SECOND/THIRD READING SUMMARY SHEET

ZONING CASE NUMBER: C814-2015-0074

(The Grove at Shoal Creek Planned Unit Development)

REQUEST:

Approve second/third readings of an ordinance amending Title 25-2 of the Austin City Code, zoning the property locally known as 4205 Bull Creek Road from unzoned (UNZ) to planned unit development (PUD) district zoning.

The ordinance and public restrictive covenant reflect the conditions imposed by the City Council on 1st reading.

DISTRICT AREA: 10

PROPERTY OWNER: ARG Bull Creek, Ltd. (Garrett Martin)

AGENT: Thrower Design (A. Ron Thrower)

DEPARTMENT COMMENTS:

The proposed The Grove at Shoal Creek Planned Unit Development (PUD) is generally located on Bull Creek Road at 45th Street. The property in question was previously owned by the State of Texas and therefore is listed as "UNZ" or unzoned on the zoning case map (please see Exhibits A and B: Zoning Map and Aerial Map). There are undeveloped areas along the north and east portions of the property. The south and west portions of the site are developed with state owned office buildings with parking facilities. Surrounding properties are primarily a mix of residential and office uses. The site under consideration is adjacent to single family residences to the north (SF-2 zoning) and south (SF-3 zoning). There are apartments and a senior living center to the west (MF-6-CO, MF-4 and GO-MU-CO zoning). The property directly to the east is unzoned and is developed with an industrial warehouse facility for the State of Texas archives. Further to the east are single family residences (SF-2 zoning). The site is located in the Rosedale Neighborhood Planning area, which does not have an adopted neighborhood plan. The property is located in the Shoal Creek watershed which is classified as urban. Therefore, the allowable impervious cover is governed by the allowable zoning impervious cover not watershed impervious cover. This tract of land is not located within the Edwards Aquifer recharge or contributing zones.

The applicant is requesting PUD district zoning for a 75.74 acre mixed use project. According to the Yield sheet from Transportation Impact Analysis (TIA) dated February 2016, the proposed PUD may include up to 110 single family residential units, 600 apartment units, 425 residential condo units, a 600 unit congregate care facility, a 7,500 sq. ft. health/fitness club, 200,000 sq. ft. of office uses, 25,000 sq. ft. of medical office uses, 55,000 sq. ft. of specialty retail uses, a 35,000 sq. ft. supermarket/food sales uses, 8,500 sq. ft. of pharmacy/drug store/general retail sales (convenience) uses, a 3,000 sq. ft. walk-in bank/financial services use, 8,000 sq. ft. of drinking place/cocktail lounge uses, 15,000 sq. ft. quality restaurant/restaurant (general) uses, 9,000 sq. ft. high turnover restaurant/restaurant (limited) uses, and a 2,000 sq. ft. coffee-donut shop without drive through use/restaurant (limited) use.

As shown in Exhibit C (Land Use Plan), the area has been divided into seven tracts:

- Tract A, a 7.02 acre area along the northern portion of the proposed PUD adjacent to the existing single family residences fronting W. 45th Street, and Tract E, a 6.17 acre area along the southeastern portion of the proposed PUD adjacent to the single-family residences fronting Idlewild Road, are primarily low density residential areas that permit single family residential uses through condominium/townhouse residential uses, as well as a Religious Assembly civic use.
- Tract B is a 33.77 acre area directly to the south of Tract A that fronts onto Bull Creek Road. It is the largest area within the PUD. Tract B traverses the width of the PUD property from the east along Shoal Creek to the west fronting Bull Creek Road across from 45th Street to Jackson Avenue. This tract is a mixed use area that will permit a wide range of uses from single family residential, multi-family residential to office, civic and more intensive commercial uses, such as Automotive Rentals/Sales/Washing, Cocktail Lounge, Exterminating Services, Outdoor Sports and Recreation and Research uses.
- Tract C, a 10.82 acre area, is located along the eastern edge of the PUD on Shoal Creek to the traveling to the southwest. It is bordered by Tract B to the north, Tract E to the southeast, Tract D to the immediate south and Tract G to the west. This tract of land will permit single family residential uses, multifamily residential uses, schools, religious assembly and other civic uses.
- Tract D is a 10.23 acre area that is located along the southern portion of the PUD. The tract fronts Bull Creek Road, across from the single-family residences/SF-3 zoning from W. 42nd Street to the south at about W. 40th Street. The applicant proposes to permit a mix of residential and civic uses with a live work units that will allow for office uses, art gallery and art workshop uses, counseling services, cultural services, day care services, financial services personal services, pet services, schools etc.
- Tracts F is a 3.42 acre area that fronts along Bull Creek Road, across from office/LO zoning and single family residences/SF-3 development from Jackson Street to W. 42 Street. Tract G is a 4.33 portion that is located within the central area of the PUD. Both Tracts F and G will permit the same uses: single family residential uses, multifamily residential uses, office uses, and lower intensity commercial uses such as art gallery/workshop, financial services, personal services and pet services as well as numerous civic uses. The notable difference between these two proposed tracts is allowable height. Tract F will have a maximum height of up to 40 feet, with a caveat that the height may be increased to a maximum of 60 feet for an affordable housing development with the Affordable Housing program. Tract G permits a maximum height of 60 feet outright.
- Currently, the proposed 18.12 acres of parkland and open space areas are interspersed throughout the project area over all of the Tracts within the PUD as a Signature Park, Shoal Creek Trail area, Greenbelt area and Neighborhood Park (Please see Exhibit G: Parks Plan Exhibit).

Per the Land Development Code, PUD district zoning was established to implement goals of preserving the natural environment, encouraging high quality development and innovative design, and ensuring adequate public facilities and services. The City Council intends PUD district zoning to produce development that achieves these goals to a greater degree than and thus is

superior to development which could occur under conventional zoning and subdivision regulations.

City Council approved revisions to the PUD regulations that became effective June 29, 2008. To help evaluate the superiority of a proposed PUD, requirements are divided into two categories: Tier 1, which is requirements that all PUDs must meet, and Tier 2 which provides criteria in 13 topical areas in which a PUD may exceed code requirements and therefore demonstrate superiority. A PUD need not address all criteria listed under Tier 2, and there is no minimum number of categories or individual items required.

As more fully detailed on the Land Use Plan and in the Tier 1 and Tier 2 Compliance Summary (please refer to Exhibits C and D), this proposed PUD meets the applicable Tier 1 items and offers some elements of superiority in thirteen Tier 2 categories (*Open Space*; *Environment/Drainage*; *Art*; *Community Amenities*, *Transportation*, *Affordable Housing and Accessibility*).

Proposed Code Modifications

There are 27 modifications to Code and Criteria Manual requirements requested by the Applicant (please refer to Exhibit E – Proposed Code Modifications for details). These proposed modifications are summarized below:

- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(103) (Site) Revises the definition of Site to allow a site to cross a public street or right-of-way if that public street or right-of-way is within the boundaries of The Grove at Shoal Creek PUD.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 14 (Parkland Dedication), Section 25-1-602 (Dedication of Parkland Required) and Section 25-4-211 (Parkland Dedication) Specifies the parkland dedication and open space requirements. Modifies Section 25-1-602(A) (Dedication of Parkland Required) to state that the subdivider or site plan applicant shall provide for parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement as attached exhibits to the PUD ordinance.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(44) (Gross Floor Area) – Revises the definition of Gross Floor Area to apply this term to include the addition of parking structures.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations), Section 25-2-492 (Site Development Regulations) – To propose that the site development regulations applicable to the Property be as shown on the Land Use Plan.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations), Section 25-2-492 (Site Development Regulations) and Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21 (47) (Height) To request a modification to state that a parking level shall not be and is not considered a "story".

- Chapter 25-2 (ZONING), Article 9 (Landscaping), Section 25-2-1006 (Visual Screening) To state that Section 25-2-1006 (A) shall not apply to any water quality and/or storm water drainage facility that serves as an amenity or to any Green Storm Water Quality Infrastructure as defined in the Environmental Criteria Manual and that Section 25-2-1006 (C) shall not apply between uses or sites that are both located within the PUD boundaries. (Section 25-2-1006 (C) shall still apply at the boundaries of the PUD.)
- Chapter 25-2 (ZONING), Subchapter B (Zoning Procedures), Article 2 (Special Requirements for Certain Districts), Division 5 (Planned Unit Developments), Section 3.2.3.D.1 (*Planned Unit Development Regulations: Nonresidential Uses*) To state that these conditions of the Code that require a minimum front yard and street side yard setbacks be at least 25 feet for a front yard and 15 feet for a street side yard shall not apply to the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards) To state that Compatibility Standards do not apply within the PUD. However, Compatibility Standards will apply where development outside of the PUD triggers these standards for development within the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1063(Height Limitations and Setbacks for Large Sites)(C)(2) and (3) To establish an area within Tract B where Section 25-2-1063(C)(2) shall not apply and where Section (C)(3) is modified to allow for a structure more than 50 feet but not more than 300 feet from the property zoned SF-5 or more restrictive to have a height up to 60 feet.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1067(G) (Design Regulations) and (H) To state that this section of the Code does not apply to the Tract A for the construction of an alley, public road, trails and/or sidewalks.
- Chapter 25-2 (ZONING), Subchapter E (Design Standards and Mixed Use) To request to that the requirements of Subchapter E not apply to the property within the PUD and to replace these conditions with the applicant's proposed The Grove at Shoal Creek Design Guidelines.
- Chapter 25-4 (SUBDIVISION), Section 25-4-132(B) (Easements and Alleys) To
 modify this section so that loading and unloading may also occur in any alley that
 also services as a fire lane.
- Chapter 25-4 (SUBDIVISION), Section 24-4-153 (Block Length) To request that this section not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-157 (Subdivision Access Streets) To request that this section that requires secondary street access not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-171(A) (Access to Lots) To modify
 this section so that to add that each lot in a subdivision may also abut a private street
 or private drive subject to a permanent access easement.

- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES) and Chapter 25-4 (SUBDIVISION), Section 25-4-211 (Parkland Dedication) To request that platting requirements for parkland dedication by modified so that it is governed by the conditions of the PUD ordinance/exhibits.
- Chapter 25-4 (SUBDIVISION), Section 25-4-151 (Street Alignment and Connectivity) – To state that notwithstanding the requirements of Section 25-4-151 that private drives and/or streets within the property may be aligned to connect to existing or future street on adjoining property.
- Chapter 25-4 (SUBDIVISION), Section 25-4-152 (A) (Dead-End Streets) Adding
 to this requirement that a street may terminate in a connection with private drives
 and/or private streets within the property.
- Chapter 25-6 (TRANSPORTATION), Section 25-6-171(A) (Standards for Design and Construction) To modify requirements so that a roadway, private drive street or alley must be designed and constructed in accordance with The Grove at Shoal Creek Design Guidelines. Stating that the Transportation Criteria Manual and City of Austin Standards and Standard Specifications shall apply to the extent they do not conflict the proposed PUD Design Guidelines.
- Chapter 25-8 (ENVIRONMENT), Section 25-8-641(B) (Removal Prohibited) To change the requirements for the removal of heritage trees within the PUD. Specifically identifying which heritage trees may be removed and adding language to speak to the administrative variance process under Section 25-8-642 for trees indicated to be saved on The Grove at Shoal Creek Tree Survey and Disposition Plan.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-1 (Applicability) Adding a condition under this section to state, "(D) To the extent they are in conflict, the signage standards set forth in the project Design Guidelines for The Grove at Shoal Creek shall supersede this chapter."
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-103 (Signs Prohibited in the Public Right-of-Way) To state that this section shall not apply to the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of the PUD as identified on the Roadway Framework Plan.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-191 (Sign Setback Requirements) To state that this section shall not apply for setbacks from the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of PUD as identified on the Roadway Framework Plan.
- Drainage Criteria Manual, Section 1.2.4.E.1(a) (Fencing Requirements for Drainage Facilities) – To amend this DCM Section to remove the requirement for barrier-type fences.
- Environmental Criteria Manual, Section 1.6.3.A.4 (Maintenance Responsibilities for Water Quality Control Facilities) – Modify this section to state that water quality control facilities at The Grove at Shoal Creek PUD that treat publicly owned roads

- and facilities within and adjacent to the PUD may be privately maintained, instead of being designed and built according to the appropriate city standards.
- Transportation Criteria Manual, Section 1.3.2.B.2 (Classification Design Criteria) To modify this provision to state that the extension of Jackson Avenue in the PUD as identified on the Roadway Framework Plan shall be considered a Neighborhood Collector and shall be designed per The Grove at Shoal Creek Design Guidelines. The cross section and any other design information contained in those design guidelines shall supersede any requirements of the Transportation Criteria Manual. All other circulation routes within the PUD shall be considered as private driveways and intersection with these driveways shall be subject to the 50' minimum spacing for Neighborhood Collectors.
- Transportation Criteria Manual, Section 1.3.2.F (Classification Design Criteria) –
 To state that the Jackson Avenue extension shall not be considered a Single Outlet
 Street upon the connection of any public access that is open to the public and
 connects Jackson Avenue to Bull Creek Road.

Proposed Benefits of the PUD:

The applicant is offering the following –

Affordable Housing

Provide a substantial on-site affordable housing component. They will describe this proposal in The Grove at Shoal Creek Affordable Housing Program Plan. The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units and 10% of the rental units for 40 years. Through compliance with the Affordable Housing Requirements of LDC Section 25-1-704(B)(2)(a), development within the Grove at Shoal Creek PUD shall be eligible for a waiver of 100% of the development fees, including capital recovery fees, described in LDC Section 25-1-704 and Section 25-9-397 as allowed by and in accordance with the City's SMART Housing Program.

Accessibility

 Provide for accessibility for persons with disabilities to a degree exceeding applicable legal requirements.

Art

Participate in the Art in Public Places Program. The applicant will develop a Public Art Plan that will consist of a minimum of three (3) significant art pieces. A minimum budget of \$60,000 shall be spent on public art within the PUD site. The applicant will consult with and consider the City's Art in Public Places (AIPP) program for implementing this program.

Community Amenities

- Provide a large on-site, publically accessible signature park space with park improvements and amenities open to the public.
- Provide public community and public amenities including spaces for community meetings, gatherings and other community needs.

- Provide publicly accessible multi-use trails and greenways within the property along Shoal Creek.
- Provide a pedestrian and bicycle bridge across Shoal Creek.

Environmental/Drainage

- Use of a wet pond and/or green water quality controls for a minimum of 50% of the required water quality volume on-site.
- Provide that a minimum of ten acres of impervious cover on the site will drain to and be substantially treated by green water quality controls that infiltrate or reuse water, such as rain gardens, biofiltration facilities, and rainwater capture systems.
- Proposing no modification to the existing 100-year floodplain.
- Preserve more than 75% of all protected size native caliper inches and prepare a tree care plan for all preserved heritage and protected trees on site.
- Cluster development/impervious cover along Bull Creek Road and in the interior of the property away from Shoal Creek and the larger oak groves on the property to avoid environmentally sensitive areas.
- Direct storm water runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
- Provide on-site dentition for the 9.39 acres of existing impervious cover on site that is not currently detained.
- Provide educational signage at the wetland Critical Environmental Feature.
- Implement an Integrated Pest Management Plan for the whole property.
- The Grove at Shoal Creek Design Guidelines will require street trees on all internal streets and along Bull Creek Road in excess of the Code requirements in Subchapter E.
- The proposed Design Guidelines will also require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.

Great Streets

 Provide private street cross sections that will meet the intent and purposes of the Great Streets Program through the proposed The Grove at Shoal Creek Project Design Guidelines.

Green Building

• Comply with at least a 2-star Green Building requirement.

Parkland and Open Space

- Provide a minimum of 18.12 acres of open space, including parkland.
- The Parks and Recreation Department has stated that they find that The Grove at Shoal Creek PUD is not superior to traditional zoning as it pertains to parks. The plan for the Signature Park submitted by Milestone lacks adequate street frontage, acreage and opportunities for active recreation. The CEF buffer reduction and mitigation further hampers park development. The visibility from the public right-of-way could be better. The overall credited park acreage does meet minimum requirements of traditional zoning only if the 2 acres labeled as "Flex Park Space" continues to be part of the parks plan.

Transportation

- Roadway and intersection improvements through the use of turn lanes and signalization shall be funded 100% by the applicant.
- Provide bicycle facilities, including bike storage and trails.

Utility Facilities

• Provide water system improvements that will improve water pressure to the area.

DATE OF FIRST READING/VOTE:

October 20, 2016

ACTION: Approved the Zoning and Platting Commission's recommendation for PUD zoning, with the following conditions: 1) The total square footage of all office development within the PUD shall not exceed 115,000 square feet and 2) The total square footage of all retail development shall not exceed 100,000 square feet. The public hearing shall remain open.

Vote: 8-2, K. Tovo and O. Houston-No, E. Troxclair-off the dais); S. Adler-1st, S. Gallo-2nd.

CITY COUNCIL DATE: December 6, 2016

CITY COUNCIL ACTION:

ASSIGNED STAFF: Sherri Sirwaitis

PHONE: 512-974-3057

sherri.sirwaitis@ austintexas.gov

ZONING CHANGE REVIEW SHEET

CASE: C814-2015-0074

Z.A.P. DATE: December 1, 2015

(The Grove at Shoal Creek Planned Unit Development)

May 17, 2016 June 7, 2016 June 21, 2016 July 5, 2016 July 14, 2016

ADDRESS: 4205 Bull Creek Road

DISTRICT AREA: 10

OWNER: ARG Bull Creek, Ltd. (Garrett Martin)

AGENT: Thrower Design (A. Ron Thrower)

ZONING FROM: Unzoned (UNZ) **TO:** PUD **AREA:** 75.74 acres

SUMMARY STAFF RECOMMENDATION:

The staff recommendation is to approve The Grove at Shoal Creek Planned Unit Development (PUD) subject to the following conditions:

- 1. The Planning and Zoning staff recommends PUD zoning as requested subject that the following additional conditions be incorporated in the proposed Land Use Plan (Exhibit C):
 - a) The total square footage of all development within the PUD shall not exceed 2.4 million square feet.
 - b) The total square footage of all office development within the PUD shall not exceed 210,000 square feet.
 - c) The total square footage of all retail/commercial development shall not exceed 150,000 square feet.
 - d) The total number of congregate care beds shall not exceed 300.
 - e) At least 30,000 square feet of retail development shall be required once 700 units of residential development are constructed before any additional residential development can occur on the property.
 - f) At least 35% of the total required affordable rental units shall be provided once 325 multifamily residential units are constructed before any additional multifamily residential units may be constructed. At least 35% of the total required affordable forsale residential units shall be provided once 100 condominium residential units are constructed in a "podium style" condominium residential building before any additional condominium residential units may be constructed.
 - g) 130,000 square feet of development may be used for Tier 2 affordable housing that is separate from and does not count against the overall development cap of 2.4 million square feet.
 - h) The staff recommends a baseline of 1.892 million square feet.
- 2. The conditions of the PUD shall be established in the proposed Land Use Plan (Exhibit C), that includes a breakdown of: a) tract layout and size/acreages, b) permitted land use tables, c) site development regulations table, d) additional setbacks on specific tracts, e) approximate driveway and trail locations, , f) notes on limitations of uses, conditions on site development regulations, definitions, provision for public art installation, conditions for a

- proposed pedestrian and bicycle bridge, and benefits to encourage alternative transportation options.
- 3. The PUD shall be subject to the conditions regarding the riparian grow zone, CEF buffer area, wet pond surface area, detention infiltration feature, wetland fringe and upland infiltration feature as agreed to on the Environmental Resource Exhibit (Exhibit F). The proposed PUD shall comply with the Environmental staff recommendations that include:
 - a. The PUD will provide at least 18.12 acres of open space.
 - b. The PUD will exceed minimum Code requirements for landscaping through The Grove at Shoal Creek Design Guidelines by requiring a minimum of three-inch caliper street trees on all internal roadways, requiring street trees along Bull Creek and requiring that a minimum of 95% of all non-turf plan materials be from or consistent with the City's Grow Green Guide.
 - c. Provide that a minimum of ten acres of impervious cover on the site will drain to and be substantially treated by green water quality controls that infiltrate or reuse water, such as rain gardens and rainwater harvesting.
 - d. Use of a wet pond and/or green water quality controls for a minimum of 50% of the required water quality volume on-site.
 - e. Preserve a minimum of 75% of all protected size native caliper inches and prepare a tree care plan for all preserved heritage and protected trees on site.
 - f. Provide additional protections for the grove of trees surrounding the proposed wet pond.
 - g. Cluster development/impervious cover along Bull Creek Road and in the interior of the property away from Shoal Creek and the larger oak groves on the property to avoid environmentally sensitive areas.
 - h. Direct storm water runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
 - i. Provide on-site dentition for the 9.39 acres of existing impervious cover on site that is not currently detained.
 - j. The City of Austin Watershed Protection Department will choose the most effective flood mitigation option for the site at the time of subdivision or site plan review.
 - k. Provide educational signage at the wetland Critical Environmental Feature.
 - 1. Implement an Integrated Pest Management Plan for the whole property.
- 4. The development of the PUD shall comply with the conditions stipulated in the Parks Plan Exhibit (Exhibit G). The applicant shall provide for parkland for park and recreational purposes under the terms of the Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement as attached exhibits to the PUD ordinance. To be clear, the Parks and Recreation Department has determined that the parks component of the PUD application does not meet superiority for parks.
- 5. The development of the PUD site will be subject to the attached TIA memorandum from the Development Review Development (DRD) Department and Austin Transportation Department (ATD) dated July 11, 2016 Exhibit M. The TIA memo limits the site development to uses and intensities that will not exceed or vary from the projected traffic conditions assumed in the final TIA [R-K Traffic Engineering, LLC March 28, 2016]. The proposed conceptual right-of-way layout, major vehicle circulation and pedestrian and bicycle connections are shown on the Roadway Framework Plan (Exhibit H).

6. Development within the PUD shall comply with the Tree Survey & Disposition Plan (Exhibit J). A representation of the applicant's proposal for tree mitigation on the site is shown on Tree Mitigation Example conceptual plan and table (Exhibit L).

7. The PUD zoning will be subject to draft language agreed upon with the Neighborhood Housing and Community Development Department (NHCD) concerning compliance with the affordable housing on the property. The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units and 10% of the rental for 40 years. They will receive a 100% fee waiver. Ten percent of the total number of multifamily rental housing units located within the Grove at Bull Creek PUD will be set aside for occupancy by households with incomes at 60 percent of or below the median family income. At least 5 percent of the total number of units sold as owner-occupied residential housing units located within the Grove at Bull Creek PUD will, through a mechanism agreed upon by the City and Landowner, be made permanently available at a price affordable to households with incomes at 80 percent of or below the median family income. NHCD and the developer have signed off on the attached language stated in the, The Grove at Bull Creek PUD Affordable Housing Program – Exhibit N.

The applicant agrees with the staff's recommendation.

ENVIRONMENTAL COMMISSION MOTION:

- November 4, 2015: Motion to postpone the case to December 16, 2015, with a briefing on the status of the review to be presented at the November 18, 2015 meeting (8-1, H. Smithabstain); M. Perales-1st, M. Neely-2nd.
- December 16, 2015: Refer case to Development Committee when the staff review and recommendation is complete.
- May 18, 2016: Refer case to Development Committee when the staff review and recommendation is complete.
- June 1, 2016: Motion to postpone the case to June 15, 2016 to negotiate and find resolution of the following:
 - 1. Obtain superiority in regards to parkland by working with the Parks and Recreation Board and the Park and Recreation Department;
 - 2. Comply with at least three star green building requirements;
 - 3. Create a drainage plan to ensure the safety of the surrounding properties;
 - 4. Draft contingency plan to address unresolved drainage issues after the site is built
 - 5. Remove flex space from the parkland;
 - 6. Evaluate the impact that increased traffic to the site would have on air quality and noise pollution;
 - 7. Protect 100% of the critical root zone of all trees on the site;
 - 8. List all the trees on the property including those 8" 19";
 - 9. Evaluate the potential to tie in public transit to the site and develop other incentives to significantly reduce the number of car trips per day; and
 - 10. Reduce the total development to 2.1 million square feet.
 - 11. Work with staff to develop a plan to conduct an erosion control study along the entire length of the development's Shoal Creek frontage.

- (Vote: 6-4-1, Gooch, Maceo, Perales, Neely, Guerrero, Thompson For; B. Smith, Creel, Moya, Grayum-No; H. Smith-abstain); P. Maceo-1st, M. Neely-2nd.
- June 15, 2016: Motion to state that the Grove at Shoal Creek PUD is found to lack of environmental superiority. The Environmental Commission included recommendations regarding the amount and arrangement of parkland, green building requirements, drainage system, air quality impacts, tree protection, density level and erosion controls for the applicant to achieve environmental superiority (6-4, Gooch, Maceo, Perales, Neely, Guerrero, Thompson-For; B. Smith, Creel, Moya, Grayum-No; H. Smith-absent); P. Maceo-1st, M. Neely-2nd.

PARKS AND RECREATION BOARD:

May 24, 2016: Affirmed the PARD (Parks and Recreation Department) staff findings that The Grove at Shoal Creek Planned Unit Development application, as currently submitted on March 28, 2016, is not superior in relation to parks (Vote: 6-1-1-3 with Board Member Casias-against, Board Member Schmitz-abstaining, and Board Members Donovan, Vane and Wimberly-absent).

ZONING AND PLATTING COMMISSION MOTION:

- December 1, 2015: Postponed indefinitely at the staff's request by consent (10-0); B. Evans-1st, S. Harris-2nd.
- May 17, 2016: Postponed indefinitely at the staff's request by consent (7-3, A. Aguirre-absent, B. Evans, S. Lavani, S, Harris-No); G. Rojas-1st, J. Kiolbassa-2nd.
- June 7, 2016: Postponed to June 21, 2016 at the staff's request (7-1, D. Breithaupt, J. Kiolbassa, S. Lavani-absent and A. Aguirre-No); B. Evans-1st, S. Harris-2nd.
- June 21, 2016: Continued the public hearing to July 5, 2016 (11-0); G. Rojas-1st, A. Denkler-2nd.
- July 5, 2016: Motion to hold a Special Called Meeting on July 14, 2016 at 6:00 p.m. (Sponsors: B. Evans, Denkler, S. Lavani)
 Continued the public hearing to the July 14, 2016 Special Called Meeting (10-0, T. Weber-absent); A. Denkler-1st, S. Harris-2nd.
- July 14, 2016: Motion to approve staff's recommendation for PUD zoning with the following additional conditions:
 - 1) Permit 250,000 square feet of additional residential units.
 - 2) Provide an on street bike lane on northbound Bull Creek Road.
 - 3) Request that the applicant to consider flat level structured parking garages.
 - 4) Prohibit Single-Family Detached Residential uses on Tract B, with the exception of within 150 feet from Tract A.
 - 5) Prohibit Single-Family Detached Residential uses on Tracts F and G.
 - 6) Revise Note 17b on the Land Use Plan to allow for eight (8) car-sharing parking spaces.

