

Brodie Code Modification Table

THE ORIGINAL CODE HAS BEEN PROVIDED IN THE “PROPOSED PUD REGULATION” COLUMN IN BLACK, WITH MODIFIED OR REMOVED TEXT HIGHLIGHTED IN RED AND UNDERLINED.

CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
General		
25-1-21 – Definitions. (11)	Modify: BLOCK means one or more lots, tracts, or parcels of land bounded by streets (<u>public or private</u>), <u>30’ wide or larger pedestrian paseo or courtyard with a minimum 12’ sidewalk or trail, public or private park space/open space, easement, or plaza space</u> , railroads, or subdivision boundary lines.	Creative use of open space, parks, and plazas will be used throughout the development to achieve maximum walkability, connectivity, and value for the development. The existing Brodie Oaks Shopping Center site is currently limited in vehicular connectivity as it is surrounded by dedicated parkland or TxDOT ROW. The project will utilize enhanced bicycle and pedestrian connectivity to the parkland to define blocks adjacent to the parkland.
25-1-21 – Definitions	Modify: GROSS FLOOR AREA means the total enclosed area of all floors in a building with a clear height of more than six feet, measured to the outside surface of the exterior walls. The term includes loading docks and excludes atria airspace, parking facilities, <u>parking structures</u> , driveways, and enclosed loading berths and off-street maneuvering areas.	Vehicular facilities were never anticipated to be included in gross floor areas. It is desirable to clarify that parking structures are excluded from gross floor area as originally intended.
25-1-21 – Definitions	Addition: <u>OPEN SPACE (OS) means the areas identified as Parks and Open Space on Exhibit C- Brodie Land Use Plan.</u>	Designated Parks and Open Space are intended as a buffer providing enhanced accessibility and vistas into the Barton Creek Greenbelt.
25-1-21 – Definitions. (105)	Modify: SITE means a contiguous area intended for development, or the area on which a building has been proposed to be built or has been built. <u>A site may not cross a public street or right of way. A site within the Brodie boundary may cross a private street with public access easements.</u>	The Brodie boundary is 37.6 acres and will be split into multiple tracts by private streets with public access easements. Flexibility for a site to cross a public or private street is needed to create a unified design throughout the entirety of the development.
Zoning		
25-2, Subchapter B, Article 2, Subpart C, Section 3.2.2. (C) (Residential Uses)	Remove: (C) for multifamily development, the maximum floor to area ratio;	To remain compact and connected, the primary criteria for density shall be based on a contribution to overall impervious coverage, unit count and height maximums. Floor-to-area ratios do not apply to this development.

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25-2, Subchapter B, Article 2, Subpart C, Section 3.2.3. (B) (Nonresidential Uses)	Remove: (B) the maximum floor area ratio, which may not be greater than the maximum floor to area ratio permitted in the most restrictive base zoning district in which proposed use is permitted;	To remain compact and connected, the primary criteria for density shall be based on a contribution to overall impervious coverage, unit count and height maximums. Floor-to-area ratios apply by Land Use Area, but not on a parcel-by-parcel basis.
	Modify: (D) the minimum front yard and street side yard setbacks, shall be modified as stated in Exhibit C- Brodie Land Use Plan which must be not less than the greater of: 1. 25 feet for a front yard, and 15 feet for a street side yard; or 2. those required by Subchapter C, Article 10 (Compatibility Standards);	Building locations shall conform with an urban development located along a high-capacity transit corridor.
25-2, Subchapter B, Article 2, Subpart B, Section 2.5.2.B – Requirements for Exceeding Baseline.	Modify: (B). the developer: 1. for developments with residential units, provides contract commitments and performance guarantees that provide affordable housing meeting or exceeding the requirements of Section 2.5.3 (Requirements for Rental Housing) and Section 2.5.4 (Requirements for Ownership Housing); or 2. for developments with no residential units, <u>either provide contract commitments and performance guarantees that provide affordable housing meeting or exceeding the requirements of Section 2.5.3 (Requirements for Rental Housing) and Section 2.5.4 (Requirements for Ownership Housing) within the boundaries of the Brodie PUD OR</u> provides the amount established under Section 2.5.6 (In Lieu Donation) for each square foot of bonus square footage above the baseline to the Affordable Housing Trust Fund to be used for producing or financing affordable housing, as determined by the Director of the Neighborhood Housing and Community Development Department.	The exact size and density of the future development will be contingent on the market. The Brodie PUD is committed to meeting affordability requirements for both residential and non-residential buildings and would like the option to meet affordability requirements in non-residential buildings within another building on the site.
