M E M O R A N D U M

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

FROM: Chuck Lesniak, Environmental Officer
Watershed Protection Department

DATE: January 11, 2013

SUBJECT: Covered Bridge PUD C814-2012-0055

On your January 16, 2013 agenda is a request for consideration and approval of the environmental aspects of the proposed Covered Bridge PUD. Outlined below are a description of the environmental aspects and considerations that have been addressed during review of the proposed PUD, including existing regulatory entitlements that apply to three of the four tracts that make up the PUD, proposed environmental enhancements and proposed exceptions to the environmental code requirements requested by the applicant. Staff recommends approval of the project based on our finding that the proposed project is environmentally superior to what could be built under existing regulatory entitlements.

Description of Property

The PUD is located in the Williamson Creek Watershed, which is classified as the Barton Springs Zone and the Drinking Water Protection Zone. The PUD is in the Edwards Aquifer Contributing Zone. The main stem of Williamson Creek and a tributary divide the property (fig. 1) into three sections. The PUD includes four tracts of land with one (tract 4) currently containing a single family structure and driveway. The driveway also provides access to a City maintained stormwater facility southwest of tract 4. The remaining three tracts are undeveloped.

Tracts 1-3 are subject to a 1985 restrictive covenant that limits impervious cover on each of these tracts to 50% gross site area, allows them to be subject to the Williamson Creek Watershed Ordinance (WCO), and allows for development in the Critical Water Quality Zone. The WCO does not limit cut or fill. The restrictive covenant also designates the zoning for each tract. Tract 1 is zoned for General Retail (GR), Tract 2 is zoned for Single-Family (SF), and tract 3 is zoned for Multi-Family (MF).

Tract 4 does not have any entitlements and is therefore subject to current code with an allowable 25% impervious cover (net site area), limits on cut/fill, construction on slopes, and development in the Critical and Transition Water Quality Zones.

Prior to the submittal of the Covered Bridge PUD, the site plan Covered Bridge Village (SP-05-1513C) was approved by the City on March 29, 2006 and expired in 2009. The site plan proposed 8 commercial buildings and nearly 318,000 square feet (7.3 acres) of impervious cover on tract 1. The

site plan was developed under the Williamson Creek Watershed Ordinance, 810319-M, and was allowed 50% impervious cover on a gross site area basis. The site plan proposed 49% impervious cover.

Existing Topography/Soil Characteristics/Vegetation

The site elevation ranges from 960 to 900 feet above mean sea level. The property slopes downward from a high of 960 feet on tract 4 directly to the east at a fairly consistent slope to the banks of Williamson Creek at around 900 feet. The site also slopes from a high point at Highway 71 of 950 feet to the south to the banks of the other branch of Williamson Creek.

The site exhibits typical stair-step topography of the Upper Glen Rose Limestone. According to the Soil Survey of Travis County, the site contains rolling Brackett soils (BiD and BoF) which are described as shallow and well drained soils that develop under a prairie of mid to tall grasses and some trees. The geology at this site is characterized by thin clay soils covering weathered limestone. The site vegetation mostly consists of Ashe Juniper, Plateau Live Oak, Cedar Elm, Texas Red Oak and Hackberry. Tract 2 contains a grove of Pecan trees. The site has significant canopy coverage except for a large area on tract 1. The entire site has been surveyed for protected size trees and the applicant has agreed to preserve all heritage trees as per current code.

Critical Environmental Features/Endangered Species

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

Description of Project

The Covered Bridge PUD proposes a mixed use development of multi-family residential and commercial uses on 38.13 acres of land in the City's Full Purpose jurisdiction. The project is located at the southwest corner of the intersection of Highway 71 and Covered Bridge Drive. There are four tracts within this PUD, 3 of the tracts are composed of 11 platted lots and 1 of the tracts has legal lot status. The PUD Land Use Plan proposes a total of 12.3 acres of impervious cover, which is 32.1% of the Gross Site Area (GSA) of the entire site. The PUD limits impervious cover according to tract as follows:

- Tract 1: 7.8 acres impervious cover over 14.88 acres (52.4 % gross site area).
- Tract 2: 2.1 acres impervious cover over 13.89 acres (15% gross site area).
- Tract 3 will be preserved in its natural state and will be allowed no development other than passive, vegetated water quality treatment through overland flow from adjacent developments.
- Tract 4: 2.4 acres impervious cover over 6.1 acres (39% gross site area, 123% net site area)

