may make an annual payment so long as the property remains undeveloped and under an agricultural or wildlife tax valuation. The annual payment shall:

- (1) cease for all or any portion of the property that no longer has an agriculture or wildlife tax valuation; and
- (2) be calculated by multiplying \$6 times the minimum number of creditable acres Section 82.226 requires to be included in the property's conservation area.

(b) The term for annual payments shall:

- (1) not exceed ten (10) years for properties equal to or greater than 4 acres and less than 50 acres;
- (2) not exceed twenty (20) years for properties equal to or greater than 50 acres and less than 200 acres;
- (3) not exceed thirty (30) years for properties equal to or greater than 200 acres and less than 500 acres; and
- (4) not exceed forty (40) years for properties equal to or greater than 500 acres.

Section 82.239. LUMP SUM CONSERVATION PAYMENTS.

The County may make lump sum incentive payments in an amount calculated by multiplying \$600 times the minimum number of creditable acres that Section 82.226 requires to be included in the property's conservation area and that is under an agricultural or wildlife tax valuation, but not exceeding \$500,000. The lump sum payment shall be prorated per acre based on the acreage of the property outside the conservation area and will be paid within the first County fiscal year that commences after development of that acreage begins.

Section 82.240. ECOLOGICAL ASSESSMENT REIMBURSEMENT PAYMENTS.

The County may pay an amount equal to reasonable costs and fees associated with conducting, preparing and reporting of an ecological assessment or conservation development design/plan recommendations, including conservation area design not to exceed \$10,000. As a condition to any such payment, the Executive Manager shall review all such costs and fees both in advance and after they are incurred to confirm their eligibility for rebate and may establish guidelines or conditions for the reasonableness and appropriateness of such costs and fees.

Section 82.241. OPEN SPACE MANAGEMENT GRANT PAYMENTS.

The County may pay an amount not to exceed \$5,000 for actual costs incurred in managing a property's open space to preserve and enhance natural conditions according to an ecological assets management plan approved by the Executive Manager. Such payments are intended to assist with one-time or periodic costs associated with maintaining or protecting the ecological and water quality values of conservation area and must be applied for annually.

CONSERVATION DEVELOPMENT
DESIGN MANUAL

Travis County Transportation and Natural Resources Department
December 15, 2006

NOTICE

This is a draft document that may be adopted to assist in implementing a proposed ordinance that would authorize conservation subdivisions in the unincorporated portions of Travis County, Texas. The provisions of this document are subject to change. This document is intended to provide standards and guidance for the preparation of a conservation development. This draft document is provided to foster public review and comment that would assist to further refine, clarify, correct or improve its provisions. Final adoption and implementation of this document and the related conservation development ordinance is subject to review and approval by the Travis County Commissioners Court.

**CONSERVATION DEVELOPMENT
DESIGN MANUAL**

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I. INTRODUCTION:

A. Conservation Development Design Manual:

1. Scope:

This Conservation Development Design Manual accompanies the Travis County Conservation Development Ordinance and provides guidance for the practical execution of such development. This applicant can voluntarily choose this option rather than the standard Travis County development process.

2. Purpose and Intent

The primary purposes and intent for this Conservation Development Design Manual include the following:

- a. To provide information about how to apply for Travis County's Conservation Development Ordinance;
- b. To provide requirements on which areas and types of features to include in the Conservation Area;
- c. To provide design requirements within the Development Area such as roadways, landscaping, sidewalks, and lighting;
- d. To provide design requirements within the Conservation Area for areas such as trails, archeological and historical features;
- e. To provide requirements on how the Conservation Area will be protected, managed, and maintained;
- f. To provide document examples and suggested text for needed documents such as the Ecological Assessment, Conceptual Land Plan, Ecological Asset Management Plan, and Conservation Easement Agreement documents.

B. Conservation Development Ordinance

1. Scope:

The Travis County Conservation Development Ordinance regulates the design, processing and approval of a conservation development.

2. Purpose and Intent

The primary purposes and intent for this Conservation Development Ordinance are the following:

- a. To allow for greater flexibility and creativity in the design of developments;
- b. To encourage the permanent preservation of open space, ranch and agricultural lands, woodlands and native prairie, wildlife habitat, natural resources including aquifers, water bodies and wetlands, and historical and archeological resources; to promote interconnected green space and corridors throughout the community;

- c. To protect community water supplies;
- d. To minimize the amount of stormwater runoff that flows into the floodplain as a result of development in the upper reaches of a watershed by providing incentives for limiting impervious cover, keeping land in its natural state, and other measures that mitigate flooding by limiting the disruption of natural drainage patterns that result from development;
- e. To encourage a more efficient form of development that consumes less open land and conforms to existing topography and natural features better than a conventional subdivision;
- f. To facilitate the construction and maintenance of housing, streets, utilities, and public service in a more economical and efficient manner;
- g. To facilitate the provision of community services in a more economical and efficient manner;
- h. To encourage economic development that is desirable for the effected area;
- i. To foster stewardship or caring for the land and wildlife and for the neighborhoods in which we live; and
- j. To preserve the vestiges of central Texas rural and natural character remaining in Travis County.

C. Special Application Requirements and Processes

There are special application requirements and procedures for an owner proposing a conservation development. Property to be subdivided and developed under this ordinance shall be required to submit applications for preliminary plan and/or final plat approval under the provision of this ordinance and all other applicable land development regulatory jurisdiction code provisions.

1. Pre-Submittal Meeting and Draft Ecological Assessment and Land Plan

Before filing a formal application, an owner must do two things. First, the owner must prepare a draft ecological assessment and land plan for the property and submit them to the Executive Manager. Second, after County staff have had 15 days to review the assessment and plan, the owner must meet with County staff to discuss the project and any major issues or information needs that they or the owner identify.

2. Conservation Development Agreement

The owner and the Commissioners Court must enter into a Conservation Development Agreement. This is essentially a contract between the owner and the County in which the owner agrees to undertake a conservation development on the property, the part of the property that is to be conserved is identified, the County commits to make any incentive payments approved by the Commissioners Court, and any other major points of agreement are spelled out. The owner has the option of entering into the conservation development agreement with the County before the owner is ready either to begin work or file a preliminary plan or final plat application with the County for the project.

3. Opportunity for Expedited Approval

If a preliminary plan or final plat application strictly complies with or requires only minor variances from County requirements, the Executive Manager can usually approve the application administratively. This expedites the approval process.

D. Incentives

There are several different types of incentives for conservation development projects.

1. Fee Waivers.

These include waivers of application fees, review and inspection fees, permit fees, and park land in lieu fees that are normally charged in association with development projects.

2. Incentive Payments

In exchange for the owner's commitment to develop the property as a conservation development, the Commissioners Court may agree to make annual and/or lump sum payments to the owner up until the time of development. The Commissioners Court may also agree to make payments after the development is complete that must be used to for management of the area set aside for conservation.

3. Grandfathering

At the owner's option, simultaneous with pursuing a conservation development project, the owner may also prepare and submit to the County an initial description of a traditional development project. If for some reason the County subsequently does not provide any incentives or follow through on other commitments the County committed to, the owner has the opportunity to pursue the alternative project free of any additional regulations that the County may have adopted in the mean time.

4. Transfer of Impervious Cover and Conservation Area Credits

If the owner provides more conservation area than the minimum required or less impervious cover than is maximum allowed, the amount of the extra conservation acreage or impervious cover can be transferred to other conservation development projects.

II. ECOLOGICAL ASSESSMENT REQUIREMENTS

An ecological assessment shall be performed to ensure that what is protected as Conservation Area within conservation development is significant and conforms to the Travis County Parks and Natural Areas Master Plan. If Conservation Area is intended to be Balcones Canyonlands Preserve land (BCP), it shall conform to the Balcones Canyonlands Conservation Plan and associated Land Management Plans. The Ecological Assessment shall include to the extent possible that they are present on the property significant locations of agricultural, cultural, scenic and rural, and/or important natural wildlife and vegetation locations. The ecological assessment shall be prepared by qualified environmental professionals, such as ecologists, biologists, geologists, archeologists and historic preservation experts and shall provide the information and covering the features or areas identified below and summarized in a report that includes site maps and photographs.

The ecological assessment shall include:

1. A site analysis map – The site analysis map shall indicate the actual location of all features or areas prior to development of a Conceptual Land Plan (see subsection III below). Assistance with Conservation Prioritization may be found in subsection IV and V below.
2. A site context map – the site context map is to illustrate the property in context with surrounding features that cross property lines or are located on adjoining lands;
3. Recent (within four years) aerial photos depicting current conditions of the subject and adjacent properties. – the aerial photos assist in identifying the current condition of the site and locating significant features including existing development and land disturbances. If available aerial photos do not depict current conditions, the photos should be accompanied by overlays that document the location and scale of changed conditions such as recent clearing, road construction, etc. The site photo should be at a resolution of no less than 1 meter and preferably at 1 foot;
4. A narrative discussion that fully identifies and describes the property's Significant Features including natural, manmade, altered or introduced features or areas; These Significant Features shall include to the extent possible that they are present on the property:
Ecological features that are essential to the health of the ecosystem, including human life. Such items would include features that if lost, destroyed or negatively impacted would directly or cumulatively pose a risk to the surrounding water and air quality, and/or survival of plant, wildlife and human communities. Examples of Significant Features include functioning surface water systems and groundwater recharge features; wetlands, mature closed canopy woodlands, native grass/prairie lands, etc.; Historic and archeological sites, features or artifacts that are irreplaceable, unique and important to the character of the community. Such items include prehistoric occupation and burial sites and, pioneer home or business/activity sites. These items can help in establishing a sense

of place or origin and are often seen as contributing to the well-being, health and quality of life of a community;

5. A conservation prioritization system or theme of all known ecological and cultural features or areas on the property (Significant Features) and an explanation of the rationale for the prioritization ranking system. All features or areas considered as Significant Features shall be clearly indicated;

6. Property boundaries. Label ownership and land use on the site and on adjacent land within five hundred (500) feet of the site. This shall include current Travis Central Appraisal District tax parcel numbers and boundaries. Identify all protected lands (parks, governmental or nonprofit owned preserves or land with conservation easements on them, etc.), drainages, creeks and rivers, and public service facilities (schools, libraries, etc.) within a quarter mile of the property boundaries. Provide a copy of the applicant's property deed(s) and any existing approved subdivision plat on or for the property or any portion thereof;

7. Existing manmade features on or serving the property and all land or natural vegetation disturbances (e.g. roads, transmission lines, sewage, etc.);

8. Total acreage of the property or site;

9. North arrow, scale, date and name of map creator (individual and company);

10. Existing land use and its current state - i.e. ranchland, farmland, orchards, park land, meadows, residential, retail, cleared and uncleared areas, vegetation or re-vegetation level, etc.;

11. Location, widths, and names of all public and private easements and rights-of-way; provide copies of all dedications and all easement documents;