- 7) Revise Note 16a on the Land Use Plan to state that if the proposed bicycle and pedestrian bridge is not constructed across Shoal Creek, then funds shall be shall be utilized for pedestrian and bike improvements east of the site.
- 8) Provide a 25-foot building setback from homes along Bull Creek Road on Tract D.
- 9) Provide a trail connection from the greenbelt to Jefferson Street.
- 10) Add the Group Residential use to Tracts B, F and G as a permitted use.
- 11) Request that the applicant consider working with Transportation Review (ATD and DSD Departments) on a Transportation Demand Management Plan (TDM) prior to 3rd reading of the case at City Council to reduce vehicular trips to the site.

Vote: (6-4, A. Aguirre, A. Denkler, J. Kiolbassa, B. Greenberg-No); S. Harris-1st, G. Rojas-2nd.

EXHIBITS AND ATTACHMENTS TO THE STAFF REPORT:

Exhibit A: Zoning Map

Exhibit B: Aerial Map

Exhibit C: The Grove at Shoal Creek Land Use Plan Exhibit D: Tier 1 and Tier 2 Compliance Summary

Exhibit E: Proposed Code Modifications

Exhibit F: Environmental Resource Exhibit

Exhibit G: Parks Plan Exhibit

Exhibit H: Roadway Framework Plan

Exhibit I: Conceptual Site Plan

Exhibit J: Tree Survey and Disposition Plan

Exhibit K: Educational Impact Statement (EIS)

Exhibit L: Tree Mitigation Example

Exhibit M: TIA memorandum dated March 25, 2016 Exhibit N: Affordable Housing Program Language

Exhibit O: Staff Baseline Map

Exhibit P: Additional Review Information Provided by the Applicant

Exhibit Q: Written Comments from the Public

Exhibit R: Parks & Recreation Board Recommendation

Exhibit S: Environmental Commission Motion

Exhibit T: Additional Information Received

DEPARTMENT COMMENTS:

The proposed The Grove at Shoal Creek Planned Unit Development (PUD) is generally located on Bull Creek Road at 45th Street. The property in question was previously owned by the State of Texas and therefore is listed as "UNZ" or unzoned on the zoning case map (please see Exhibits A and B: Zoning Map and Aerial Map). There are undeveloped areas along the north and east portions of the property. The south and west portions of the site are developed with state owned office buildings with parking facilities. Surrounding properties are primarily a mix of residential and office uses. The site under consideration is adjacent to single family residences to the north (SF-2 zoning) and south (SF-3 zoning). There are apartments and a senior living center to the west (MF-6-CO, MF-4 and GO-MU-CO zoning). The property directly to the east is unzoned and is developed with an industrial warehouse facility for the State of Texas archives. Further to the east are single family residences (SF-2 zoning). The site is located in the Rosedale Neighborhood Planning area, which does not have an adopted neighborhood plan.

The property is located in the Shoal Creek watershed which is classified as urban. Therefore, the allowable impervious cover is governed by the allowable zoning impervious cover not watershed impervious cover. This tract of land is not located within the Edwards Aquifer recharge or contributing zones.

The applicant is requesting PUD district zoning for a 75.74 acre mixed use project. According to the Yield sheet from Transportation Impact Analysis (TIA) dated February 2016, the proposed PUD may include up to 110 single family residential units, 600 apartment units, 425 residential condo units, a 600 unit congregate care facility, a 7,500 sq. ft. health/fitness club, 200,000 sq. ft. of office uses, 25,000 sq. ft. of medical office uses, 55,000 sq. ft. of specialty retail uses, a 35,000 sq. ft. supermarket/food sales uses, 8,500 sq. ft. of pharmacy/drug store/general retail sales (convenience) uses, a 3,000 sq. ft. walk-in bank/financial services use, 8,000 sq. ft. of drinking place/cocktail lounge uses, 15,000 sq. ft. quality restaurant/restaurant (general) uses, 9,000 sq. ft. high turnover restaurant/restaurant (limited) uses, and a 2,000 sq. ft. coffee-donut shop without drive through use/restaurant (limited) use.

As shown in Exhibit C (Land Use Plan), the area has been divided into seven tracts:

- Tract A, a 7.02 acre area along the northern portion of the proposed PUD adjacent to the existing single family residences fronting W. 45th Street, and Tract E, a 6.17 acre area along the southeastern portion of the proposed PUD adjacent to the single-family residences fronting Idlewild Road, are primarily low density residential areas that permit single family residential uses through condominium/townhouse residential uses, as well as a Religious Assembly civic use.
- Tract B is a 33.77 acre area directly to the south of Tract A that fronts onto Bull Creek Road. It is the largest area within the PUD. Tract B traverses the width of the PUD property from the east along Shoal Creek to the west fronting Bull Creek Road across from 45th Street to Jackson Avenue. This tract is a mixed use area that will permit a wide range of uses from single family residential, multi-family residential to office, civic and more intensive commercial uses, such as Automotive Rentals/Sales/Washing, Cocktail Lounge, Exterminating Services, Outdoor Sports and Recreation and Research uses.

Tract C, a 10.82 acre area, is located along the eastern edge of the PUD on Shoal Creek to the traveling to the southwest. It is bordered by Tract B to the north, Tract E to the southeast, Tract D to the immediate south and Tract G to the west. This tract of land will permit single family residential uses, multifamily residential uses, schools, religious assembly and other civic uses.

- Tract D is a 10.23 acre area that is located along the southern portion of the PUD. The tract fronts Bull Creek Road, across from the single-family residences/SF-3 zoning from W. 42nd Street to the south at about W. 40th Street. The applicant proposes to permit a mix of residential and civic uses with a live work units that will allow for office uses, art gallery and art workshop uses, counseling services, cultural services, day care services, financial services personal services, pet services, schools etc.
- Tracts F is a 3.42 acre area that fronts along Bull Creek Road, across from office/LO zoning and single family residences/SF-3 development from Jackson Street to W. 42 Street. Tract G is a 4.33 portion that is located within the central area of the PUD. Both Tracts F and G will permit the same uses: single family residential uses, multifamily residential uses, office uses, and lower intensity commercial uses such as art gallery/workshop, financial services, personal services and pet services as well as numerous civic uses. The notable difference between these two proposed tracts is allowable height. Tract F will have a maximum height of up to 40 feet, with a caveat that the height may be increased to a maximum of 60 feet for an affordable housing development with the Affordable Housing program. Tract G permits a maximum height of 60 feet outright.
- Currently, the proposed 18.12 acres of parkland and open space areas are interspersed throughout the project area over all of the Tracts within the PUD as a Signature Park, Shoal Creek Trail area, Greenbelt area and Neighborhood Park (Please see Exhibit G: Parks Plan Exhibit).

Per the Land Development Code, PUD district zoning was established to implement goals of preserving the natural environment, encouraging high quality development and innovative design, and ensuring adequate public facilities and services. The City Council intends PUD district zoning to produce development that achieves these goals to a greater degree than and thus is superior to development which could occur under conventional zoning and subdivision regulations.

City Council approved revisions to the PUD regulations that became effective June 29, 2008. To help evaluate the superiority of a proposed PUD, requirements are divided into two categories: Tier 1, which is requirements that all PUDs must meet, and Tier 2 which provides criteria in 13 topical areas in which a PUD may exceed code requirements and therefore demonstrate superiority. A PUD need not address all criteria listed under Tier 2, and there is no minimum number of categories or individual items required.

As more fully detailed on the Land Use Plan and in the Tier 1 and Tier 2 Compliance Summary (please refer to Exhibits C and D), this proposed PUD meets the applicable Tier 1 items and offers some elements of superiority in thirteen Tier 2 categories (*Open Space; Environment/Drainage; Art; Community Amenities, Transportation, Affordable Housing and Accessibility*).

Proposed Code Modifications

There are 27 modifications to Code and Criteria Manual requirements requested by the Applicant (please refer to Exhibit E – Proposed Code Modifications for details). These proposed modifications are summarized below:

- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(103) (Site) Revises the definition of Site to allow a site to cross a public street or right-of-way if that public street or right-of-way is within the boundaries of The Grove at Shoal Creek PUD.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 14 (Parkland Dedication), Section 25-1-602 (Dedication of Parkland Required) and Section 25-4-211 (Parkland Dedication) Specifies the parkland dedication and open space requirements. Modifies Section 25-1-602(A) (Dedication of Parkland Required) to state that the subdivider or site plan applicant shall provide for parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement as attached exhibits to the PUD ordinance.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21(44) (Gross Floor Area) Revises the definition of Gross Floor Area to apply this term to include the addition of parking structures.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations),
 Section 25-2-492 (Site Development Regulations) To propose that the site development regulations applicable to the Property be as shown on the Land Use Plan.
- Chapter 25-2 (ZONING), Article 2 (Principal Use and Development Regulations), Section 25-2-492 (Site Development Regulations) and Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES), Article 2 (Definitions; Measurements), Section 25-1-21 (47) (Height) – To request a modification to state that a parking level shall not be and is not considered a "story".
- Chapter 25-2 (ZONING), Article 9 (Landscaping), Section 25-2-1006 (Visual Screening) To state that Section 25-2-1006 (A) shall not apply to any water quality and/or storm water drainage facility that serves as an amenity or to any Green Storm Water Quality Infrastructure as defined in the Environmental Criteria Manual and that Section 25-2-1006 (C) shall not apply between uses or sites that are both located within the PUD boundaries. (Section 25-2-1006 (C) shall still apply at the boundaries of the PUD.)
- Chapter 25-2 (ZONING), Subchapter B (Zoning Procedures), Article 2 (Special Requirements for Certain Districts), Division 5 (Planned Unit Developments), Section 3.2.3.D.1 (Planned Unit Development Regulations: Nonresidential Uses) To state that these conditions of the Code that require a minimum front yard and street side yard setbacks be at least 25 feet for a front yard and 15 feet for a street side yard shall not apply to the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards) To state that Compatibility Standards do not apply within the PUD. However, Compatibility

- Standards will apply where development outside of the PUD triggers these standards for development within the PUD.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1063(Height Limitations and Setbacks for Large Sites)(C)(2) and (3) To establish an area within Tract B where Section 25-2-1063(C)(2) shall not apply and where Section (C)(3) is modified to allow for a structure more than 50 feet but not more than 300 feet from the property zoned SF-5 or more restrictive to have a height up to 60 feet.
- Chapter 25-2 (ZONING), Article 10 (Compatibility Standards), Section 25-2-1067(G)
 (Design Regulations) and (H) To state that this section of the Code does not apply to the Tract A for the construction of an alley, public road, trails and/or sidewalks.
- Chapter 25-2 (ZONING), Subchapter E (Design Standards and Mixed Use) To request to that the requirements of Subchapter E not apply to the property within the PUD and to replace these conditions with the applicant's proposed The Grove at Shoal Creek Design Guidelines.
- Chapter 25-4 (SUBDIVISION), Section 25-4-132(B) (Easements and Alleys) To
 modify this section so that loading and unloading may also occur in any alley that also
 services as a fire lane.
- Chapter 25-4 (SUBDIVISION), Section 24-4-153 (Block Length) To request that this section not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-157 (Subdivision Access Streets) To request that this section that requires secondary street access not apply to the property within the PUD.
- Chapter 25-4 (SUBDIVISION), Section 24-4-171(A) (Access to Lots) To modify this section so that to add that each lot in a subdivision may also abut a private street or private drive subject to a permanent access easement.
- Chapter 25-1 (GENERAL REQUIREMENTS AND PROCEDURES) and Chapter 25-4 (SUBDIVISION), Section 25-4-211 (Parkland Dedication) To request that platting requirements for parkland dedication by modified so that it is governed by the conditions of the PUD ordinance/exhibits.
- Chapter 25-4 (SUBDIVISION), Section 25-4-151 (Street Alignment and Connectivity)
 To state that notwithstanding the requirements of Section 25-4-151 that private drives and/or streets within the property may be aligned to connect to existing or future street on adjoining property.
- Chapter 25-4 (SUBDIVISION), Section 25-4-152 (A) (Dead-End Streets) Adding to this requirement that a street may terminate in a connection with private drives and/or private streets within the property.
- Chapter 25-6 (TRANSPORTATION), Section 25-6-171(A) (Standards for Design and Construction) To modify requirements so that a roadway, private drive street or alley must be designed and constructed in accordance with The Grove at Shoal Creek Design Guidelines. Stating that the Transportation Criteria Manual and City of Austin

- Standards and Standard Specifications shall apply to the extent they do not conflict the proposed PUD Design Guidelines.
- Chapter 25-8 (ENVIRONMENT), Section 25-8-641(B) (Removal Prohibited) To change the requirements for the removal of heritage trees within the PUD. Specifically identifying which heritage trees may be removed and adding language to speak to the administrative variance process under Section 25-8-642 for trees indicated to be saved on The Grove at Shoal Creek Tree Survey and Disposition Plan.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-1 (Applicability) Adding a condition under this section to state, "(D) To the extent they are in conflict, the signage standards set forth in the project Design Guidelines for The Grove at Shoal Creek shall supersede this chapter."
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-103 (Signs Prohibited in the Public Right-of-Way) To state that this section shall not apply to the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of the PUD as identified on the Roadway Framework Plan.
- Chapter 25-10 (SIGN REGULATIONS), Section 25-10-191 (Sign Setback Requirements) – To state that this section shall not apply for setbacks from the public Right-of-Way dedicated for the Jackson Avenue extension within the boundaries of PUD as identified on the Roadway Framework Plan.
- Drainage Criteria Manual, Section 1.2.4.E.1(a) (Fencing Requirements for Drainage Facilities) – To amend this DCM Section to remove the requirement for barrier-type fences.
- Environmental Criteria Manual, Section 1.6.3.A.4 (Maintenance Responsibilities for Water Quality Control Facilities) Modify this section to state that water quality control facilities at The Grove at Shoal Creek PUD that treat publicly owned roads and facilities within and adjacent to the PUD may be privately maintained, instead of being designed and built according to the appropriate city standards.
- Transportation Criteria Manual, Section 1.3.2.B.2 (Classification Design Criteria) To modify this provision to state that the extension of Jackson Avenue in the PUD as identified on the Roadway Framework Plan shall be considered a Neighborhood Collector and shall be designed per The Grove at Shoal Creek Design Guidelines. The cross section and any other design information contained in those design guidelines shall supersede any requirements of the Transportation Criteria Manual. All other circulation routes within the PUD shall be considered as private driveways and intersection with these driveways shall be subject to the 50' minimum spacing for Neighborhood Collectors.
- Transportation Criteria Manual, Section 1.3.2.F (Classification Design Criteria) To state that the Jackson Avenue extension shall not be considered a Single Outlet Street upon the connection of any public access that is open to the public and connects Jackson Avenue to Bull Creek Road.

Proposed Benefits of the PUD:

The applicant is offering the following –

Affordable Housing

Provide a substantial on-site affordable housing component. They will describe this proposal in The Grove at Shoal Creek Affordable Housing Program Plan. The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units and 10% of the rental units for 40 years. Through compliance with the Affordable Housing Requirements of LDC Section 25-1-704(B)(2)(a), development within the Grove at Shoal Creek PUD shall be eligible for a waiver of 100% of the development fees, including capital recovery fees, described in LDC Section 25-1-704 and Section 25-9-397 as allowed by and in accordance with the City's SMART Housing Program.

Accessibility

 Provide for accessibility for persons with disabilities to a degree exceeding applicable legal requirements.

Art

Participate in the Art in Public Places Program. The applicant will develop a Public Art Plan that will consist of a minimum of three (3) significant art pieces. A minimum budget of \$60,000 shall be spent on public art within the PUD site. The applicant will consult with and consider the City's Art in Public Places (AIPP) program for implementing this program.

Community Amenities

- Provide a large on-site, publically accessible signature park space with park improvements and amenities open to the public.
- Provide public community and public amenities including spaces for community meetings, gatherings and other community needs.
- Provide publicly accessible multi-use trails and greenways within the property along Shoal Creek.
- Provide a pedestrian and bicycle bridge across Shoal Creek.

Environmental/Drainage

- Use of a wet pond and/or green water quality controls for a minimum of 50% of the required water quality volume on-site.
- Provide that a minimum of ten acres of impervious cover on the site will drain to and be substantially treated by green water quality controls that infiltrate or reuse water, such as rain gardens, biofiltration facilities, and rainwater capture systems.
- Proposing no modification to the existing 100-year floodplain.
- Preserve more than 75% of all protected size native caliper inches and prepare a tree care plan for all preserved heritage and protected trees on site.
- Cluster development/impervious cover along Bull Creek Road and in the interior of the property away from Shoal Creek and the larger oak groves on the property to avoid environmentally sensitive areas.
- Direct storm water runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
- Provide on-site dentition for the 9.39 acres of existing impervious cover on site that is not currently detained.
- Provide educational signage at the wetland Critical Environmental Feature.
- Implement an Integrated Pest Management Plan for the whole property.

The Grove at Shoal Creek Design Guidelines will require street trees on all internal streets and along Bull Creek Road in excess of the Code requirements in Subchapter E.

• The proposed Design Guidelines will also require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.

Great Streets

Provide private street cross sections that will meet the intent and purposes of the Great
 Streets Program through the proposed The Grove at Shoal Creek Project Design Guidelines.

Green Building

• Comply with at least a 2-star Green Building requirement.

Parkland and Open Space

- Provide a minimum of 18.12 acres of open space, including parkland.
- The Parks and Recreation Department has stated that they find that The Grove at Shoal Creek PUD is not superior to traditional zoning as it pertains to parks. The plan for the Signature Park submitted by Milestone lacks adequate street frontage, acreage and opportunities for active recreation. The CEF buffer reduction and mitigation further hampers park development. The visibility from the public right-of-way could be better. The overall credited park acreage does meet minimum requirements of traditional zoning only if the 2 acres labeled as "Flex Park Space" continues to be part of the parks plan.

Transportation

- Roadway and intersection improvements through the use of turn lanes and signalization shall be funded 100% by the applicant.
- Provide bicycle facilities, including bike storage and trails.

Utility Facilities

Provide water system improvements that will improve water pressure to the area.

EXISTING ZONING AND LAND USES:

	ZONING	LAND USES
Site	UNZ	Undeveloped, Office
North	SF-2	Single-Family Residences
South	SF-3	Single-Family Residences
East	UNZ, SF-3	Industrial Warehouse (State of Texas Archives), Single-Family
		Residences
West	SF-2, SF-3, MF-6-CO,	Single-Family Residences, Multifamily Residences, Senior
	MF-4, GO-MU-CO,	Living, Office, Single-Family Residences
	LO, SF-3	

TIA: Is required (Please see TIA Memorandum – Exhibit M)

WATERSHEDS: Shoal Creek – Urban

DESIRED DEVELOPMENT ZONE: Yes

CAPITOL VIEW CORRIDOR: No

SCENIC ROADWAY: No

NEIGHBORHOOD ORGANIZATIONS:

Allandale Neighborhood Association

Austin Heritage Tree Foundation

Austin Neighborhoods Council

Bike Austin

Central Austin Community Development

5702 Wynona Neighbors

45th St. Concerned Citizens

Friends of Austin Neighborhoods

Friends of the Emma Barrientos MACC

Highland Park West Balcones Area Neighborhood Association

Lower District 7 Green

North Austin Neighborhood Alliance

Oakmont Heights Neighborhood Association

Preservation Austin

Ridgelea Neighborhood Association

Rosedale Neighborhood Association

Save Barton Creek Association

SELTEXAS

Shoal Creek Conservancy

Sierra Club, Austin Regional Group

Sustainable Neighborhoods

The Real Estate Council of Austin, Inc.

Westminster Manor Residents Association

SCHOOLS: Austin Independent School District

Bryker Woods Elementary School O Henry Middle School Austin High School

Note: An Educational Impact Statement (EIS) is required. Please refer to Exhibit K.

CASE HISTORIES:

NUMBER	REQUEST	COMMISSION	CITY COUNCIL
C14-06-0200	MF-4 to	2/06/07: Approved staff rec. of	3/22/07: Approved MF-6-CO
(Kingswood	MF-6	MF-6-CO zoning (9-0), with CO	zoning (6-0); all 3 readings
Place		to 1) limit the site to 2,000 vtpd,	
Apartments:		2) prohibit vehicular access to 44 th	
4318 Bull Creek		Street except for emergency	
Road)		vehicle use, 3) limit height to 60	
		feet, 4) require a 25 foot building	77
		setback from Bull Creek Road,	
		5) limit the max FAR to 2.25 to	
	i	1.0 and 6) limit the max density to	5
		80 dwelling units.	
C14-06-0100	MF-4 to	8/01/06: Approved staff rec. of	8/31/06: Approved MF-6-CO
(Bull Creek	MF-6	MF-6-CO zoning (6-3, B. Baker,	zoning (6-0); all 3 readings
Apartments:		J. Pinnelli, J. Martinez-No), with	
4320-4330 Bull		CO to 1) limit the site to 2,000	II
Creek Road)		vtpd, 2) limit height to 60 feet,	

C814-2015-0074

		3) limit density to 250 units (64.98 units per acre, 4) require a 25 foot building setback from Bull Creek Road, 5) require a 25 foot setback from 44 th Street, 6) state upon redevelopment that vehicular access is prohibited to 44 th Street except for emergency vehicle use and 7) limit the max FAR to 2.25 to 1.0.	gen Gen
C14-02-0147: Westminister Manor Health Facilities Corp., 1902-1906 W. 42 nd Street	SF-3 to SF-6	9/10/02: Case expired.	N/A
C14-99-0080: Congregation Adudas Achim: 4200 Jackson)	LO, SF-3 to GO-MU-CO	6/15/99: Approved staff's rec. of GO-MU-CO zoning (5-0-1, BH-abstain), with additional conditions: 1) limit the site to 2,000 vtpd, 2) prohibit Bed and Breakfast, College or University Facilities, Administrative and Business Offices, Cultural Services, Art and Craft Studio (Limited), Guidance Services, Business or Trade School, Hospital Services (Limited and General), Business Support Services, Local Utility Services, Medical Offices, Private Primary Educational Facilities, Off-Site Accessory Parking, Private Secondary Educational Facilities, Personal Services, Public Primary Educational Facilities, Professional Office, Public Secondary Educational Facilities, Software Development, Safety Services, Community Recreation (Private and Public), Multifamily Residential uses.	7/15/99: Approved PC rec. of GO-MU-CO zoning, with conditions (6-0); 1 st reading 9/09/99: Approved 2 nd /3 rd readings
C14-94-0054 (Westminster Manor: 4100 Jackson)	LO to GO	5/24/94: Approved GO zoning, with conditions (6-0)	7/14/94: Approved GO zoning, with ROW requirement (7-0); all 3 readings

RELATED CASES: N/A

CITY COUNCIL DATE: June 16, 2016

ACTION: Postponed to August 11, 2016

at the staff's request (11-0)

August 11, 2016

ACTION: Postponed to September 22, 2016 at the neighborhood's request (11-0);

S. Gallo-1st, L. Pool-2nd.

September 22, 2016

ACTION: Postponed to October 20, 2016 by the City Council (10-0, E. Troxclairabsent)

October 20, 2016

ACTION: Approved the Zoning and Platting Commission's recommendation for PUD zoning, with the following conditions:

1) The total square footage of all office development within the PUD shall not exceed 115,000 square feet and 2) The total square footage of all retail development shall not exceed 100,000 square feet. The public hearing shall remain open.

Vote: 8-2, K. Tovo and O. Houston-No, E. Troxclair-off the dais); S. Adler-1st, S. Gallo-2nd.

November 10, 2016

ACTION: Postponed to December 6, 2016 for a Special Called Meeting (9-2, K. Tovo and L. Pool-No); D. Zimmerman-1st, O. Houston-2nd.

December 6, 2016

ACTION:

ORDINANCE READINGS: 1st 10/20/16

2nd

3rd

ORDINANCE NUMBER:

CASE MANAGER: Sherri Sirwaitis

PHONE: 512-974-3057

sherri.sirwaitis@austintexas.gov

SUMMARY STAFF RECOMMENDATION:

The staff recommendation is to approve The Grove at Shoal Creek Planned Unit Development (PUD) zoning as requested subject that the following additional conditions be incorporated in the proposed Land Use Plan (Exhibit C) and supporting Exhibits F through J.

- 1) The total square footage of all development within the PUD shall not exceed 2.4 million square feet.
- 2) The total square footage of all office development within the PUD shall not exceed 210,000 square feet.
- 3) The total square footage of all retail/commercial development shall not exceed 150,000 square feet.
- 4) The total number of congregate care beds shall not exceed 300.
- 5) At least 30,000 square feet of retail development shall be required once 700 units of residential development are constructed before any additional residential development can occur on the property.
- 6) At least 35% of the total required affordable rental units shall be provided once 325 multifamily residential units are constructed before any additional multifamily residential units may be constructed. At least 35% of the total required affordable forsale residential units shall be provided once 100 condominium residential units are constructed in a "podium style" condominium residential building before any additional condominium residential units may be constructed.
- 7) 130,000 square feet of development may be used for Tier 2 affordable housing that is separate from and does not count against the overall development cap of 2.4 million square feet.

A Public Restrictive Covenant will include all recommendations listed in the Traffic Impact Analysis memorandum, dated March 25, 2016, as provided in Attachment M.

BASIS FOR LAND USE RECOMMENDATION (ZONING PRINCIPLES)

1. The proposed zoning should be consistent with the purpose statement of the district sought.

The Planned Unit Development (PUD) zoning district is intended for large or complex developments under unified control, planned as a single contiguous project. The PUD is intended to allow single or multi-use projects within its boundaries and provides greater design flexibility for development proposed within the PUD. Use of the PUD district should result in development superior to that which would occur using conventional zoning and subdivision regulations. PUD zoning is appropriate if the development enhances preservation of the natural environment; encourages high quality development and innovative design; and ensures adequate public facilities and services for development within the PUD.+

2. Zoning changes should result in a balance of land uses, provides an orderly and compatible relationship among land uses, and incorporates environmental protection measures.

The staff is recommending PUD zoning at this location with a reduction in the total square footage to not exceed 2.4 million square feet. The staff believes that the proposal can result in a superior mixed use development with a reduced density as the site is fronts along a

collector street and is surrounded by primarily single family residential uses. The staff recommends PUD zoning based on the following factors: accessibility, affordable housing, participation in the Art in Public Places Program, environmental superiority, drainage improvements, compliance with at least a 2-star Green Building regulations, provision for a minimum of 18.12 acres of open space/ including parkland, transportation roadway and intersection improvements, and utility facility improvements that will provide for a superior development at this location.

3. Zoning should promote clearly-identified community goals, such as creating employment opportunities or providing for affordable housing.

One of the primary benefits of the proposed PUD is that the applicants will provide a substantial on-site affordable housing component. The applicants and the Neighborhood Housing and Community Development Department (NHCD) have agreed to language in The Grove at Shoal Creek Affordable Housing Program Plan (Exhibit N). The project has been certified under SMART Housing and the PUD language will require 5% of permanent ownership units at 80% median family income (MFI) and 10% of the rental units at 60% MFI for 40 years.

4. Zoning should allow for reasonable use of the property.

The proposed PUD zoning will enable the applicant to redevelop this tract of land within the core of the City with a project that will provide residential, employment and office/retail services in close proximity of each other to encourage walking, bicycling and other transit options. The evaluation of the staff's proposed baseline recommendation for this property would allow for approximately 1.892 million square feet of development at this location. The staff analyzed the applicant's revised request for approximately 2.9 million square feet of development and determined that a one million square foot difference between the staff's recommended baseline and the amended request was too great for the offered superiority through the proposed PUD. For that reason, the staff is suggesting a 2.4 million square foot cap on development for the PUD.