The junction of the 2 main stems of the headwaters of Williamson Creek occurs within the middle of the site, therefore there are extensive Critical Water Quality Zone (CWQZ) setbacks associated with all 4 tracts as seen in Figure 1. Under the WCO only roads are allowed in the CWQZ and no development is allowed in the CWQZ under the SOS ordinance. The PUD proposed development in the CWQZ will be limited to re-irrigation areas (tract 3) and a biofiltration pond (tract 1). The re-irrigation area in the CWQZ will not be allowed within 50 feet of the centerline of the classified waterways in the PUD.

Comparison of Allowed vs. Proposed Impervious Cover and Water Quality

Tract	Allowed IC (ft^2)	Proposed IC (ft^2)	Allowed Water Quality	Proposed Water Quality
1	**324,086**	**338,000**	**1980's Sed/filtration**	**Modern biofiltration**
2	**301,000**	**91,000**	**1980's Sed/filtration**	**SOS non-degradation**
3	**70,785**	**0**	**1980's Sed/filtration**	**No development**
4	**21,508**	**108,000**	**SOS non-degradation**	**SOS non-degradation**
Total	**717,379**	**537,000**		

As shown above, the major change is a reduction in total impervious cover by approximately 4.1 acres. While Tract 4 receives a significant increase in impervious cover, this tract is furthest from Williamson Creek and the increase is the result of the large reduction in impervious cover on Tract 2 in the areas near the creek. Also, tract 3 which is also very close to the creek will have no impervious cover and so provides a buffer for the creek and the existing adjacent residential subdivision.

There are also very large improvements in water quality treatment for the tracts within the PUD. Existing entitlements on tract 1-3 only require 1980's vintage sedimentation/filtration, which does not have the removal efficiency in modern sedimentation/filtration and not anywhere near the treatment quality of SOS non-degradation methods.

Bio-filtration is proposed for tract 1. This treatment method is similar to sedimentation/filtration, but also provides nutrient removal using a vegetation layer in addition to the sand filter. Tracts 2 and 4 will be treated to SOS non-degradation standards. The combination of bio-filtration on tract 1 and SOS non-degradation on tract 2 result in an improvement in pollutant removal from 225% to 719% depending on pollutant.

Environmental Code Exception Request

The PUD effectively eliminates the entitlements provided by the restrictive covenant and requires compliance with the Land Development Code (LDC) in effect in May 2012. Because of this the applicant is requesting the PUD to modify a number of sections of the LDC to allow the development as proposed. The LDC exceptions requested for this project are:

Tract 1

1) Section 25-8-65 (*Roadways*) which requires deduction of impervious cover of adjacent public roads is not applicable.
2) Section 25-8-261 (*Critical Water Quality Zone Development*), Section 25-8-482 (*Critical Water Quality Zone*), Section 25-8-483 (*Water Quality Transition Zone*), and, Section 25-8-514 (*Pollution Prevention Required*) are modified to the extent that a biofiltration pond is allowed for water quality controls and pollutant removal provided by a City of Austin standard biofiltration pond is allowed in lieu of requirements of this section. The biofiltration pond can be placed in the CWQZ and WQTZ to the extent as shown on the Land Use Plan. Impervious cover is allowed up to 338,000 sq. ft. Buildings and parking are allowed in the WQTZ to the extent shown on the Land Use Plan.
3) Section 25-8-302 (*Construction of a Building or Parking Area*) is modified to the extent to exclude man-made slopes and to allow construction on non-man-made slopes limited to 0.15-acre of impervious cover on slopes greater than 15% gradient.
4) Section 25-8-341 (*Cut Requirements*) is modified to the extent to allow for a cut greater than 4' and up to 8' on land not to exceed 0.10-acre in total area. Pond construction is exempt from this provision.

5) Section 25-8-342 (*Fill Requirements*) is modified to the extent to allow for fill greater than 4' and up to 10' on land not to exceed 0.75-acre in total area.