12. Location and size of existing conservation easements or areas covered by any legal restrictions, covenants or conditions; provide copies of legal restrictions;

13. Unusual or special aspects about the site; features that are unique to the site may include but are not limited to high points and long views, natural swimming holes, water quality features, importance to character or history of the area, etc.;

14. Identification of recharge features (as defined by the Texas Commission for Environmental Quality);

15. Identification of significant property features including water bodies, sinkholes, caves, seeps and springs, steep bluffs, large rock outcroppings, canyon rim rock and significant geologic features, and non-regulated and regulated wetlands;

16. Topographic contours at no more than 2 foot intervals with slope analysis indicating areas with slopes greater than 15%, 25% and 35%;
17. Creeks and other water features, both seasonal and perennial;
18. Ridgelines;
19. Endangered / threatened / special concern species habitat (occupied and potential).
Plant communities including the following information:
 - a. their relative importance to the region as defined by the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department
 - b. the current condition relative to climax condition as defined by the U.S. department of Agriculture Natural Resource Conservation Service (NRCS) type locality descriptions by range site
 - c. restoration potential as defined by the U.S. Fish and Wildlife Service and the Texas Parks and Wildlife Department
 - d. location of large or significant trees larger than 18 inches trunk diameter measured at breast height [DBH] or 4.5 feet above the ground on the uphill side of the tree. Additionally, locating large or significant understory trees, shrub or herbaceous colonies (exceptionally large plants relative to the norms for their species) is encouraged – assessors should use their discretion in identifying these significant plants and colonies;
20. NRCS Travis County soil survey data to the soil series and association levels and Bureau of Economic Geology Geologic Atlas of Texas geologic mapping unit information;
21. Agriculture land that has previously been, or is currently in active use. Agriculture land includes land used for commercial or private production of agriculture products and includes land used as farm land for feed crops and fruits and vegetables, orchards, vineyards, pasture, etc. Community gardens are also allowed.
22. Historic / cultural / archeological sites including all archeological or historic sites, historic structures or their remnants and stone walls;
23. Existing open/undeveloped space contiguous to the property being assessed;
24. Location of the property within the watershed;
25. Identification of brownfields (closed landfills, toxic dump sites, etc.) or other environmental hazards;
26. Scenic views and view sheds from public roadways;
27. Lines showing all federal, state and local regulatory resource boundaries and buffer zones including at or along the 100 year floodplains, creek and rivers, Environmentally

Valuable Features and endangered species habitat locations and all other Primary Conservation Areas.

28. All document maps shall also be provided, in a digital geospatial database format such as ArcView using a State Plane coordinate system. Maps or drawings in the ecological assessment shall be drawn to either 1"=100' or 1"=200', whichever would fit best on a standard 34" x 44" sheet, unless otherwise approved by the Executive Manager. Dimensions shall be in feet and each sheet shall be numbered and shall provide an adequate legend clearly indicating existing features and proposed development.

29. The environmental professionals conducting this assessment shall assist the land planners, civil engineers and landscape architects with planning the property's development to protect and/or avoid disturbance of the property's significant and meaningful features. The environmental professionals shall be involved in locating areas for development including buildings, roadways, trails, water treatment features as well as other features that could encroach upon or pass through, or otherwise impact ecological systems to be protected. These professionals shall work to minimize ecological and cultural impacts and promote the potential amenity value of the significant and meaningful features to the development and its future owners.

III. CONCEPTUAL LAND PLAN REQUIREMENTS

Utilizing an ecological assessment the following steps shall be followed to complete the design of a Conservation Development. These steps shall be used by a qualified professional land planner, landscape architect or civil engineer to develop a conceptual land plan of the property for review with the governing entity prior to submittal for subdivision approval.

Step 1 – Identify the area to be preserved as Conservation Area including designating primary and secondary Conservation Areas; the Conservation Area shall conform to the maximum extent possible with the criteria and goals in subsections IV and V below.

Step 2 – Identify the sites for individual buildings and development amenities outside of the Conservation Area; care should be taken to minimize the impacts or need to intrude into the designated Conservation Area(s).

Step 3 – Align roadways and pedestrian ways (including trails in Conservation Area), bikeways and potential transit ways to maximize connectivity options within the development and to adjacent development; indicate viewshed or scenic vista impacts from on-site and adjacent public roadways.

Step 4 – Draw in lot lines as necessary.

The conceptual land plan shall be prepared as a same scale overlay as the maps provided in the ecological assessment. The conceptual land plan shall provide all information required by the Executive Manager in order to review a Conservation Development for compliance to the Conservation Development Ordinance and includes the planned or approximate location of the following development features:

A conceptual land plan shall include:

1. Conservation Area including primary and secondary Conservation Areas with acreages indicated;
2. Proposed uses within the Conservation Area including community commons, parkland and recreation space, wastewater disposal areas, agricultural land, etc. and, rural and historic buffers with portions used to meet Conservation Area requirements highlighted and acreages indicated;
3. Proposed drainage management areas including those within the Conservation Area such as vegetation buffers, swales, drainage easements, etc.;
4. Utility infrastructure and any other infrastructure intrusions into the Conservation Area including wells, pump stations, septic fields and wastewater disposal areas,

holding ponds, drainage infrastructure, power and telecommunications lines, power substations, etc. plus required buffers;

5. Lot lines;
6. All roadways and driveways including required buffers;
7. Trails and bicycle ways through the property and connecting to adjoining properties;
8. Limit of disturbance lines and development phase lines;
9. Location of community amenities and public dedications including community commons, playgrounds, parkland and recreation space, trails and bicycle paths, off street parking, clubhouses and other private buildings, public buildings and facilities;
10. Public utility and drainage easements including any required buffers;
11. Active and passive recreation areas and improvements;
12. Tables or charts which quantifiably demonstrate compliance with the Conservation Development Ordinance including:
 - a. All lot acreages which yield the total property acreage with subtotals for residential development, commercial development, rural and historic buffers, Conservation Area and its intrusions (eg., access and utility easements plus required buffers, and impervious cover plus required buffers);
 - b. All areas comprising the Conservation Area and totaling to the creditable acreage with subtotals and percentages for primary and secondary Conservation Areas, rural and historic buffers, recreational space, preserved agriculture and native pasture land, wildlife areas (undisturbed and to be restored), historic preservation sites, wastewater disposal and septic drain field areas, non-structural storm water management areas, etc.; excess Conservation Area transfers necessary to meet Conservation Area acreage requirements should also be included;
 - c. Allowable impervious cover for the property and indicating any impervious cover transfers utilized by the property;
13. Narrative outlining the intended purposes and decision criteria for Conservation Area design and identifying the potential recreational space and its uses within the Conservation Area. The narrative shall also include a discussion of how the Conceptual Land Plan is in conformity with the Travis County Parks and Natural Areas Master Plan and/or Balcones Canyonlands Conservation Plan and BCCP Land Management Plan.

IV. DETERMINING SIGNIFICANT FEATURES

The Conservation Area priorities listed below provides guidance in preparing narrative discussions or explanations required in the Ecological Assessment and Conceptual Land Plan to determine the Significant Features and designate the Conservation Areas. The actual narratives shall be more detailed and relate to the specific Significant Features to be included for conservation within a Conservation Area. An applicant for a Conservation Development shall utilize a more detailed or numeric ranking system in order to assist in differentiating between those features/areas that are significant and those features that only rise to lesser levels of ecological or cultural importance. An applicant shall protect as many of the following features as possible, to the extent that they are present on the property but not less than what is required in the Conservation Development Ordinance. When designating an area as a Significant Feature, the narrative shall incorporate considerations such as regional importance, current condition and restoration potential in addition to the priority guidance provided here.

Conservation Area priorities may include:

A. Protecting water quality and general ecological diversity by preserving the areas and features listed below in the proposed on-site Conservation Area. Maximize connections to other existing or potential networks of protected Conservation Area and mass or configure to meet minimal ecological considerations for wildlife habitat value:

1. Quality Riparian Zones
 - a. Perennial streams, rivers or lakes and associated wetlands
 - b. Head waters (intermittent)
 - c. Spring and seep outlets and associated wetlands
 - d. Rapids and plunge pools (waterfalls and swimming holes)
 - e. Mature woodlands
 - f. Undisturbed, climax or near climax native herbaceous, grassland or shrublands
 - g. Mesic (wet) canyons
 - h. Rare species presence (plants and wildlife) and/or habitat.
2. Quality Upland Zones
 - a. Savannah with quality native grass stands
 - b. Lack of invasive levels of immature invader shrubs and trees (eg., low coverage of sapling juniper or mesquite stands in native savannah or
 - c. prairie)
 - d. Mature woodlands
 - e. Shinneries (low dense mottes of shin oaks and other quality native
 - f. shrubs)
 - g. Rare species presence (plants and wildlife) and/or habitat
3. Geological Features Important to Aquifer Recharge

- a. Hensel sand, Edwards and Cow Creek Limestone Units that support perched water tables and springs in western Travis County.
 - b. Other important recharge features (such as upland karst features, creek bottom or riverine sinkholes, etc.)
 - c. Colorado River alluvial areas in eastern Travis County
- 4. Other Quality Ecological Zones
 - a. Prairie and/or native grasslands
 - b. Bottomland forest
- B. Protect Important Cultural Sites or Zones including the following areas or sites:
 - 1. Known pre-historic sites (particularly zones of occupation)
 - 2. Known historic sites: founding/centennial ranches, important travel routes and stream or river fords, centers of trade (e.g., cypress or grain mills, livestock markets), battle sites, church/community gathering sites
- C. Preserve the continued existence of land used for agriculture, including the following, if the likelihood of its continued use can be established:
 - 1. Farm land
 - 2. Orchards
 - 3. Vineyards
 - 4. Ranches
- D. Preserve the Character of Important View Sheds
 - Unique or significant views from public roadways, key access points, public amenities and designated area landmarks
- E. Promote efficient management of the Conservation Area and savings for public services delivery or infrastructure.

V. CONSERVATION AREA CONSIDERATIONS

The following provides information to assist in configuring potential Conservation Areas within a Conservation Development and methods for prioritizing features and areas for protections as significant:

1. Ecological areas or features identified in the ecological assessment that can provide the most value to the development shall be protected. The creative use of such features as environmental assets to enhance a development and provide long-term property value is encouraged;
2. Watershed areas such as recharge zones, steep slopes, riparian and wetland areas, etc. shall be a protected;
3. Ridgeline and riparian areas shall be protected for wildlife and view sheds;
4. Conservation Areas shall be connected internally through the land along creeks and ridgelines to preserve maximum wildlife value;
5. Conservation Areas shall conform to the maximum extent practicable with the Travis County Parks and Natural Areas Master Plan providing connections to other like uses including those on adjacent or contiguous properties (parks, preserves, intact riparian or upland zones, etc.) ensuring that a larger continuous and interconnected network of conservation and/or open space will be provided;
6. Large, contiguous Conservation Areas are encouraged in order to lower per acre maintenance costs, provide real management utility and provide land area massing necessary for wildlife;
7. Conservation Areas may be located near to utility and/or transportation infrastructure when needed (e.g., parks);
8. Primary conservation areas within conservation area shall have no other use or associated activity than those allowed by local land development regulatory jurisdictions;
9. Secondary conservation areas within a Conservation Area shall be comprised of the types of land use outlined in Section IV, Determining Significant Features. The Conservation Development Ordinance limits the acreage of some uses that can be credited toward meeting the Ordinance's conservation area requirements. Suitable access for each use shall be provided and included in corresponding use acreage totals:
 - a. undisturbed land or wildlife habitat (including endangered species habitat);
 - b. land to be restored to a natural or wildlife habitat state;
 - c. prime agriculture land with a history of active use;.