25-2-491 – Permitted, Conditional, And Prohibited Uses	Modify: (A) <u>Exhibit C- Brodie Land Use Plan</u> The table in Subsection (C) provides the permitted uses for the property.	Brodie is planned to be more mixed-use than the base zoning district would allow.
25-2-492 – Site Development Regulations	Modify: (A) The table in Subsection (C) provides the permitted and conditional uses for each base district. "P" means a use is a permitted use, "C" means a use is a conditional use, and "X" means a use is prohibited. Endnotes provide additional information. <u>Exhibit C- Brodie Land Use Plan</u> establishes the principal site development regulations.	The Brodie PUD is proposing denser and more compact uses along S. Lamar Boulevard and Loop 360 frontages to minimize impervious cover. To achieve this goal, it is necessary to have more flexibility in the minimum setbacks and development standards in the Brodie PUD.

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25-2 - Subchapter E Sec 2.2.1 B	<p>Modify: The roadway with the highest level of priority adjacent to the lot or site is considered the "principal street" for purposes of this Subchapter. For a lot or site that is adjacent to more than one roadway of equal priority, the development shall be subject to the standards associated with the roadway with the highest level of transit service. The priority street for the Brodie PUD is the Internal Circulator Route. If the roadways do not have transit service or the level of transit service is equal, the roadway designated by the lot owner.</p> <p>For large sites subject to Section 2.2.5. or for sites abutting more than one roadway type, the Sidewalk and Supplemental Zone requirements (but not the Building Placement and Parking requirements) shall apply along all abutting streets or the Internal Circulation Route frontages, with the applicable requirements determined by the roadway type.</p>	<p>S. Lamar Boulevard is predominantly a TXDOT ROW and functions more as an on-ramp for Loop 360 in this location. The character of this roadway in this location does not lend itself to the active, vibrant, and high-quality pedestrian environment that is desired by the Brodie PUD.</p> <p>The Brodie PUD is planning extensive improvements along S. Lamar Boulevard to include sidewalks, a transit stop, and street trees. In addition to streetscape elements, Exhibit E: Brodie Transportation Plan includes an exhibit with commitments to pedestrian oriented uses on the ground floor for portions of the frontage along S. Lamar Boulevard.</p>
25-2 Subchapter E 2.2.2B 1 Planting Zone	<p>B1a. Planting Zone. The planting zone shall have a minimum width of eight <u>seven</u> feet (from face of curb) and shall be continuous and located adjacent to the curb or cycle track.</p>	<p>Please see Exhibit E- Brodie Transportation Plan. The plan is proposing to meet or exceed Subchapter E- Great Streets Standards for the planned ICR, with the following modifications:</p> <ul style="list-style-type: none"> • The Planting Zones required under great streets call for 16' total across the street section, whereas the Brodie PUD plan provides 21' total across the street section. • The Brodie plan has also increased the overall number of planting zones from 2 to 3, therefore the site will have 33 percent more street trees. • The Brodie PUD is also committing to increase the size of the trees from 2" at the time of planting to 3" at the time of planting. • The planting zones along all other sections within the PUD will be a minimum of 7'.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-2 Subchapter E 2.2.5 C Block Standards	Modify: C1. Unless exempted by this subsection, a site shall be divided into internal blocks, no larger than 5 acres. <u>The perimeter of a block is defined by private streets with a public access easement, public streets, and public open spaces that include a pedestrian path.</u> The maximum length of any block face, as measured from intersection to intersection, shall be 800 feet.	The Brodie PUD is limited in the number of vehicular access points to TxDOT frontage roads. The project is also situated adjacent to the Barton Creek Greenbelt for much of the northwestern boundary line reducing the ability to make vehicular connections. The project is improving both pedestrian and bicycle access within and through the site.
25-2 Subchapter E 2.2.5 G	Modify: G.2 If the Internal Circulation Route is intended to accommodate bicycles, head-in and angle parking is not permitted <u>except when the cycle tract is provided between the clear zone and the head-in or angle parking.</u>	The Brodie PUD is including cycle tracts along the Internal Circulator Route. Refer to <i>Exhibit E- Brodie Transportation Plan</i> .