Tracts 2 & 4

1) Section 25-8-65 (*Roadways*) which requires deduction of impervious cover of adjacent public roads is not applicable..
2) Section 25-8-261 (*Critical Water Quality Zone Development*), Section 25-8-482 (*Critical Water Quality Zone*), Section 25-8-483 (*Water Quality Transition Zone*), and, Section 25-8-514 (*Pollution Prevention Required*) are modified to the extent that a biofiltration pond is allowed for water quality controls north of the creek and pollutant removal provided by a City of Austin standard biofiltration pond is allowed in lieu of requirements of 25-8-514. The biofiltration pond can be placed in the CWQZ and WQTZ to the extent as shown on the Land Use Plan. Re-irrigation areas treating water to the requirements of this section are allowed with 50% of the CWQZ south of the creek provided that no re-irrigation area is located in the 100-year flood plain or within 50' from the centerline of the creek. Vegetated water quality controls and conveyance systems are allowed to capture run-off from the driveway that cannot be sent to a water quality control to the minimum extent necessary. Impervious cover is allowed up to 199,000 sq. ft. on all of Tract 2 &4 provided that buildings and parking are only allowed in the areas as shown on the Land Use Plan. A driveway to fire access standards is allowed in the CWQZ. Buildings and parking is allowed in the WQTZ.
3) Section 25-8-302 (*Construction of a Building or Parking Area*) is modified to the extent to exclude man-made slopes and to allow construction on non-man-made slopes limited to 0.30-acre of impervious cover on slopes greater than 15% gradient.
4) Section 25-8-341 (*Cut Requirements*) is modified to the extent to allow for a cut greater than 4' and up to 8' on land not to exceed 1.8-acre in total area. Pond construction is exempt from this provision.
5) Section 25-8-342 (*Fill Requirements*) is modified to the extent to allow for fill greater than 4' and up to 10' on land not to exceed 0.55-acre in total area.

Tract 3

1) Section 25-8-261 (*Critical Water Quality Zone Development*), Section 25-8-482 (Critical Water Quality Zone), Section 25-8-483 (Water Quality Transition Zone) and Section 25-8-514 (Pollution Prevention Required) are modified to the extent that a vegetative filter strip (VFS), minimal grading, level spreaders and plantings are allowed in CWQZ and WQTZ provided that no VFS is allowed in the 100-year flood plain.

PUD Environmental Conditions

- The CWQZ for tracts 1-3 should be calculated using the WCO or current code in lieu of that shown on the plat which appears to have been calculated incorrectly
- Provide a significant reduction in total impervious cover for tracts 2 and 3 over the allowed baseline impervious cover.
- Set development back as far as possible from Williamson Creek on tracts 2 and 4.
- Preserve tract 3 for open space use or vegetative filter strip use only. Uses such as trails, picnic tables, un-fertilized play fields, etc. are allowed.
- Treat development on tracts 2 and 3 to SOS standards.
- Re-irrigation areas can be placed in the CWQZ for tract 2 and should be set back from the 2 channels as far as possible, but not less than 50' from the channel.
- Treat runoff from tract 1 using biofiltration per CoA criteria.
- Treat runoff from ½ the width of Hwy 71 adjacent to the tract using tract 1 treatment system.

- Remove the restrictive covenant from all PUD properties so that any future development or redevelopment beyond that proposed in the PUD will comply with regulations in effect at the time of development.
- Comply with all current tree protection regulations.
- Install rainwater harvesting to the maximum extent practicable on tract 1 and use rainwater to irrigate landscaping.
- Comply with City landscape ordinance, particularly the innovative water management components.
- Amend the plat to remove the incorrectly defined CWQZ.

Recommendation

Staff recommends approval of this PUD because:

- Impervious cover is reduced by 4.1 acres compared to what could be built under the restrictive covenant for tracts 1-3.
- Provides treatment for portions of Hwy 71 that are currently untreated.
- Significantly reduces pollutant loadings by approximately 200-700% depending on pollutant.
- Provides significant protection to Williamson Creek from development allowed under existing entitlements by:
    - Prohibiting development on tract 3,
    - Prohibiting development in CWQZ on tract 2 other than re-irrigation use
    - Moving development on tract 2 to the area furthest from the creek, and
    - Prohibiting development in the CWQZ on tract 1 other than a biofiltration pond and single driveway
- Protects numerous large pecan trees on tract 2 and requires compliance with all aspects of the City's tree protection rules.
- Incorporates water conservation measures such as rainwater harvesting and native landscaping.