- d. high quality native pasture with a history of active use;
 - e. producing farmland, orchards and/or vineyards with a history of active use and community gardens;
 - f. recreation areas including active use areas such as parkland, ball fields, golf courses, etc. and passive uses such as having controlled and/or limited use or access such as defined "quiet" trails used only for walking, jogging, bicycling, and nature watching, See definition in Ordinance); [Note jogging in groups and bicycling is considered active recreation in Balcones Canyonlands Preserve (BCP)];
 - g. archeological and historic preservation sites;
 - h. water quality protection areas using "soft" (vegetative, non-structural or structures of pervious cover) storm water management practices or storm water management structures constructed of impervious material;
 - i. treated wastewater disposal or communal septic drain field if the area used is undisturbed or is restored to its natural pre-existing condition after installation. Installation of a treated wastewater disposal system that uses a surface drip irrigation system (drip irrigation lines covered with thick mulch) that maintains the tree canopy is recommended. A property owners' association or other entity acceptable to the local land development regulatory jurisdictions must be responsible for, and demonstrate financial capability for the maintenance and repair of wastewater facilities or drain field systems as necessary as well as restoration of the area to its natural pre-existing condition;
10. The Conservation Area, except as allowed above or in the Conservation Development Ordinance, shall primarily be land set aside as undisturbed or to be restored to its previous undisturbed state. If access is allowed for residents or owners of property or for the general public within the Conservation Area, this is intended primarily for controlled passive recreational uses (see VI for Conservation Area considerations within a Preferred Commercial Development Area). Acreage requirements for Conservation Area shall not include rights-of-way for high tension power lines, dedicated public rights-of-way or access easements. Conservation Area, beyond areas included as setbacks or buffers to meet local, state or federal requirements, may include land valuable for its development potential and shall not only include fingers of land between and/or around structures or be comprised primarily of areas not suitable for development. In those instances where intrusion into or through Conservation Areas is necessary, the intrusion shall be minimized to the maximum extent practicable.
11. The conservation area should be designed to facilitate monitoring and enforcement, and promote appropriate management and restoration.
12. Conservation Area shall have reasonable access points for maintenance and shall have designated recognizable recreation access points for its passive recreational use;

13. To help prevent ecological damage to the Conservation Area (such as unauthorized trails, unapproved tree cutting and vegetation clearing, and dumping of brush which increases the fire danger) that may occur with the establishment of entry points from each adjacent lot or at multiple undesirable locations, it is encouraged that the CCRs require back-of-lot fencing with no gates. Having designated access points and approved trails also helps protect the privacy of individual lot owners;
14. Trails within Conservation Area shall be constructed of natural materials and/or pervious cover to the maximum extent practicable. Trails shall not materially impinge upon or impact features deemed to be significant, meaningful and/or Environmentally Valuable Features. See Section X.A. Trail Standards in the Conservation Area;
15. Criteria for evaluating archeological sites and historic structures for significance and meaning shall be the same as those found in the Texas Historic Commission's Rules of Practice and Procedure for the Antiquities Code of Texas. Though these normally apply only to public lands, the conservation developer or owner is agreeing to follow these same standards;
16. A Conservation Area should not necessarily be hidden or isolated in one area of a development. When distributed appropriately throughout a development, it can serve and enhance the developed areas of a property and provide an amenity to its residents which enhances property values;
17. Conservation Area provided within a preferred commercial development area shall be of such configuration as to provide park, square or green space suitable for public use and/or recreation space, or protect significant features; local and adjacent property owners should be encouraged to cooperate to provide such configurations through their cooperative efforts.
18. Adequate access to the conservation space by way of public roadways or usable access easements not less than twenty-five (25) feet in width will be dedicated for use by county, conservation easement holder and managing entity representatives;
19. If wastewater disposal is included in conservation space the total wastewater disposal area shall be limited to use for wastewater disposal and/or conservation space by plat note and in the conservation easement;

VI. DEVELOPMENT AREA CONSIDERATIONS

The following guidance provides assistance in configuring development areas within a Conservation Development in order to maximize the long-term value and livability of the development.

- A. Designers should be as creative as possible in viewing ecological features as market valuable assets to a development. Significant features shall be included in the Conservation Area for protection as common amenities for the enjoyment of related property owners. Trails, view points, quiet sites, water features, unique topographic or geologic features can add value to a development when seen as valuable assets that add to the quality of life sought by prospective purchasers.
- B. Designers are encouraged to instill their land plans and building designs with those attributes that promote long-term economic sustainability and community vibrancy.
- C. All legal regulations involving endangered species, cultural resources, recharge features, Environmentally Valuable Features or other regulated natural resources shall be followed. Additional buffers around these areas beyond that legally required are encouraged. When appropriate on a specific tract, landowners are encouraged to improve their land for endangered species habitat under the protection of a "Safe Harbor" agreement from the U.S. Fish and Wildlife Service.
- D. Every reasonable effort shall be made to preserve the natural state of the land in development areas by minimizing tree and soil removal. Grade changes shall be constructed in such a fashion so as to balance the general appearance of both the neighboring development and Conservation Areas. The orientation of individual building sites shall be such as to maintain maximum natural topography and cover. Topography, tree cover and natural drainage ways should be treated as fixed determinates of road and lot configuration.
- E. Scenic views and viewsheds should remain unblocked or uninterrupted by constructed features, particularly from roadways.
- F. Every reasonable effort shall be made in street design and layout to maintain and preserve natural topography, significant landmarks and trees; to minimize cut and fill; and to preserve and enhance views and viewsheds on or off the subject parcel.
- G. Drainage plans shall be designed to maximize the use of "soft" (vegetative, non-structural or structures of pervious cover) storm water management techniques that reduce impervious cover and enable infiltration where appropriate. Care should be taken to maintain the natural character of storm water drainage flows as much as possible and to avoid concentrating flows. Curb and gutters should be minimized to reduce concentration of flows and to allow for management of water quality.
- H. Every reasonable effort shall be made to avoid the removal or disruption of cultural features such as archeological or historic sites using the standards outlined in the Texas Historic Commission's Rules of Practice and Procedure for the Antiquities Code of Texas. Though these normally apply only to public lands, the conservation developer or owner is agreeing to follow these same standards.

- I. Building spacing and placement should emphasize important subdivision features; including ecological features, Conservation Area and scenic views or viewsheds;
- J. As much as possible building sites should not be located on ridges, hilltops, along peripheral roadways or in visually prominent areas; structures should be oriented to maximize solar gain in the winter months.
- K. If used, roof rainwater harvesting systems, including collection, conveyance and storage, should be isolated from the site stormwater system. Collected rainwater should be used for on-site irrigation or other appropriate uses.

VII. ROADWAY AND DRIVEWAY DESIGN STANDARDS FOR CONSERVATION SUBDIVISION DEVELOPMENTS

The roadway and driveway design standards found in Conservation Development Design Manual are voluntary alternatives to the roadway and driveway standards found in The Construction of Streets and Drainage in Subdivisions in Travis County (Chapter 82). The remainder of the regulations and policies of Chapter 82 remain in effect for conservations subdivisions.

A. Roadway Standards

1. The applicant must demonstrate that access to the Conservation Subdivision Development has the capacity to handle traffic generated by the proposed development and will not endanger the safety of the general public.
2. Arterial and collector roadways shall meet the standards set forth in the City of Austin Transportation Criteria Manual.
3. Neighborhood roadways may take the form of a two-way road, a pair of one-way roads on either side of a landscaped median, or a one-way loop street around a small neighborhood green. Roads may be developed according to the following design standards that promote road safety, assure adequate access for fire and rescue vehicles, and promote adequate vehicular circulation.

B. Classifications and Functional Characteristics

This section provides guidelines for the assignment of street classifications and their respective design criteria when developing Conservation Subdivision Developments.

C. Functional Characteristics

Parkway ~ Scenic Arterial. Parkways have a greenspace buffer between the roadway and adjacent development and preserves and enhances the natural landscape as much as possible.

The functional classification for each street shall be identified upon the time of the submittal of preliminary plans.

D. Geometric Design Criteria

New Public streets or private streets serving a Conservation Subdivision shall be paved to the minimum widths and grades as set forth in the following criteria. Curbing and formal closed drainage systems (e.g., culverts, storm inlets, points of concentrated discharge, etc.) are to be held to a minimum except as provided herein.

E. General Design Criteria

1. Grades
 - a. Maximum Grades

Maximum Grades shall be limited to no greater than 15% for a horizontal distance of 300'. The executive manager of TNR shall only approve grades in excess of 15% with variance. If allowed, pavement surfaces with grades of 15% or greater shall be constructed using Portland cement concrete.

b. General Controls for Vertical Alignment

The following are general design controls that should be addressed in determining vertical alignments:

- i. The grade line should be smooth flowing.
- ii. The "roller coaster" type profile should be avoided.
- iii. Undulating grade lines should be appraised for their effect upon traffic operations.
- iv. A broken-back grade line (successive vertical curves in the same direction) generally should be avoided.
- v. It is desirable to reduce the grade through intersections on roadways with moderate to steep grades.
- vi. A sag vertical or flat grade is desirable in advance of such features as channelizations and entrance to roundabouts in order to provide good visibility.
- vii. Steep downgrades and upgrades should be avoided, whenever practicable, at the approach to intersections.

c. Vertical Curves

- i. Vertical curves should be simple in application and should result in a design that is safe, comfortable in operation, pleasing in appearance and adequate for drainage. Long vertical curves should be avoided to promote adequate drainage.
- ii. Maximum grade breaks of 1.0 percent or less may be used without a vertical curve.
- iii. Horizontal and vertical alignments should not be designed independently. They complement each other and poorly designed combinations can spoil the good points and aggravate the deficiencies of each. Horizontal alignment and profile are among the more important design elements of a roadway.

2. Minimum Horizontal Radii

The following design criteria is based on material from the American Association of State Highway and Transportation Officials (AASHTO) Manual, A Policy on Geometric Design of Highways and Streets, 1984, Chapters III, V, VI and VII.