25-2 Subchapter E 4.3.3 C	Modify: C. Along at least 75 percent of the building frontage along the principal street, the building must be designed for commercial uses in ground-floor spaces that meet the following standards. <u>A residential use or amenity space for residential uses may occupy a space that is designed for commercial uses.</u> A lobby serving another use in the VMU building shall not count as a pedestrian-oriented commercial space for purposes of this section <u>if it is designed to meet the standards of this section.</u> a. A customer entrance that opens directly onto the sidewalk; b. A depth of not less than 24 feet; c. A height of not less than 12 feet, measured from the finished floor to the bottom of the structural members of the ceiling; and d. A front facade that meets the glazing requirements of Section 3.2.2.	The Brodie PUD is focusing active ground floor uses around the internal green space and central buildings along the Internal Circulator Route. Other ground floor spaces will be designed so that they can accommodate additional commercial in the future based on demand.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-2 Subchapter E 4.3.3F	Modify: F To be eligible for the dimensional or parking standards exemptions in Subsection E of this section, the residential units in a VMU building the Brodie PUD shall meet the following affordability requirements identified in the Brodie Superiority Table	<p>The project offered 10 percent of the bonus area square footage as on-site affordable housing regardless of rental or ownership. That is more than the baseline superiority requirement of 10 percent for rental and 5 percent for ownership. The project team does not have a projected breakdown of rental and ownership units at this time but has committed to meeting the 10 percent requirement.</p> <p>The project is proposing to provide all housing on-site without requesting a fee- in-lieu if it is possible to track them site wide. This is a major superiority item because most of our bonus area is based on non-residential land uses. In the example below, if the average unit size is 850 sq. ft. the required number of affordable units would be 50 units. This is equivalent to 68 percent of the units in this building. It is our understanding that the code allows a request for fee-in-lieu when the bonus area is non-residential. Based on the proposal in the Brodie PUD Development Assessment, the team would not request any fee-in-lieu but would construct somewhere on the 37.6 acres instead if it is possible to track them site wide.</p> <p>Affordable housing ties closely to the height allowed on-site. If height is reduced, it will reduce our bonus area significantly and therefor fewer units. This would be unfortunate because of the great access to the high-capacity MetroRapid Route 803 transit stop and proximity to job centers for the affordable housing residents.</p>

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<p>25-2-1104 – Hill Country Roadway Overlay Exceptions</p>	<p>Addition: <u>(F) This article applies to the Brodie PUD and designated Land Use Areas as specifically indicated in this Code Modification Table and as represented in Exhibit C- Brodie Land Use Plan.</u></p>	<p>The Hill Country Roadway Ordinance is not compatible with the Imagine Austin Comprehensive Plan designation of the site as a Center for Redevelopment in Environmentally Sensitive Areas. The site is currently 100 percent developed and does not contribute to the Hill Country aesthetic that is being preserved through the ordinance. The Brodie PUD has established a more appropriate transition from the Imagine Austin Comprehensive Plan High-Capacity Transit Corridor on S. Lamar Boulevard to the Hill Country along Loop 360. The project will meet and exceed Hill Country Roadway Overlay requirements within the portion of Land Use Area 2 that is within the Hill Country Roadway Overlay by removing existing impervious cover and buildings within Land Use Area 2. In addition, the Brodie PUD is proposing to blend new open space into the existing Barton Creek Greenbelt by restoring 6% of the area using the Hill Country Revegetation standard and another 6 percent will be restored to native prairie. The restoration of these areas will include removal of the existing surface parking and wall and returning the area back to natural grades and revegetating with native and adaptive plants. In addition to exceeding the Hill Country Landscape and Restoration Standards is Land Use Area 2 the project is complying with 9 out of the 12 criteria for approval of a development bonus within the Hill Country Roadway Overlay as follows:</p> <ol style="list-style-type: none"> 1) Preserves a scenic vista and provides a place where the public can view the scenic vista – The Brodie PUD is creating and enhancing a scenic vista and has ensured public access in perpetuity through an easement. 2) Reduces by at least 15 percent the amount of impervious cover otherwise required for the development - The Brodie PUD has reduced impervious cover by 36 percent. 3) Increases landscaping or a setback by more than 50 percent above the
