

# **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**

<b>Table of Contents</b>	<b>Page</b>
<b>I INTRODUCTION:</b>	<b>4</b>
<b>A. Conservation Development Design Manual:</b>	<b>4</b>
<b>B. Conservation Development Ordinance</b>	<b>4</b>
<b>C. Special Application Requirements and Process</b>	<b>5</b>
<b>D. Incentives</b>	<b>6</b>
<b>II. ECOLOGICAL ASSESSMENT REQUIREMENTS</b>	<b>7</b>
<b>III. CONCEPTUAL LAND PLAN REQUIREMENTS</b>	<b>11</b>
<b>IV. DETERMINING SIGNIFICANT FEATURES</b>	<b>13</b>
<b>V. CONSERVATION AREA CONSIDERATIONS</b>	<b>15</b>
<b>VI. DEVELOPMENT AREA CONSIDERATIONS</b>	<b>18</b>
<b>VII. ROADWAY AND DRIVEWAY DESIGN STANDARDS FOR CONSERVATION SUBDIVISION DEVELOPMENTS</b>	<b>20</b>
<b>A. Roadway Standards</b>	<b>20</b>
<b>B. Classifications and Functional Characteristics</b>	<b>20</b>
<b>C. Functional Characteristics</b>	<b>20</b>
<b>D. Geometric Design Criteria</b>	<b>20</b>
<b>E. General Design Criteria</b>	<b>20</b>
<b>F. Roundabout Design Criteria</b>	<b>22</b>
<b>G. Right-of-way and Pavement Sections</b>	<b>23</b>
<b>H. Mailboxes</b>	<b>26</b>
<b>VIII. DARK SKY LIGHTING DESIGN STANDARDS</b>	<b>27</b>
<b>IX. LANDSCAPE CONSERVATION STANDARDS</b>	<b>29</b>
<b>A. Irrigation</b>	<b>29</b>
<b>B. Integrated Pest Management Requirements</b>	<b>30</b>
<b>C. Landscape Installation Requirements</b>	<b>31</b>
<b>D. Suggested Landscaping Guidelines</b>	<b>33</b>
<b>X. CONSERVATION AREA DESIGN STANDARDS</b>	<b>34</b>
<b>A. Trail Standards in Conservation Area</b>	<b>34</b>
<b>B. Recreation Use Standards</b>	<b>34</b>
<b>XI. STANDARDS AND CRITERIA FOR ECOLOGICAL ASSET MANAGEMENT PLANS</b>	<b>35</b>
<b>A. Management Responsibilities</b>	<b>35</b>
<b>B. Regulated Resources</b>	<b>36</b>
<b>C. Ecological Land Management Practices</b>	<b>36</b>
<b>D. Conservation Easements</b>	<b>39</b>
<b>XII. PROPERTY OWNERS' ASSOCIATION REQUIREMENTS AND COVENANTS, CONDITIONS AND RESTRICTIONS</b>	<b>41</b>
<b>A. CCR Documents Provided</b>	<b>41</b>
<b>B. Condition of Conservation Area</b>	<b>41</b>

C. Covenants, Conditions, and Restrictions Document Will Include	42
D. CCR Architectural and Land Planning Standards	45
XIII. PREFERRED COMMERCIAL DEVELOPMENT AREAS AND AUTHORIZED RESERVE USES	46
A. Eastern Travis County	46
B. Southwest Travis County	46
C. Northwestern Travis County	46
XIV. DOCUMENT EXAMPLES AND SUGGESTED TEXT	47
A. Conservation Easement	47
B. Conservation Development Agreements	47
C. Plat Notes	47
D. Confirmation of Resource Conservation Measures by Owner	47
E. Ecological Asset Management Plan	47
F. Provisions for Licensing of Drainage Areas	47
G. Covenants, Conditions and Restrictions	46
XV. DEFINITIONS	48
XVI. HELPFUL RESOURCES	50

**TABLE:**

Table 1 Minimum Sight Distances	22
---------------------------------	----

**FIGURE:**

Figure 1 Roadway Sections	25
---------------------------	----

## **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);
    1. 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. Instillation 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. An 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
<b>CASE I</b>	Cond. A	107	147	200	250	325	400	475	550
	Cond. B**	107	147	350	410	470	530	590	650
<b>CASE II</b>	Cond. A	190	238	400	470	540	610	680	750
	Cond. B**	210	280	475	550	625	700	775	850
<b>CASE III</b>	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

- a. 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**

	<sup>3</sup> Design Speed	Curb & Gutter (face to face) *	Non Curb Section	<sup>2</sup> Ribbon curb W/Shoulder	Median Width (Minimum)	Right of Way Width	Sidewalk/ Trail
<b>Alley, One-way</b>	15	NA	11'	2'	NA	20'	NA
<b>Alley, Two-way</b>	20	NA	18'	2'	NA	25'	NA
<b>Local Street, One-way</b>	25	15'	12'	2' 2' shoulder	16'	<sup>1</sup> 35' - 40'	5'
<b>Local Street, Two-way</b>	25	25'	22'	2' 2' shoulder	NA	<sup>1</sup> 40' - 50'	5'
<b>Collector Street, One-Way</b>	25	24'	24'	2' 2' shoulder	16'	50'	5'
<b>Collector Street, Two-way</b>	30	36'	36'	2' 4' shoulder	NA	60'	5'
<b>Parkway ~ Scenic Arterial One-way</b>	35	NA	20'	2' 4' shoulder	20'	*44'	10'

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

<sup>1</sup> minimum width based upon ADT < 250 VPD

<sup>2</sup> Ribbon curb required with all laydown pavement sections.

<sup>3</sup> 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) feet.
  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 ½ 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.

4. 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. *E*stablishes 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, Asutin, 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/tnr/subdivision/82\\_050729/interim\\_rules.pdf](http://www.co.travis.tx.us/tnr/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](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](https://bookstore.transportation.org/item_details.aspx?ID=110)

Capital Area Metropolitan Planning Organization Transportation Plan: Bicycle and  
Pedestrian Plan  
<http://www.campo-nc.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](http://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](http://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](http://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](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](http://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](http://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](http://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](http://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](http://www.traviscad.org/agmanual02.doc)

[www.traviscad.org/travis1-d-1-2000.pdf](http://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](http://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\\_plat\\_cross\\_timbers\\_main.pdf](http://www.tpwd.state.tx.us/publications/pwdpubs/media/pwd_bk_w7000_788_ed_plat_cross_timbers_main.pdf)