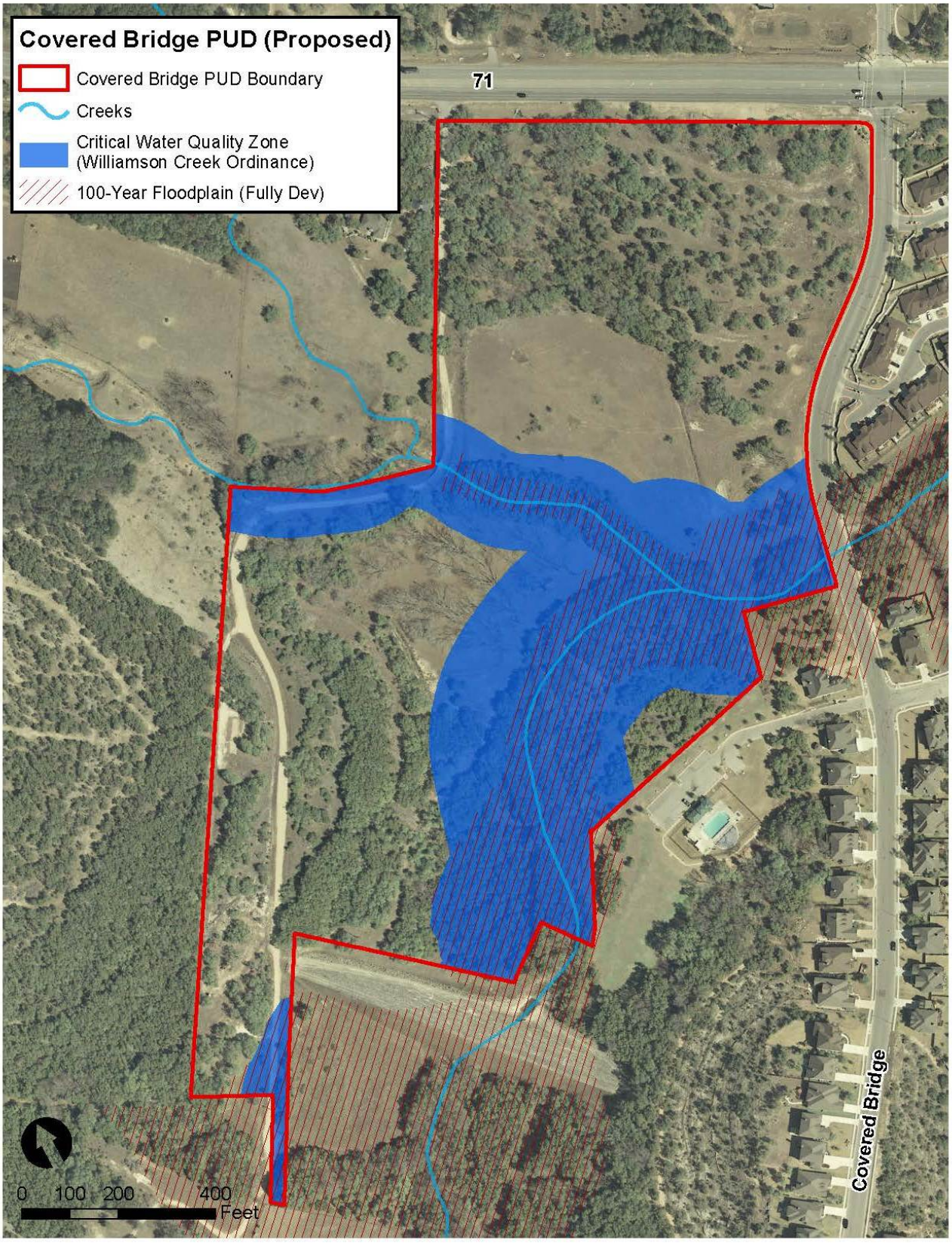
Covered Bridge PUD (Proposed)
Covered Bridge PUD Boundary
Creeks
Critical Water Quality Zone
(Williamson Creek Ordinance)
100-Year Floodplain (Fully Dev)
71
Covered Bridge
0 100 200 400
Feet

Figure 1