- a. The minimum radius of a roadway is directly related to a roadway's design speed, superelevation and side friction factor

b. The 1984 AASHTO Manual, Figure III-17, "Maximum Safe and Comfortable Speed for Horizontal Curves on Low-speed Urban Streets," was utilized in establishing the following radii:

c. For a superelevation (e) = -0.02, typical for normal crown

A design speed of:

20 mph relates to a minimum allowable radius of 100 ft.

25 mph relates to a minimum allowable radius of 180 ft.

30 mph relates to a minimum allowable radius of 300 ft.

35 mph relates to a minimum allowable radius of 470 ft.

40 mph relates to a minimum allowable radius of 725 ft.

Speeds over 40 mph shall be designed using AASHTO design guidelines.

d. Design Speed for Major Roadway (mph) – see Table 1 below

Table 1 - MINIMUM SIGHT DISTANCE
Design Speed for Major Roadway (mph)

		20	25	30	35	40	45	50	55
CASE I	Cond. A	107	147	200	250	325	400	475	550
	Cond. B**	107	147	350	410	470	530	590	650
CASE II	Cond. A	190	238	400	470	540	610	680	750
	Cond. B**	210	280	475	550	625	700	775	850
CASE III	Cond. A	190	238	400	500	650	800	1000	1200
	Cond. B**	210	280	475	550	650	800	1000	1200

CASE I is the Absolute minimum from driveways (other than industrial driveways).

CASE II is the Absolute minimum from all streets and industrial driveways.

CASE III is the Desirable minimum from all driveways and all streets.

Condition A - Entering onto or crossing a 2 or 3 lane street.

Condition B - Entering onto or crossing a 4 or 5 lane street.

F. Roundabout Design Criteria

This section describes the fundamental design principles common for roundabouts. Guidelines for the design of each geometric element are provided in the following section. Compact roundabouts or roundabout designs used as a retrofit will not be acceptable design guidelines for Conservation Subdivisions.

1. Acceptable locations

- Locations meeting warrants for signals or all-way stop signs.

- i. Major intersections.
 - ii. Quarter-mile spacing.
 - b. Neighborhood collector roads.
 - c. No driveways may access streets within 100 feet of inscribed circle of roundabout (based on 112 ft. stopping sight distance at 20 mph).
 - d. Use of roundabouts is acceptable on local access roads where driveways are accessed via alleys behind houses.
 - e. Major entry points into subdivision.
Generally at first intersection of neighborhood collectors
2. Unacceptable locations and uses
- a. Do not use roundabouts where driveways are located within 100 feet of the inscribed circle.
 - b. Do not use roundabouts merely as aesthetic landscaping features.
3. Design of Roundabouts
- a. Design shall be in accordance with Federal Highway Administration Publication No. FHWA-RD-00-67, *Roundabouts: An Informal Guide*.
 - b. Design vehicle shall be WB-50 truck to accommodate moving vans and emergency vehicles. (Provide transparent WB-50 turning templates corresponding to scale of plan drawings of specific roundabout.)
 - c. Provide overhead illumination (at least four luminaries) at all yield points.
 - d. Provide raised splitter islands on all approaches.
 - e. Minimum approach lane width shall be 15 feet. Minimum exit lane width shall be 17 feet.
 - f. Signage and striping shall conform to current *Texas Manual of Uniform Traffic Devices*.
 - g. Parking shall be prohibited within the roundabout and on all approach and exit flares using appropriate signs per TxMUTCD. Red curb paint is not permitted.
 - h. A landscape maintenance agreement shall be required for any improvements located within the roundabout right-of-way.
 - i. Pedestrian access to the central island is not permitted.
 - j. Grade through the diameter of the roundabout should generally be less than 3% and in no case greater than 4%. Grades on approach roads may not exceed 4% for a distance equal to the stopping sight distance of the approaching road.

G. Right-of-way and Pavement Sections

1. Right-of-way Widths

The right-of-way for each road shall be wide enough to provide for all public services, including roadway drainage, sidewalks, trails, walkways and utilities. The minimum right-of-way shall be provided in accordance with the following:

<u>Right-of-way</u>	<u>Average Daily Traffic</u>	
	<u>Under 250</u>	<u>Over 250</u>
One-way roadway	35'	40'
Two-way roadway	40'	50'

See Figure 1 – Roadway Sections for Pavement and ROW Widths

2. Pavement Sections

Travel lane widths for local roads shall be determined by the expected average daily traffic and shall be within the following ranges:

<u>Travel Lanes</u>	<u>Average Daily Traffic</u>		
	<u>Under 100</u>	<u>100-250</u>	<u>Over 250</u>
One-way roadway	11'-13'	11'-13'	11'-14'
Two-way roadway	18'-24'	20'-26'	22'-28'
(Curb sections **)	14'	14'	14'
Shoulder or gutter			
Pan width	2'-4'	2'-4'	2'-4'

Does not include shoulder or gutter pan

** Measured from curb face to curb face

Figure 1 Roadway Sections

	¹ Design Speed	Curb & Gutter (face to face) *	Non Curb Section	² Ribbon curb W/Shoulder	Median Width (Minimum)	Right of Way Width	Sidewalk/ Trail
Alley, One-way	15	NA	11'	2'	NA	20'	NA
Alley, Two-way	20	NA	18'	2'	NA	25'	NA
Local Street, One-way	25	15'	12'	2' 2' shoulder	16'	35' - 40'	5'
Local Street, Two-way	25	25'	22'	2' 2' shoulder	NA	40' - 50'	5'
Collector Street, One-Way	25	24'	24'	2' 2' shoulder	16'	50'	5'
Collector Street, Two-way	30	36'	36'	2' 4' shoulder	NA	60'	5'
Parkway - Scenic Arterial One-way	35	NA	20'	2' 4' shoulder	20'	*44'	10'

* Does not include median area, which will be privately owned and maintained by HOA.

¹ minimum width based upon ADT < 250 VPD

² Ribbon curb required with all laydown pavement sections.

³ Minimum design speed allowed for design purposes.

3. Structural Design

- a. Pavement strength shall be based upon a 20-year design life before the first overlay of HMA or surface course treatment. All pavement designs shall be based upon a geotechnical investigation and the report shall contain a plan of borings, boring logs with results of laboratory tests and descriptions of subsurface conditions. The report shall include recommendations for the design and construction of flexible pavements for the conservation subdivision. Pavement design shall be based upon the City of Austin (COA) computerized pavement thickness design procedure. A full section of base material shall be placed extending a distance of 3' beyond the back of curb.
- b. Bridges shall be designed with 12' travel lanes plus an additional width of 2' on the outside lane between edge of travel lane and face of curb. Width of bridge shall also include 5' sidewalk on both sides of deck and it shall be separated from traffic lane by standard height curb. Design loading for structural capacity HS-20.
- c. Driveways
 - i. If the developer does not use a restrictive covenant to require homeowners to park all vehicles off the joint use driveway surface, then the joint use driveway surface must be at least 24 feet wide. Otherwise, the driveway surface may be no less than 18 feet wide.

- ii. For that portion of driveway within the ROW, the driveway shall transition at the ROW line with an expansion joint using approved materials. When adjacent to curb and gutter section the driveway shall be constructed by saw cutting the top curb portion off and constructing driveway by doweling into the back side of the gutter and pouring against the gutter. No expansion joint material will be allowed against the back of gutter. Driveways built to connect to non curb and gutter roads shall transition smoothly into the edge of pavement by means of a saw cut. Saw cuts will not encroach into the pavement area further than 6".

H. Mailboxes

1. Mailboxes located adjacent to travel lanes of public streets are a hazard to the motoring public if not properly placed or constructed. To maintain the character of the conservation subdivision, individual household mailboxes will not be allowed. The developer will need to construct cluster style mailboxes that are approved by the local postmaster at locations that will be determined during the construction plan review phase of the development and will need to be reviewed and approved with the construction plans.
2. Mailboxes must be built and erected to a safety standard that is recognized by one of the major associations. Specifically, the Federal Highway Administration (FHWA), National Cooperative Highway Research Program (NCHRP) or the Texas Transportation Institute (TTI).

VIII. DARK SKY LIGHTING DESIGN REQUIREMENTS

- A. The following provisions shall be applied to all permanent external or outdoor lighting fixtures on development and/or building projects under the Conservation Development Ordinance and after initial installation, shall be enforced by the owner, home property owners' association or conservation easement:
1. Except for traffic control lights, all luminaires shall be fully shielded with full cutoff; Outdoor advertising signs shall be top illuminated from the top of the sign structure or if made of translucent material and wholly illuminated from within shall be of dark background with only lettering or symbols illuminated;
 2. All luminaires shall be selected to maximize energy efficiency for the intended use and lamps should be selected to minimize the potential for glare; the use of laser source lights or other similar high intensity lights shall be avoided;
 3. Except for traffic control lights and public-roadway illumination within the public right-of-way, no lamp shall be visible at or past the property's boundary; every effort shall be used to identify and install traffic control lights and public-roadway illumination within the public right-of-way (luminaires and/or lamps) that are not visible beyond the minimum distance deemed necessary for public safety reasons/purposes;
 4. Except for traffic control lights and public-roadway illumination within the public right-of-way, no light shall be cast so as to create the occurrence of light trespass; every effort shall be used to identify and install traffic control lights and public-roadway illumination within the public right-of-way (luminaires and/or lamps) that are not visible beyond the minimum distance deemed necessary for public safety reasons/purposes;
 5. The maximum height of a luminaire, including outdoor signs, shall not exceed twenty-five (25) feet¹.
 6. All emergency lighting needed by an emergency service provider (i.e. police, fire and/or emergency medical service providers) shall be exempt from dark sky requirements; All hazard warning luminaires required by Federal regulatory agencies are exempt from dark sky requirements except that all such luminaires must be red and must be as close to the Federally required minimum lumen output required for the specific task.
 7. Variances to this requirement may be authorized by the Executive Manager for uses by governmental and educational entities or if the applicant/user can demonstrate the need/justification for lighting that does not meet this requirement and that no practical alternative exists. Said allowances may

require limits on the number and height of these luminaire installations and may include conditions specifying the lighting level and/or timing of use.