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		<p>amount required for the development or increases a natural area. - The Brodie PUD is increasing the Barton Creek Greenbelt Natural Area by establishing 9.7 acres of new publicly accessible open space along the border of the greenbelt, removing all existing surface parking and buildings, and treating stormwater runoff to SOS water quality standards within that space.</p> <p>4) Is a mixed-use development, particularly a mixed-use development that includes a residential use and community facility. - The Brodie PUD includes a residential use.</p> <p>5) Uses pervious pavers although the development is not entitled to receive an impervious cover credit. - The Brodie PUD includes porous pavement in the design for all non "high-use" pedestrian areas such as courtyards or walkways between buildings where possible.</p> <p>6) Consolidates small lots to create a parcel that has at least 300 feet of frontage on a hill country roadway. - The Brodie PUD proposes to consolidate 4 tracts into one cohesive development plan with 2 lots along Loop 360 frontage each exceeding 300'.</p> <p>7) Includes the construction or dedication of a public facility that is not required by a City ordinance, including a park, roadway and right-of-way, Police department site, Fire department site, emergency medical services facility site, or a regional drainage facility. - The Brodie PUD is constructing a publicly accessible open space to include a recreational easement dedicated in perpetuity, a shared use path along the street connecting the project and S. Lamar Boulevard transit stop with the Barton Creek Greenbelt and Barton Creek Plaza Office Park.</p> <p>8) Limits the construction of a building or parking area to an area with a slope with a gradient of not more than 15 percent. - The Brodie PUD is</p>
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		<p>not constructing any buildings or parking areas where the slope is greater than 15 percent and is removing existing buildings and parking areas that were built in these locations in the past.</p> <p>9) Uses an energy-conserving or a water-conserving device that reduces energy or water consumption below City requirements. - The Brodie PUD is employing several strategies to reduce and reuse water and energy onsite.</p>
25-2-1122 – Floor-To-Area Ratio of a Nonresidential Building	Addition: <u>(F) This section does not apply to property in the Brodie PUD.</u>	To remain compact and connected, the primary criteria for density shall be based on a contribution to overall impervious coverage, unit count and height maximums. Floor-to-area ratios do not apply to this development.
25-2-1123 – Construction on Slopes	Addition: <u>(H) This section does not apply to property in Land Use Area 2 of the Brodie PUD.</u>	The existing park road is constructed on slopes that exceed 15 percent gradient for a short portion of the roadway within the property and for a longer distance off-site. Due to the location of this road within the Balcones Canyon Land Preserve no modifications are proposed to the road where it enters the site.
25-2-1124 – Building Height	Addition: <u>(D) The height of a building within the Brodie PUD will comply with Exhibit C: Brodie Land Use Plan.</u>	Height has been limited within Land Use Area 2 to a maximum of 28'. This exceeds the HCRO ordinance which allows heights up to 53' for a building located more than 200' from the nearest ROW. The modified height limits within the Brodie PUD reflect an appropriate transition from the goals of the Imagine Austin Activity Center and High Capacity Transit Corridor and the Hill Country Roadway Corridor.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-2-1126 – Building Materials	Modify: (A) Each building shall be designed to use, to the greatest extent feasible, building materials that are compatible with the environment of the hill country, including rock, stone, brick, and wood <u>on the ground floor of a building in the Brodie PUD.</u>	There are no buildings planned within Land Use Area 2. Buildings in Land Use Area 1 are intended to represent a transition from the Hill Country aesthetic in Land Use Area 2 to the eclectic character of South Austin. Materials such as rock, stone, and brick will be used on the ground floors and materials more appropriate to taller mixed use buildings will be used on the remainder of floors.
25-2-1022 – Native Trees	Modify: (B) A site plan <u>within the HCRO area for the Brodie PUD</u> must provide a sufficient number <u>preserve all Heritage and Protected Trees identified as suitable in the Arborist Report submitted with this PUD and compensate for the removal of the following</u> native or small native trees <u>at a rate of 60%;</u> to reasonably compensate for the removal of <ol style="list-style-type: none"> (1) each small native tree; (2) each native tree with a trunk diameter greater than six inches; and (3) each cluster of three or more native trees located within ten feet of each other with trunk diameters greater than two inches. 	All Heritage and Protected Trees within the HCRO are being preserved. Eighty percent (80%) of the inches from native trees and small native trees less than 19” and determined as suitable for preservation by the submitted arborist report are being preserved. Any trees that are removed from Land Use Area 1 will be compensated for in Land Use Area 2 at a mitigation rate of 60%. The priority tree planting area within Land Use Area 2 for compensating trees will be within and adjacent to the highway vegetative buffer area.