EXISTING CONDITIONS

Site Characteristics

The PUD site consists of undeveloped areas along the north and east portions of the property. The south and west portions of the site are developed with state owned office buildings with parking facilities. Surrounding properties are primarily a mix of residential and office uses. The site under consideration is adjacent to single family residences to the north (SF-2 zoning) and south (SF-3 zoning). There are apartments and a senior living center to the west (MF-6-CO, MF-4 and GO-MU-CO zoning). The property directly to the east is unzoned and is developed with an industrial warehouse facility for the State of Texas archives. Further to the east are single family residences (SF-2 zoning).

Impervious Cover

The overall project impervious cover is capped at 65 % and the overall project building coverage is capped at 55%. This is specified in Note # 6 on the Land Use Plan (Exhibit C).

Comprehensive Planning

This project is located on a 75.74 acre site, formerly owned by the State of Texas. The property is surrounded by single family housing to the north and south, apartments and a senior living center to the west, and single family housing and state property to east. The site is also located in the Rosedale Neighborhood Planning area, which does not have an adopted neighborhood plan.

The PUD plan for this property calls for mixed use project, including approximately 1,500 residential units (apartment units, single family and duplexes, townhouses and condominiums), a congregate care facility, general and medical office uses, a variety of retail uses, and over 10 acres of park and open space areas. Tract C and D property would permit public and private primary and secondary education, while Tract B would permit university facilities. Some of the buildings within the project area would be up to 65 ft. tall, with Tract B allowing up to 10 percent of the site to be up to 75 ft. in height.

Imagine Austin Analysis and Conclusion

One of the goals of the Imagine Austin Comprehensive Plan (IACP) is to achieve 'complete communities.' Page 88 pf the IACP states that complete communities are areas that provide amenities, transportation, services, and opportunities that fulfill all residents' material, social, and economic needs. Page 107 of the IACP also states, "While most new development will be absorbed by centers and corridors, development will happen in other areas within the city limits to serve neighborhood needs and create complete communities. Infill development can occur as redevelopment of obsolete office, retail, or residential sites or as new development on vacant land within largely developed areas. New commercial, office, larger apartments, and institutional uses such as schools and churches, may also be located in areas outside of centers and corridors. The design of new development should be sensitive to and complement its context. It should also be connected by sidewalks, bicycle lanes, and transit to the surrounding area and the rest of the city."

The following IACP policies are applicable to this project:

- LUT P4. Protect neighborhood character by directing growth to areas of change that includes designated redevelopment areas, corridors and infill sites. Recognize that different neighborhoods have different characteristics and new and infill development should be sensitive to the predominant character of these communities.
- LUT P5. Create healthy and family-friendly communities through development that includes a mix of land uses and housing types and affords realistic opportunities for transit, bicycle, and pedestrian travel and provides both community gathering spaces, parks and safe outdoor play areas for children.
- LUT P7. Encourage infill and redevelopment opportunities that place residential, work, and retail land uses in proximity to each other to maximize walking, bicycling, and transit opportunities.
- UD P1. Develop accessible community gathering places such as plazas, parks, farmers'
 markets, sidewalks, and streets in all parts of Austin, especially in the Downtown, future

TODs, in denser, mixed-use communities, and other redevelopment areas, that encourage interaction and provide places for people of all ages to visit and relax.

• HN P10. Create complete neighborhoods across Austin that have a mix of housing types and land uses, affordable housing and transportation options, and access to healthy food, schools, retail, employment, community services, and parks and recreation options.

Conclusion:

The proposed project provides a mix of uses, a mix of housing types, open space, and addresses household affordability. The proposed project also meets a number of Imagine Austin core principles for action (p. 10 - 11) including: Grow as a compact, connected city; Integrate nature into the city; and Develop as an affordable and healthy community. Based on the Imagine Austin text and polices above, this project appears to be supported by the Imagine Austin Comprehensive Plan.

Environmental

Please refer to Exhibit F.

Site Plan

Site plans will be required for any new development other than single-family or duplex residential.

Subdivision

FYI - Platting will be required. A preliminary plan application will be required if the development proposes public or private roads. Final plats will then be required to be approved and recorded prior to any site plan or residential permits.

Transportation

Please refer to Exhibit M.

Water and Wastewater

FYI: The landowner intends to serve the site with City of Austin water and wastewater utilities. The landowner, at own expense, will be responsible for providing any water and wastewater utility improvements, offsite main extensions, water or wastewater easements, utility relocations and/or abandonments required by the proposed land uses. It is recommended that Service Extension Requests be submitted to the Austin Water Utility at the early stages of project planning. Water and wastewater utility plans must be reviewed and approved by the Austin Water Utility in compliance with Texas Commission on Environmental Quality rules and regulations, the City's Utility Criteria Manual, and suitability for operation and maintenance. All water and wastewater construction must be inspected by the City of Austin. The landowner must pay the City inspection fees with the utility construction. The landowner must pay the tap and impact fee once the landowner makes an application for a City of Austin water and wastewater utility tap permit.

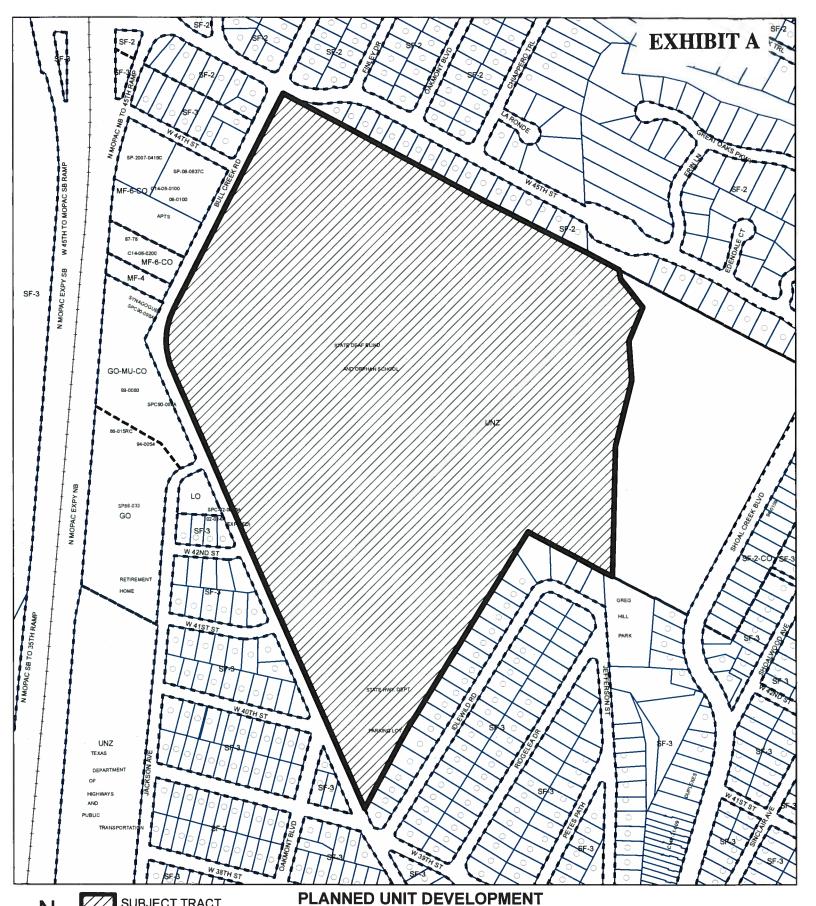
Water and wastewater SERs 3607 and 3608 in currently in review and must be approved.

The utility strongly recommends against the proposal to plat on private streets as this results in inferior streets over our utilities and the lack of ROW greatly complicates system design with complex easement and PUE dedications. The project Engineers are advised to get with Pipeline Engineering (Lonnie Robinson) as soon as possible to discuss the private street option and what will be required regardless of any variances granted including but not limited to the requirements listed below.

Typical water system operating pressures in the area are above 65 psi. Pressure reducing valves reducing the pressure to 65 psi (552 kPa) or less to water outlets in buildings shall be installed in accordance with the plumbing code.

All AWU infrastructure and appurtenances must meet all TCEQ separation criteria. Additionally AWU must have adequate accessibility to safely construct, maintain, and repair all public infrastructure. Rules & guidelines include:

- 1. A minimum separation distance of 5 feet from all other utilities (measured outside of pipe to outside of pipe) and AWU infrastructure;
- 2. A minimum separation distance of 5 feet from trees and must have root barrier systems installed when within 7.5 feet;
- 3. Water meters and cleanouts must be located in the right-of-way or public water and wastewater easements:
- 4. Easements AWU infrastructure shall be a minimum of 15 feet wide, or twice the depth of the main, measured from finished grade to pipe flow line, whichever is greater.
- 5. A minimum separation of 7.5 feet from center line of pipe to any obstruction is required for straddling line with a backhoe;
- 6. AWU infrastructure shall not be located under water quality or detention structures and should be separated horizontally to allow for maintenance without damaging structures or the AWU infrastructure.
- 7. The planning and design of circular Intersections or other geometric street features and their amenities shall include consideration for access, maintenance, protection, testing, cleaning, and operations of the AWU infrastructure as prescribed in the Utility Criteria Manual (UCM)
- 8. Building setbacks must provide ample space for the installation of private plumbing items such as sewer connections, customer shut off valves, pressure reducing valves, and back flow prevention devices in the instance where auxiliary water sources are provided.





SUBJECT TRACT

PENDING CASE

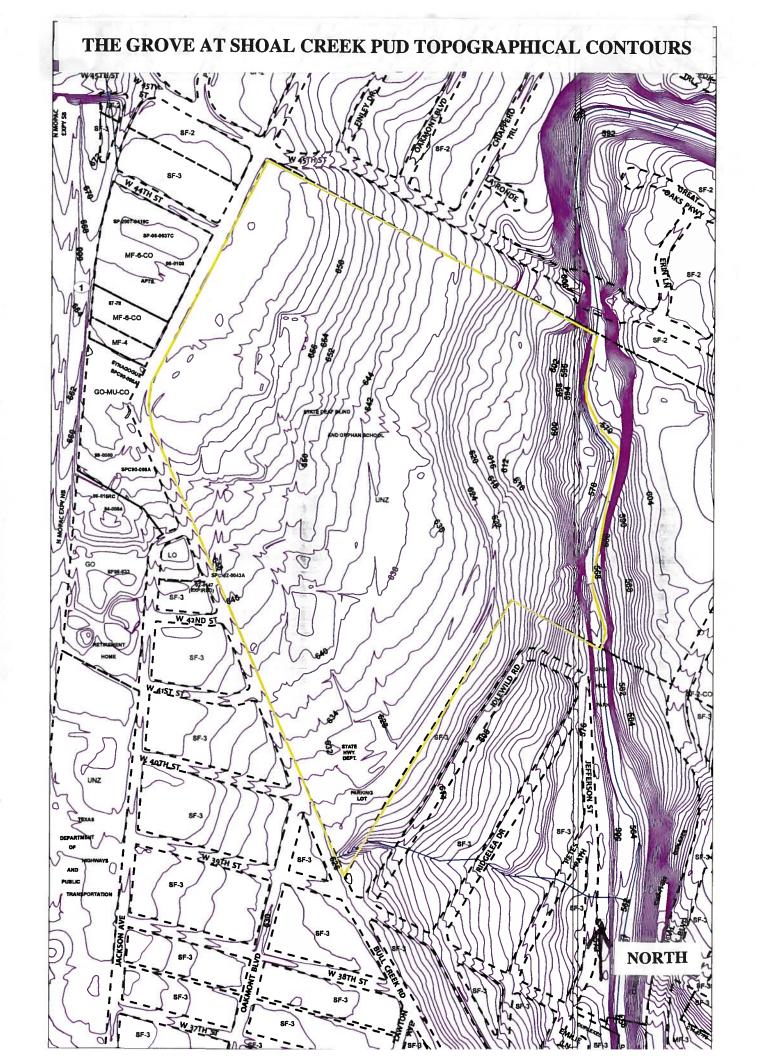
ZONING CASE#: C814-2015-0074

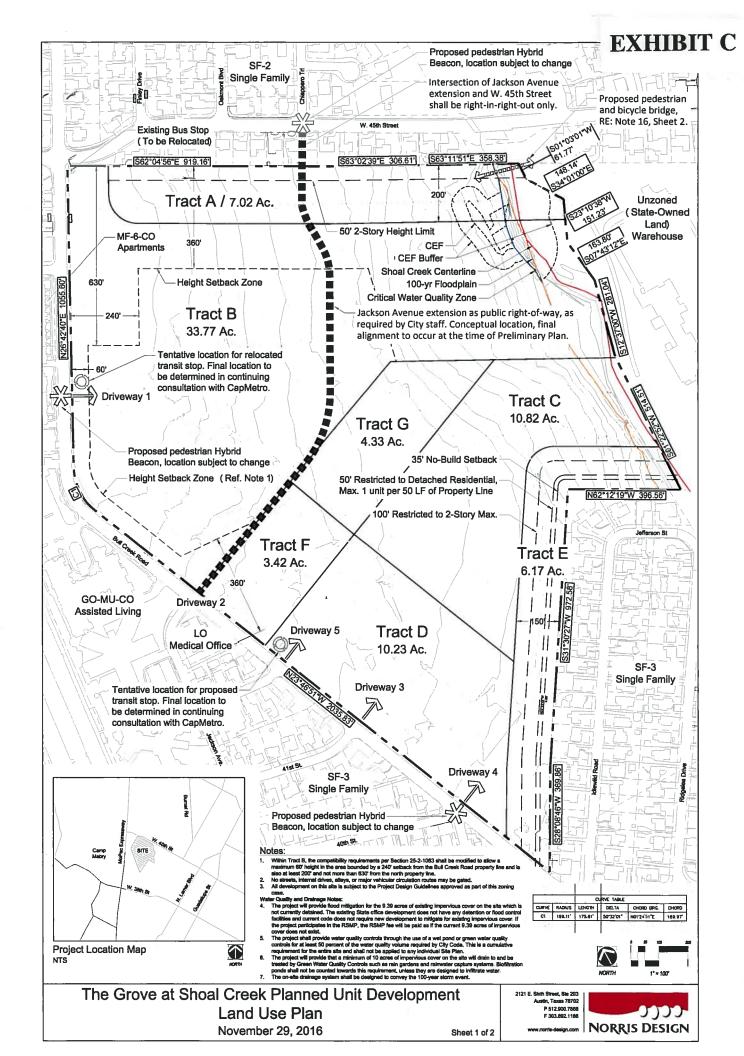
ZONING BOUNDARY

This product is for informational purposes and may not have been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of property boundaries.









TRACTS A & E Group Home, Class I (Limited) Public Primary Education Facilities Public Secondary Education Facilities Religious Assembly Retirement Housing (Small Site) Short-Term Rental Single-Family Attached Residential Single-Family Residential Small Lot Single-Family Residential Townhouse Residential Two-Family Residential

TRACT D
Community Garden
Condominium Residential
Congregate Living
Duplex Residential
Family Home
Group Home, Class I (Limited)
Multifamily Residential
Off-site Accessory Parking
Public Primary Education Facilities
Public Secondary Education Facilities
Religious Assembly
Retirement Housing (Small Site)
Short-Term Rental
Single-Family Attached Residential
Single-Family Residential
Small Lot Single-Family Residential
Townhouse Residential
Two-Family Residential
Urban Farm

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TI	RACT C
Co	mmunity Garden
Cc	ndominium Residential
Ç	ongregate Living
Dı	plex Residential
Fa	mily Home
G	oup Home, Class I (Limited)
М	Itifamily Residential
O	f-Site Accessory Parking
Ρι	iblic Primary Education Facilities
Pι	iblic Secondary Education Facilities
Re	Higious Assembly
Re	tirement Housing (Small Site)
Sh	ort-Term Rental
Si	ngle-Family Attached Residential
Si	ngle-Family Residential
Sr	nall Lot Single-Family Residential
To	wnhouse Residential
	vo-Family Residential
Ur	ban Farm

TRACT F&G
Administrative & Business Offices
Art Gallery
Art Workshop
Community Garden
Condominium Residential
Congregate Living
Counseling Services
Cultural Services
Day Care Services (Commercial)
Day Care Services (General)
Day Care Services (Limited)
Duplex Residential
Family Home
Financial Services
Group Home, Class I (Urnited)
Group Residential
Hospital (General)
Live-Work Units
Medical Offices (all sizes)
Multifamily Residential
Off-site Accessory Parking
Personal Services
Pet Services
Private Primary Education Facilities
Private Secondary Education Facilities
Professional Office
Public Primary Education Facilities
Public Secondary Education Facilities
Religious Assembly
Retirement Housing (Small Site)
Short-Term Rental
Single-Family Attached Residential
Software Development
Townhouse Residential
Two-Family Residential
Urban Farm

91 21 91 792
(Permitted in all Tracts)
Drainage, Detention & Water Quality
Facilities
Trails (hiking trails, multi-use trails,
pedestrian/bicycle bridges) and Related
Improvements
Open Space (privately owned and
maintained)
Parkland (City owned, may be privately
maintained)
Community Recreation (Public and
Private)
Parks and Recreation Services

ODEN SDACE

(General)

Day Care Services (General)
Day Care Services (Limited)
Duplex Residential
Family Home
Financial Services
Food Preparation
Food Sales
General Retail Sales (Convenience)
General Retail Sales (General)
Group Home, Class I (Umited)
Group Residential
Hospital (General)
Hospital Services (Limited)
Hotel-Motel
Indoor Entertainment
Indoor Sports & Recreation
Liquor Sales
Live-Work Units
Medical Offices (all sizes)
Mobile Food Establishments
Multifernily Residential
Off-Site Accessory Parking
Outdoor Sports & Recreation
Personal Improvement Services
Personal Services
Pet Services
Printing & Publishing
Private Primary Education Facilities
Private Secondary Education Facilities
Professional Office
Public Primary Education Facilities
Public Secondary Education Facilities
Religious Assembly
Research Services
Restaurant (General)
Restaurant (Limited)
Retirement Housing (Small Site)
Safety Services
Short-Term Rental
Single-Family Attached Residential
Single-Family Residential*
Small Lot Single-Family Residential*
Software Development
Theater
Townhouse Residential
Two-Family Residential
Urban Farm
* Sincle-family detached uses permitted only

TRACT B

Art Workshop

Automotive Rentals

Congregate Living Consumer Convenience Services Consumer Repair Services

Counseling Services Cultural Services

Business or Trade School

Business Support Services

Cockteal Lounge
College & University Facilities
Commercial Off-Street Parking
Community Garden
Community Recreation (Private)
Community Recreation (Public)
Contemprising Residential

Day Care Services (Commercial)

Administrative & Business Offices

Automotive Sales (max. 3000 SF)
Automotive Washing (accessory only)

Single-family detached uses permits within 150' of the boundary of Tract A

Notes:

- Impervious cover, number of dwelling units, and building coverage are not listed per individual Tracts in the Site Development Regulations table and shall be dealt with via a "bucket" system. Individual Tracts be dealt with via a "bucket" system. Individual Track and/or Site Pisses may vary above or below the Testad limits, as long as the calculation for the overall 7.5 decre site does not exceed the limit, Applicants shall add a labulation table (as adopted per this PUD ordinance) to each alse plan and subdivision application submittal which will show the current standing of the overall Site Development Regulations. CIty Staff shall raview the table provided with seath application and varify that it is in accordance with the Site Development Regulations. sccordance with the Site Developme outlined in the PUD Land Use Plan.
- outarrou in the PUD Land Use Plan. Total residential units on the site is capped at 1335 dwelling units (affordable housing units are not included in this carp). Affordable housing units are defined as rental or for-sale units that are restricted to 120% MFI or below. Congregate living does not count towards this 1335 unit cap, and is limited to a maximum of 300 bade. n of 300 b
- Total multi-fa ti-family residential units, that are not also flum residential units, on the site are capped at 650 dwelling units. Congregate living and the first 250 affordable housing units do not count
- towards this 650 unit cap.

 Total office uses on sits, including Administrative and Business Office, Medical Office, and Professional Office, are capped at 210,000 square feet.
- feet. Total non-office commercial uses on the site are capped at 150,000 square feet and a maximum size of 47,500 square feet for any one tensant space. Overall project impervious cover is capped at 65% and overall project building coverage is capped at a.e.e.
- and overea project outcomer deverage is capped at The ART maximum listed in the Sito Development. The ART maximum listed in the Sito Development has PUD and the FAR hall in the Sito Development has PUD and the FAR hall in the Sito Development individual Tract beats but may be accessed on an individual Tract beats but may be accessed on an individual at plan within a Tract. Tacking his alcotted and remaining FAR within each Tract is the responsibility of the Applicant. Parks and open space are ellowed uses in all Tracts. Cockial lounge uses are supposed at 15,000 SF total and a maximum size of 7500 SF for any one teams pace. Additionally, cockial lounge uses are not permitted within 300° of an SF-5 or more restrictive coning district or propersise on which uses permitted
- Liquor sales uses are capped at 15,000 SF total and a maximum size of 10,000 SF for any one tenant
- space. Hospital (Genera) uses are allowed only in association with Congregate Living, on the same site as Congregate Living, and are limited to a total of 65,000 SF.
- 65.000 SF. Live-work units are defined as residential units which are similarly configured to real/sential row houses or townhomes but are distinguished by a workspacen, studio, storefront, or business that is flush the with street frontage. The non-residential portion of the unit shall be located on the ground floor only and the unit shall be located on the ground floor only and the residential and non-residential areas must be used and occupied by the same owner or occupant. Driveway and trail locations shown on the Land Use Plan are approximate and will be determined at the time of SIsP Plan.
- 13. Orlwwwy and trail locations shown on the Land Use Plan are approximate and will be determined at the time of Site Plan.
 14. Public art shall be installed in a minimum of three (3) locations throughout the project. A minimum budget of \$50,000 shall be spart on public art within the PIU site.
 15. Off-site Parting per 25-5-501 may be provided for a use located in any Tract within the PIUD so long as the off-site parting is located in a Tract where Off-site Accessory Parting is a permitted use.
 16. Proposed Pedestrian and Bicycle Bridge over Shoal Creek:
 16.a. The applicant will post fiscal with the City of
- The applicant will post fiscal with the City of Austin for the construction of a bicycle and

- pedestrian bridge crossing Shoal Creek enabling a trail connection from the site to Shoal Creek Bivd. The amount of the fiscal Shoel Creek Bird. The amount of the fiscal shall be based on the Applicant's approved engineering cost settinate. Subject to City approval of the proposed bridge location. (the City considering sentenomental, connectivity and other feators) the Applicant will construct the bridge and trail. If the City of Austin or the applicant is unable to secure an essentent to allow for the construction of said bridge, the construction of complete other bloycle and pedestrian improvements in the area east of the property. The Applicant further agrees to provide easements; if needed, for future bloycle and pedestrian bridge crossings at both the northe and southern portions of Shoal Creek, whether or not the bridge described above is communicated.
- or not me anage describes active.

 Bridge location shown is approximate and subject to change. Bridge may be located anywhere on alte with City approval so long as it does not impact the welland CEF or the portion of the wetland CEF buffer that is outside
- portion of the wetland CEF buffer that is outside the 100-year flood plain, lowing benefits to encourage alternative transportation polions:

 17.e. The project shall provide the following benefits to encourage alternative transportation polions:

 17.e. A minimum of one location shall be set asked for a B-cycle station to be installed by B-cycle when network is expended to encompass project),

 17.b. A minimum of 8 car-sharing parking spaces will be reserved on the site, subject to inclusion of the site in the coverage area of a car-share service.
- All office buildings that are 10,000 SF or greater
- the title in the coverage shale or a cur-ensure sea.

 17. All office buildings that are 10,000 SF or greater will provide shower and changing facilities meeting the requirements of Austin Emergy Green Build Commercial Ratings (2013).

 17. d. Bike parking will be provided for a minimum of 10 to 6 all required vehicular parking spaces. Private garages serving a residential unit are considered to meet this requirement.

 17. e. A minimum of two bus stops will be provided on Buil Creek Road for any bus route located slong Buil Creek Road. Each stop shall fleature inprovements including, at a minimum of shade located nearly (shade shrucurs, bus shelter, trees, etc.). Bus stops should be approximately 25 feet in length by 10 feet in width and incorporated into the sidewestir. A larger area of approximately 15 feet in width (perpendicular to the road by 50 feet in length (partiell to the road) surrounding the stop should be about a shade to the road by 50 feet in length by 1. All multi-turily developments shall incorporate the provided cops parking for residents.

 17. All multi-turily developments shall incorporate bridge or any addition of residential development shall be required one 700 units of residential development shall be accorded to the required one 700 units of residential development shall be accorded to the required affordable rental units shall be provided one 225 multi-turily residential development and be footballer and before any additional multi-family units may be constructed before any additional multi-family units may be constructed. All least 30% of the botal required of the constructed before any additional multi-family units may be constructed. All least 30% of the botal required one 250 multi-family residential development.

- multi-family residential units are constructed before any additional multi-family units may be constructed. At least 35% of the total required affordable for sale residential units shall be provided once 100 "podium style" condominium residential units are constructed before any additional "podium style" condominium residential units are constructed before any residential units may be constructed. 130,000 square feet of development may be used for Tet 2 affordable housing that is separate from and does not count against the overall development cap of 2.66 million square feet.

SITE DEVELOPMENT REG	ULATIONS						
	TRACT A	TRACT B	TRACT C	TRACT D	TRACT E	TRACT F	TRACT G
Minimum Lot Size in s.f.	3,000	3.000	3.000	3,000	3,000	3,000	3,000
Minimum Lot Width	30'	30"	30,	30'	30	30'	30'
Maximum Height	40'	65' (1)	40' (2)	40' (2)	35'	40' (2)	60'
Minimum Setbacks from Public Stree	ets ⁽⁴⁾						
Front Yard	10'	0'	10'	0. (6)	10'	0'	0"
Street Side Yard	10'	0'	10'	0,	10'	o	0"
Minimum Interior Yard Setbacks							
Interior Side Yard	0,	0'	0,	0,	O'	O'	0"
Rear Yard	0.	0'	0,	0,	0'	0"	O'
Maximum Floor Area Ratio (5)	0.75:1	1.5:1	0.75:1	1:1	0.75:1	1:1	1:1
Impervious Cover Maximum (5)	55%	NA (3)	NA (3)	NA (3)	55%	NA (2)	NA ⁽³⁾
Building Coverage Maximum (5)	45%	NA (3)	NA (3)	NA (3)	45%	NA (7)	NA (3)
Maximum Residential Units	87	NA (3)	NA (3)	NA ⁽³⁾	77	NA (3)	NA (3)

(1) Up to 5% of Tract B is permitted to be up to 75' in height. This additional height mitted only within the Height Setback Zone, as shown on the LUP Plan. eight on Tract B may not exceed 5-stories

(2) Within 100 feet of Tract G, height may be increased to a maximum of 60° for an Affordable Housing development with the project's Affordable Housing Program.

A minimum of 25% of the residential units in a building must be affordable under the project's Affordable Housing Program in order for that building to qualify for this height exception. Building height will be required to comply with City of Austin Compatibility Standards.

(3) Tracts B, C, D, F, and G do not have individual impervious Cover, Building Coverage, or Unit Caps, but they are subject to the overall IC, Bullding Coverage, and Unit Cap as stated in notes 2 and 6, above.