8. For the purposes of the above provisions the following definitions shall apply:
- a. **DIRECT** means any light emitted directly from the lamp, off of the reflector or reflector diffuser, or through the refractor or diffuser lens of a luminaire.
 - b. **FULL CUT OFF** means a luminaire with zero candela intensity at or above an angle of 90° from the straight down vertical direction (nadir of light direction) from the luminaire. Additionally the candela per 1000 lamp lumens does not numerically exceed 100 (10 percent) at or above a vertical angle of 80° above the nadir; this applies to all lateral angles around the luminaire.
 - c. **FULLY SHIELDED** means a luminaire with zero luminous flux occurring above the horizontal plane. The International Dark Sky Association (IDA) administers a Fixture Seal of Approval Program that recommends "fully shielded" fixtures.
 - d. **FIXTURE** means the assembly that houses the lamp or lamps and can include all or some of the following parts: a housing, a mounting bracket or pole socket, a lamp holder, a ballast, a reflector or mirror and/or a refractor or lens.
 - e. **GLARE** means light emitting from a luminaire with an intensity great enough to reduce a viewer's ability to see, and in extreme cases cause momentary blindness.
 - f. **LAMP** means the component of a luminaire that produces the actual light.
 - g. **LIGHT TRESPASS** means the shining of light produced by a luminaire beyond the boundaries of the property on which it is located.
 - h. **LUMINAIRE** means a complete lighting system, and includes a lamp or lamps and a fixture.
 - i. **OUTDOOR LIGHTING** means the night-time illumination of an outside area or object by any man-made device located outdoors that produces light by any means.
 - j. **PERMANENT** means any use or installation that exceeds seven (7) days and with no less than 180 days passing before being used or installed again.

IX. LANDSCAPE CONSERVATION REQUIREMENTS

A. Irrigation

1. Landscape irrigation systems shall not be mandatory in a Conservation Development but, if installed, shall include the following water conservation features:
 - a. Rain and/or moisture sensors
 - b. Backflow prevention device installed in accordance with applicable state laws
 - c. Pressure reducing valve and/or remote control valves for each station with flow control
 - d. Pressure reducing valve, for which pressure reducing valve installed in-line at the meter and serving house as well as irrigation system, is acceptable.
 - e. Zoning of irrigation system based on plant water requirements.
 - f. Multiple cycle controllers with an irrigation water budget feature.
 - g. Minimization of overspray onto hardscapes by design, maintenance and scheduling practices. Due to overspray, subsurface drip irrigation is encouraged but not required.
 - h. Low volume irrigation shall be installed in areas less than 10 feet wide, such as median strips, and parking islands.
2. Contractors installing irrigation systems shall provide system design plans to the homeowner for their property and to the community association for all common areas. Scheduling recommendations shall be posted in or near the irrigation controller box;
3. Irrigation systems in common areas shall be monitored once a month and any necessary repairs shall be made in a timely manner;
4. Spray irrigation using potable water or well water for each residence or commercial building shall not exceed 2.5 times the building's foundation footprint, with a 12,000 sq foot maximum. For calculation purposes the footprint may include both the home and its associated garage areas or the air conditioned commercial development structure, but not driveways, parking or patio areas;
5. Spray irrigation using potable water or well water for development or community common areas shall not exceed an area calculated to be the total of 3,000 square feet for each collector roadway intersection within the development/community plus 6,000 square feet for each development/community entryway, with a 36,000 sq foot maximum;
6. Irrigation of common areas shall occur between the hours of 7:00PM and 10:00AM. There shall be no watering between the hours of 10:00AM and

7:00PM unless irrigation of reclaimed water during the day is necessary to meet regulatory requirements;

7. All irrigated and newly planted turf areas shall have a minimum soil depth of at least 6 inches and having at least twenty-five (25) percent organic material content. Soil in these areas may be either native soil from the site or imported, improved soil that is certified weed free. Imported soil shall be of material native to the ecological area of the development site; preferably from the property itself or nearby sources. Dillo Dirt or similar weed free compost may be tilled into the native or imported soil to achieve the required organic content.

B. Integrated Pest Management Requirements

The following provisions shall be applied to all properties under the Conservation Development Ordinance and shall be enforced by the owner, home property owners' association or conservation easement.

A plan shall be written (Integrated Pest Management Plan) that identifies the integrated pest management (IPM) practices to be used on a given property. IPM is a continuous system of controlling pests (weeds, diseases, insects, exotic/invasive species and/or others) in which pests are identified, action thresholds are considered, all possible control options are evaluated and selected control(s) are implemented. Control options – which include biological, cultural, manual, mechanical and chemical methods – are used to prevent or remedy unacceptable pest activity or damage. Choice of control option(s) is based on effectiveness, environmental impact, site characteristics, worker/public health and safety, and economics. The goal of an IPM system is to manage pests and the environment to balance benefits of control, costs, public health and environmental quality. IPM takes advantage of all appropriate pest management options.

1. Landowner or landscape companies providing maintenance on all common areas and individual lot landscapes shall only use integrated pest management (IPM) practices in order to minimize exposure of storm water runoff to chemicals (fertilizers, herbicides and pesticides). IPM prohibits routine and “preventive” broadcast application of broad-spectrum chemical pesticides in the absence of evidence of active pests. IPM techniques include the following:
 - a. Accurately identify pest or disease problem before considering treatment
 - b. Explore cultural or mechanical controls (i.e. modification of irrigation, pruning, etc)
 - c. Look for biological control options (i.e. predatory insects for pest control, Bt for caterpillar control, etc)
 - d. Consider chemical control only if other options fail
 - e. Utilize least-toxic and targeted chemical controls
 - f. Baits are preferable to broad-spectrum chemical application
 - g. Follow instructions on chemical labels exactly
 - h. Perform periodic monitoring for early detection of potential problems

2. Landowner or landscape companies providing maintenance on all common areas and individual landscapes shall only use the following fertilizer practices:
 - a. Fertilization of turf areas shall not be required
 - b. In turf areas that are to be fertilized, natural or certified organic fertilizers with less than 4% phosphorus shall be used.
 - c. Fertilizer shall be applied at a rate of $\frac{1}{2}$ pound of nitrogen per 1000 square feet, not to exceed a total of one pound of nitrogen per 1000 square feet per year.
3. Builders or property managers must present IPM plans and fertilizer practices that meet the deed restriction requirements to home buyers at the time of closing.
4. As passed by HB 645 in the 2003 Texas Legislative session, homeowners or property owners' association documents (including declaration of covenants, articles of incorporation, bylaws, or any other document of the association which binds members of the association) shall not restrict the property owner from:
 - a. implementing measures promoting solid-waste composting of vegetation, including grass clippings, leaves or brush, or leaving grass clippings uncollected on grass;
 - b. installing rain barrels or a rainwater harvesting system; or
 - c. implementing efficient irrigation systems, including underground drip or other drip systems.
5. The homeowners or property owners' association documents (including declaration of covenants, articles of incorporation, bylaws, or any other document of the association which binds members of the association) shall:
 - a. Not require a defined irrigation schedule specified by the association except if that defined irrigation schedule is mandated by the association's water supplier in order to curtail outdoor water use.
 - b. Not require maintenance of the landscape to a specified level that requires the property owner to irrigate his or her landscape.
 - c. Not require a homeowner to install a minimum percentage of turf in the landscape.
 - d. Require that all landscape plants shall be selected only from the City of Austin's Grow Green Native and Adapted Landscape Plants listing of recommended plants. Invasive plants listed in the Grow Green Native and Adapted Landscape Plants shall be prohibited.

C. Landscape Installation Requirements

The following provisions shall be applied to all properties under the Conservation Development Ordinance and shall be enforced by the owner, home property owners' association or conservation easement.

1. Topsoil that is added to the site shall be incorporated in a 2 to 3 inch scarified transition layer to improve drainage;
2. All installed landscape areas shall be of native or adaptive and not invasive plants, trees, shrubs and flowers selected from the City of Austin's Grow Green Native and Adapted Landscape Plants listing of recommended plants. Invasive plants listed in the City of Austin's Grow Green Native and Adapted Landscape Plants shall not be used;
3. No more than fifty percent of the installed landscape shall be planted in turf;
4. Where there are barrier curbs adjacent to the travel lane, a setback of four (4) feet (1.2 meters) for existing trees and six (6) feet (1.8 meters) for newly planted trees behind the face of the curb shall be provided;
5. Where there are shoulders adjacent to the travel lane, a minimum setback of eighteen (18) feet (5.4 meters) for existing trees and twenty-five (25) (7.5 meters) feet for newly planted trees from the edge of travel lane shall be provided;
6. Where there are sidewalks adjacent to the curb, a minimum setback of six (6) feet (1.8 meters) behind the face of the curb shall be provided. All trees are required to be placed a minimum of 2 feet (600 mm) from the edge of sidewalk to the ultimate edge of the mature tree. Whenever possible sidewalks should be routed around trees on public property or private sidewalk easements if provided;
7. A minimum clearance height of eight (8) feet (2.4 meters) above the street level shall be provided and maintained for all existing and newly planted trees if adjacent to a sidewalk. However, if the limbs of trees overhang the curb line or edge of travel lane of any street, a minimum clearance height of fourteen (14) feet (4.2 meters) is required;
8. On curves, the sight distance requirements presented in Table 1 must be maintained. Only low growing shrubs not greater than two (2) feet (600 mm) in height or small plants shall be considered in areas where horizontal sight distance is a factor;
9. All planting (existing and new trees) in the median shall comply with the same lateral placement requirements as set forth in the Section 2 of the Conservation Development Ordinance;
10. All plantings, except ground covers with no more than twelve (12) inches (300 mm) in height, shall be located greater than seventy-five (75) feet (22.5 meters) from the end of the median nose;

11. Ground covers with no more than twelve (12) inches (300 mm) in height and trees with a mature trunk diameter of six (6) inches (150 mm) or less is recommended in the area from a point seventy-five (75) feet (22.5 meters) to one hundred fifty (150) feet (45 meters) from the nose of the median. All trees shall be maintained to provide an eight (8) foot (2.4 meters) minimum foliage clearance height;
12. In the area beyond 150 feet (45 meters) from the nose of the median, any planting shall be allowed as long as the minimum sight distance requirements are provided. Although not required, maintaining an eight (8) foot (2.4 meters) or greater clearance height is desirable;
13. No landscape of any type shall obstruct vision within a sight line easement. These requirements will apply to any material from a height of two (2) feet (600 mm) to a clearance height of eight (8) feet (2.4 meters) above the top of curb, including, but not limited to full grown trees, full-grown shrubs, fences, structures, any signs except traffic control signs, etc.

D. Suggested Landscaping Guidelines

Builders and individual lot owners are encouraged to adopt the following where economically feasible and allowed by federal, state and local law and regulations:

1. Include rainwater storage and gutters sized appropriately to catch rainwater from the rooftop;
2. Install galvanized metal roofs to facilitate rainwater storage;
3. Incorporate wastewater disposal /rain water harvesting/storm water and grey water systems to meet certain irrigation water needs, including common areas such as roadway landscapes, parkland and recreation spaces;
4. Maintain a minimum of two inches of mulch in all shrub and bed areas.

X. CONSERVATION AREA DESIGN REQUIREMENTS

The following provisions shall be applied to all properties under the Conservation Development Ordinance and shall be enforced by the owner, home property owners' association or conservation easement.

A. Trail Design in Conservation Area

A trail within the Conservation Area shall be a pedestrian way not designed for motorized vehicle use that is generally six (6) feet or less wide, unless otherwise approved by Travis County that provides community connectivity and/or access to nature areas having minimal improvements necessary for health, safety and property protection and intended primarily for passive recreational use such as hiking or walking.