25-2-1023 – Roadway Vegetative Buffer	Modify: (A) Except <u>in the Brodie PUD and</u> as otherwise provided by this section, vegetation within 100 feet of the dedicated right-of-way may not be cleared, unless the clearing is necessary to provide utilities and access to the site.	Vegetation within the Roadway Vegetative Buffer has already been cleared and the site is fully developed in this area. The Brodie PUD is committing to removing all impervious cover in Land Use Area 2 with the exception of the existing access road and revegetating this area with native trees, shrubs, and grasses.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-2-1024 – Restoring Roadway Vegetative Buffer	Addition: (C) In the Brodie PUD revegetation of the Roadway Vegetative Buffer will be consistent with the commitments made in <i>Exhibit C: Brodie Land Use Plan</i> .	<p>The total area within the HCRO Vegetative Buffer is equivalent to 1.7 acres. The Brodie PUD is proposing to restore 2-acres total within the HCRO. One acre will exceed the HCRO Revegetation Standard by increasing the density of planting from ¼ of the standard density to 1/3 of the standard density. The second acre will meet a new native prairie criterion for revegetation as identified in the PUD.</p> <p>The Loop 360 frontage located within Land Use Area 2 is equivalent to approximately 300'. All buildings and impervious cover, with the exception of the parkland road, will be removed between the road and the Barton Creek Greenbelt within Land Use Area 2 and Hill Country Views will be restored.</p>
25-2-1025 – Natural Area	Addition: (E) Within Land Use Area 2 of the Brodie PUD, representing at least 45% of the Hill Country Roadway Overlay Area, existing surface parking, perimeter walls, and buildings will be removed and 2-acres or 12% of the total area within the Hill Country Roadway Overlay area will be restored to meet the Revegetation Standards outlined in <i>Exhibit C: Brodie Land Use Plan (Page 7)</i> .	The Brodie PUD is making a significant commitment to restoring the site back to natural conditions.
25-2-1026 – Parking Lot Medians	Modify: A <u>permanent</u> parking lot must have a median at least ten feet wide containing existing native trees or dense massing of installed trees between each distinct parking area	The Brodie PUD may include temporary parking areas on cleared land within Land Use Area 1 while the site is awaiting full buildout of each phase. These parking areas will not be subject to this code section.
25-2-1027 – Visual Screening	<p>Modify: Visual screening required by this article <u>is not required in Land Use Area 1. Visual Screening in Land Use Area 2</u> must:</p> <p>(1)use existing vegetation or installed landscaping;(2)include dense massing of trees, native understory vegetation, shrub massing, or berms; and(3)allow for topographic changes.</p>	There is an existing berm within the ROW and along Loop 360 which will remain and provide some visual screening. Buildings in Land Use Area 1 will not be screened.
25-6-411 – Access to Hill Country Roadways	<p>Modify: Applicability.</p> <p>This division applies to property located in a hill country roadway corridor and within the zoning jurisdiction of the City <u>with the exception of the Brodie PUD</u>.</p>	Site roadway and access standards will be regulated by Exhibit E: Brodie Transportation Plan and other applicable standards as determined by the TIA and TxDOT.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
Subdivision		
25-4-171 – Access to Lots	Modify: (A) Each lot in a subdivision shall abut a dedicated public street, <u>or private street with public access easement or Internal Circulator Route.</u>	A private internal circulator route with public access easements will be constructed to provide frontage for some of the lots in the Brodie PUD. The ASMP does not include any public roadway needs within this property. All roads within the development will be private streets with public access easements. This designation means the streets will be actively maintained by the applicant verses by the City and therefore is superior.
Transportation		
Section 25-6-477, 25-6-478, 25-6-532 and Appendix A – Off-Street Parking and Loading	Addition: <u>The minimum off-street parking, bicycle parking, and loading requirements shall be determined by the director subject to a Transportation Demand Management Plan approved as part of the PUD.</u>	The Brodie PUD intends to provide a mixed-use development with a robust travel demand management plan to better utilize shared parking opportunities within the site and to surrounding multi-modal connections.
Section 25-6-473 (Modification of Parking Requirements)	Addition: <u>In the Brodie Oaks PUD, for a site plan that complies with a TDM plan and the site's approved TIA, the minimum off-street parking requirement is 60 percent of that prescribed by Appendix A (Tables of Off-Street Parking and Loading Requirements).</u>	The Brodie PUD intends to provide a mixed-use development with a robust travel demand management plan to better utilize shared parking opportunities within the site and to surrounding multi-modal connections. Reduction in Off-street parking are included as part of this overall effort.