(4) The minimum setback from Bull Creek Road is 15' for all tracts.

[5] Right-of-Way dedicated from a given tract shall still be included in the total site area to calculate Site Development Regulations including FAR, Impervious Cover, Building Coverage, and Owelling Units.

(6) The minimum building setback from Bull Creek Road ROW in Tract D is 25'

Total Impervious Cover 65% Total Building Coverage 55% Total Square Footage (Not including Affordable Housing) 2.65 million SF Additional Square Footage for Affordable Housing Only 130,000 SF 150,000 SF Total Retail Square Footage Total Office Use Square Footage 210,000 SF 1335 units Total Residential Units (Not including Affordable Housing) Total Apartment Units (Not including Affordable Housing) 650 units Total Congregate Care Beds 300 beds Maximum Cocktail Lounge Use Square Footage 15,000 SF Maximum Liquor Sales Use Square Footage 15,000 SF Maximum Hospital (General) Use Square Footage 65,000 SF

Reference Notes 1-18 and Site Development Regulations for additional information.

DEVELOPMENT ENTITLEMENTS SUMMARY

EXHIBIT D

ATTACHMENT 1 Tier 1 and Tier 2 Compliance Summary October 2016

Tier 1	Tier 1 Requirements - Section 2.3.1	Compliance/ Superiority
ė.	meet the objectives of the City Code;	WES. The Project is located in the urban core and within an Urban watershed. The Project is located near Mopac Expressway and is located along the proposed Shoal Creek Urban Trail and an existing CapMetro bus route. The Project will promote the Imagine Austin priority of creating a "compact and connected" City increasing population density within the urban core. The Project is compatible with surrounding uses and zoning which is consistent with the general neighborhood preferences. Except as set forth in the Proposed Code Modifications Summary, the Project will comply with the current City Code requirements.
മ്	provide for development standards that achieve equal or greater consistency with the goals in Section 1.1 (General Intent) than development under the regulations in the Land Development Code;	YES. The Project will meet the goals of Section 1.1 as follows: 1. Preserve Natural Environment. The Project will preserve all of the high quality heritage trees on the Property, and remove only a handful poor to fair condition "heritage" pecan trees. The Project will provide for greater open space than required by the City Code. The Project will provide green water quality controls and will provide water quality controls and drainage improvements for the entire site. The current state office development does not have any detention or flood control facilities. 2. High Quality Development and Innovative Design. The Project will utilize mixed use and urban design principles that will allow clustering of uses in higher densities that promote urban

amount of open space for the purpose of determining compliance iving, working and shopping on the site and encourage use of alternative transportation options. The Project will integrate pedestrian and bicycle connectivity throughout the Property. The Project will be designed to make use of scenic views from public spaces. Parking structures will be used in connection with office and apartment uses. Higher development intensity will be focused along Bull Creek Road and the interior of the Property and lower development intensity will be located near existing provide (i) a large on-site, publicly accessible signature park space with park improvements and amenities open to the public plazas and other open and community spaces with public amenities that will provide opportunities for people to gather and socialize;, (iii) hike and bike trails along Bull Creek Road and Shoal Creek and improvements to enhance transit use so that area residents will have greater transportation options; (iv) roadway intersection improvements through the use of turn lanes and signalization funded 100% by the Applicant, (v) water system improvements that will improve water pressure (especially for fire flow purposes) to the area, (vi) a pedestrian and bicycle bridge YES. Even though the Project is an "urban property", the Project will exceed these requirements by providing at least 19.38 acres of open space as shown on the Parks Plan Exhibit. This minimum with Tier 1 and Tier 2 requirements is also shown on the Parks The Applicant actually intends that the Project will provide more open space than the minimum 19.38 acres. This open space, Adequate Public Facilities and Services. The Project will providing recreation and natural open space to the whole City; (ii) Plan Exhibit and is approximately 11 and 12 acres respectively. which the Applicant may sometimes also refer to as "Park Space", single family residences. across Shoal Creek. calculation unless it is designed and maintained as 1. a detention or filtration area is excluded from the exceeds 10 percent of the residential tracts, 15 percent of the industrial tracts, and 20 percent of the nonresidential provide a total amount of open space that equals or tracts within the PUD, except that: an amenity; and ರ

	2. the required percentage of open space may be reduced for urban property with characteristics that make open space infeasible if other community benefits are provided;	will be publicly accessible and offer excellent recreational and natural areas throughout the Project.
D.	comply with the City's Planned Unit Development Green Building Program;	YES. The Project will comply with at least a 2-star Green Building requirement.
ங்	be consistent with applicable neighborhood plans, neighborhood conservation combining district regulations, historic area and landmark regulations, and compatible with adjacent property and land uses;	YES. There is no applicable neighborhood plan, NCCD or historic area or landmark regulations applicable to the site. However, as stated above, the largely residential Project will be compatible with area land uses and zoning districts and is consistent with the principles and priorities of Imagine Austin. In addition, the Applicant believes the Project is consistent with neighborhood preferences established in surveys conducted by the Applicant and with the Bull Creek Road Coalition's Design Principles.
ri.	provide for environmental preservation and protection relating to air quality, water quality, trees, buffer zones and greenbelt areas, critical environmental features, soils, waterways, topography, and the natural and traditional character of the land;	VES. The Project will preserve all of the higher quality heritage oak trees on the Property, and remove only a handful poor to fair condition "heritage" pecan trees. The project will preserve a minimum of 75% of Protected Size native tree inches on site. The Project will provide for greater open space than required by the City Code. The Project will provide green water quality controls and will provide water quality controls and drainage improvements for the entire site. The current state office development does not have any detention or flood control facilities. The Project will not propose any flood plain modifications. The Project will incorporate the natural features, topography and character of the land in its overall design.
	provide for public facilities and services that are adequate to support the proposed development including school, fire protection, emergency service, and police facilities;	YES. As stated above, the Project will provide (i) a large on-site, publicly accessible signature park space with park improvements and amenities open to the public providing recreation and natural open space to the whole City; (ii) plazas and other open and

		community spaces with public amenities that will provide opportunities for people to gather and socialize;, (iii) hike and bike trails along Bull Creek Road and Shoal Creek and improvements to enhance transit use so that area residents will have greater transportation options; (iv) roadway intersection improvements through the use of turn lanes and signalization funded 100% by the Applicant, (v) water system improvements that will improve water pressure (especially for fire flow purposes) to the area, and (vi) a pedestrian and bicycle bridge across Shoal Creek. In addition, there are currently existing adequate school, fire protection, emergency service, and police facilities located in the area. Bryker Woods School for example is populated by approximately 20% - 30% of transfer students and, therefore, has sufficient capacity to meet the needs of the Project.
н	exceed the minimum landscaping requirements of the City Code;	YES. The Project will exceed the minimum Code requirements for landscaping. The Project will implement an Integrated Pest Management Plan, which shall apply to all sites and uses within the PUD. The project Design Guidelines require minimum 3" caliper street trees on all internal streets. Under conventional zoning, Tracts A, C, D, and E would be residential zoning districts and would not require street trees under Subchapter E. This area of additional street trees represents 34.24 acres or approximately 45% of the total project area. Additionally, street trees will be required along Bull Creek Road where they would not be required by Subchapter E. The Design Guidelines will additionally require that a minimum of 95% of all non-turf plant materials be from or consistent with the City's Grow Green Guide.
—	provide for appropriate transportation and mass transit connections to areas adjacent to the PUD district and mitigation of adverse cumulative transportation impacts with sidewalks, trails, and roadways;	YES. There is currently a CapMetro bus route located on Bull Creek Road adjacent to the Property that provide transit to major employment centers like the Seton Medical Center, the University of Texas and downtown. The Applicant is in discussions with CapMetro about how to provide enhancements to this transit stop

32 E

*

		to facilitate increased ridership. In addition, the Project will provide greater pedestrian and bicycle trails and sidewalks along Bull Creek Road, within the Property and along Shoal Creek, including a pedestrian and bicycle bridge across Shoal Creek. A TIA has been performed and demonstrates that impacts on area intersections from the Project are properly mitigated with turn lane and signal improvements.
J.	prohibit gated roadways;	YES. The Project will prohibit gated communities.
· 보	protect, enhance and preserve areas that include structures or sites that are of architectural, historical, archaeological, or cultural significance; and	NOT APPLICABLE. There are no such areas within the Property. However, the Applicant is willing to memorialize the prior use of the site for the education of disabled African Americans in public spaces located within the Project.
r.	include at least 10 acres of land, unless the property is characterized by special circumstances, including unique topographic constraints.	YES. The Property is approximately 75.74 acres.
Addi	Additional Requirements – Section 2.3.2	Compliance/ Superiority
-K	comply with Chapter 25-2, Subchapter E (Design Standards And Mixed Use);	MODIFICATIONS REQUESTED. As permitted by Section 2.2 of PUD Code Provisions, the Applicant will be proposing modifications to the Subchapter E standards that will replace and supersede Subchapter E. The Project Design Guidelines meet the intent and purposes of Subchapter E, while making compliance simpler and easier to implement.
œ́	inside the urban roadway boundary depicted in Figure 2, Subchapter E, Chapter 25-2 (Design Standards and Mixed Use), comply with the sidewalk standards in Section 2.2.2. Subchapter E, Chapter 25-2 (Core Transit Corridors: Sidewalks And Building Placement); and	MODIFICATIONS REQUESTED. As permitted by Section 2.2 of PUD Code Provisions, the Applicant has proposed modifications to the Subchapter E sidewalk and building placement standards that will replace and supersede Subchapter E. The Project Design Guidelines meet the intent and purposes of Subchapter E, while making compliance simpler and easier to implement.
ن	contain pedestrian-oriented uses as defined in <u>Section 25-2-691(C)</u> (Waterfront Overlay District Uses) on the first floor of a multi-story commercial or mixed use building.	YES. The Project will contain pedestrian-oriented uses on the first floor of multi-story commercial or mixed use buildings located along roadways with pedestrian walkways. The size of

		the Project is such that some interior buildings that are not located on significant pedestrian walkways do not have such uses.
Tier ?	Tier 2 Requirements - Section 2.4	Compliance/ Superiority
 	Open Space – Provides open space at least 10% above the requirements of Section 2.3.1.A. (Minimum Requirements). Alternatively, within the urban roadway boundary established in Figure 2 of Subchapter E of Chapter 25-2 (Design Standards and Mixed Use), provide for proportional enhancements to existing or planned trails, parks, or other recreational common open space in consultation with the Director of the Parks and Recreation Department.	YES. The Project will provide at least 19.38 acres of open space as shown on the Park Plan Exhibit which is far above the requirement in Section 2.3.1.A. This <i>minimum</i> amount of open space for the purpose of determining compliance with Tier 1 and Tier 2 requirements is also shown on the Parks Plan Exhibit and is approximately 11 and 12 acres respectively. The Applicant actually intends that the Project will provide more open space than the minimum 19.38 acres. This open space will largely consist of dedicated parkland and will be publicly accessible and offer excellent recreational and natural areas throughout the Project.
B.	Environment/Drainage –	
	1. Complies with current code instead of asserting entitlement to follow older code provisions by application of law or agreement.	NOT APPLICABLE.
	code.	YES. The project will meet current code requirements for water quality volume. The Project will provide water quality controls through the use of a wet pond and/or Green Water Quality Controls for a minimum of 50% of the required water quality volume on-site, which provide superior Total Suspended Solid and nutrient removal to more conventional controls and also offer wetland and habitat benefits that are particularly appropriate to the Project. Makeup water for the wet pond will be provided by air conditioner condensate from commercial buildings on site. Site plans for commercial buildings will be required to include plumbing connections to the makeup water system unless it has been demonstrated that prior connections (from other buildings on site) will provide sufficient makeup water for the pond. Potable

:

		or well water may be used for makeup water only during buildout
i,		YES AS MODIFIED. The project will provide that a minimum
	the Environmental Criteria Manual to treat at least 50 percent of the water quality volume required by	of 10 acres of impervious cover on the site will drain to and be treated by Green Water Quality Controls such as rain gardens, and
		rainwater capture systems. Biofiltration ponds shall not be
4.	Provides water quality treatment for currently	NOT APPLICABLE.
	untreated, developed off-site areas of at least 10 acres in size.	
5.		NOT APPLICABLE. The site is not currently zoned. While a
	the maximum otherwise allowed by code or	baseline may be established by City Council, Council has been
	includes off-site measures that lower overall	directed by City Staff that the baseline is solely for determining
	impervious cover within the same watershed by	development bonuses and not for other zoning factors. As such, it
	five percent below that allowed by code.	would not be appropriate to apply the established baseline to determine environmental superiority.
6.	Provides minimum 50-foot setback for at least 50	NOT APPLICABLE.
	percent of all unclassified waterways with a	
	drainage area of 32 acres.	
7.		NO.
	in the Drainage Criteria Manual.	
∞	Provides drainage upgrades to off-site drainage infrastructure that does not meet current criteria in	NOT APPLICABLE.
	the Drainage or Environmental Criteria Manuals,	
	such as storm drains and culverts that provide a public benefit.	
9.	1	YES. The Project will not modify the existing 100-year flood
	floodplain.	plain.
10	10. Uses natural channel design techniques as described in the Drainage Criteria Manual.	NOT APPLICABLE.
	11. Restores riparian vegetation in existing, degraded	NO. Existing riparian vegetation along the top of the bank is
	Critical Water Quality Zone areas.	already in good condition and will be protected by a Riparian

12. Removes existing impervious cover from the NC Critical Water Quality Zone. 13. Preserves all heritage trees; preserves 75% of the YB	mitigation
Tone. Zone. trees; preserves 75% of the	ingation:
trees; preserves 75% of the	NOT APPLICABLE.
l comment of the comm	VES AS MODIFIED. The Project will preserve more than 75%
ed with native protected size	of all Protected Size native caliper inches. The Project will
	preserve all of the higher quality heritage oak trees on the
	Property, and remove only a handful of poor to fair condition
4,,	"heritage" pecan trees. The heritage pecan trees to be removed are
do	of a variety that is not native to the area and structurally poor and
do l	of lower quality. The Applicant has met with the City Arborist to
dis	discuss removal of these small number of trees and the
ud	preservation of all of the high-quality heritage oak trees.
Ä	Additionally, the project will provide additional protection for the
3,4	34 critical root zone for all protected and heritage trees within the
Si	Signature Grove, which includes all trees around the proposed
od	pond and the highest quality oak trees throughout the Signature
Pa	Park.
14. Tree plantings use Central Texas seed stock native N	NO. While the Project will utilize native and adapted trees from
and with adequate soil volume.	the Grow Green Guide, a commitment to 100% native seed stock
	is not feasible at this time.
15. Provides at least a 50 percent increase in the NG	NO. While the project does propose a Riparian Grow Zone along
minimum waterway and/or critical environmental the	the Critical Water Quality Zone boundary that would effectively
feature setbacks required by code.	increase the waterway buffer for Shoal Creek, it also proposes a
rec	reduction in the Wetland CEF buffer.
16. Clusters impervious cover and disturbed areas in a YI	YES. The Project will cluster development along Bull Creek
manner that preserves the most environmentally Ro	Road and the interior of the Property and away from Shoal Creek
sensitive areas of the site that are not otherwise an	and the large oak groves located on the Property where a large
protected.	amount of open space will be provided instead.
oorous pavement for at least 20 percent	NO.
or more of all paved areas for non-pedestrian in	
non-aquifer recharge areas.	

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	18. Provides porous pavement for at least 50 percent or more of all paved areas limited to pedestrian use.	NO.
	19. Provides rainwater harvesting for landscape irrigation to serve not less than 50% of the landscaped areas.	NO. Due to the size of the proposed parks in particular, this option is not feasible for this Project.
	20. Directs stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.	YES. The Project will direct stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
	21. Employs other creative or innovative measures to provide environmental protection.	YES. The Project will provide flood mitigation for the 9.39 acres of existing impervious cover on site that is not currently detained. The current state office development does not have any detention or flood control facilities, and current code does not require new development to detain for existing impervious cover. If the Project participates in the RSMP, the RSMP fee will be paid as if the current 9.39 acres of impervious cover does not exist. The City of Austin Watershed Protection Department will choose the most effective flood mitigation option for the site, which may include onsite detention in compliance with the Environmental Criteria Manual or RSMP participation, at the time of commercial site plan or residential subdivision application. The City of Austin selected flood mitigation option will be required to demonstrate no downstream adverse impact up to the confluence of Shoal Creek with Lady Bird Lake. Additionally, the Project will provide educational signage for the Wetland CEF.
C.	Austin Green Builder Program – Provides a rating under the Austin Green Builder Program of three stars or above.	NO. While certain buildings and development within the Project may meet or exceed a 3-star rating, requiring such compliance for all such buildings and development is not feasible.
D.	Art – Provides art approved by the Art in Public Places Program in open spaces, either by providing the art	YES AS MODIFIED. The Project will provide art in public places through development of a public art plan developed by the

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directly or by making a contribution to the City's Art in Public Places Program or a successor program. Great Streets — Complies with City's Great Streets Program, or a successor program. Applicable only to commercial, retail, or mixed-use development that is not subject to the requirements of Chapter 25-2. Subchapter E (Design Standards and Mixed Use). Community Amenities — I. Provides community or public amenities, which may include spaces for community meetings, community gardens or urban farms, day care facilities, non-profit organizations, or other uses that fulfill an identified community need. 2. Provides publicly accessible multi-use trail and greenway along creek or waterway. Transportation — Provides bicycle facilities that connect to existing or planned bicycle routes or provides other multimodal transportation features not required by code. Building Design — Exceeds the minimum points required by the Building Design Options of Section 3.3.2. of Chapter 25-2, Subchapter E (Design Standards and Mixed Use).		YES AS MODIFIED. The Project will provide private street cross sections that will meet the intent and purposes of the Great Streets Program through its Project Design Guidelines.	YES. The Project will provide community and public amenities including spaces for community meetings, gatherings and other community needs, and publicly accessible multi-use trails and greenways along Shoal Creek. The project will also provide a pedestrian and bicycle bridge across Shoal Creek.	YES. The Project will provide (i) bicycle trails and shared use paths throughout the project that will facilitate connection to existing and planned bike routes and trails, (ii) a pedestrian and bicycle bridge across Shoal Creek, (iii) a location for a B-cycle Station, (iv) at least 8 car-sharing parking spaces, (v) shower facilities in all office buildings over 10,000 SF, (vi) bike parking for a minimum of 10% of required vehicular spaces, (vii) bicycle cage parking in multifamily buildings, and (viii) improved bus stops developed in consultation with CapMetro and the neighborhood.	MO. While certain buildings and development within the Project may exceed such minimum points, requiring such compliance for all such buildings and development is not feasible. The intent and purpose of such building design will be met through the Project Design Caideling.
	directly or by making a contribution to the City's Art in Public Places Program or a successor program.	Great Streets – Complies with City's Great Streets Program, or a successor program. Applicable only to commercial, retail, or mixed-use development that is not subject to the requirements of Chapter 25-2, Subchapter E (Design Standards and Mixed Use).	Community Amenities – 1. Provides community or public amenities, which may include spaces for community meetings, community gardens or urban farms, day care facilities, non-profit organizations, or other uses that fulfill an identified community need. 2. Provides publicly accessible multi-use trail and greenway along creek or waterway.	<u>Transportation</u> – Provides bicycle facilities that connect to existing or planned bicycle routes or provides other multimodal transportation features not required by code.	Building Design – Exceeds the minimum points required by the Building Design Options of Section 3.3.2. of Chapter 25-2, Subchapter E (Design Standards and Mixed Use).

Ī	Parking S	Parking Structure Frontage - In a commercial or mixed-	In a commercial or mixed- NO. While certain buildings and development within the Project
	use deve	use development, at least 75 percent of the building	may meet such percentage, requiring such compliance for all such
	frontage	frontage of all parking structures is designed for	buildings and development is not feasible.
	pedestria	pedestrian-oriented uses as defined in Section 25-2-	
	691(C) (V	691(C) (Waterfront Overlay District Uses) in ground floor	
	spaces.		
<u>-</u>	Affordab	Affordable Housing - Provides for affordable housing or	YES. The Applicant will provide a substantial on-site affordable
	participat	participation in programs to achieve affordable housing.	housing component as more particularly set forth in the The
	,		Grove at Shoal Creek Affordable Housing Plan.
\	Historic	Historic Preservation - Preserves historic structures,	NOT APPLICABLE. There are no such features within the
	landmark	landmarks, or other features to a degree exceeding	Property. However, the Applicant is willing to memorialize the
	applicable	applicable legal requirements.	prior use of the site for the education of disabled African
	i		Americans in public spaces located within the Project.
ابا	Accessib	Accessibility - Provides for accessibility for persons with	YES. The Project will provide for accessibility for person with
	disabilitie	disabilities to a degree exceeding applicable legal	disabilities to a degree exceeding applicable legal requirements.
	requirements.	ents.	
Σ	Local Sm	Local Small Business - Provides space at affordable rates	NO. While the Applicant fully intends to actively seek local
	to one o	to one or more independent retail or restaurant small	small businesses for the Project and may use incentives to induce
	businesse	businesses whose principal place of business is within the	such local businesses, given the on-site affordable housing
	Austin m	Austin metropolitan statistical area.	commitment, increased parks and open space commitments, and
			increased traffic mitigation commitments, requiring a specific
			criteria for affordable retail rates is not feasible.

EXHIBIT E

ATTACHMENT 2 Proposed Code Modifications October 2016

C	CHAPTER 25-1 MODIFICATIONS		
၂၁	CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
I.	1. Definitions, Article 2, Chapter 25-1-21	"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. A site may not cross a public street or right-of-way."	"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. A site may cross a public street or right-of-way if that public street or right-of-way is within the boundaries of The Grove at Shoal Creek PUD."
2.	. Parkland Requirements, Article 14, Chapter 25-1 and 25-4-211	25-1-602(A) "A subdivider or site plan applicant shall provide for the parkland needs of the residents by the dedication of suitable parkland for park and recreational purposes under this article."	"Section 25-1-602 (Dedication of Parkland Required) is modified to provide that subdivider or site plan applicant shall provide for the parkland needs of the residents by providing suitable parkland for park and recreational purposes under the terms of The Grove at Shoal Creek Parks Plan and Parkland Improvement Agreement attached as exhibits to Planned Unit Development Ordinance No.
<i>w</i> .	. Gross Floor Area, 25-2-21(44)	25-1-21 "(44) 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.	"(44) 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, parking structures, driveways, and enclosed loading berths and off-street maneuvering areas."		PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD	The Applicant proposes that the site development regulations applicable to the Property be as shown on the Land Use Plan	"In determining compliance with the applicable height limitations, a parking level shall not be and is not considered a 'story'."	"Section 25-2-1006 (A) shall not apply to any water quality and/ or storm water drainage facility that serves as an amenity or to any Green Storm Water Quality Infrastructure as defined in the Environmental Criteria Manual, except that any green infrastructure hardened outfalls and control structures should still be buffered from public ROW. Section 25-2-1006 (C) shall not apply between uses or sites that are both located within the PUD boundaries. This section shall still apply at the boundaries of the PUD."	"Chapter 25-2, Subchapter B, Article 2, Division 5, Section 3.2.3.D.1 shall not apply to the PUD. Notwithstanding the foregoing the remainder of that section
The term includes loading docks and excludes atria airspace, parking facilities, driveways, and enclosed loading berths and off-street maneuvering areas."		CURRENT CODE LANGUAGE	Not applicable.	City staff interprets a parking level to be a "story" for the purposes of determining compliance with site development regulations.	features features features features features features	"D. the minimum front yard and street side yard setbacks, which must be not less than the greater of:
	CHAPTER 25-2 MODIFICATIONS	CODE SECTIONS TO BE MODIFIED	4. Site Development Regulations, 25-2- 492	5. Site Development Regulations, 25-2- 492 and Height, 25-1-21(47)		/. Flanned Unit Development Regulations, Chapter 25-2, Subchapter B, Article 2, Division 5, Section 3.2.3.D.1

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	1. 25 feet for a front yard, and 15 feet for a street side yard; or"	shall apply to the PUD."
8. Compatibility Standards, Chapter 25-2, Article 10 NOTE: This Code modification only applies where the triggering property is located within the PUD. This Code modification does not apply where the triggering property is located outside the PUD. This Code modification is identical to the outside the pub.	Chapter 25-2, Article 10, Compatibility Standards applied to triggering property within the PUD only	"Chapter 25-2, Article 10 (Compatibility Standards) does not apply only where development within the PUD triggers such compatibility standards. Notwithstanding the foregoing, Chapter 25-2, Article 10 (Compatibility Standards) shall apply, except as provided herein, where development outside of the PUD triggers such compatibility standards."
9. Compatibility Standards, 25-2-1063(C)(2)and (3)	feet, if the structure is more than 50 feet and not more than 100 feet from property: (a) in an SF-5 or more restrictive zoning district; or (b) on which a use permitted in an SF-5 or more restrictive zoning district is located; (3) for a structure more than 100 feet but not more than 300 feet from property zoned SF-5 or more restrictive, 40 feet plus one foot for each 10 feet of distance in excess of 100 feet from the property zoned SF-5 or more restrictive, 40 feet plus one foot for each 10 feet of distance in excess of 100 feet from the property zoned SF-5 or more restrictive;"	"In the rectangular area of land in Tract B that is bounded by (i) the property line adjacent to Bull Creek Road on the west, (ii) a line 240 feet east from the property line adjacent to Bull Creek Road on the east, (iii) a line that is 200 feet south of the northern property line on the north, and (iv) a line that is 630 feet south of the northern property line on the south, Section 25-2-1063(C) (2) of the Austin City Code shall not apply, and Section 25-2-1063(C)(3) is modified to read to provide that for a structure more than 50 feet but not more than 300 feet from the property zoned SF-5 or more restrictive, height may is limited to 60:"
10. Compatibility Standards, 25-2-1067(G) and (H)	25-2-1067 "(G) Unless a parking area or driveway is on a site that is less than 125 feet wide, a parking area or driveway may not be constructed 25 feet or less from a	"Section 25-2-1067(G) and (H) of the Austin City Code shall not apply to Tract A only, with respect to the construction of an alley, public road, trails and/or sidewalks."

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	lot that is: (1) in an SF-5 or more restrictive zoning district; or (2) on which a use permitted in an SF-5 or more restrictive zoning district is located."	
11. Commercial Design Standards, Subchapter E, Chapter 25-2	Chapter 25-2, Subchapter E, Design Standards and Mixed Use	"The Grove at Shoal Creek Design Guidelines generally address the physical relationship between commercial and other nonresidential development and adjacent properties, public streets, neighborhoods, and the natural environment, in order to implement the City Council's vision for a more attractive, efficient, and livable community. The requirements of Chapter 25-2, Subchapter E of the Austin City Code shall not apply to the property. All requirements in the Austin City Code that reference Chapter 25-2, Subchapter E shall be modified to refer to such Design Guidelines."
CHAPTER 25-4 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
12. Alleys, 25-4-132(B)	25-4-132 "(B) Off-street loading and unloading facilities shall be provided on all commercial and industrial lots, except in the area described in Subsection (C). The subdivider shall note this requirement on a preliminary plan and a plat."	"Off-street loading and unloading shall be provided on all commercial lots, except that loading and unloading may also occur in any alley that also serves as a fire lane. The subdivider shall note this requirement on a preliminary plan and a plat."
13. Block Length, 25-4-153	25-4-153 Block Length requirements	"Section 25-4-153 of the Austin City Code shall not apply to the property."
14. Secondary Street Access, 25-4-157	Section 25-4-157 – Subdivision Access Streets	"Section 25-4-157 of the Austin City Code shall not apply to the property."