For design, use the standards in the Trail Construction and Maintenance Notebook, United States Department of Agriculture Forest Service, 2004 Edition

B. Recreation Use Standards

To be determined

XI. STANDARDS AND CRITERIA FOR ECOLOGICAL ASSET MANAGEMENT PLANS

An Ecological Asset Management Plan (EAMP) is a written document that provides a "road map" to be followed in maintaining, improving and/or restoring the Conservation Area and its associated areas set aside for wildlife and vegetation protection, agricultural uses, archeological sites and historic structures, scenic and rural, and recreational uses, and meets the criteria included here. The EAMP shall contain provisions adequate to maintain or improve these Conservation Areas for their intended use. This plan will be implemented by the landowner, homeowner association and/or conservation easement holder. This plan should be developed with the advice and assistance of qualified environmental professionals, such as ecologists, biologists, geologists, archeologists, historic preservation experts, and park or recreation planners, to provide for the long-term management of the identified Conservation Area. The EAMP shall include Integrated Pest Management Plan and Landscaping Plan if these activities are planned within the Conservation Area.

In order to do a Conservation Development, it is not a requirement that the land be previously managed to comply with the Travis Central Appraisal District (TCAD) under either the agricultural or wildlife valuation for tax purposes. However to receive some of the incentive payments outlined in the Conservation Development Ordinance, it is necessary to have previously managed the tract under these TCAD regulations. For future management of the Conservation Area, property owners should verify with the Travis Central Appraisal District that the Conservation Area property will be eligible for agricultural or wildlife valuation for tax purposes (note that this is not guaranteed under the Conservation Development Ordinance).

The following outline provides the minimum EAMP requirements in addition to those required in the documents cited above.

A. Management Responsibilities

1. Define ownership and managing entity;
2. Define oversight responsibilities and enforcement mechanisms;
3. Provide a ten-year plan of proposed management activity and accompanying annual budget estimates. Describe the financing plan and property tax responsibilities. The owner is responsible for providing a financing plan, including funding source(s) which is solvent in perpetuity. This may require the developer or owner to escrow sufficient funds or provide other surety securing the future maintenance and operation of the Conservation Area;
4. State term of managing entity's management agreement or responsibility (e.g.- ten years or in perpetuity). If the property owner and managing entity are one

and the same, it is assumed this arrangement will be in perpetuity unless otherwise approved by Travis County;

5. Describe who will hold the conservation easement and the roles and responsibilities of the easement holder and details about the conservation easement agreement.

B. Regulated Resources

The plan shall identify the federal, state or locally regulated resources including the following:

1. Define known resources on site or known to be near site that are protected or regulated in some manner;
2. Describe how permitting approaches (e.g., U.S. Army Corps of Engineers permitting, Balcones Canyonlands Conservation Plan participation, Texas Historical Commission (THC) Antiquities permitting, Texas Commission for Environmental Quality (TCEQ) TPDES permitting, etc.) or development and management practices will ensure compliance. Examples include: plant, animal or invertebrate species listed as state or federally threatened, endangered or as species of concern; wetlands or waters of the state; cultural resource sites; or, other features such as Environmentally Valuable Features, etc.
3. Describe appropriate compliance measures with local, state and federal regulations including the Endangered Species Act, etc.

C. Ecological Land Management Practices:

The plan shall identify goals and/or objectives from the Ecological Assessment on the property for management of the Conservation Area such as management for wildlife, water quality, recreational activities, etc. and make provision for their future conservation, and annual schedules of planned management activities. In order to meet minimum land management activity standards for this area (even if not applying for agricultural or wildlife valuation with TCAD), at a minimum, the plan shall require activities or practices adequate to meet State of Texas standards or requirements for sustaining an agricultural or wildlife tax exemption.

Standards and criteria for ecological asset management planning are found in the following guidance documents:

Travis Central Appraisal District document: *Open-Space / Wildlife Management Agricultural Qualifications Guidelines and Definitions*

Eastern Travis County - Texas Parks and Wildlife Department's *WILDLIFE MANAGEMENT ACTIVITIES AND PRACTICES, COMPREHENSIVE WILDLIFE MANAGEMENT PLANNING GUIDELINES for the Post Oak and Blackland Prairie Ecological Regions, Final Draft, June, 2001*

Western Travis County - Texas Parks and Wildlife Department's *WILDLIFE MANAGEMENT ACTIVITIES AND PRACTICES, COMPREHENSIVE WILDLIFE MANAGEMENT PLANNING GUIDELINES for the Edwards Plateau and Cross Timbers & Prairies Ecological Regions, Final Draft, June 2001*

1. Wildlife and Vegetation Management Practices:

The management plan shall identify and provide management practices designed to maintain or enhance diversity, habitat for species of interest, restoration and/or other identified goals.

Vegetation Management:

Based upon baseline conditions identified in the ecological assessment, the EAMP shall describe plans to manage the soil resources and herbaceous, grass, shrub and tree layers with the overall goal of achieving the appropriate native vegetation community. This shall be based upon existing geology, soils and hydrology. One approach is to map the USDA-NRCS range sites, obtain the type locality for the range site and manage accordingly.

Depending upon the site, prescribed burns can be an appropriate management tool. Exotic or invasive plant localities shall be identified and management plans for their eradication described. Annual or other regular monitoring and adaptive management shall be a part of the EAMP and described therein.

Wildlife Management:

The EAMP shall describe plans to manage the native wildlife resources to maintain a diverse, balanced and sustainable community. Coordination should be conducted with the Travis Central Appraisal District, Texas Parks and Wildlife Department and/or U.S. Fish and Wildlife Service, as appropriate. Exotic, invasive or problem animal populations (e.g., feral hogs, red imported fire ants, etc.) shall be identified and management plans for their eradication described. Annual or other regular monitoring and adaptive management shall be included in the EAMP.

People Management:

The EAMP shall describe intended uses and users, prohibited uses and locate roads, trails, access points, and fences. The EAMP shall define whether the Conservation Area may be accessed by the public or is private and define the type and level of access. The EAMP shall describe who or what entity will be responsible for management, have enforcement authority and carry any construction, maintenance or liability responsibilities.

2. Agricultural Land Management Practices:

The plan shall identify goals and/or objectives for management of the Conservation Area, annual schedules of planned management activities and,

at a minimum, shall require the type of activities or practices adequate to meet State of Texas standards or requirements for sustaining an agricultural tax exemption (note that this is not guaranteed under the Conservation Development Ordinance).

The plan shall identify the values identified for agriculture use on the land (existing) and make provision for future agricultural use. In most cases a management plan shall identify and provide for management practices designed to maintain or enhance productivity or other identified goals. Historic farm or ranch land shall be revegetated, or allowed to revegetate, to wildlife habitat if not maintained in active agriculture use. Agricultural areas shall be fenced and public safety will be a priority.

Crop Management:

Based upon baseline conditions identified in the ecological assessment, the EAMP should describe plans to manage the soil resources and agricultural crop(s) using sustainable farming practices. This should be based upon existing geology, soils and hydrology. One approach is to map the USDA-NRCS range sites, obtain the type locality for the range site and manage accordingly. Depending upon the site, prescribed burns and rotational grazing can be an appropriate management tool.

3. Archeological Site and Historic Structure Management

(Mitigation/Restoration):

The EAMP shall identify goals and/or objectives for management of the Conservation Area, annual schedules of planned management activities and, at a minimum, shall require activities or practices adequate to meet State of Texas standards or requirements from the Texas Antiquities Code for sustaining federal, state and locally significant archeological sites and historic structures or properties. Though these normally apply only to public lands, the conservation developer or owner is agreeing to follow these same Texas Antiquities Code standards. The plan shall identify the values identified for preservation of the site and/or structure and make provision for their future preservation. A management plan shall identify and provide for restoration and management practices designed to maintain or enhance the identified site/structure or other identified goals. Archeological and Historic sites shall be maintained to protect the sites and also safety of the public.

Archeological Sites:

Based upon baseline conditions identified in the ecological assessment, the EAMP shall describe plans to manage resources and with the overall goal of achieving the appropriate preservation or mitigation of the resource. This shall be based upon Texas Historic Commission (THC) coordination and recommendations.

Historic Structures/Properties:

The EAMP shall describe plans to preserve and manage any historic structures or properties deemed significant by local or state historic preservation officers. Coordination would be conducted with the THC and any local historical commissions as appropriate.

People Management:

The EAMP shall describe intended uses and users, prohibited uses and locate roads, trails, access points, and fences. The EAMP shall define whether the archeological and/or historical site may be accessed by the public or is private and define the type and level of access. The EAMP shall describe who or what entity will be responsible for management, enforcement authority and carry any construction, maintenance or liability responsibilities.

4. Recreational Uses

The EAMP shall identify goals and/or objectives for the types of recreation uses planned in the Conservation Area such as ball fields or parkland, the locations and how the area will be managed. The plan shall identify specific plans and any clearing and structures and make provision for their future management. This shall provide details about active as well as passive recreational uses and shall describe sidewalks (in ROWs) and trails in the Conservation Area with information about the planned type and level of access user and activities, location, and management.

5. Scenic View Preservation (including Rural Buffers and Viewshed Management)

A written document (Scenic View Preservation Plan) shall identify key scenic viewing locations/areas and their associated scenic views and identifies those views and/or view sheds to be protected and proposes development guidelines and/or restrictions intended to assure they do not become obstructed or obscured by development; the guidelines and restrictions are to be included in covenants, conditions or restrictions imposed on a property to control its development. The plan shall also indicate the location of buffers or setbacks deemed necessary to preserve scenic views and view sheds, particularly from public roads, and describe management practices including tree trimming and vegetation clearing proposed to maintain the scenic views. Scenic views and view sheds should remain unblocked or uninterrupted, particularly as from public roadways.

All management activities shall cover or be provided for all the designated Conservation Area and rural and historic buffers; activities targeted at the varied use areas (e.g. agriculture land, wildlife habitat, storm water management areas, wastewater disposal and septic drain field area, recreation space, historic preservation sites, etc.) should be specified.

D. Conservation Easements

A conservation easement over the Conservation Area shall be conveyed to Travis County to provide enforcement that assures that the Conservation Area will be held as an undeveloped area in perpetuity. An additional conservation easement may also be conveyed to a land trust or other group that is certified by the Land Trust Alliance and approved as part of the Conservation Development Agreement. Some

conservation easements require the landowner or property owners' association the management responsibilities and others give this responsibility to the easement holder. These details on management responsibilities will be outlined in the conservation easement, how this will be enforced and implemented. If conservation easement management activities or ownership of the Conservation Area is to be conveyed to Travis County, the draft EAMP and draft Ecological Assessment should include a requested scope of services. A cost proposal can be provided by Travis County following a site visit and negotiations.