TCM 1.3.1 (A) General Design Criteria - Grades	Addition: (1) Existing Streets that do not meet the standards for maximum grade may be improved as described in <u>Exhibit E- Brodie Transportation Plan.</u>	The Brodie PUD is proposing to improve the street between the project and Barton Creek Plaza with a Shared Use Path. This street exists within a 40' easement and the multi-use trail would be provided on the park side of the easement.

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Environmental		

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<p>ECM 1.6.7.5(D)</p>	<p>Modify:</p> <p>Introduction. Rooftops can generate large volumes of runoff which, when discharged to paved surfaces and landscaped areas, can generate large pollutant loads. Rainwater harvesting systems can capture this runoff before it is discharged, thus preventing pollution while also putting the captured water to beneficial use, such as landscape irrigation and cooling <u>tower makeup</u> water. The amount of runoff captured will depend on the size (water quality volume) and drawdown time of the rainwater harvesting system. The systems can also control the peak flow rate for the 2-year storm. See Section 1.6.8 if specifically designed for this purpose. Rainwater harvesting systems can provide equivalent treatment to a standard sedimentation/filtration system and may be used within the Barton Springs Zone if the design achieves the non-degradation load requirements detailed in Section 1.6.9. Rainwater Harvesting systems will only be permitted for commercial developments.</p> <p>In an effort to promote water conservation, the State of Texas offers financial incentives and tax exemptions to offset the equipment costs. Additionally, the Water Conservation staff of the City of Austin Water Utility Department is available to provide input on how to achieve cost efficient design and equipment selection that will also help reduce water and wastewater costs.</p> <p>Design Options.</p> <p>A typical configuration for a rainwater harvesting system is shown in Figure 1.6.7.D-2. To receive water quality credit, rainwater harvesting systems must be designed so that captured runoff is held for at least 12 hours <u>(for Options A & B)</u> after rainfall has ceased, then either gravity-drained to a vegetated area sized large enough to infiltrate all the water (Option A), or used to irrigate the vegetated area (Option B), <u>or be used to provide beneficial reuse (Option C).</u> (Option B) is similar to a retention/irrigation system and Section 1.6.7(A) should be referenced for guidance.</p> <p><u>Option C - Captured runoff for beneficial reuse.</u></p> <p><u>This option proposes to capture rooftop rainwater from each building for reuse as traditional landscape irrigation and cooling tower makeup water. The rooftop rainwater will be collected in subsurface tank(s) and treated downstream of storage with filtration and potentially ultraviolet light for specific applications prior to use. The applicant may achieve compliance through LDC 25-8-151 for innovative water quality controls as a practice that is not specifically</u></p>	<p>The Brodie Oaks PUD will fully comply with the SOS pollutant load reduction requirements. This is being accomplished through two separate methods. The first method will capture stormwater run-off from the site (excluding the rooftops of the buildings) and will not deviate from the City of Austin requirements and meet all aspects of the Environmental Criteria Manual for Retention/Irrigation Systems.</p> <p>The second method will be Rainwater Harvesting where the water will be captured for beneficial reuse as cooling tower make-up water and landscape irrigation.</p> <p>In order to implement the second method, the following modifications and additions to the Environmental Criteria Manual 1.6.7.5(D) will be required as it relates to this Beneficial Reuse only.</p> <p>Calculations must be provided that demonstrate that the innovative water quality controls meet or exceed SOS pollutant load reduction requirements on an average basis for the period of record. The modeling assumes that a minimum 12-hour hold time would not apply to cooling tower makeup demand, which is continuous during storm events. Though the lack of residence time would result in reduced sedimentation, there will be other treatment mechanisms in place including filtration to ensure the water quality meets the requirements for reuse</p>
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	<u>prescribed in the Environmental Criteria Manual, but is designed to address the requirements of Article 6 (Water Quality Controls), subject to review and approval by the Watershed Protection Department. Results will be modeled to demonstrate a reduction in pollutant load from the predeveloped condition in accordance with SOS requirements. Residence and drawdown times may differ from typical ECM requirements based on technical merit, resource protection and improvement, and advantages over standard practices. Real time controls may be used to improve the runoff capture efficiency and optimize beneficial reuse.</u>	Given the variable dynamics of supply and demand for a rainwater harvesting system, drawdown times may vary throughout the season. Generally, drawdown times are faster during summer months when demands from cooling towers and irrigation is higher. In wintertime, when demands are lower and drawdown is slower, large storms are less common and therefore overflow is less of an issue. This innovative water quality measure unlocks the benefits of potable water conservation and reduces the acreage of re-irrigation that would impact parkland uses.