15. Lots on Private Streets, 25-4-171(4)	"(A) Each lot in a subdivision shall abut a dedicated public street."	"(A) Each lot in a subdivision shall abut a public street, private street or private drive subject to a permanent access easement."
16. Parkland Requirements, Article 14, Chapter 25-1 and 25-4-211	25-4-211 "The platting requirement for parkland dedication is governed by Chapter 25-1, Article 14 (Parkland Dedication)."	"The platting requirement for parkland dedication is modified to provide that such requirement is governed by the terms of The Grove at Shoal Creek Planned Unit
[NOTE: this is the same as No. 1 above]		Parks Plan and Parkland Improvement Agreement attached as exhibits to Development Ordinance No
17. Public Street Alignment, 25-4-151	25-4-151 "Streets of a new subdivision shall be aligned with and connect to	"Notwithstanding Section 25-4-151 of the Austin City Code, the private drives and/ or
	existing streets on adjoining property unless the Land Use Commission	private streets within the property may be aligned with and connect to existing or future streets on adioining property."
	topography, requirements of traffic	
	it desirable to depart from the alignment or connection."	
18. Dead-End Streets, 25-4-152(A)	25-4-152 "(A) A street may terminate in a cul-de-sac if the director determines that	"A street may terminate in a cul-de-sac if the director determines that the most
	the most desirable plan requires laying out	desirable plan requires laying out a dead-
		with the private drives and/ or private streets within the property."
CHAPTER 25-6 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
19. Street Design, 25-6-171(A)	"(A) Except as provided in Subsections	"A roadway, private drive, street or alley
	(b) and (c), a roadway, street, or alley must be designed and constructed in	must be designed and constructed in accordance with The Grove at Shoal Creek
	accordance with the Transportation	Design Guidelines. The Transportation

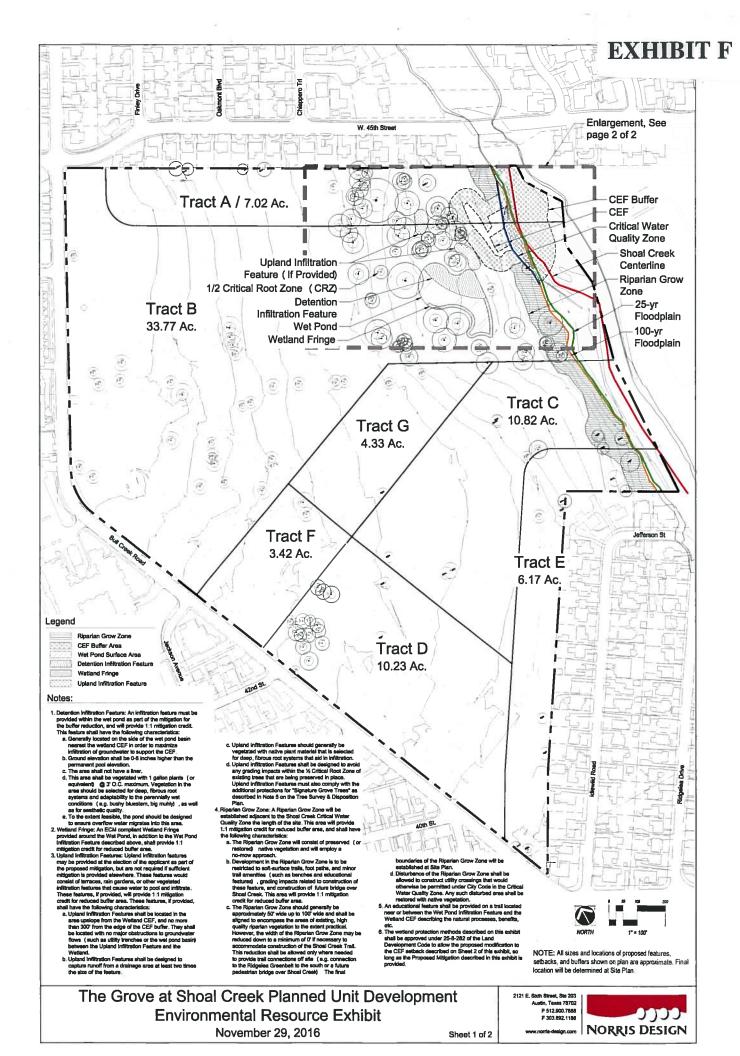
	Criteria Manual and City of Austin Standards and Standard Specifications.	Criteria Manual and City of Austin Standards and Standard Specifications shall
		apply to the extent they do not conflict with The Grove at Shoal Creek Design Guidelines."
CHAPTER 25-8 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
20. Heritage Trees, 25-8-641(B)	"(B) A permit to remove a heritage tree may be issued only if a variance is approved under Section 25-8-	"A permit to remove a heritage tree may be issued only if:
	642 (Administrative Variance) or 25-8-643 (Land Use Commission Variance)."	(1) a variance is approved under Section 25-8-642 (Administrative Variance) or (25- 8-643) Land Use Commission Variance, or
		(2) the tree is indicated as "Trees that May Be Removed" on The Grove at Shoal Creek
		Tree Survey and Disposition Plan as attached to The Grove at Shoal Creek
		Planned Unit Development Ordinance No. Sections 25-8-642 and 25-
		8-643 shall not apply to the trees indicated as "Trees that May Be Removed" on The
		Grove at Shoal Creek Tree Survey and Disposition Plan. Specifically, the Heritage
		Trees that may be removed under this paragraph are identified as tag numbers
		3076, 3077, 3078, 3079, 3080, 3201, 3202, 3203, 3204, 3207, and 3232.
		A permit issued under 25-8-642 (A) (2)
		shall require mitigation at the rates prescribed on The Grove at Shoal Creek

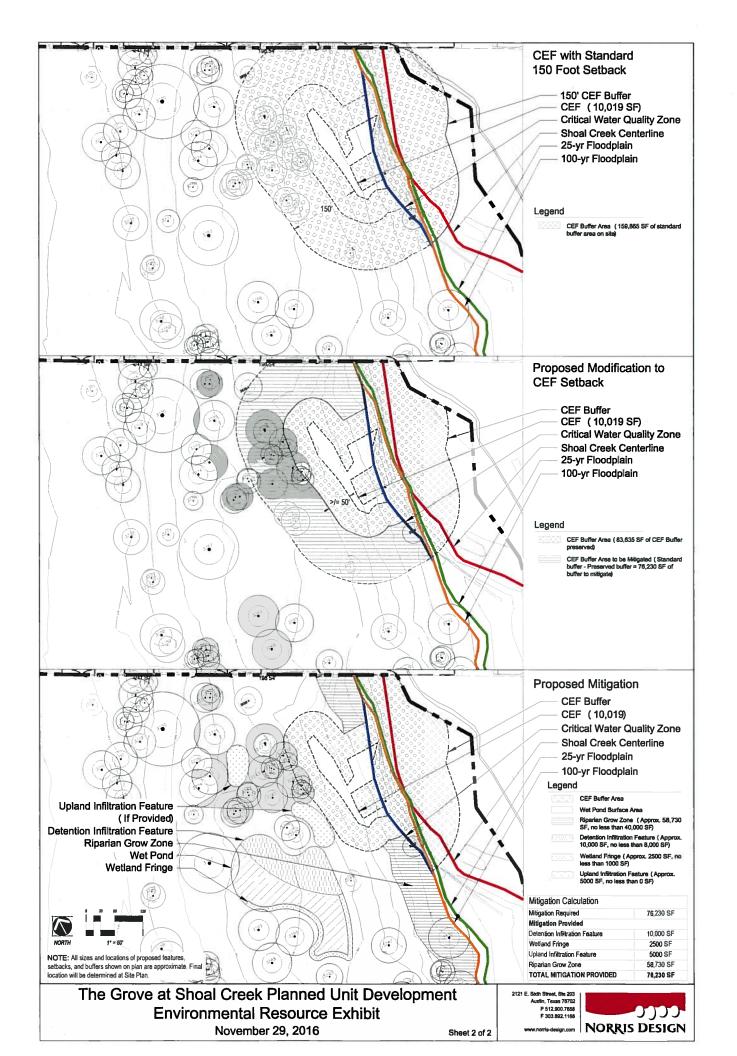
		Tree Survey and Disposition Plan.
		(3) Administrative variances under 25-8-642 for trees indicated to be saved on The
		Disposition Plan may be granted only for
		under paragraph (A) of that section. Variances for removal under Paragraph (C)
	4	for reasonable use shall not be allowed for these trees."
CHAPTER 25-10 MODIFICATIONS		
CODE SECTIONS TO BE MODIFIED	CURRENT CODE LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
21. 25-10-1 - Applicability	25-10-1 - Applicability	"(D) To the extent they are in conflict, the
		signage standards set forth in the Design
		Guidelines for The Grove at Shoal Creek shall supersede this chapter."
22. 25-10-103 – Signs Prohibited in the	25-10-103 – Signs Prohibited in the	"Section 25-10-103 of the Austin City
Public Right-of-Way.	Public Right-of-Way.	Code shall not apply to the public Right-of- Way dedicated for the Jackson Avenue
		Extension within the boundaries of The
		Grove at Shoal Creek PUD as identified on the Roadway Framework Plan."
23. 25-10-191 – Sign Setback	25-10-191 - Sign Setback Requirements.	"Section 25-10-191 of the Austin City
Requirements.		Code shall not apply for setbacks from the public Right-of-Way dedicated for the
		Jackson Avenue Extension within the
		boundaries of The Grove at Shoal Creek
		FUD as identified on the Roadway Framework Plan."
DRAINAGE CRITERIA MANUAL MODIFICATIONS		

DCM SECTIONS TO BE MODIFIED	CURRENT DCM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
24. Fencing Requirements for Drainage Facilities, Section 1.2.4.E.1(a)	DCM Section 1.2.4.E "1. (a) Where a portion of the stormwater facility either has an interior slope or wall steeper than three (3) feet horizontal to one (1)	"1. (a) Where a portion of the stormwater facility either has an interior slope or wall steeper than three (3) feet horizontal to one (1) foot vertical with a
	foot vertical with a height exceeding one (1) foot, or, an exterior slope or wall steeper than three (3) feet horizontal to one (1) foot vertical with a height exceeding three (3) feet above	height exceeding one (1) foot, or, an exterior slope or wall steeper than three (3) feet horizontal to one (1) foot vertical with a height exceeding three (3) feet above adjacent ground, steel grating is
	adjacent ground, barrier-type fences at least six (6) feet high, and/or steel grating are required for all singlefamily or duplex residential development. City maintained	required for all single-family or duplex residential development, City maintained stormwater facilities, and/or for any privately maintained stormwater facilities located within 500 feet of a
	stormwater facilities, and/or for any privately maintained stormwater facilities located within 500 feet of a residential structure. Barrier type fences include, but are not limited to chain link, solid wood, masonry, stone or wrought iron."	residential structure.
ENVIRONMENTAL CRITERIA MANUAL MODIFICATIONS ECM SECTIONS TO BE MODIFIED	CURRENT ECM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
25. Maintenance Responsibilities for Water Quality Control Facilities, Section 1.6.3.A.4	4. obtain final warranty release approval from the Watershed Protection Department. The City will also maintain water	"4. obtain final warranty release approval from the Watershed Protection Department. Water quality control facilities at The Grove at Shoal Creek

	quality control facilities designed to service primarily publicly owned roads and facilities. These water quality control facilities must be designed and built according to the appropriate city standards.	PUD that treat publicly owned roads and facilities within and adjacent to The Grove at Shoal Creek PUD may be privately maintained."
TRANSPORTATION CRITERIA MANUAL MODIFICATIONS		
TCM SECTIONS TO BE MODIFIED	CURRENT TCM LANGUAGE	PROPOSED MODIFICATION FOR THE GROVE AT SHOAL CREEK PUD
26. Classification Design Criteria, Section	2. Collector, Neighborhood.	2. Collector, Neighborhood.
1.3.2.8.2	A neighborhood collector street is	The Extension of Jackson Avenue in The
	characterized by serving several districts	Grove at Shoal Creek PUD as identified on
	or subdivisions. Neighborhood collector	the Roadway Framework Plan shall be
	streets provide limited access to abutting	considered a Neighborhood Collector and
	property and may provide on-street	shall be designed per The Grove at Shoal
	parking, except where bus routes can be	Creek Design Guidelines. The cross
	expected. Typically multifamily	section and any other design information
	developments, schools, local retail	contained in those design guidelines shall
	developments and public facilities are	supersede any requirements of the
	located adjacent to neighborhood	Transportation Criteria Manual. All other
	collectors. Direct driveway access for	circulation routes within The Grove
	detached houses should be discouraged	including internal circulation routes and
	(see Figure 1-28 in Appendix H of this	alleys shall be considered as private
	manual for design criteria).	driveways and intersections with these
		driveways shall be subject to the 50°
		minimum spacing for Neighborhood
		Collectors.
27. Classification Design Criteria, Section 1.3.2.F	F. Single Outlet Streets	"The Jackson Avenue Extension shall not be considered a Single Outlet Street upon
		1

	Soil Avenue to buil Cice
	connects Jackson Avenue to Bull Creek
	oute that is open to the public and
n C	private street, drive, or internal circulation
2	





Proposed Environmental Code Modifications

CHAPTER 25-8 MODIFICATIONS			
CODE SECTIONS TO BE	CURRENT CODE	PROPOSED MODIFICATION	IMPACT ON
MODIFIED	LANGUAGE	FOR THE GROVE AT SHOAL CREEK PUD	DEVELOPABLE AREA
20. Heritage Trees, 25-8-641(B)	"(B) A permit to remove a	"A permit to remove a heritage	None. While a small area
)	heritage tree may be issued only	tree may be issued only if:	of land within the critical
	if a variance is approved		root zone of the heritage
	under Section 25-8-	(1) a variance is approved under	trees that may be
	642 (Administrative Variance)	Section 25-8-642 (Administrative	removed will become
	or 25-8-643 (Land Use	Variance) or (25-8-643) Land	developable, this will not
	Commission Variance)."	Use Commission Variance, or	impact the overall
			developable acreage as
		(2) the tree is indicated as "Trees	the maximum impervious
		that May Be Removed" on The	cover for the site is 65%
		Grove at Shoal Creek Tree	per the PUD and that
		Survey and Disposition Plan as	maximum could be
		attached to The Grove at Shoal	reached whether or not
		Creek Planned Unit Development	these trees are removed.
		Ordinance No.	
		Sections 25-8-642 and 25-8-643	
		shall not apply to the trees	
		indicated as "Trees that May Be	
		Removed" on The Grove at Shoal	
		Creek Tree Survey and	
		Disposition Plan.	
		•	
		A permit issued under 25-8-642	
		(A) (2) shall require mitigation at	
		the rates prescribed on The Grove	
		at Shoal Creek Tree Survey and	
		Disposition Plan."	

The Grove at Shoal Creek

List of Environmental Superiority Items

- 1. The project will substantially exceed open space requirements (by more than 50%) and will cluster development away from Shoal Creek.
- 2. The project will provide water quality controls through the use of a wet pond and/or green infrastructure for a minimum of 50% of the required water quality volume on-site.
- 3. The project will provide that a minimum of 10 acres of impervious cover on the site will drain to and be substantially treated by Green Water Quality Controls such as rain gardens and biofiltration facilities.
- 4. The project will not modify the existing 100-year floodplain.
- 5. The project will preserve a minimum of 75% of protected quality native tree inches on site.
- 6. The project will provide a tree care plan for all preserved protected and heritage trees on site.
- 7. The project will direct stormwater runoff from impervious surfaces to a landscaped area at least equal to the total required landscape area.
- 8. The project will provide flood mitigation for the 9.39 acres of existing impervious cover on the site which is not currently detained. The existing State office development does not have any detention or flood control facilities and current code does not require new development to mitigate for existing impervious cover. If the project participates in the RSMP, the RSMP fee will be paid as if the current 9.39 acres of impervious cover does not exist.
- 9. The project will provide educational signage at the Wetland CEF.
- 10. The project will provide minimum 3" caliper street trees on all internal streets. Under conventional zoning, Tracts A, C, D, and E would be residential zoning districts and would not require street trees under Subchapter E. This area of additional street trees represents 34.24 acres or approximately 45% of the total project area.
- 11. The project will provide street trees along Bull Creek Road where they would not be required by Subchapter E.
- 12. The Project will provide an Integrated Pest Management Plan for all sites.
- 13. The Project will commit to 95% of non-turf plant species from Grow Green or equivalent per the Design Guidelines.
- 14. The project will provide additional protection for the ¾ critical root zone for all protected and heritage trees within the Signature Grove, which includes all trees around the proposed pond and the highest quality oak trees throughout the Signature Park.

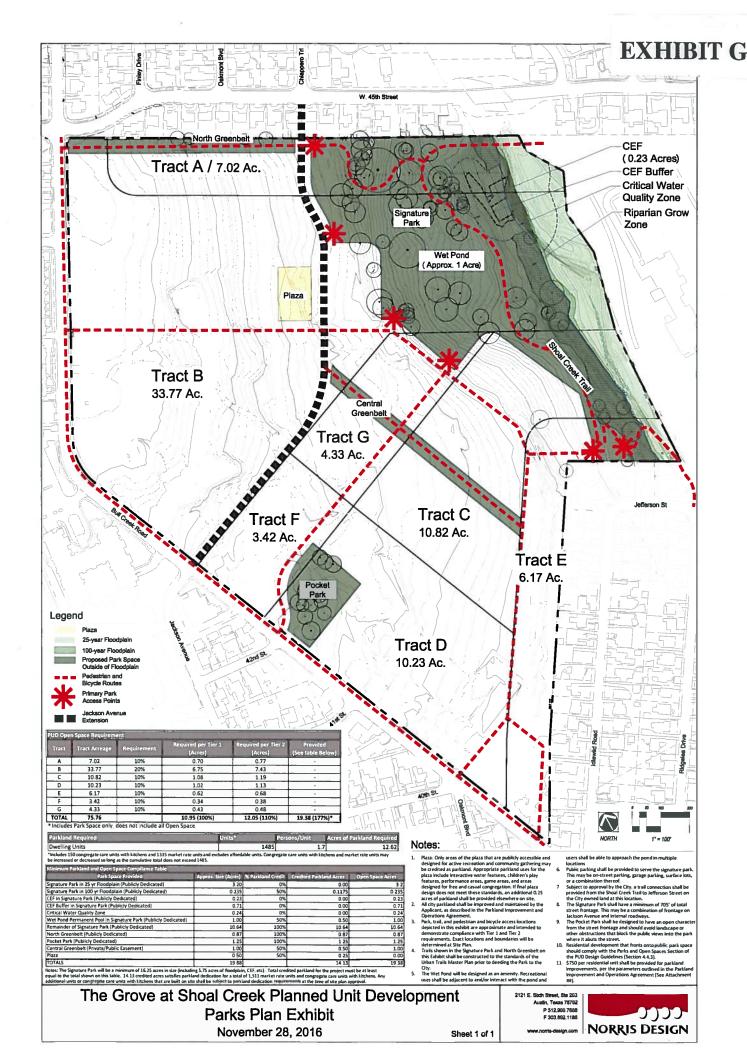


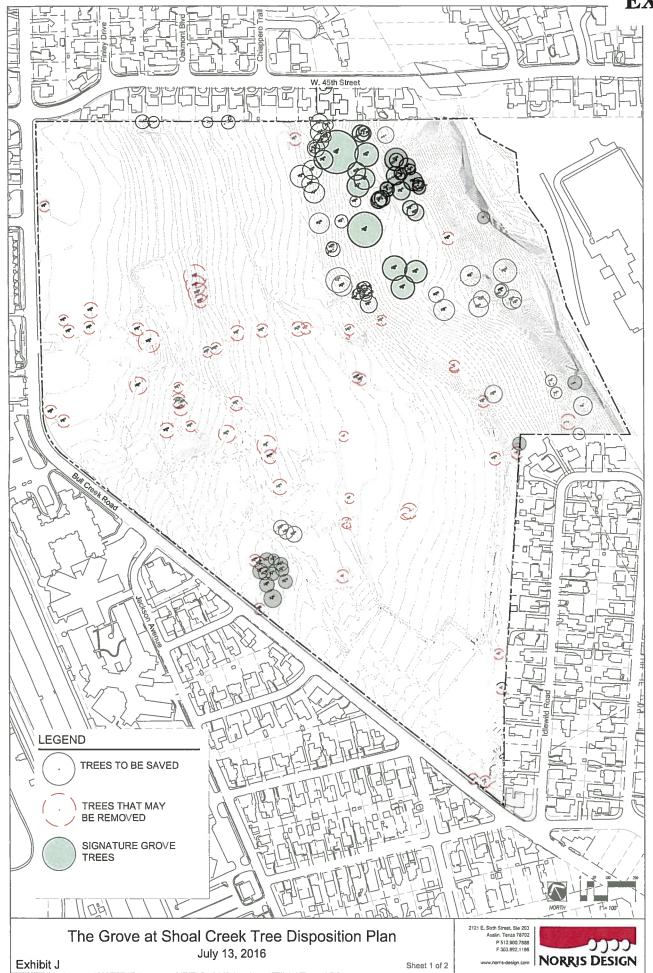
EXHIBIT H Intersection of Jackson Avenue extension and W. 45th Street Proposed pedestrian shall be right-in-right-out only. and bicycle bridge, RE: Note 16, Sheet 2. W. 45th Street Tract A / 7.02 Ac. 0 Tract B 33.77 Ac. Tract G 4.33 Ac. Tract C N62°12'19"W 396.56 10.82 Ac. Tract F 3.42 Ac. Tract E 6.17 Ac. Tract D 10.23 Ac. Legend Public Right of Way, Location as shown is conceptual, final alignment to occur at the time of Preliminary Plan. Major Vahicular Circulation Notes Design of the roadways within the site shall be by the approved project Design Guidelines. Locations of pedestrian and bicycle connection approximate and will be determined at the time subdivision or site plan. The Grove at Shoal Creek Planned Unit Development Roadway Framework Plan corts-design.com | NORRIS DESIGN October 24, 2016 Sheet 1 of 1







EXHIBIT J



THE GROVE AT SHOAL CREEK TREE SURVEY

		TOTAL APPENDIE F PROTECTED TIMES SURVEYED	TOTAL APPENDI	S F TREE INCHES SAVER		DER F TREE INCHES E REMOVED	TOTAL HOW APPENDIX P THEE SICHES MAY BE REMOVED	TOTAL WARMS THES INCHES REMOVES (NO BITISATION)	ARRORESTS RATWICE SEE ARROREST REPOR (MR = MO PATRICE)
w. lease 1			HERITAGE	PROTECTED	MERITAGE	PROTECTED			
EE COLOR	par 35	7		HE		HE E	HE,	-	1/4
COTTONWOOD		0.00				49		33	1
D PECAN	23	21 30 21				23			1/4
I KNAPENTIL	27	21			-	27	22 29		1
APROPETATE LIGHTERACH FORMEN	25			11.			29	23	1 MR 3
POCARDA B PECARDA	72 31	22		1.5	,	п		-	
PECANDA PECANDA PECANDA PECANDA	27	31 27 34			27 24 28 28				1/1
S PECANON	1 2	36 38 34		1	3				- ;
E PACKECINELLY	n	19		- 11	_ ^			25	,
CHRESE TALLOW	23		-					77	
CHIESE TALLOW CHIESE TALLOW AS	23 28							21 21	M
COMMENT TALLOW AS WITCHINGS COMM DEPORT OF PECHNICAL PR	27	23				23		n	1 2
PECANDA 3 PREMIUM	26	21			3 3				2/3
3 Ресии	24	# # # # # # # #			20 21				
CONTRACTA CONTRA	19	9	-	=		19 21			2 2
IL BECHERA	25	20	-		22				1
LAE GAR	22	20	72			n	i i		3/1
T KITSWELL	23 31	273 31	21			n			2/1
3 LATEOAK	19	13	- "-	11)
4 COMMEN	19	39 38	38	19					3/4
S BAFOAS	28	29	28						3.
3 BANGAK	30	75		19					3
B ENEGAK	34 78	34 78	34 78					-	3 4
H BAE GAK	35	35	35	1					1
I LANG DAK	25	31 25	31				1		1 1 4
M LATEDAK BY	40	25 48 28	35 40 38				1		1
M LINEGAK BIC	25	25	25						314
TERMETA .	25 34 37 19	3/	34 37		-				7 2
PAR DAK	19	19	20	15					1/4 3/4
30 KARDAK 31 PELANDI	26 21 28 33 27 6	21	- "			31			2
22 PECAMAS 22 PECAMAS ENE CAME OUT ENE CAME ENE CAME	33	3	M		. 26		1		2/3
INTOM.	27	22	π				1		3/4
IS LATE CARE	4	19 13 25 41	43				1		1
MAE OAK BE LINE OAK BE; BE LINE OAK	25 41 22 20 25 19 11	25	22				1	- 0	3/4
IAE DAK	22	27 20	- 85	22			_		1
	23	-71	28		-				314
EL LATE DAK	10	19	13	19					314
HI LINE DAK	34 32	34	34	1					3/4
M LMIDM	2	20	39	1			1		3/4
H) LIMEDAK H) LIMEDAK	23	27	23	20			-		3 4
HS LIVE DAK US EHE DAK	73 23	21 21	28 29		1		1		314
HE BUTTERS	20	25		26					2/3
SI MEDIC	23	25		27					114
THE DAY BE	27	27	21	2			8		1/4
THE DESIGNATION	20	29	100	3					2
M EVEDWER	45	6	45	1 1					3/4
LANGONE PIC	17	e5 1/	n						3
IT LINEDAK	19 25	25	н						1 1
N LIVEONE	n	77 20		22	1				1 1
NA BINE DAK	31	31	31	20					1 1
HE LATE DAK	29	29		20					1
EL CEDARETA	19 42 44	1 4	4			19			114
W LHEDAK	- 44	64	4 -						1 4
TI LATERAL	25 34 25	25 34 25	25 24	1					3
TO LATE DAK TO LATE DAK THE DAK	25	n n	25	20			8		4
74 I ME ONE	35	В	28	1 5		100			2/3
TS LAVE CARE TS LAVE CARE	22	277			1	22	l		1
ZI LIVE DAK	22	25	79	22	1	-	4 -		1
29 BAE DAK	24	24	34		1		1 - 1		3
98 JANE DAK 91 JANE DAK	27	27	27		1		4 - 1		1
22 CEDAN CLV	21	21	21		-	ъ	1		MI 1
S) LAW DAK M LAW DAK S) LAW DAK	27	27	27	1			1		1 1
M SCHOOL STA	27	29	29		-	21			3 MR
IN THE ONE	21 40	40	40	20					NA NA
THE RIVE GALL	21 21 36	21 29		21 25					3
IN LINE DAK	19	35 19					1		,
N RATE ONE	40 28	43	4)	1.00		l			MR I
SS CEDAN ELV SA SAYE QAK	36	29	n				1		
TO NATION	20	- 4	-	1				20	1 2
SE TOHMA BERRY OF	21	-		T				21	1
M ANE OAK	38	30	30					1	111
NO ENE DAR AT	32	21	23		-	24		-	M
RE PHICHBERRY (M	21 23	3				22			M
ILL CERNE DIVIN	19	19 21		31		H		F -	1 -
DO WESCHITE IN	21 21 29	21		21		31	1		
14 POSTOVA ELLIFAL	34	20 24 34	24	1					
H CIDAL BRAN	21	21		21					
OR PRESCRIPTE OF	23	23		8		1			
THE CHANGE OF THE CONTRACTOR O	23	27 39		31					
	22	I =		15		1		21	
PS CHANN DEALL PR	20		1		100		24		1
HE HICKSON M	13	19			-	31 19		-	
90 MCSELMAN PR 91 DEVENT AND	19	19				13			
	78	27		28 22	1		1		
SES COMMADERNY (M	22	19	-	1		77		22	
DOWN BETTER	79				1	"		2	
HACKBERRYAL HACKBERRYAL	25 21	25 21		25					
	19	21 19 25	1	21					
of periodic by			1	25	1	1	-1	1	1
TOTAL	8	1,961	1,911	624	203	152	n	216	