XII. PROPERTY OWNERS' ASSOCIATION REQUIREMENTS AND COVENANTS, CONDITIONS AND RESTRICTIONS

A. Covenants, Conditions and Restrictions (CCRs) Documents Provided

The following property owners' association documents and requirements shall be provided to the Executive Manager prior to approval of a Conservation Development:
Recorded property owners' association incorporation documents

1. Bylaws;
2. Current and proposed declaration of CCRs;
3. Official membership and association officer listings;
4. Legal description of all lands and facilities owned by the property owners' association;
5. Map of all lands and facilities owned by the property owners' association;
6. Copy of the proposed Conservation Area conservation easement and/or conservation development agreement and, if necessary, an access and maintenance easement to be held by or granted to Travis County;
7. Plan for funding management costs for the Conservation Area and information about protection through a conservation easement.

B. Condition of Conservation Area

At the time that ownership of the Conservation Area is transferred to the Property owners' association or to the responsibility of a Managing Entity on behalf of the Property owners' association, the Conservation Area shall be in good condition. If not in acceptable condition, a restoration plan with adequate funding for implementation and continued land management will be provided, so that it can be used for its intended purpose and shall be in conformity with the following requirements:

1. Clean and contain no surface or buried debris;
2. Graded to drain well and be free of standing water, except within undisturbed natural areas;
3. Free of standing dead trees, limbs and branches along trails and expected traffic areas where they could pose a safety hazard to Conservation Area users;

4. Free of conditions harmful to the conservation of trees such as fill or excavation around tree root zones;
5. Free of unnatural conditions created by the developer that may be hazardous to users of the Conservation Area within disturbed area;
6. Free of any remnants from construction material stockpiles;
7. Free of soil compaction by construction vehicles or construction material stockpiles; all areas subject to soil compaction shall be broken up or otherwise loosened to a depth of twelve (12) inches;
8. Top-soiled and revegetated, where disturbed, to bring the disturbed area back to its previous or similar natural state (see Section 5, Landscape Conservation Requirements in the Conservation Development Design Manual);
9. Free of all unauthorized encroachments;
10. Free of any liens, taxes and charges;
11. If improved for purposes consistent with the Conservation Ordinance (such as with the installation of non-structural drainage improvements or wastewater disposal systems), the improvement must be completed according to the approved subdivision plans.

C. CCR Document Will Include:

The CCR document shall be subject to approval by the Executive Manager and shall accomplish or include the following:

1. Creates an property owners' association with ownership of the property's Conservation Area and mandatory and automatic membership for each property owner;
2. The property owners' association shall hold title to all common amenities including Conservation Area within the property; transfer of the Conservation Area or any related conservation easements shall require the pre-approval of the Executive Manager to be effective;
3. Establishes the powers, duties and responsibilities of the property owners' association and its officers; including the power of the association to own and maintain common property and to make and enforce rules;
4. Sets cross covenants or contractual terms binding each owner and all other owners for mutual benefit and enforcement;

5. Requires the annual adoption by the property owners' association, prior to the beginning of its fiscal year, of an EAMP for its Conservation Area and buffers for rural and historic preservation that is pre-approved by the Executive Manager and requires all owners to provide a pro rata share of the cost of the operations and the maintenance, repair and replacement of all private and/or association owned Conservation Area features including drainage ways, landscaping and trees; and requires the property owners' association to assess and collect and spend monies for said costs; requires an annual report on these issues telling about previous year's activities as outlined in the EAMP.
6. Authorizes the Executive Manager to unilaterally adopt an interim EAMP on behalf of an property owners' association if the property owners' association does not adopt such a plan as required under the provision of the CCRs; the interim ecological management plan shall be in effect until the property owners' association adopts an ecological management plan as prescribed in the CCRs;
7. Establishes a process of collection and enforcement to obtain funds from owners who fail to comply with assessments or to provide funding for an interim ecological management plan (see item f above) and the process for payment for management, maintenance, and repairs in the Conservation Area;
8. Provides a lien provides a lien against all property within the development that allows the Executive Manager to collect for reimbursement the costs incurred by the County or other Conservation Area conservation easement holder for Conservation Area maintenance, repair or restoration if such efforts are not undertaken by the property owners' association in a timely fashion and following ten (10) days written notice from the County to the property owners' association requesting corrective action; costs to be reimbursed may include administrative costs and penalties and may be charged against the property owners' association and/or individual property owners;
9. Establishes the property owners' association as responsible for liability insurance, property taxes for all common areas including the Conservation Area;
10. Establishes protective covenants for any and all rural and historic buffers;
11. Defines adjoining properties as benefited properties as to the adoption and adherence of the property owners' association to implementing its ecological assets management plan;
12. Establishes architectural standards that are in conformity with the purposes of the Conservation Development Ordinance;

13. Creates an architectural control committee to review development for compliance with the architectural standards and issue certificates of approval;
14. Requires the property owners' association to obtain the Executive Manager's approval regarding any disposition and management of Conservation Area;
15. Requires the property owners' association to obtain the Executive Manager's approval regarding amendments that directly modify, alter, change or void the CCRs that are required by the Conservation Development Ordinance; or that may indirectly modify, alter, change or void the meaning or effect of the CCRs that are required by the Conservation Development Ordinance; and approval of the ecological asset management plan and its updates;
16. Requires the property owners' association to obtain the Executive Manager's prior approval for all clearing or trimming within the Conservation Area that is undertaken for any purpose other than in response to an immediate health or safety threat/emergency;
17. Requires construction or reconstruction of residential and commercial buildings in compliance with the resource conservation provisions of the Conservation Development Ordinance in effect for original construction under a conservation agreement or in effect at the time of any expansion or reconstruction construction;
18. Requires all homebuilders to be registered with the Texas Residential Construction Commission;
19. Landowner/developer will require each homebuilder to include in each and every home sale contract's representations and warranties provisions stipulations that the home meets the resource requirements of the Conservation Development ordinance and listing each item installed (builder's check list) to meet the requirements. Original labels from all installed resource conservation items will be provided to the home buyer at walkthrough;
20. Landowner/developer will require each homebuilder to meet the requirements of the property owners' association related to protecting the Conservation Area, landscape design, architectural control, etc;
21. Stipulated CCRs may be enforced by county and/or successor local jurisdiction;
22. Stipulated CCRs require property owners' association to obtain operators license for Conservation Area and drainage infrastructure every other year based on EAMP or infrastructure maintenance requirements, failure to maintain license can result in revocation of the license and daily fines;

23. Prohibit any land uses that is a reserved use unless authorized by the Commissioners Court of Travis County (see the Conservation development ordinance definition of RESERVED USE);
24. CCRs shall not prohibit the use of clotheslines that are within a backyard that is enclosed by a privacy fence if the clothesline is equal to or less than six (6) feet in height;
25. CCRs shall not prohibit the use of solar panels or rain water capture systems although placement for aesthetic controls can be dictated.

D. CCR Architectural and Land Planning Standards

The CCRs shall establish architectural and land planning standards for the property. The standards must comply with the following section guidelines:

1. Buildings shall relate to the roadway and surrounding buildings; most lots shall take access from interior streets;
2. Residential scale buildings shall be used for mixed use residential or neighborhood retail use areas;
3. Single-family and duplex residential buildings shall not exceed thirty five (35) feet in height;
4. Buildings shall contain architectural features and materials that are characteristic or native to the central Texas region and signify presence in a Conservation Development;
5. All outdoor lighting shall be designed, oriented and placed to meet the provisions of the Dark Sky" Lighting section of this manual; also, the maximum candela value of all interior lighting should fall within the building (not out through the windows);
6. Each lot shall maintain a minimum area of natural or landscaped space and adhere to the landscape conservation requirements in the Conservation Development Design Manual.

XIII. PREFERRED COMMERCIAL DEVELOPMENT AREAS AND AUTHORIZED RESERVE USES

For the purposes of the Conservation Ordinance the following described areas are designated Preferred Commercial Development Areas for a period of five (5) years from the date of their designation by the Commissioner Court of Travis County:

A. Eastern Travis County

To be determined.

B. Southwest Travis County

The exact distances in the following blanks are to be determined.

1. The land lying north of SH71 up to ___ miles and ___ miles west of the Pedernales river;

Authorized Reserved Uses within this development area are as follows:

Buildings that are not more than 53 feet in height

Big Box Retail up to 110,000 square feet in size

2. The land lying north of Hamilton Pool Road up to ___ miles and ___ miles west of the Pedernales river;
3. The land lying between ___ miles and ___ miles west of the proposed intersection of SH71 and Reimer/Peacock Ranch Road and within ___ miles north and south of SH71;
4. The land lying between ___ miles and ___ miles east of the intersection of SH71 and Bee Creek Road and within ___ miles north and south of SH71;
5. The land lying within ___ miles of the following roadway intersections:

RM 3238 and Crumley Ranch Road;

RM 3238 and Route 12;

C. Northwestern Travis County

To be determined.

XIV. DOCUMENT EXAMPLES AND SUGGESTED TEXT

Examples will be added as sample language that applicants can reference in preparing subdivision submittal requirements is prepared by Travis County attorneys as part of the first Conservation Development applications.

A. Conservation Easement

Sample document will be added.

B. Conservation Development Agreements

Sample document will be added.

C. Plat Notes

Sample document will be added.

D. Confirmation of Resource Conservation Measures by Owner

Sample document will be added.

E. Ecological Asset Management Plan

Sample document will be added.

F. Provisions for Licensing of Drainage Areas

Sample document will be added.

To assure property maintenance per the corresponding Ecological Assets Management Plan (Conservation Area utilization for drainage and environmental buffers bi-annual license) (See Conservation Development Ordinance)

G. *Covenants, Conditions, and Restrictions* (CCRs)

Sample document will be added.

XV. DEFINITIONS

Unless otherwise indicated, words and phrases used in this manual have the same meaning as any definition of such a word or phrase contained in Chapter 82, Travis County Code. The following terms shall have the corresponding meaning:

COMMONS Open spaces maintained primarily for human uses such as squares, plazas, greens, etc., areas other than those included in the definition of recreation space and predominantly characterized as having installed landscape with regular maintenance and irrigation systems. Commons constitute development under Subchapter C.

CREDITABLE ACREAGE Acreage that can be counted as part of the Conservation Area acreage requirement under this Conservation Development Ordinance.

CREEK A perennial, ephemeral and/or intermittent feature with a defined channel that carries surface water to larger creeks, streams and rivers.

EASTERN WATERSHED Any watershed other than a WESTERN WATERSHED in Travis County.

MANAGING ENTITY The entity, organization or individual designated, and accepting such designation, to directly or physically manage a conservation area under an ECOLOGICAL ASSET MANAGEMENT PLAN.

NATIVE PASTURE LAND Land dominated by native perennial grasses with native perennial forbs and legumes and may include small native shrub species.

QUALIFIED ENVIRONMENTAL PROFESSIONAL People recognized in their fields as qualified to do work as ecologists, biologists, geologists, environmental planners, landscape architects and archeologists.