25-8-341 – Cut Requirements	Modify: Cuts on a tract of land may not exceed a maximum of <u>fourteen (14)</u> feet as <u>indicated in Exhibit G- Brodie Grading Plan</u>	<p>We have reviewed the topographic conditions as they existed prior to the original Brodie Oaks development (1976) and have compared that to the existing conditions today with both the 1976 and 2021 topographic data and determined that there was no significant difference between the two and will use the current 2021 topographic data to determine the extent of Cut.</p> <p>The reason for the requested cut is that the existing wall behind the old Toys-R-US building will be torn down to make the greenbelt more accessible and to blend the greenbelt into the property as shown on Exhibit G.</p>

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25-8-342 – Fill Requirements	Modify: Fill on a tract of land may not exceed fourteen (14) feet as <u>indicated in Exhibit G- Brodie Grading Plan</u>	<p>We have reviewed the topographic conditions as they existed prior to the original Brodie Oaks development (1976) and have compared that to the existing conditions today with both the 1976 and 2021 topographic data and determined that there was no significant difference between the two and would request that the current 2021 data be used to determine the extent of Fill.</p> <p>The reason for the request fill is due to the adding of the Small Txdot parcel in the front of the site. This area was not originally part of the Brodie Oaks shopping center and was actually Txdot ROW and the grade of this parcel was the same grade as the roadways which were artificially cut when the roadways were originally constructed. This has caused a small area to be filled to meet the grade of the Brodie Oaks Shopping Center. As such fill was needed in order to obtain access to the proposed building as shown on Exhibit G.</p>

Brodie Code Modification Table

CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-8-514 – SOS Ordinance	Modify: (A) In order to prevent pollution, impervious cover for all such development the Brodie PUD shall be limited to a maximum of <u>56% Net Site Area</u> . 15 percent in the entire recharge zone, 20 percent of the contributing zone within the Barton Creek watershed, and 25 percent in the remainder of the contributing zone.	<p>The Brodie PUD is proposing to modify the maximum impervious cover allowed by the SOS Ordinance. We understand that this code modification will require a super majority vote of the City Council. Even though we need to amend this section of the SOS Ordinance the proposed 36% reduction in impervious cover is superior to what exists now versus revitalizing the existing shopping center with no reduction of impervious cover or water quality benefit. The traditional approach to meeting the SOS pollutant load reduction requirements is to retain all stormwater and then reirrigate it on the site. This typically involves significant amounts of land area reserved for reirrigation to meet infiltration timing that treats the associated water volume. Following this method the Brodie PUD would need to utilize over 9 acres for reirrigation that would have no other use.</p> <p>In collaboration with City staff the Brodie PUD has tested and will commit to an enhanced approach to pollutant removal that advances the City's Water Forward Plan by conserving potable water. The Brodie PUD will remove rooftop rainwater volume through reuse as supply for cooling towers and traditional landscape irrigation.</p> <p>Under the ECMs, the Director may approve such an alternative design that is</p> <ul style="list-style-type: none"> A) not subject to a hold time of 12 hours following a rain event to allow for ongoing drawdown from continuous cooling tower makeup demand, and B) not subject to the maximum drawdown time of 120 hours following a rain event, allowing it to be partially emptied prior to forecasted rain based on the favorable relationship between variations in seasonal rainfall intensity and reuse demands

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25-8-281 – Critical Environmental Features	<p>Modify: (A)Drainage patterns for proposed development must be designed to protect critical environmental features from the effects of runoff from developed areas, and to maintain the catchment areas of recharge features in a natural state. Special controls must be used where necessary to avoid the effects of erosion, or sedimentation, or high rates of flow.(B)A residential lot may not include a critical environmental feature or be located within 50 feet of a critical environmental feature.(C)This subsection prescribes the requirements for critical environmental feature buffer zones.(1)A buffer zone is established around each critical environmental feature described in this subchapter.(a)Except as provided in Subsection (C)(1)(b), the width of the buffer zone is 150 feet from the edge of the critical environmental feature. <u>The Brodie Oaks PUD will be permitted to encroach on Airman’s Cave a maximum of 80’ providing there is a minimum of 20’ of Del Rio Clay remaining between any encroachment into the CEF buffer and the vertical extent of the cave.</u></p> <p><u>In addition, the Brodie Oaks PUD is permitted to encroach 50’ into the spring labeled as S-1 as indicated on Exhibit F – Brodie Water Quality and Drainage Plan (Page 2).