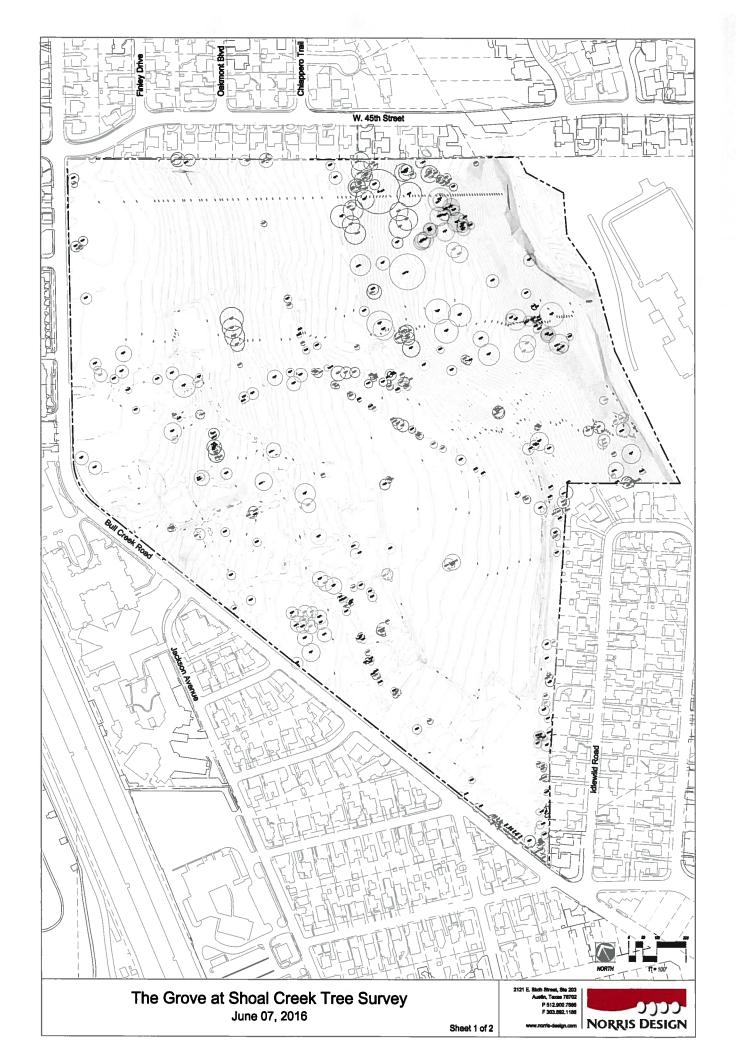
TOTAL APPENDIX F TREE INCHES SURVEYED:	3,561	
TOTAL APPENDIX F TREE INCHES SAVED:	2.744	77% OF TOTAL INCHES SAVED
TOTAL APPENDIX F TREE INCHES MAY BE REMOVED:	837	23% OF TOTAL INCHES SAVED

Notes:

- 1. Arborist rating 2 = poor. Trees # 3080, 3202, 3207 & 3232 were rated poor by the applicant's arborist and reviewed in the field by City Arborist Michael Embesi.
- Applicant is committing to save a minimum of 75% of Appendix F (Native) Protected size trees as shown in this table. Trees shown as saved may be removed if a similar size, similar condition tree noted for removal is substituted at Site Plan review.
- 3. A mitigation rate of 100% shall be required for trees #3080, 3202, 3207 & 3232 (note that mitigation is typically not required for trees in this condition, but a 100% mitigation rate is offered as an element of superiority). A mitigation rate of 300% shall be required for any other Heritage Trees that are removed. All other trees shall be mitigated per the Environmental Criteria Manual.
- 4. The applicant shall provide a tree care plan for all preserved protected and heritage trees on site. The applicant shall allot a minimum of \$100 toward this plan for each inch of heritage trees removed from the site. This shall be above and beyond any miligation required for these trees. The tree care plan shall prioritize remediation of construction impacts through air spading, root pruning, deep root fertilizing, and/or other practices as recommended by a certified arborist. Basic watering, mulching, and fencing during construction are assumed to be provided as best practices and would not count toward fulfillment of the tree care plan.
- 5. For protected and heritage trees identified on the plan as "Signature Grove Trees", cut in the ¼ Critical Root Zone (CRZ) shall not exceed 4". This requirement may be administratively reduced to the ½ CRZ if a minimum of 75% of the total area of the full CRZ is preserved and a tree care plan in the amount of \$100 per caliper inch is provided for the tree in question.
- a. Any cuts within the ½ CRZ of these trees shall made with an airspade or air knife and hand pruning prior to machine excavation.
- or air knife and hand pruning prior to machine excavation.

 b. Stormwater pipes to and from the water quality pond shall not be permitted to impact the full CRZ of Heritage Trees in the Signature Grove.
- c. Where high intensity, hardscape uses are planned around heritage trees located in the signature grove, the use areas should be constructed with decks, sand bridging, or other root bridging constructions to avoid heavy disturbance or compaction of the 1/2 CRZ of these trees.
- 6. Full tree mitigation in the form of tree plantings shall be provided within the site plan proposing the tree removal. Under no circumstances will the required tree mitigation be planted on one site plan to address the tree mitigation owed on a different site plan. Payment into the tree fund is not an acceptable form of mitigation for the trees indicated on this Plan. Regardless of maximum entitled impervious cover, applicant may need to reduce impervious cover, increase caliper of proposed trees, or provide other measures as necessary to facilitate full on site tree mitigation planting within a given site plan.

H = Heritage Tree, S = Trees in the Signature Grove (See Note 5)



	TREE LIST	1	REE LIST
TAG 6	Description	TAGE	Description
3004	2F CEDAR BLM	3214	19" PECAN
3006	40° COTTOMMOOD	3216	SIF LIVE OAK
2000	31° PECAN	3216	SET LIVE OAK
3007	SS* PRICAM	3317	3T LIVE ONK
3000	30" PECAN	3218	16 PECAN
3000	27" HACKBERRY (M)	2219	SIF LIVE CAK
2079	SET HACKINGTORY (M)	2220	TH' LIME CAK
3071	21" HACKBERRY DIG	3221	32" LIME ONK
3072	SET HACKBERRY (M)	3222	ST LIME ONK
2072	10" LIVE DAK 80	2223	SP"LIME OAK
S274	ST PECANOD	3234	47 LIVE DAK (N)
2075	20° PRICAN DID	2225	30" LIVE DAK (M)
		3220	SE LIVE DAK BE
2079	31" PECAN (NO	3227	34° CEDAR ELM
2077	SE FECAN (M)	3220	37" LIVE DAK PI
3079	29" PECAN (M)	3229	19" LIVE OAK
3078	30° PECAN (M)	5230	30" LINE DAK
3000	34, FIAE DVY	3231	21" PECAN GO
3001	19" HACKBERRY	1221	28" PECAN DO
3092	SET CEDAR ELM (M)	3233	SIT LIVE DAK DO
3083	SP CHOOSE TALLOW	3234	27 LIVE DAK
3084	23" CHRIESE TALLOW	2230	TIF LIVE DAK
3005	22" CHRIESE TALLOW	3236	47 LIME OAK
3000	38" CHRIESE TALLOW (M)	202	ET LIME DAK
9067	17 PECAN	3236	41" LIVE OAK DA
3000	ST PECANON	2230	22" LIVE OAK
2005	13" PECAN	2340	20" LIVE OAK
2000	13° PECAN	3341	20" LIVE DAK
3001	13" PECAN	3343	19" LIVE DAK
3000	12" CHINA BERRY	3943	37 LIVE DAK
3063	8" HACKBERRY	3944	SALTIME DAY
3084	15" CEEDAR ELM (AQ	2246	27 LIVE OAK
3006	OF CHIMA REPORTY	2246	20" LIVE DAK
2006	14" CHONA BESUTY (M)	2347	22" LIVE DAK
3007	16" PECAN	3348	SPLINE DAK
3000	15" PECAN	2340	SET LIVE DAK
3088	14" PEGAN	3260	25" LIVE DAK
3100	33" CHINA BERRY (M)	3251	20" LIVE DAK
3201	41" PECAN (M)	3252	20" LINE DAK
2202	30" PECAN (NO	3253	22"LIVE DAK
3203	SE FECAN (N)	3254	2T LIVE DAK
2204	ST PECANISO	3255	30" LIVE DAK DE
2205	19" CEDAR ELM	3220	SET CEEDAN ISLA
22230 22230	SI, CEDAL ETM	3257	83, TIME OW(91
200	ET PECAN (M)		40" LIVE ONE DE
2207		3258	
_	21' PECAN (M)	3250	SP'LINE OAK (M
3300	3F PECAN	3286	18" LIVE DAK
3218	40° LIVE CAK	3381	29" LIVE OAK
2011	23° CEDAR ELM	200	33" LIME CAK
3212	2F LIVE DAK	3363	27 LIVE OAK

	TREE LIST
TAG #	Description
3294	SIL FINE DAY
3204	30" LIVE DAK
3300	ST LIVE OAK
2007	1F CEDAR
200	47 LIME DAK
2220	AF LIVE DAK
3779	29" LIME OAK
3271	3F LIVE ONE
3272	ST LIME ONE
3273	ST LIME DAK
22/4	SET LIME DAK
2276	22" LIVE OAK
2276	27 LME DAK
3277	SP'LIME OM
3270	22" LIVE ONE
3279	SPLME ONE
3290	27 LIVE ONK
2281	3PLMEOM
2002	ST CEDAR BLM
1203	STUME ONE
3284	27" LME OAK
3295	SI, I'VE OW
3286	21' CEDAR BAN
3287	27 LME OM
3286	21" LIVE OAK
3290	SIT LIVE ONK
2290	SIL TWE OW
2291	IF LME ONE
200	47 UNE DAK
3733	2F CEDAR GLI
3234	3F LIVE DAK
3296	4F LIVE DAK
228	20" CHINA BERRY (M)
-	
_	21° CHINA BERRY (IN
	30" LIVE DAK
_	30" LIVE DAK
_	SE TINE DAY (NU)
3301	NF CHRIST TALLON
3302	16" CHINESE TALLON
2303	11" PECAN
2304	13" PECAN
2309	11" HACKBERRY
2300	10" HACKBERRY
3307	12" HACKBERRY
3306	T O PESE TALLOW
3300	T CHRESE TALLOW
3310	1F LIVE DAK
3311	8" HACKBERRY

	TREE LIST		TREE LIST
AQ #	Complete	TAGS	Description
3314	10" HACKSERRY	3384	TE CEDAR ELM
3218	6, CHROKOMM	2005	NF CEDAR ELM
2316	T HACKBORY	2200	10" CEDAR ELM
3317	14" HACKBERRY (M)	2267	IT CEDAR ELM
2215	TE CHIESE TALLOW (IN)	3300	HE CEDAR ST.M
2219	IF LEAGNESS	2009	F CEDAR ELM
	SE" HACKBERRY (M)	3370	HT CEDAR DLM (M)
3321	12" LPHONOMIN	3571	TIT CEDAR ELM
122	17 FECAN	3972	HF CEDAR ELM
-	F HACKBERRY	3973	19" HACKBERRY
3334	SE FECAN	3374	11" CHIM BENTY
1375	CPLINE DAK	2075	12" CHOIM BETWEEN (M
2220	IF CEDAR ELM	3379	13" HACKBERRY
3927	B. INE OW	3977	12" HACKBOOKY (MC
	11" UMBONOWNI (MI)	3578	10" CHINA BERRY (M
1320	SECONA REPRESAN	3379	F CEDAR ELM
2530	12" CHIMA BERRY	3000	OF HACKBERRY
3331	HT CHINA BERRY BO	3381	ST CEDAR DLM
222	16" FRICAN	3362	W INCOMENY
2333	8" LINEGICHEL	2303	17 CEDAR B.M
2224	12, PARCHONNI	2394	11" CHONA BEFORY (M
3035	IF UNDOUGHN	3306	10" CHONA BEFORE DA
5336	14" CEDAR ELM	2000	11" HACKBERRY OR
333/	17 CEDAR BLM	2367	OF CHIPMA DESIGNATION
3330	IT HACKBERRY	3300	14" CHINA BETWY (M
2230	S" CHINA BERRY	2360	S' HACKBERRY (M)
2349	10" CHUNA BERRY (M)	2300	12" CHINA BERRY (H
2241	14" HACKBERRY DIG	3301	
2342	8" HACKBERRY		18" CHOICH BETWEY (ME
2343	8" HACKBERRY	3362	-
2344	14" HACKBERRY	3000	THE HACKBERRY DE
3346	E-HACISERY	2384	10" HACKBERRY (M
3340	16" HACKSERRY	3396	ET HACKERINY (M)
3347	E HACKBERRY	3300	12 CHINA SERVIY
3340	T HACKBERRY	2367	15 CHBA BERRY (M
2349	13" HACKBERRY	3300	8" CHINA BERRY
2200	17 CEDAR	3300	12" CHIMA BETWYY
3361	16" PECAN	3400	15" CHINA BETWY
2342	16" PECAN (NO	3402	IE HYCHERALA (N.
3363	16" PECAN	3403	13" HACKBERRY
2354	12" CEDAR ELM	3494	1F CEDAR ELM
225	OF CEEDAR ELM	3105	6, CEDAY STW
2206	11" CEDAR ELM	3405	IF CEDAR CLM (M)
3357	HF CEDMR IELM	3467	10° CEDAR ELM
2365	HF CEEMAR IRLM	3405	6" CEDAR ELM
2309	T CEDAR EM	3400	IF CEDAR ELM
3300	14" LEVE GAK	3410	F CEDAR ELM
3361	12 CEDAR ILM	3411	10 CEDAR ELM
2002	12 CEEVA D.M	3412	H-CEDATEM
3383	13" CEEMR BLM	3413	F CEDAR GLM

	TREE LIST	100	TREE LIST
TAG S	Description	TAGO	0-4-
3418	1F CEDAR ELM	3637	P CÉDAR ÉLM
3418	Nº CEDAR ELM	3636	17 PECAN
3417	19" CEDAR ELM (NI)	2020	SEP CHIMA BESTRY (AC
3416	10" PECAN	3540	HI, CHAY BELLEA.
3418	H. COTHUSTON (N)	3941	F CHINA SECURY
3430	11" CHINA BETWY	3842	NF CHINA SERVITY
3421	11" CHINA BETWEE (M)	3843	IT DOWN SERVIT
3422	P CHINESE ELM	2644	12 CHINA SERRY
3423	I COMESE ELM	2545	ET LIVE OAK
3434	P DOMESTIEM	3540	22" CHINA BERRY (M
3425	13"LIGUETRUM (M)	3947	THE CHARM RESIDEN OF
3428	14" CHINA BERRY	3848	E. CHINY BELASA
3427	11" CEDAR GLM	3946	13" CHINA BETWY (M
3428	10" CHINA BEATY	2000	HE CHINA BERRY (NO
3001	E' CHINA BERRY	3001	16" CHINA BERRY
3002	TOT CHINKA BERNTY (M)	3052	14" CEDAR ELM
3803	S. CHONY BELLEA.	3003	13" CHINA BEARTY
2004	8" CHIMA BERRY	3664	10" CEDAR ELM
3000	18" MESIGNITE (M)	2005	14" CEDARI ELM
2008	E MESICLITE	2005	P CEDAR ILM
307	31" MESOUTE (M)	2007	24" UNITROCHINI (AI)
2000	21" MESCUITE (N)	3666	E SYCHIOPE
3500	17" MESIGUITE (M)	3650	17 CEDAR ELM (M)
2016	F CEDAR ELM	2000	11" CEDAR ELM
2811	I MESCLETZ	3001	13" CEDAR ELM
3312	SE MESICULTE (M)	3002	11" UNIONOWN (MG
3013	E-HACIGIERRY	3063	17" UNIONOWN (M)
2614	34" CEDAR ELM (NI)	3884	12 UNINOWN
3016	E HACKSENRY	3665	16" CEDAR ELM
3516	17 CEDAR ELM	3000	14" CEDAR ELM
3017	SIT MESIGNITE (M)	3007	22" LINGOLOWIN (ILG)
2010	T CEDAR PLH	2000	19" HACKBERRY (NO
3019	21" CEDAR ELM (N)	3063	19" HACKBERRY (M)
2020	1F CEDAR ELM (M)	3579	12" HACKBERRY (N)
3621		3671	AL HYCHELALA (NI
	15" CEDAR ELM	-	28" HACHBERRY (A)
3622	HF CEDAR ELM	3672	
	The second second second second	3673	11" HACKBERRY (M)
3534	14" MESCUITE (N)	2574	ZZ HACKBERRY (M)
_	10° CEDAR ELM	3676	10" HACKBERRY (M)
3526	SI, MERCINIE (M)	3676	12 CEDALEM
3627	P'UVE CAK	3677	13" PECAN
2020	16. PERCITIE (P)	2676	THE CHINA BEAUTY (N
3629	12" MESQUITE	3679	1FORMSERTY
2630	32° LIVE CAK	3000	H* PECAN
3531	OF CHINA BEARY	3581	NE HACKBERRY
3422	1F HACKBERRY	3062	P PEGAI
3623	1FLME CAK (M)	2003	32" CHINA BERRY (M
2534	18" HACKBERRY	3554	F CHINA BERRY
3636	23, Oriel Brimgins (In)	3005	E PECAN
	ART CERTAIN PRIM		

	TREE LIST
TAGE	Description
3067	18" PEICAN
***	16" PEGAN
3000	11" HACKBOOKY
3000	12 HACKBERRY
3391	15 HACKBOOKY
1002	14" FECAN
2003	15" HACKSTONY
3304	13" HACKBERRY
3005	19" HACKBERRY
200	13" PECAN
3007	17 CEDAR ELM
2000	10" CEELARI ELLI (AG
3500	11" CEEMA ELM
2000	18" HACKBERRY
3001	15 HACKBERRY
3003	HE CHINA SECURITY (M)
3803	10" CHINA BEFRY
3804	HE CHINA BETWEE
3006	13" CEDAR ELM
3005	11" CHINA BEFORE OUT
3007	22" CHINA BETATY
3006	13" LIME DAK
2000	12" LIVE DAK
3010	10" CHINA BERRY
3011	17 PECAN
3812	12 DHINA BERRY
3813	12 HACKBENTY
3814	SET HACKINGTONY (MI)
3015	21" HACKBERRY
3010	10" MESICALITE (M)
2017	25" MESCUITE (M)
3010	F MESCUTTE
3010	11"HACKBERRY
378t	11" HACKBERRY (NO
3702	17 MESCLITE
\$700	6. MESONLE
3704	P MENGLETE
2700	12" MESCUITE (M)
2023	NF HACKSHIPMY (M)
_	
2004	14" LIVE DAK
3625	SELINE DAK
3627	14" LIVE DAK
2026	18' CEDAR ELM
3029	rs, Cheev BELLEA bul
3830	HE CHINA BETWY
3831	10° CESSAR ELM
3833	14" LENGHOWN
3033	

	TREE LIST
TAGO	Description
3636	11" MESCUITE (NO
30942	11" MESCLITE (AC

Notes:

 This Tree Survey includes all trees on the site that are \$^*\text{ DBH}\$ and greater. For more detail on the Protected and Heritage trees, please reference the Tree Disposition Plan and Tables. Trees not shown on the Tree Disposition Plan (those under 19^*\text{ DBH}\$ end/or not of protected species) shall be addressed per the applicable Code and will be reviewed at the time of Site Plan.

The Grove at Shoal Creek Tree Survey
June 07, 2016

Auth. Trans. Till 200
Auth., Trans. Till 200
P # 120.07.0988
F 200.490.1198
NORRIS DESIGN

Sheet 1 of 2

Austin Independent School District



Prepared for the City of Austin

150

STATE OF	PROJECT NA	AME: The Grove at S	hoal Creek	(Scenario #1—1,3	315 total un	its)	
(·(***)·) /	ADDRESS/LO	OCATION: 4205 Bull	Creek Road				
TOTAL STATE OF THE	CASE #: _C8	814-2015-0074					
⊠ NE	EW SINGLE	FAMILY		DEMOLI	TION OF MU	JLTIFAMILY	
⊠ NE	EW MULTIF	AMILY		TAX CRE	DIT		
# SF UNITS:	395	STUDENTS PER UNIT	ASSUMPTIO	N			
SF Detached		Elementary School:	0.117	Middle School:	0.034	High School:	0.067
SF Attached (To	ownhomes)	Elementary School:	0.038	Middle School:	0.011	High School:	0.022
# MF UNITS:	920	STUDENTS PER UNIT	ASSUMPTIO	N			
Apartments		Elementary School:	0.124	Middle School:	0.035	High School:	0.071
MF Attached (0	Condos)	Elementary School:	0.038	Middle School:	0.011	High School:	0.022

Two scenarios were presented to AISD by the developer for this application. Scenario #1 reflects 1,315 total units (220 students), including a mix of single-family, multifamily, townhouse and condominiums. Scenario #2 reflects 1,515 total units (211 students) including a mix of multifamily, townhouse and condominiums (no single-family detached). Please see attached table for specific information on unit types and students per unit assumptions.

This Educational Impact Statement (EIS) uses Scenario #1 which reports the higher number of estimated students (due to the inclusion of single-family detached).

This EIS was prepared using information presented by the developer on September 10, 2015. As the development parameters are refined, a revised subsequent EIS may be prepared for the Planning Commission. The Planning Commission date is pending.

IMPACT ON SCHOOLS

Because the proposed development is not typical of most residential developments within the district, the staff consulted with the district's demographer, Davis Demographics & Planning to calculate the student yield. Based on an analysis of the information provided by the developer, the number of students per unit from a Planned Unit Development (PUD) with similar residential patterns within the district was used as the basis for estimating the number of students for this proposed project.

The mixed use development with 1,315 residential units is projected to add approximately 220 students across all grade levels to the projected student population. It is estimated that of the 220 students, 118 will be assigned to Bryker Woods Elementary School, 34 to O. Henry Middle School, and 68 at Austin High School.

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Austin Independent School District



The percent of permanent capacity by enrollment for SY 2019-20, including the additional students projected with this development, would be within the target range of 75-115% for all three schools (Bryker Woods at 115%; O. Henry at 109% and Austin at 101%), assuming the mobility rates remain the same.

In the event that enrollment should exceed 115% of permanent capacity at any of the schools, the administration would closely monitor enrollment and possibly discuss intervention strategies with the school community to address overcrowding.

TRANSPORTATION IMPACT

Bryker Woods Elementary School is located within 2 miles of the proposed development; therefore students would not qualify for transportation unless a hazardous route condition was identified. Students within the proposed development attending O. Henry Middle School and Austin High School will qualify for transportation due to the distance from the proposed development to the schools. Due to the relatively high number of students anticipated from the development, one new bus at each secondary school will most likely be needed to accommodate the additional bus riders.

SAFETY IMPACT

There are no known safety impacts at this time.

Date Prepared:

10/05/2015

Director's Signature:

Poul Turne

Prepared for the City of Austin

Austin Independent School District

RATING: Met Standard



DATA ANALYSIS WORKSHEET

ELEMENTARY SCHOOL: Bryker Woods

ADDRESS: 3309 Kerbey Lane PERMANENT CAPACITY: 418

% QUALIFIED FOR FREE/REDUCED LUNCH: 10.18% MOBILITY RATE: +19.3%

POPULATION (without mobility rate)					
ELEMENTARY SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development)		
Number	331	303	421		
% of Permanent Capacity	79%	72%	101%		

ENROLLMENT (with mobility rate)					
ELEMENTARY SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment (with proposed development) 480		
Number	395	362			
% of Permanent Capacity	94%	87%	115%		

MIDDLE SCHOOL: O. Henry RATING: Met Standard

ADDRESS: 2610 West 10th Street PERMANENT CAPACITY: 945

% QUALIFIED FOR FREE/REDUCED LUNCH: 29.74% MOBILITY RATE: +2.2%

POPULATION (without mobility rate)					
MIDDLE SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development		
Number	871	976	1,010		
% of Permanent Capacity	92%	103%	107%		

ENROLLMENT (with mobility rate)					
MIDDLE SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment' (with proposed development		
Number	890	997	1,031		
% of Permanent Capacity	94%	106%	109%		

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Austin Independent School District



HIGH SCHOOL: Austin RATING: Met Standard

ADDRESS: 1715 W. Cesar Chavez

PERMANENT CAPACITY:

2,205

% QUALIFIED FOR FREE/REDUCED LUNCH: 28.74%

MOBILITY RATE: +6.4%

POPULATION (without mobility rate)					
HIGH SCHOOL STUDENTS	2014-15 Population	5- Year Projected Population (without proposed development)	5-Year Projected Population (with proposed development)		
Number	1,962	2,036	2,104		
% of Permanent Capacity	89%	92%	95%		

ENROLLMENT (with mobility rate)					
HIGH SCHOOL STUDENTS	2014-15 Enrollment	5- Year Projected Enrollment* (without proposed development)	5-Year Projected Enrollment* (with proposed development) 2,234		
Number	2,087	2,166			
% of Permanent Capacity	95%	98%	101%		

^{*}The 5-Year Projected Enrollment (with and without the proposed development) is an estimate calculated with the assumption that the stated mobility rates (transfers in and out of the school) remain the same over the 5-year period. These estimates are for the sole purpose of the Educational Impact Statement and should not be used for any other purposes.