RECREATION SPACE Land areas and/or facilities that may be used for sports and/or active recreational uses such as ball/athletic fields, playgrounds, recreational bikeways and golf courses and their immediately adjacent landscaped or maintained areas.

ACTIVE RECREATIONAL USES are generally identified as requiring either (1) the use of a playing field or playground; (2) the participation of group or team participants; (3) the installation of buildings or other structures; (4) the use of a human conveyance intended primarily for recreational purposes or (5) the substantial modification or grading of an area of land. **PASSIVE RECREATIONAL USES** are generally identified as hiking, photography, nature observation, etc.

SAFE HARBOR PERMIT An agreement negotiated with the U.S. Fish and Wildlife Service which documents and protects baseline occurrences of endangered species on a property and protects the landowner from prosecution for further take above this baseline condition due to impacts associated with a specific project. For final policy and associated regulations, see *Federal Register*, June 17, 1999.

SIDEWALK A paved area located in a road right-of-way.

STREAM A natural flowing body of water with a detectable current confined within a bed and banks.

WESTERN WATERSHED The Lake Travis, Lake Austin and Town Lake watersheds and their tributaries in Travis County.

XVI. HELPFUL RESOURCES

Conservation Development Ordinances in General:

Conservation Development in Texas: A Primer for Government Officials, Developers and Land Planners. By the Lady Bird Johnson Wildflower Center, Austin, TX.
<http://www.wildflower.org/>

Conservation Design for Subdivisions – A Practical Guide to Creating Open Space Networks. By Randall G. Arendt, the American Planning Association, the American Society of Landscape Architects. Island Press.

Growing Greener: Putting Conservation into Local Plans and Ordinances. By Randall G. Arendt, the American Planning Association, the American Society of Landscape Architects. Island Press.

Conservation Development:

Travis County Subdivision Rules
www.co.travis.tx.us/trn/subdivision/82_050729/interim_rules.pdf

Environmental Protection Agency's Energy Star Program
<http://www.energystar.gov/>

State of Texas Energy Code Requirements
http://www.energycodes.gov/implement/case_studies/texas.stm

City of Austin Green Grow Native & Adapted Landscape Plants
<http://www.ci.austin.tx.us/growgreen/plantguide/searchplant.cfm>

City of Austin Water Conservation Program Rebate Toilet List
<http://www.ci.austin.tx.us/watercon/sftoilet.htm>

City of Austin Green Building Program
<http://www.austinenergy.com/Energy%20Efficiency/Programs/Green%20Building/index.htm>

Forestry Stewardship Council Certified Products
<http://www.fscus.org/>

Green Globes Environmental Assessment and Rating System
<http://www.thegbi.com/greenglobes/faq.asp>

National Association of Home Builders: Green Building
<http://www.nahbrc.org/green1.asp?TrackID=&CategoryID=1599>
<http://www.nahbrc.org/greenguidelines/>

U.S. Green Building Council LEED Homes Program
<http://www.usgbc.org/DisplayPage.aspx?CMSPageID=147>

American Association of State Highway and Transportation Officials (AASHTO)
Manual, A Policy on Geometric Design of Highways and Streets, 1984
https://bookstore.transportation.org/item_details.aspx?ID=110

Capital Area Metropolitan Planning Organization Transportation Plan: Bicycle and
Pedestrian Plan
<http://www.campo-tc.us/>

Texas Parks and Wildlife - Conservation Easements: a Guide For Texas Landowners
www.tpwd.state.tx.us/publications/pwdpubs/mmedia/pwd_bk_w7000_0022.pdf

Texas Parks and Wildlife Department – Open Space Agricultural Valuation
1-D-1 valuation
www.tpwd.state.tx.us

Dark Sky Outdoor Lighting:

Good Neighbor Outdoor Lighting: A Guide to Selecting and Installing Efficient,
Cost-Effective, and Unobtrusive Outdoor Lighting Fixtures, New England Light
Pollution Advisory Group (NELPAG) and the International Dark-Sky Association,
Seventh Draft, May 1995; a copy of the pamphlet may be found at www.darksky.org
under the resources button.

Mueller Green Resources Guide Book, City of Austin, see the reference to the guide
book at
http://www.muelleraustin.com/urban_village.html

Cultural Resource Management:

The Antiquities Code of Texas, Texas Historical Commission
www.thc.state.tx.us/crm/crmantcode.html

Conservation Area Management:

Trail Construction and Maintenance Notebook, U.S. Department of Agriculture Forest
Service, 2004 Edition
www.fs.fed.us/eng/php/library_card.php?p_num=0423%202825P

Guidelines for Identifying and Protecting Aquifer Recharge Features, Texas
Commission on Environmental Quality, October 2005
www.tceq.state.tx.us/comm_exec/forms_pubs/pubs/rg/rg-433.html

Safe Harbor Agreements for Private Landowners, U.S. Fish and Wildlife Service,
February 2004
www.fws.gov/endangered/recovery/harborqa.pdf

Travis Central Appraisal District document: Open-Space / Wildlife Management
Agricultural Qualifications Guidelines and Definitions
Application for 1-D-1 Agricultural Appraisal, Travis Central Appraisal District
www.traviscad.org/agmanual02.doc
www.traviscad.org/travis1-d-1-2000.pdf

Conservation Area Management (cont):

Eastern Travis County - Texas Parks and Wildlife Department's WILDLIFE MANAGEMENT ACTIVITIES AND PRACTICES, COMPREHENSIVE WILDLIFE MANAGEMENT PLANNING GUIDELINES for the Post Oak and Blackland Prairie Ecological Regions, Final Draft, June, 2001
www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_789_post_oak_blackland_prairie_main.pdf

Western Travis County - Texas Parks and Wildlife Department's WILDLIFE MANAGEMENT ACTIVITIES AND PRACTICES, COMPREHENSIVE WILDLIFE MANAGEMENT PLANNING GUIDELINES for the Edwards Plateau and Cross Timbers & Prairies Ecological Regions, Final Draft, June 2001
www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_788_ed_plateau_cross_timbers_main.pdf

May 8, 2007

Project Summary

Barton Springs Master Plan

THE PUPOSE

The purpose of the Barton Springs Master Plan project is to prepare a master plan/needs assessment report, illustrated with preliminary design concepts. The report will include budget projections for preliminary design concepts and future studies, as well as implementation and prioritization recommendations. The report will serve as a guide for future funding and project decisions.

GOALS STATEMENT

The goal of the Barton Springs Master Plan is to return the site to its former glory, where the water was cleaner and the experience of the pool was more enjoyable. To accomplish this goal, the Master Plan will propose appropriate additions and renovations to the swimming pool, the buildings and grounds that respect the fragility of this unique natural and historical setting and also accommodate the significant user demands on Austin's most popular park amenity.

PROCESS

Public meetings for information gathering and setting priorities with:

- Stakeholder groups
- General public
- City of Austin Board, Commission and Council hearings

Project to be completed in two phases:

- Interim (90 days): identify budget placeholders for FY 08
- Final (180 days): further develop interim solutions, define budget

Stakeholder groups:

- Friends of Barton Springs Pool
- Save Our Springs Alliance
- Save Barton Creek Association
- Hill Country Conservancy
- Scientific Advisory Committee
- Zilker NA
- Baton Hills NA

Boards and Commissions:

- Parks Board
- Environmental Board
- Historic Landmark Commission

Regulatory Agencies:

- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- Texas Historical Commission
- Texas Commission on Environmental Quality
- Texas Accessibility Standards
- Barton Springs/Edwards Aquifer Conservation District
- City of Austin Building and Site Plan Officials
- City Historic Preservation Office

Agenda Item ~~6~~

C-2

BUILDINGS

Provide conceptual design recommendations for the rehabilitation of the existing, historic Barton Springs bathhouse. Existing conditions issues to be addressed include dressing and toilet rooms, handicapped accessibility throughout the bathhouse, roof systems, hazardous materials remediation, heating and air conditioning systems and structural and utility infrastructure upgrades with consideration of sustainable building practices encouraged. Preservation issues to be addressed include the restoration of the original entry to the bathhouse. Improve the educational and interpretive amenities in the building.

Provide conceptual design recommendations for a new, modest bathhouse at the south gate. Functional requirements include a cashier office and dressing, shower and restroom facilities.

POOL and its INFRASTRUCTURE

Study flow modifications to enhance water movement and salamander habitat conditions. Recommend flow modeling strategies to study water movement and velocity in the pool under various spring discharge conditions, to understand nuisance algae growth and flow across habitat areas. Study the installation of piping and pumps to direct water current across the "beach" and other areas to increase habitat area and reduce nuisance algae accumulation. Study the reconstruction and reconnection of surface habitats, including reconstructing the spring run from Eliza Spring to include a reconnection to the pool. Study the feasibility of removing the concrete bottom to Eliza Spring.

Study modifications to the existing pool infrastructure to enhance the operation of pool. For the upstream dam, issues to be addressed include raising the height to prevent minor flooding, widening the top deck to allow passage of pool cleaning equipment, installing several gates to allow creek flow through the pool during extended creek baseflow events and modifying the bypass grate to enhance flow efficiency during floods. For the downstream dam, issues to be addressed include shifting gates to allow more natural water movement out of the pool to aid in silt removal and adding spillway gates to allow for water conservation during droughts. For both dams, study methods to install mechanical gate controls, with a digital control system. For the bypass tunnel, study methods to repair cracks and openings in the joints. Study algae control skimmer installations, designed to remove floating algae in the pool. Study methods of removing gravel and large rocks from the pool to facilitate more frequent removal and more efficient use of available labor force. Study disposal methods of silt and algae produced during pool cleaning.

GROUNDS

Provide conceptual design recommendations for the beautification of the pool grounds. Landscape issues to be addressed include tree, plant and turf materials and placement, fencing, site furnishings, trash cans and site lighting. Preservation issues to be addressed include the rehabilitation of the stone walls at Old Mill Spring/Sunken Garden, the concrete walls at Eliza Spring/Amphitheatre, the walkways and decks on the south side of the pool and the ponds, steps and plantings at the Zilker Ponds/Rock Garden. Infrastructure issues include relocating the electrical service and emergency communication system at the site to below grade. Improve the educational and interpretive amenities at the site.

Provide conceptual design recommendations for creek restoration downstream of the pool, including the area below the downstream dam and the access to the Old Mill Spring/Sunken Garden. Study the possibility of expanding the pool downstream.

STUDIES BY OTHERS

Note that these are future environmental studies, to be addressed in the Barton Springs Master Plan as future work items, with funding projections identified in the Barton Springs Master Plan.

Drought contingency planning for Barton Springs, to address alternatives for salamander survival during periods of severe drought including flow augmentation options and dissolved oxygen augmentation.

Evaluate algae growth over several seasons. The goal would be to define conditions favorable for algae problems at the levels of nutrients currently measured, the changes in coverage and species with local velocities and development of structural and nonstructural improvements to permanently decrease nuisance algae coverage.