</u></p>	<p>The project is requesting to encroach into the CEF buffer for Airman’s Cave up to 80’ providing that 20’ of Del Rio Clay remain between any encroachment into the CEF Buffer and the Cave. The project is also requesting to modify the location of the CEF Buffers at the edge of the site to encroach 50’ as indicated in Exhibit F- Brodie Water Quality and Drainage Plan.</p> <p>According to analysis performed by Nico Hauwert (Airman’s Cave Hydro Study 2021), the cave is approximately 140’ below the surface. The reduction of the CEF buffer for Airman’s Cave is necessary for the structural supports for the buildings, below grade parking, and subsurface ponds.</p> <p>The reason for the 50’ encroachment into CEF S1 is to allow for removing of the wall that separates the site from the greenbelt and regrading to a more natural grade. Due to the desire to restore the edge of the site and connect it to the Barton Creek Greenbelt, there will be grading that will occur to connect new grades to those in the greenbelt. Some of this grading may infringe on the 150-foot CEF buffer of CEF S-1. The project is proposing to add an approximately equivalent area of additional CEF setback area to CEF S-1 and CEF S-2 in order to compensate for the reduction in the buffer area.</p> <p>In addition, the conflicting desires to minimize impervious cover and to minimize height of the buildings has required that we go below grade with multiple levels of parking.</p> <p>Finally, the small, walkable blocks have left a situation where some blocks need 5 levels of parking with the building sitting on top of the parking structure. This makes those blocks very tall (225’). Deep structural piers are necessary to support such a tower.</p>

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DCM Sec. 5.3.2 (Maximum Velocities)	Maximum velocities in conduits are important because of the possibility of excessive erosion of the storm drainpipe material. <u>The Brodie PUD will be permitted to exceed 20'/sec (for the 25-year event) for Storm drain trunks with a proposed velocity of 21.6'/sec.</u>	The waiver is requested for the following reasons. <ol style="list-style-type: none"> 1. Due to the significant reduction of impervious cover, the proposed 25-year flow rate is less than the existing 25-year flow rate. 2. The current velocity in the pipe is 21.9'/sec and the proposed velocity is 21.6'/sec after the reduction of impervious cover 3. The outfall of the pipe drains to an existing wet pond and the pipe is submerged in the normal pool condition. This condition would eliminate any erosion potential downstream. 4. The pipe is existing. Under normal circumstances the pipe would have been sized to meet this criterion. But since the pipe is existing, we do not significantly exceed the maximum velocity and due to the costs associated with replacing this pipe, we are requesting the pipe to remain in-place.
Administrative		
Sec. 25-4-62 Expiration of an Approved Preliminary Plan	An approved preliminary plan expires five <u>seven</u> years after the date the application for approval of the preliminary plan is submitted.	The Brodie PUD is a complex redevelopment intended to be phased over several years. The first phase of development will be larger due to the need to build roadway infrastructure that serves the entire site and demolition of impervious cover and temporary revegetation to meet the SOS Water Quality Standards.
Sec. 25-5-81(B)	Modify: Except as provided in Subsections (C), (D), and (E) of this section, a site plan expires three <u>eight</u> years after the date of its approval.	The Brodie PUD is a complex redevelopment intended to be phased over several years. The first phase of development will be larger due to the need to build roadway infrastructure that serves the entire site and demolition of impervious cover and temporary revegetation to meet the SOS Water Quality Standards.

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CODE SECTION	PROPOSED PUD REGULATION	JUSTIFICATION
25-5-21(B)	Modify: The director may approve development phasing if the date proposed for beginning construction on the final phase is not more than three <u>five</u> years after the approval of the site plan. Planning Commission approval is required for development phasing if the date proposed for beginning construction of a phase is more than five <u>three</u> years after approval date of the site plan.	The Brodie PUD is a complex redevelopment intended to be phased over several years. The first phase of development will be larger due to the need to build roadway infrastructure that serves the entire site and demolition of impervious cover and temporary revegetation to meet the SOS Water Quality Standards.
25-5-142	Modify: Land Use Commission approval of site plan is required for: (1) a conditional use; (2) except for the Brodie PUD and as provided in Section 25-5-2 (Site Plan Exemptions), development in a Hill Country Roadway Corridor; and (3) if otherwise required by this title.	The Brodie PUD will be reviewed and approved by the Land Use Commission as a comprehensive development through the PUD process as such each individual site plan will be administratively approved and not required to be approved by the Land Use Commission.