Total
Students
Projected

	rrojected	ES			MS		HS	
Scenario 1		Student	ES	.1 1 .	Student		Student	HS
1,315 Total Units	219.245	Yield	Stud	dents	Yield	Students	Yield	Students
Market Rate								
110 Single Family (SFD)		0.117		12.87	0.034		0.067	7.37
600 Apartments (APT)		0.124		74.4	0.035		0.071	42.6
140 Condo (MFA)		0.038		5.32		1.54	0.022	3.08
285 Townhome (SFA)		0.038	}	10.83	0.011	3.135	0.022	6.27
1,135 Units								
Affordable								
90 Apartments (APT)		0.124		11.16	0.035	3.15	0.071	6.39
90 Condo (MFA)		0.038	3	3.42	0.011	0.99	0.022	1.98
180 Units				118		33.555		67.69
					(40)			
	Total Students Projected							
		ES			MS		HS	
Scenario 2		Student	ES		Student	MS	Student	HS
1,515 Total Units	210.915	Yield	Stu	dents	Yield	Students	Yield	Students
Market Rate								
560 Apartments (APT)		0.124		69.44				39.76
195 Condo (MFA)		0.038		7.41				
580 Townhome (SFA)		0.038	3	22.04	0.011	6.38	0.022	12.76
1,335 Units								
Affordable								
90 Apartments (APT)	-	0.124	4	11.16	0.035	3.15	0.071	6.39
90 Condo (MFA)		0.038	3	3.42	0.011	0.99	0.022	1.98
180 Units				113.47	,	32.265		65.18



Tree Mitigation Example
The Grove at Shoal Creek
March 25, 2016

EXHIBIT L

Tree Mitigation Example
The Grove at Shoal Creek | 3.25.16

Overall Site Mitigation	Inches	Notes
Mitigation Inches Required	1135	
Mitigation Provided by 3" Street Trees	927	1.5" per tree, 618 trees
Mitigation Provided by 4" Street Trees	1545	2.5" per tree, 618 trees

Site Plan Study	Inches	Notes
Mitigation Inches Required	248	
Mitigation Provided by 4" Street Trees	75	
Mitigation Provided by 6" Street Trees	108	Along retail main street
Total Mitigation Provided by Street Trees	183	
Mitigation Req'd via Additional Trees	65	Plaza, parking bumpouts, courtyards, etc. (approx. 16 additional trees



TO: Sherri Sirwaitis, Case Manager

Planning and Zoning Department

CC: Members of the Zoning and Platting Commission

Jeff Howard, McLean & Howard, LLP

FROM: Andrew Linseisen, P.E.

Acting Assistant Director,

Development Services Department

Gordon Derr, P.E. Assistant Director,

Austin Transportation Department

DATE: July 11, 2016

SUBJECT: Traffic Impact Analysis for Bull Creek Parcel

Zoning Case No. CD – 2015 - 0009

Section 25-6-113 of the Land Development Code requires that a traffic impact analysis be conducted for a project proposed with a zoning application if the project is anticipated to generate more than 2,000 daily trips. The project site of 75.59 acres is located east of Bull Creek Road and south of West 45th Street. The project is proposed to be built in two phases, the first to be completed in 2018, with full build out of Phase 2 in 2024.

The traffic impact analysis was to determine the likely consequences of the site development with respect to the following five components: data collection, trip generation, trip distribution, trip assignment and operational analysis.

A traffic model (using Synchro™ software) was developed to evaluate the intersection levels of service (LOS) and estimate congestion conflicts and queuing related to peak hour traffic accessing the site. Both existing and future conditions were studied.

As shown in the analysis, existing, future and site traffic will combine to support finding need for roadway improvements, including traffic signal improvements to serve future traffic volumes. Detailed analysis of the traffic model and resulting improvements will be continued at the time of site development permit plan review. All traffic operational analysis and resulting design elements are to be reviewed and approved by the Austin Transportation Department as part of the ongoing review

process in coordination with the Development Services Department. This memorandum will summarize the preliminary findings of the TIA and identify the agreed upon necessary mitigation measures. Further analysis at the time of site development permit plan review will result in more detailed elements of the proposed infrastructure improvements.

Summary of Project

The proposed development, called "The Grove at Shoal Creek" will be a mixed-use, urban infill redevelopment to be completed by 2024 and will include residential, retail and office uses. A detailed breakdown of the proposed land uses and intensities is shown in Table 1.

Access will come from five (5) proposed connections to Bull Creek Road, including one (1) public roadway (Jackson Avenue) which will cross the project site and connect to West 45th Street. Operationally, the points of access are as follows:

- Driveway 1 located approximately 800 feet south of West 45th Street. Outbound left turns onto Bull Creek Road will not be permitted and a second northbound lane will facilitate outbound right turns when Phase 2 is complete.
- Driveway 2/Jackson Avenue located across from Jackson Avenue and will be a public street, offering thru connection to West 45th Street (built as part of Phase 2).
- Driveway 3 located across from 41st Street on Bull Creek Road.
- Driveway 4 located across from 40th Street on Bull Creek, restricted to right in/right out operation only.
- Driveway 5 located across from 42nd Street on Bull Creek.

Additional Analysis – Access to 45th Street

Vehicular access to West 45th Street was included in the TIA (as an extension of Jackson Avenue). The extension of Jackson Avenue is proposed to operate as a right-in/right-out connection. The analysis assigns 150 of the estimated 279 right turning site traffic vehicles from the intersection of Bull Creek Road/West 45th Street to the eastern connection, assuming they will travel through the intersection and use the new access point. The analysis also assumes that 100 of the estimated 151 right turning site traffic vehicles from northbound Bull Creek to eastbound 45th will exit the new access point. Additional detailed analysis of the crossing traffic from Bull Creek Road (or West 35th Street & Jackson Avenue) has not been included in this memorandum.

Surrounding network of roadways

MoPac is currently a major six lane divided freeway in the vicinity of the site with a posted speed limit of sixty-five miles per hour (65 MPH). The frontage roads offer connection to West 35th and West 45th Street respectively.

West 45th Street is a four lane undivided minor arterial roadway in the vicinity of the site with a posted speed limit of thirty-five miles per hour (35 MPH). There is sidewalk along the north side of West 45th Street in the vicinity of the site.

Bull Creek Road is a two lane undivided collector roadway with a posted speed limit of thirty-five miles per hour (35 MPH). There are bicycle lanes and sidewalk along both sides of the roadway in the vicinity of the site.

Jackson Avenue is a two lane undivided collector roadway with a posted speed limit of thirty miles per hour (30 MPH). Sidewalk is installed along the west side of the roadway.

Shoal Creek Boulevard is a two lane undivided roadway in the vicinity of the site. The posted speed limit is thirty miles per hour (30 MPH). Sidewalk is installed along both sides of the roadway.

Jefferson Street is a two lane divided roadway with a continuous center left turn lane between Bull Creek Road and West 35th Street. The posted speed limit is 30 MPH.

West 35th Street is a four lane undivided major arterial roadway with a posted speed limit of thirty-five miles per hour (35 MPH).

Trip Generation and Traffic Analysis

The proposed development will be mixed use, and include up to 110 single family dwelling units, 600 apartments, 425 condominium/townhouse unites, 600 congregate care units, 25,000 SF of medical office, 200,000 SF of general office space, 55,000 SF of retail (shopping center) and 35,000 SF of supermarket land uses, plus pharmacy, bank, and other retail and commercial land uses. According to the 9th Edition of the ITE Trip Generation Manual, the total number of estimated daily trips (unadjusted) for this development is 23,969. A detailed table of the proposed land uses and intensities is presented in Table 1 below:

Table 1 provides the estimated daily trip generation rates for the proposed development.

Table 1 – Unad	justed Trip Genera	
Land Use	Size	Estimated Daily Trips
Single Family (210)	110 du	1146
Apartment (220)	600 du	3760
Residential Condo (230)	425 du	2265
Congregate Care (253)	600 du	1212
Health/Fitness Club (492)	7500 SF	247
General Office (710)	200,000 SF	2223
Medical Office (720)	25,000 SF	807
Specialty Retail (826)	55,000 SF	2438
Supermarket (850)	35,000 SF	3578
Pharmacy/Drugstore w/o DT (880)	8,500 SF	766
Walk-in Bank (911)	3,000 SF	364
Drinking Place (925)	8,000 SF	907
Quality Restaurant (931)	15,000 SF	1349
High Turnover Restaurant (932)	9,000	1144
Coffee/Donut shop w/o DT (936)	2,000 SF	1762
Totals		23,969

The scoping document allowed for the following trip reduction credits: Internal Capture: 10% for PM peak for office, residential, shopping center and supermarket land uses only, with a 5% AM peak reduction for Coffee shop. In addition, a transit reduction of 5% was allowed, with the understanding that negotiations with CapMetro are necessary to facilitate access to the site.

Current Capital Metro bus service (Routes #491 and #19) along Bull Creek Road is infrequent. Route #491 is run hourly three days a week during non-peak hours: Route #19 is run daily (every 35 to 40 minutes in each direction). To support the 5% transit reduction, approximately 73 trips during the AM Peak and approximately 102 trips during the PM Peak would use transit. Maintaining the current 35-40 minute headways offers transit access between four and five buses per peak hour (counting both directions). The TIA estimates future ridership demand (of approximately 20 to 26 riders per bus) would be met by current service levels, subject to CapMetro's assessment after build out. In addition, the applicant was granted the following trip reduction credits for non-motorized travel modes:

Table 2 – Non-motorized trip	credits by land us	е
Land Use	AM reduction	PM reduction
Office (ITE code 710)	4 %	4 %
Shopping Center/Retail (ITE codes 826/880)	3 %	3 %
Restaurant (ITE codes 925/931/932/936)	3 %	3 %

Staff also agreed that for certain identified land uses, additional trip reduction percentages would apply:

Table 3 – Pass by reduction ra	ates (by land use)	
Land Use	AM reduction	PM reduction
Shopping Center (ITE codes 826)	0 %	34 %
Supermarket (ITE code 850)	0 %	36 %
Pharmacy w/o Drive-thru (ITE code 880)	0 %	34 %
Restaurant (ITE codes 925/931/932)	0 %	20%/34%/34%
Coffee shop w/o Drive-thru (ITE code 936)	20 %	34 %

As a result, the overall estimated daily trips are reduced from 23,969 to 19,442 daily trips as shown in Table 4 below.

Table 4 – Trip (Generation (Adjust	ted)
Land Use	Size	Adjusted Estimated Daily Trips
Single Family (210)	110 du	1032
Apartment (220)	600 du	3384
Residential Condo (230)	425 du	2038
Congregate Care (253)	600 du	1151
Health/Fitness Club (492)	7500 SF	235
General Office (710)	200,000 SF	1912
Medical Office (720)	25,000 SF	727
Specialty Retail (826)	55,000 SF	1706
Supermarket (850)	35,000 SF	2576
Pharmacy/Drugstore w/o DT (880)	8,500 SF	574
Walk-in Bank (911)	3,000 SF	355
Drinking Place (925)	8,000 SF	780
Quality Restaurant (932)	15,000 SF	1012
High Turnover Restaurant (932)	9,000	858
Coffee/Donut shop w/o DT (936)	2,000 SF	1101
Total adjusted daily trips		19,442

Due to the nature of the surrounding roadway network, and in combination with the proposed mix of land uses, the distribution of site related traffic was developed assuming approximately 50% of the site traffic will come from Mo-Pac. The other access routes are shown in Table 5, and were used to assign site traffic within the TIA analysis:

Table 5 – Trip D	istribution	
Street Name	AM	PM
Mo-Pac/45 th Street (from the north)	20%	18%
Mo-Pac (from the south)	21%	17%
Mo-Pac/35 th Street (from the south)	12%	13%
Bull Creek Road (from the north)	4%	5%
Shoal Creek Blvd (from the north)	4%	6%
45 th Street (from the east)	17%	16%
35 th Street (from the west)	7%	9%
Jefferson Street (from the south)	5%	6%
Bull Creek Road (from the south)	10%	10%
Totals	100%	100%

Turning movement count data was collected at the following locations and times:

Table 6 – Peak Hour Turning Movement Traffic Co	ounts
Location	Date
Mo-Pac southbound frontage road & West 45 th Street	December 10, 2014
Mo-Pac northbound frontage road & West 45 th Street	December 10, 2014
West 45 th Street & Bull Creek Road	December 10, 2014
West 45 th Street & Shoal Creek Blvd	December 10, 2014
Mo-Pac/Jackson Street & West 35 th Street	December 10, 2014
Jefferson Street & Bull Creek Road	December 10, 2014
West 35 th Street & Jefferson Street	December 10, 2014
Bull Creek Road & Jackson Avenue	January 22, 2015
Mo-Pac southbound frontage & West 45 th Street/Highland Terrace	March 24, 2015

In addition, 24 hour daily volume traffic counts were conducted on the following streets:

Table 7 – 24 hour travel cour	nt data for residential streets
Jackson Avenue	Week of March 24, 2015
Oakmont Street	Week of March 24, 2015
West 39 th Street	Week of March 24, 2015
West 40 th Street	Week of March 24, 2015
West 41 st Street	Week of March 24, 2015
West 42 nd Street	Week of March 24, 2015
West 44 th Street	Week of March 24, 2015
Lawton Avenue	Week of September 29, 2015

No background developments were identified and an annual growth rate of 1% was applied as determined from historic traffic volume data provided by TxDOT. The intersections identified for analysis were evaluated using the Highway Capacity Manual (HCM) method for capacity analysis. The results of the analysis are shown in the following tables:

- Table 8 2014 Existing Conditions
- Table 9 2018 No Build Conditions (no development)
- Table 10 2018 Build Conditions (Phase 1 of development)
- Table 11 2024 No Build Conditions (no development)
- Table 12 2024 Build Conditions (Phases 1 & 2 of development)

Analysis methodology and results

Operational analyses were performed for each intersection (AM and PM peak hour), to identify the capacity and congestion anticipated. The procedure follows the methodology set forth in the 5th Edition of the Transportation Research Board of the Highway Capacity Manual (HCM) 2010. All of the various scenarios, including existing and proposed conditions for this study area were analyzed using this methodology, which determines the intersection delay as the average control delay per vehicle for the signalized intersection. LOS refers to the perception by motorists of the

TABLE 8
ANALYSIS RESULTS FOR 2014 EXISTING CONDITONS

													1
						20	2014 EXISTING CONDITION	CONDITION :	NO				
Intersection	Traffic Control			AM P	AM Peak Hour					PM Peak Hour	k Hour		
	261	MOE	TOS	50th	4)S(h	Bay	3/A	MOE1	TOS	S0th	95th	Bay	A/C
MoPac SRFR at 45th	Slenal	25.5	U					17.2	æ		<u> </u>		
Westbound left		42.1	Ω	517	635	315	0.84	19.9	Д	228	176	315	0.49
Southbound left		20.5	ပ	115	153	N/A	0.3	23.1	၁	200	253	N/A	0.47
Southbound right		3.1	4	0	47	N/A	0.32	7.1	٧	39	102	N/A	0.39
MoPac NBFR at 45th	Signal	42.2	Δ					41.0	Q				
Eastbound left		23.1	U	00	15	340	0.1	29.8	၁	09	19	340	19.0
Eastbound through		33	၁	58	79	340	0.71	26.3	၁	64	58	340	99.0
Westbound		4.1	٨	22	77	N/A	0.57	14.1	В	151	523	N/A	0.71
Northbound		118.9	ш	367	591	006	1.16	171.9	Ľ.	300	489	006	1.23
Southbound left		47	Δ	1	9	N/A	0.02	52.0	Ω	ı	10	N/A	0.03
Southbound right		1.8	4	0	0	N/A	1.8	0.4	¥	0	0	N/A	0.05
Bull Creek at 45th	Signal	6.7.9	ы					68.2	E				
Eastbound		35.2	D	192	205	480	0.79	89.5	ч	267	334	480	1.00
Westbound		107	F	391	522	N/A	1.1	48.8	Q	308	390	N/A	0.83
Northbound left		46	Q	72	123	130	0.58	78.5	В	323	523	130	96.0
Northbound through/right		36.6	Q	69	131	N/A	0.33	9.09	Э	277	447	N/A	0.86
Southbound left		33.1	၁	14	161	130	80'0	51.0	Ω	14	39	130	0.12
Southbound through/right		88.5	ц	36	358	N/A	0.94	77.0	В	66	207	N/A	0.81
MoPac NBFR at 35th/Jackson	Signal	280.3	F					65.7	E				
Eastbound left/through		37.2	Ω	335	411	N/A	89.0	78.0	В	323	429	N/A	0.92
Eastbound right		4.9	٧	0	43	N/A	0.2	8.6	٧	3	96	N/A	0.56
Westbound		49.6	Ω	426	554	N/A	0.94	35.8	Q	774	813	N/A	0.83
Northbound		813.3	F	1355	1614	1050	2.75	255.1	H	370	569	1050	1.44
Southbound left		49.5	Q	6	30	80	0.18	76.8	Ξ	25	63	80	0.42
Southbound through/right		12.9	В	13	89	N/A	0.3	39.8	Ω	110	201	N/A	0.59
Bull Creek at Jefferson	Signal	9.6	٧					17.8	B				
Eastbound left/through		8.8	A	8	16	N/A	0.1	15.0	В	15	41	N/A	0.10
Eastbound right		3.2	٧	0	56	130	0.14	4.3	٧	0	36	130	0.28
Westbound		8.3	V	6	37	N/A	0.08	18.3	В	74	150	N/A	0.45
Northbound left		18.5	В	8	33	130	0.17	27.4	ບ	83	155	130	0.67
Northbound through/right		12	В	9	37	N/A	0.27	11.8	В	œ	31	N/A	0.13
Southbound left		17.5	В	2	15	100	0.05	20.7	ပ		4	100	0.04
Southbound through/right		17.7	В	7	32	N/A	0.16	20.0	В	24	19	N/A	0.40

TABLE 8 ANALYSIS RESULTS FOR 2014 EXISTING CONDITONS

						20:	2014 EXISTING CONDITION	CONDITIE	NO				
Intersection	Traffic Control			AM P	AM Peak Hour					PM Peak Hour	k Hour		
		MOE	SOT	SOth Queue	95th Quene	Bay Length	A/C	MOE1	TOS	SOth Queue	95th Queue	Bay Length	A/C
35th at Jefferson	Signal	14.9	m					25.6	၁				
Eastbound left		11.1	æ	3	22	180	0.27	5.7	¥	2	9	180	5.70
Eastbound through/right		6.2	4	20	195	N/A	0.45	3.7	٧	13	25	N/A	3.70
Westbound left		11.6	m	29	55	110	0.27	18.3	B	28	95	110	18.30
Westbound through/right		15.5	m	393	200	N/A	0.62	25.4	၁	510	909	N/A	25.40
Northbound left		44.1	Δ	35	17	215	0.21	44.9	Ω	83	139	215	44.90
Northbound through		66.5	ы	4	88	N/A	0.41	84.1	£1,	219	341	N/A	84.10
Northbound right		6	4	0	39	215	0.28	7.4	٧	0	19	215	7.40
Southbound left		57.4	п	98	129	150	0.5	55.3	E	108	173	150	55.30
Southbound through		55.8	В	10	39	N/A	0.09	60.5	3	110	180	N/A	60.50
Southbound right		0.4	٧	٥	0	160	0.06	7.2	٧	2	44	160	7.20
Bull Creek at Jackson	Two-Way Stop	0.7	V					6'9	A				
Eastbound	Stop	11.3	В	N/A	0.2	N/A	0.051	29.2	Д	N/A	4.1	N/A	0.628
Northbound left	Free	8.2	V	N/A	0	N/A	0.002	9.6	٧	N/A	0.0	N/A	0.002
45th/Highland Terrace at MoPac Ramp	Two-Way Stop	8.6	٧				:	126.8	¥		(1)		
Eastbound	Stop	0	Ψ_	V/N	0	20	0	10.7	В	N/A	1.5	20	0.343
Westbound left	Stop	9.71	C	N/A	3.9	1200	0.591	230.8	ъ	N/A	36.0	1200	1.440
Westbound right	Stop	8.5	Α_	N/A	0	175	0.004	8.8	٧	N/A	0.2	175	0.061
Shoal Creek at 45th	All-Way Stop	52.3	F					55.8	14				
Eastbound inside lane	Stop	41.8	В	V/N	6'L	N/A	0.306	38.9	Ξ	N/A	9.9	N/A	0.782
Eastbound outside lane	Stop	47.4	E	N/A	6'8	N/A	0.067	37.3	В	N/A	6.4	N/A	0.762
Westbound inside lane	Stop	61.9	F	V/N	11	V/N	0.828	77.5	ц	N/A	11.9	N/A	1.021
Westbound outside lane	Stop	49.3	I	N/A	9.3	V/N	0.869	76.8	Œ,	N/A	12.0	N/A	1.100
Northbound left/through	Stop	17.4	၁	N/A	1.3	N/A	0.944	64.2	tet	N/A	10.1	N/A	0.934
Northbound right	Stop	12.7	В	N/A	0.2	100	0.878	13.8	В	N/A	0.7	100	0.198
Southbound left/through	Stop	76.9	F	N/A	12	N/A	1.041	39.2	Э	N/A	6.2	N/A	0.761
Southbound right	Stop	12.6	В	N/A	0.5	100	0.146	13.2	В	N/A	0.4	100	0.121
 MOE is seconds delay per vehicle. 													

MOE is seconds delay per vehicle.
 730 AM =8:30 AM
 430 PM =5:30 PM
 93* Queue for eignalized intersection on

TABLE 9
ANALYSIS RESULTS FOR 2018 NO BUILD CONDITONS

						201	2018 NO BUILD CONDITIONS	CONDITIO	NS				
Intersection	Traffic Control			AM P	AM Peak Hour	:	!			PM Pea	PM Peak Hour		
	adk I	MOE	ros	50th Queue	95th Oueue	Bay	A/C	MOE	ros	50th Queue	95th Queue	Bay Length	A/C
MoPac SBFR at 45th	Signal	20.3	ပ					13.9	m				
Westbound left		39.2	α	502	707	315	0.88	20.3	ပ	216	200	315	0.51
Southbound left		9.2	٧	53	29	N/A	0.31	16.9	В	127	190	N/A	0.49
Southbound right		1	٧	0	0	N/A	0.33	4.7	A	8	75	N/A	0.40
MoPac NBFR at 45th	Signal	13.6	Ø					27.7	C				
Eastbound left		24.1	Ü	00	17	340	0.1	43.6	D	66	85	340	0.67
Eastbound through		32.9	υ	58	72	340	0.71	40.8	D	104	80	340	99.0
Westbound		4.8	4	23	23	N/A	9.0	16.8	В	486	543	N/A	0.86
Northbound left/through	į	44.3	Ω	54	101	96	0.25	63.1	ш	131	220	006	0.68
Northbound right		10.4	B	0	108	550	0.73	11.2	В	0	64	550	0.47
Southbound left		46	Ω	-	9	N/A	0.01	52.0	Q	1	01	N/A	0.03
Southbound right		1.9	4	0	0	N/A	0.26	0.4	٧	0	0	N/A	90'0
Bull Creek at 45th	Signal	79.3	ы					73.7	E				
Eastbound		48	Ω	315	397	480	0.83	96.6	ч	288	414	480	1.04
Westbound		122.5	Ŀ	420	552	N/A	1.15	55.4	Ε	325	435	N/A	0.88
Northbound left		47.6	Δ	74	128	130	19:0	83.2	대	342	955	130	0.98
Northbound through/right		37	Ω	73	137	N/A	0.34	63.0	Ε	294	478	N/A	0.88
Southbound left		33.1	၁	14	37	130	0.09	51.1	D	15	41	130	0.12
Southbound through/right		92.3	F	200	376	N/A	96.0	80.5	ഥ	104	218	N/A	0.83
MoPac NBFR at 35th/Jackson	Signal	52.9	Q					42.2	D				
Eastbound left/through		38.1	Δ	354	433	N/A	0.71	80.9	H	338	458	N/A	0.94
Eastbound right		5.2	٧	2	45	N/A	0.21	11.1	В	13	106	N/A	0.58
Westbound		55.1	E	451	583	N/A	0.98	33.5	ပ	804	828	N/A	98.0
Northbound left/through		140	F	270	450	1050	1.12	85.1	īΤ	103	203	1050	0.72
Northbound right		52.6	D	267	537	700	1.01	10.1	В	0	75	700	0.48
Southbound left		45.2	D	6	29	80	0.12	55.0	ш	24	57	8	0.15
Southbound through/right		13	В	14	69	N/A	0.31	41.7	Ω	120	214	N/A	0.61
Bull Creek at Jefferson	Signal	11.5	B					18.3	æ				
Eastbound left/through		10.5	В	18	20	N/A	0.12	15.3	B	16	42	N/A	0.11
Eastbound right		7.8	V	0	36	130	0.38	5.6	¥	0	38	130	0.38
Westbound		6.7	A	13	40	N/A	0.09	19.4	æ	83	157	N/A	0.49
Northbound left		18.7	В	11	34	130	0.17	27.0	ပ	87	163	130	0.67
Northbound through/right		12.1	В	8	37	N/A	0.27	11.8	В	œ	32	A/A	0.13
Southbound left		18.4	В	3	15	100	0.05	20.8	٥	3	14	91	0.04
Southbound through/right		18.5	В	10	34	N/A	0.17	20.2	٥	56	63	N/A	0.40

TABLE 9 ANALYSIS RESULTS FOR 2018 NO BUILD CONDITONS

						201	2018 NO BUILD CONDITIONS	CONDITIO	SNS				
Intersection	Traffic Control			AM P	AM Peak Hour					PM Peak Hour	k Hour		
	Type	MOE1	SOT	50th Queue	95th Queue	Bay	N/C	MOE1	ros	50th Quene	95th Queue	Bay Length	V/C
35th at Jefferson	Signal	15.7	B					27.1	C				
Eastbound left		12.6	m	7	19	180	0.29	12.9	В	13	18	180	0.31
Eastbound through/right		6.7	٧	74	232	N/A	0.47	8.8	٧	88	124	N/A	0.40
Westbound left		12.1	m	31	57	110	0.29	19.2	В	86	58	110	0.38
Westbound through/right		16.5	m	431	536	N/A	0.65	1.72	၁	637	696	N/A	0.73
Northbound left		44.5	Ω	36	74	215	0.21	44.5	Q	145	83	215	0.38
Northbound through	V	66.7	ш	45	88	N/A	0.42	84.6	F	365	204	N/A	0.83
Northbound right		9.6	٧	0	4	215	0.29	7.4	٧	62	17	215	0.35
Southbound left		58.6	ш	8	136	150	0.52	26.3	Ε	186	108	150	0.65
Southbound through		55.5	ш	10	8	N/A	0.09	60.1	В	190	108	N/A	0.42
Southbound right		0.4	¥	0	0	160	90'0	0.6	A	52	19	160	0.28
Buil Creek at Jackson	Two-Way Stop	0.7	٧					0.8	A				
Eastbound	Stop	11.5	В	N/A	0.2	N/A	0.054	33.6	Q	N/A	4.8	N/A	0.681
Northbound left	Free	8.2	٧	N/A	0.0	N/A	0.002	9.7	٧	N/A	0.0	N/A	0.002
45th/Highland Terrace at MoPac	Signal	27.9	၁					19.0	æ	(e			
Ramp		0	4	6	6	Ş	٥	18	4	4	20	9	0.33
Westhound left		51.1	۵	156	. 8	1200	0.72	26.2	ပ	232	197	1200	0.77
Westbound right		0.0	4	٥	-	175	0.01	1.8	<	0	13	175	0.07
Northbound left		0.0	٧	0	0	130	0	23.5	ပ	-	7	130	0.00
Northbound		4.0	۷	9	13	N/A	0.04	17.8	В	15	47	N/A	0.08
Southbound		6.5	4	41	72	N/A	0.14	29.0	2	38	80	N/A	0.11
Shoal Creek at 45th	All-Way Stop	57.2	Ŗ			187		9.09	F				
Eastbound inside lane	Stop	46.3	B	N/A	9.8	N/A	0.863	45.3	ы	N/A	7.5	N/A	0.826
Eastbound outside lane	Stop	53.4	Ŧ	N/A	8.6	N/A	0.911	42.4	3	N/A	7.2	N/A	0.805
Westbound inside lane	Stop	71.0	F	N/A	12.1	N/A	0.99	78.5	ഥ	N/A	11.8	N/A	1.074
Westbound outside lane	Stop	55.8	F	N/A	10.2	N/A	0.925	77.8	ഥ	N/A	11.9	N/A	1.165
Northbound left/through	Stop	17.8	C	N/A	1.4	N/A	0.32	77.6	ഥ	N/A	11.5	N/A	0.979
Northbound right	Stop	12.8	В	N/A	0.7	100	0.07	14.1	В	N/A	8.0	001	0.209
Southbound left/through	Stop	77.6	F	N/A	11.9	N/A	1.098	44.8	В	N/A	7.0	N/A	0.808
Southbound right	Stop	12.9	В	N/A	0.5	100	0.155	13.5	В	N/A	0.4	100	0.128
alrichan men velah abanaman si HOM													

MOB is seconded delay per vehicle.
 7:30 AM - 8:30 AM
 4:30 PM - 5:30 PM
 4:30 PW - 5:30 PM
 4:30 PM - 5:30 PM
 95* Queue for signalized intersection measured in feet and for non-signalized intersection measured in vehicles

TABLE 10
ANALYSIS RESULTS FOR 2018 BUILD CONDITONS

					١								
23						a	2018 BUILD CONDITIONS	ONDITION	S				
Intersection	Traffic Control			AM Pe	AM Peak Hour					PM Peak Hour	t Hour		
	1 Abe	MOE1	ros	S0th Quene	95th Oueue	Bay Length	A/C	MOE ¹	ros	50th Queue	95th Queue	Bay Length	V/C
MoPac SBFR at 45th	Signal	25.7	ú					14.4	В				
Westbound left		50.6	Δ	494	0//	315	0.92	20.3	C	214	198	315	0.51
Southbound left		9.1	4	52	99	N/A	0.31	17.6	В	138	204	N/A	0.51
Southbound right		1.0	٧	•	0	N/A	0.33	5.3	¥	10	84	N/A	0.40
MoPac NBFR at 45th	Signal	15.2	B					28.5	C				
Eastbound left		24.7	Ü	80	17	340	0.1	40.3	Д	94	6/	340	0.65
Eastbound through		33.1	ပ	58	72	340	0.71	39.6	D	105	- 62	340	0.70
Westbound		9.8	٧	57	73	N/A	0.64	19.9	В	290	332	N/A	0.87
Northbound left/through		44.3	Ω	75	101	96	0.25	63.1	E	131	220	006	0.68
Northbound right		10.3	В	0	107	550	0.73	11.2	В	0	69	550	0.51
Southbound left		46.0	Д	-	9	N/A	0.01	52.0	Ω	1	10	N/A	0.03
Southbound right		1.9	٧	0	0	N/A	0.26	0.4	A	0	0	N/A	90.0
Bull Creek at 45th	Signal	61.5	33					58.7	E				
Eastbound		31.1	၁	180	478	480	6.0	85.3	F	323	452	480	1.09
Westbound		92.2	ц	390	521	N/A	1.06	42.6	D	325	469	N/A	0.78
Northbound dual lefts		59.7	Э	92	115	400	9.0	55.3	Е	170	217	400	0.75
Northbound through/right		38.0	Δ	101	168	N/A	0.46	49.3	D	258	450	N/A	0.78
Southbound left		46.5	Ω	11	44	130	0.11	48.5	D	15	\$	130	0.13
Southbound through/right		90.0	F	199	385	N/A	0.95	63.5	B	108	136	N/A	0.73
MoPac NBFR at 35th/Jackson	Signal	54	D					42.9	Ω				
Eastbound left/through		39.2	Д	357	437	N/A	0.72	78.9	E	346	465	N/A	0.93
Eastbound right		5.5	4	2	46	N/A	0.22	11.5	В	18	112	N/A	0.57
Westbound		55.3	Э	451	583	N/A	0.98	35.4	D	831	998	N/A	0.90
Northbound left/through		166.3	Ľ	280	458	1050	1.20	81.4	F	126	231	1050	0.74
Northbound right		48.4	D	246	528	200	1.00	9.6	Ą	0	74	700	0.46
Southbound left		43.8	D	- 6	29	80	0.11	53.6	D	24	99	08	0.15
Southbound through/right		11.6	В	14	47	N/A	0.36	38.8	Δ	118	212	N/A	0.58
Bull Creek at Jefferson	Signal	11.4	В					18.6	В				
Eastbound left/through		10.6	В	21	57	N/A	0.13	16.0	В	17	45	N/A	0.12
Eastbound right		7.8	٧	0	36	130	0.40	5.3	٧	0	38	130	0.37
Westbound		9.7	A	12	39	N/A	0.09	21.4	ပ	68	173	N/A	0.55
Northbound left		18.6	В	11	33	130	0.16	25.9	ပ	68	165	130	99.0
Northbound through/right		12.0	В	80	37	N/A	0.27	11.3	В	80	31	ΝΑ	0.13
Southbound left		18.4	В	3	15	100	0.05	20.7	ပ	3	41	100	9.04
Southbound through/right		18.5	В	10	34	N/A	0.17	20.0	В	25	63	N/A	0.39

TABLE 10 ANALYSIS RESULTS FOR 2018 BUILD CONDITONS

						2	2018 BUILD CONDITIONS	ONDITION	S				4
Intersection	Traffic Control			AM Pe	AM Peak Hour					PM Pea	PM Peak Hour ³		
11	adkı	MOE	TOS	50th Queue	95th Oueue	Bay Length	A/C	MOE	ros	50th Queue	95th Oueue	Bay Length	N/C
35th at Jefferson	Signal	15.5	B					27.6	٥				
Eastbound left		11.9	В	7	18	180	0.28	13.2	В	8	14	180	0.31
Eastbound through/right		9.9	4	99	219	A/A	0.46	5.7	Ą	54	89	N/A	0.40
Westbound left		12.0	В	30	57	110	0.29	19.4	В	99	86	110	0.38
Westbound through/right		16.3	В	417	537	N/A	0.67	27.4	၁	575	637	N/A	0.73
Northbound left		45.1	Ω	36	74	215	0.23	44.2	۵	84	145	215	0.37
Northbound through		66.5	В	4	87	N/A	0.42	8.6.8	ы	237	389	N/A	0.85
Northbound right		9.6	٧	0	4	215	0.29	7.4	٧	0	62	215	0.35
Southbound left		54.4	Ω	08	136	150	0.48	56.5	E	110	192	150	99'0
Southbound through		55.9	Э	17	45	N/A	0.14	59.6	Ε	114	190	N/A	0.42
Southbound right		0.4	4	0	•	160	0.05	9.0	V	8	52	160	0.27
Bull Creek at Jackson	Two-Way Stop	9.0	4					53	4				
Eastbound	Stop	12.8	В	N/A	0.2	N/A	0.064	25.3	Q	N/A	3.7	N/A	0.591
Northbound left	Free	8.3	٧	N/A	0.0	N/A	0.002	7.9	Y	N/A	0.0	N/A	0.003
45th/Highland Terrace at MoPac Ramp	Signal	28.0	၁					18.4	B				
Eastbound		0.0	٧	0	0	20	0	1.7	٧	4	56	50	0.33
Westbound left		51.4	Q	155	195	1200	6.73	24.3	၁	230	187	1200	0.76
Westbound right		0.0	٧	0	1	175	0.01	1.6	٧	0	12	175	0.07
Northbound left		0.0	¥	0	0	130	0	27.5	ט	1	7	130	0.00
Northbound		7.4	¥	11	24	N/A	0.04	22.1	၁	20	51	N/A	0.09
Southbound		6.4	٧	40	71	N/A	0.14	30.9	၁	41	84	N/A	0.12
Shoal Creek at 45th	All-Way Stop	0.09	Ħ					61.3	F				
Eastbound inside lane	Stop	55.9	F	N/A	10.1	N/A	0.917	46.8	ш	N/A	7.8	N/A	0.834
Eastbound outside lane	Stop	60.7	F	N/A	10.9	N/A	0.944	43.4	H	N/A	7.3	N/A	0.815
Westbound inside lane	Stop	9.0%	F	N/A	12.1	N/A	0.981	78.7	(Li	N/A	11.8	N/A	1.123
Westbound outside lane	Stop	55.6	F	N/A	10.2	N/A	0.916	78.0	ᅜ	N/A	11.9	N/A	1.204
Northbound left/through	Stop	17.9	၁	N/A	1.4	N/A	0.321	79.1	ŗ.	N/A	11.7	N/A	0.989
Northbound right	Stop	12.9	В	N/A	0.2	100	0.071	14.2	В	N/A	9.0	8	0.210
Southbound left/through	Stop	77.9	H	N/A	11.9	N/A	1.113	45.2	ш	N/A	7.0	N/A	0.808
Southbound right	Stop	12.9	В	N/A	0.5	100	0.151	13.8	В	N/A	0.5	100	0.154
Bull Creek at Driveway 3	Two-Way Stop	4.1	V					4.6	¥				
Eastbound	Stop	11.1	В	N/A	0.0	N/A	0.015	31.3	Ω	N/A	1.0	Y/A	0.264
Westbound left/throughs	Stop	12.8	В	N/A	0.4	N/A	0.124	29.8	D	N/A	0.8	N/A	0.213
Wesbtound rights	Stop	9.4	V	N/A	0.5	N/A	0.136	13.2	В	N/A	0.4	N/A	0.127
Southbound lefts	Free	7.5	٧	N/A	0.1	N/A	0.021	9.3	٧	N/A	0.4	¥ _N	0.128
Northbound lefts	Free	7.7	A	N/A	0.0	N/A	0.003	7.5	٧	N/A	0.0	N/A	0.007
1. MOE is seconds delay per vehicle.													

MOE is seconds delay per vehicle.
 7:30 AM -8:30 AM
 4:30 PM -5:30 PM
 95* Queue for signalized intersection measured in feet and for non-signalized interse

TABLE 11
ANALYSIS RESULTS FOR 2024 NO BUILD CONDITONS

						202	2024 NO BUILD CONDITIONS	CONDIT	IONS				
Intersection	Traffic Control			AM P	AM Peak Hour					PM Po	PM Peak Hour ³		
	ad k	MOE	TOS	50th Queue	95th Oueue	Bay Length	A/C	MOE	SOT	50th Queue	95th Queue ⁴	Bay Length	N/C
MoPac SBFR at 45th	Signal	27.6	ပ					13.5	æ				
Westbound left		56	ш	538	782	315	0.93	20.2	၁	209	182	315	0.54
Southbound left		9.3	٧	26	71	N/A	0.33	18.2	В	149	212	N/A	0.52
Southbound right		0.3	٧	0	0	N/A	0.20	0.3	Ą	0	0	N/A	0.23
MoPac NBFR at 45th	Signal	14.2	g				!	30.5	C				
Eastbound left		24	၁	8	18	340	0.10	39.8	Q	96	78	340	99.0
Eastbound through		32.8	၁	63	77	340	0.73	37.2	Ω	101	74	340	0.69
Westbound		5.8	V	41	23	N/A	0.65	24.0	ပ	533	554	N/A	9.0
Northbound left/through		44.5	a	99	105	900	0.26	0.99	ш	140	241	8	0.72
Northbound right		10.7	В	0	114	550	0.75	11.1	В	0	65	550	0.48
Southbound left		46	Ω	_	9	N/A	0.01	52.0	Q	1	10	N/A	0.03
Southbound right		2.3	4	0	3	N/A	0.27	0.4	A	0	0	N/A	90.0
Bull Creek at 45th	Signal	92.3	H					95.7	H				
Eastbound		51.7	Q	345	427	480	0.88	114.3	F	323	449	480	1.10
Westbound		148.7	Œ	466	009	N/A	1.22	93.1	F	352	480	N/A	0.93
Northbound left		51.6	Q	80	141	130	99:0	99.3	F	395	601	130	1.05
Northbound through/right		37.8	q	78	145	N/A	0.35	72.9	田	318	522	N/A	0.94
Southbound left		33.2	၁	15	38	130	0.09	51.2	Ω	16	43	130	0.13
Southbound through/right		107.6	Ŧ	229	408	N/A	1.03	86.9	F	113	240	N/A	0.87
MoPac NBFR at 35th/Jackson	Signal	66.1	3					45.8	D				
Eastbound left/through		39.7	Q	384	467	N/A	0.75	92.8	F	365	504	N/A	1.00
Eastbound right		9	V	9	52	N/A	0.23	13.5	В	29	132	N/A	0.61
Westbound		69.4	Э	520	644	N/A	1.04	33.3	ບ	901	950	N/A	0.92
Northbound left/through		177.8	F	309	491	1050	1.23	106.8	ഥ	114	236	1050	0.86
Northbound right	*	74.7	Ξ	378	627	700	1.08	10.1	В	0	11	700	0.50
Southbound left		46.8	Q	10	30	80	0.15	55.5	Ε	26	59	80	0.16
Southbound through/right		13	В	15	72	N/A	0.33	44.3	Ω	132	230	N/A	9.65
Bull Creek at Jefferson	Signal	11.6	В		8 2.			19.0	В				
Eastbound left/through		10.6	В	61	53	N/A	0.12	16.0	В	18	45	N/A	0.14
Eastbound right		7.8	٧	0	37	130	0.39	4.9	٧	0	38	130	0.36
Westbound		9.8	A	14	43	N/A	0.10	24.0	ပ	88	170	N/A	0.65
Northbound left		18.7	В	12	35	130	0.17	25.5	ပ	87	179	130	0.64
Northbound through/right		12	В	•	38	N/A	0.28	11.7	В	80	34	N/A	0.13
Southbound left		18.5	В	3	16	100	0.05	20.5	၁	4	15	8	9.0
Southbound through/right		18.6	В	=	36	N/A	0.17	19.3	В	56	- 62	NA	0.38

TABLE 11 ANALYSIS RESULTS FOR 2024 NO BUILD CONDITONS

			8			202	2024 NO BUILD CONDITIONS	CONDIT	IONS				
Intersection	Traffic Control			AM P	AM Peak Hour					PM Pe	PM Peak Hour ³		
	36	MOE	TOS	S0th Queue	95th Oueue	Bay Length	λ/C	MOE	ros	50th Queue	95th Quene	Bay Length	N/C
35th at Jefferson	Signal	16.4	В	i				29.0	ပ				
Eastbound left		18.2	В	10	61	180	0.35	18.0	В	11	21	180	0.35
Eastbound through/right		7.3	4	117	234	N/A	0.49	5.3	٧	74	88	N/A	0.42
Westbound left		12.2	В	¥	53	110	0.33	20.0	В	71	104	110	0.43
Westbound through/right		16.9	В	494	523	N/A	69.0	29.0	C	657	705	N/A	0.78
Northbound left		45.4	Ω	38	78	215	0.23	45.9	D	89	154	215	0.41
Northbound through		6.99	Э	48	93	N/A	0.44	89.4	F	240	395	N/A	0.87
Northbound right		10.1	В	0	48	215	0.30	11.2	æ	19	96	215	0.38
Southbound left		61.8	ы	95	145	150	0.57	63.1	ы	116	208	150	0.73
Southbound through		55.8	В	=	32	N/A	0.10	61.2	В	119	861	N/A	0.45
Southbound right		0.4	٧	0	•	160	90:0	12.5	В	20	89	160	0:30
Bull Creek at Jackson	Two-Way Stop	0.7	٧					10.2	В				
Eastbound	Stop	11.7	В	N/A	0.2	N/A	0.059	43.2	E	N/A	6.2	N/A	0.769
Northbound left	Free	8.3	V	N/A	0.0	N/A	0.007	7.6	٧	N/A	0.0	N/A	0.002
45th/Highland Terrace at MoPac Ramp	Signal	27.8	Э					17.3	В				Ī
Eastbound		0.0	٧	0	0	50	00'0	1.5	A	4	26	50	0.33
Westbound left		50.1	Ω	991	205	1200	0.73	22.1	င	224	189	1200	0.75
Westbound right		0.0	٧	0	1	175	0.01	1.4	٧	0	11	175	0.07
Northbound left		0.0	٧	0	0	130	0.00	26.5	۶ د	1	7	130	0.01
Northbound		4.7	Y	9	16	N/A	0.04	20.8	ບ	20	\$4	N/A	0.10
Southbound		7.1	A	46	80	N/A	0.15	33.0	ບ	45	88	N/A	0.14
Shoal Creek at 45th	All-Way Stop	65.5	F					64.7	F				
Eastbound inside lane	Stop	58.5	F	N/A	10.4	N/A	0.926	55.0	ᄕ	N/A	8.9	N/A	0.893
Eastbound outside lane	Stop	8.89	F	N/A	11.9	N/A	0.972	50.7	н	N/A	8.4	N/A	0.871
Westbound inside lane	Stop	74.2	F	N/A	12.4	N/A	1.052	78.2	F	N/A	11.8	N/A	1.136
Westbound outside lane	Stop	72.3	F	N/A	12.4	N/A	0.988	77.5	н	N/A	11.9	N/A	1.219
Northbound left/through	Stop	18.5	C	N/A	1.5	N/A	0.343	79.9	ī	N/A	11.6	N/A	1.066
Northbound right	Stop	13.0	В	N/A	0.2	100	0.077	14.6	В	N/A	6.0	100	0.225
Southbound left/through	Stop	77.6	F	N/A	11.9	N/A	1.161	54.9	ഥ	N/A	8.3	N/A	0.861
Southbound right	Stop	13.1	В	N/A	9.0	100	0.165	13.7	В	N/A	0.5	100	0.137
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MOE is seconds delay per vehicle.
 7:30 AM - 8:30 AM
 4:30 PM - 5:30 PM
 5:40 PM - 5:40 PM
 5:40 PM
 5:40 PM - 5

TABLE 12 ANALYSIS RESULTS FOR 2024 BUILD CONDITONS

						•		AND BUILD CONDITIONS	?				
Intersection	Traffic Control			AM P	AM Peak Hour?					PM Per	PM Peak Hour		
	al.	MOE	108	Soth	95th	Bay	A/C	MOE	50T	Soth	95th Onese	Bay	A/C
MoPac SBFB at 45th	Signal	32.6	ပ					16.0	<u>m</u>				
Westbound left		88	ш	695	893	315	0.98	15.9	B	120	95	315	0.64
Southbound left		21.4	ပ	207	244	V/N	67'0	25.2	C	248	336	N/A	0.67
Southbound right		0.3	٧	0	0	N/A	0.7	0.3	٧	0	0	N/A	023
MoPac NBFR at 45th	Signal	20.6	၁					37.3	Q				
Eastbound left		6.3	<	2	3	340	90.08	21.5	o,	47	53	340	0.59
Eastbound through		13.1	B	22	19	340	0.76	23.0	ပ	19	29	340	92'0
Westbound		23.4	ပ	358	652	N/A	0.88	46.7	Δ	369	784	N/A	1.08
Northbound left/through		45.6	Δ	57	106	006	0.27	78.8	ы	143	265	906	0.82
Northbound right		20.9	ပ	\$	282	550	0.87	12.9	m	٥	8	920	99'0
Southbound left		48.0	Δ	-	9	N/A	0.01	54.5	Ω	2	==	N/A	0.03
Southbound right		9.7	٧	0	36	N/A	0.34	0.5	<	0	0	N/A	90.0
Bull Creek at 45th	Signal	45.8	۵					36.2	۵				
Eastbound left		8.2	۷	13	17	100	0.27	13.7	В	11	61	100	0.24
Eastbound through/right		35.7	Ω	483	879	081	66'0	23.7	၁	334	449	480	0.92
Westhound left		0.40	ш	133	286	250	06'0	42.2	Q	135	251	250	0.74
Westhound through/right		27.9	2	254	320	N/A	65'0	29.2	ပ	255	322	N/A	0.60
Northbound dual lefts		92.1	F	170	254	400	0.86	57.9	ELI	275	379	400	0.89
Northbound through		40.1	Q	57	138	N/A	0.23	35.7	۵	186	323	N/A	0.54
Northbound right		6.3	٧	17	55	250	0.32	5.7	٧	36	75	250	0.33
Southbound left		39.6	Ω	16	43	130	90.08	48.2	Q	15	1+	130	0.11
Southbound through/right		24.2	tr.	237	427	V/N	66'0	86.0	F	147	288	N/A	0.90
MoPac NBFR at 35th/Jackson	Signal	64.7	3					40.7	Q				
Eastbound left/through		41.4	Ω	114	499	N/A	0.79	100.7	Ŀ	432	200	¥X	<u> </u>
Eastbound right		6.7	۷	10	%	N/A	0.23	0,3	<	-	٥	V/V	022
Westbound		8.69	m	521	3	N/A	<u>s</u>	22.5	Ü	763	657	V/V	0.92
Northbound left/through		157.4	Œ,	384	584	1050	1.19	91.1	щ	121	371	1050	0.87
Northbound right		74.7	Е	378	627	700	1.08	10.7	æ	0	92	700	0.52
Southbound left/through		45.5	D	25	58	80	0.18	75.1	쁘	81	146	8	0.58
Southbound right		8.4	٧	0	73	N/A	0.49	11.0	æ	0	¥	V/A	0.63
Ball Creek at Jefferson	Signal	11.9	8					27.1	ပ				
Eastbound left/through		11.7	В	33	85	N/A	0.20	17.2	п	39	82	V/V	0.26
Eastbound right		7.0	٧	0	40	130	0.42	4.7	<	0	4	130	0.39
Westbound		11.3	8	27	7.3	N/A	0.17	29.7	၁	125	264	V /V	9.76
Northbound left		19.1	В	21	51	130	0.26	30.6	ပ	115	241	130	0.73
Northbound through/right		11.2	В	96	38	N/A	0.26	11.8	В	9	*	N/A	0.13
Southbound left		19.3	В	3	16	100	\$0.0	20.7	၁	4	15	100	0.05
Southbound through/right		19.3	В	11	37	NA	0.17	20.6	۵	29	29	N/A	0.41
15th at Jefferson	Signal	19.3	B					32.5	C				
Eastbound left		23.4	υ	14	24	180	96.0	30.7	C	23	37	180	0.39
Eastbound through/right		11.5	В	147	424	N/A	0.52	8.2	٧	72	. 91	N/A	0.45
Westbound left		13.1	В	34	57	110	0.34	21.9	Ü	69	201	110	0.46
Westbound through/right		18.6	В	495	563	N/A	0.71	32.5	ပ	969	705	V/V	0.82
Northbound left		44.2	Ω	37	76	215	0.24	4.4	۵	91	154	215	0.41
Northbound through		68.3	ជ	76	129	N/A	0.55	87.3	12.	308	515	V/N	0.90
Northbound right		6.6	4	0	45	215	0.31	12.4	æ	22	95	215	039
Southbound left		51.7	Δ	18	139	150	0.49	62.5	ы	611	231	150	0.74
Southbound through		54.7	Δ	38	78	V/V	0.22	609	Ш	165	256	¥	0.50
Southbound right		0.7	<	0	0	39	0.04	13.0	B	22	7	8	0.28

TABLE 12 ANALYSIS RESULTS FOR 2024 BUILD CONDITONS

Truthe Custon Mog Los Sold Sold Sold Losgia Losgia							Ħ	2024 BUILD CONDITIONS	NOTTIGNO	S				
Type	and the state of t	Traffic Control			AM P.	sale Hour?					PM Peak Hour	de Hour		
9.2 Signad 16.3 B 19 55 100 0.19 34.0 D 17.2 B 19 55 100 0.19 36.4 D 17.2 B 19 55 100 0.19 36.4 D 17.2 B 18 54 100 0.19 36.4 D 17.2 B 18 54 100 0.19 36.4 D 17.2 B 18 54 100 0.19 36.9 C 18.1 C 110 20 49 100 0.49 10 18.2 A 0 4 150 0.00 13.7 B 13.7 B 18.2 A 0 4 150 0.00 13.7 B B A 10.0 0.00 13.7 B B B B B 10.0 0.00 13.0 B B B		adici	MOE1	207	50th Ouene	95th Onese*	Bay	N/C	MOE	807	Soth	95th Ouene	Bay	N/C
172 B 19 55 100 0.10 5.58 D 124 C 21 68 NA 0.19 55.0 D 125 C 21 68 NA 0.19 25.0 C 125 C 21 68 NA 0.19 25.0 C 125 C 21 68 100 0.23 82.6 F 125 C 110 259 NA 0.40 131 A 125 C 110 259 NA 0.40 131 A 125 C 110 259 NA 0.40 131 A 127 C 110 259 NA 0.42 46.1 D 128 C 110 259 NA 0.42 46.1 D 127 C 110 259 NA 0.42 46.1 D 128 C 110 259 NA 0.42 46.1 D 129 C 110 259 NA 0.42 46.1 D 144 B 120 316 NA 0.33 11.2 B 145 B 120 120 0.00 13 A 146 B 120 120 0.00 37.0 D 147 B 120 120 NA 0.19 37.0 D 148 B 120 120 NA 0.1149 37.2 E Supp 142 F NA 124 NA 1.149 77.3 F Supp 142 F NA 1.124 NA 1.124 NA 1.124 NA Supp 132 B NA 0.3 100 0.000 37.0 D Supp 132 B NA 0.3 100 0.001 1.40 N Supp 132 A NA 1.13 NA 1.124 NA 1.124 NA Supp 132 A NA 0.3 100 0.001 1.50 A Supp 132 A NA 0.3 100 0.001 1.50 A Supp 132 A NA 0.3 100 0.001 1.50 A Supp 132 A NA 0.3 100 0.001 1.50 A Supp 132 A NA 0.3 NA 0.001 1.50 A Supp 132 A NA 0.3 NA 0.001 1.50 A Supp 132 A NA 0.3 0.000 1.40 B Supp 132 A NA 0.3 0.000 1.50 A Supp 132 A NA 0.3 0.000 1.50 A Supp 132 A NA 0.3 0.000 1.50 A Supp 132 A NA 0.1 NA 0.000 1.50 A Supp 140 B NA 0.1 NA 0.000 1.50 A Supp 140 B NA 0.1 NA 0.000 1.50 A Supp 140 B NA 0.1 NA 0.000 1.50 A Supp 140 B NA 0.1 NA 0.000 1.50 A Supp 140 B NA 0.1 NA 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000	Ball Creek at Jackson/Driveway 2	Slenel	16.3	B	,				38.0	۵				
Ramp Skepasi C 23 68 NAA 0.19 36.4 D 17.2 B 13 85 100 0.49 13.7 8.4 D 17.2 C 31 85 100 0.32 8.26 F 17.2 C 110 49 100 0.32 8.26 F 18.2 A 0 49 100 0.32 8.26 F 18.2 A 0 4 190 0.04 13.7 8.26 F 18.2 A 0 4 190 0.04 13.7 8.26 F 18.2 A 0 0 0 0 0.07 13.7 8.26 F 1.2 A 1.2 A 1.2 A 1.2 A 1.2 1.2 0 0 0 0.07 1.1 1.2 1.2 1.2 0 0 0 0 0	Eastbound left		17.2	<u>m</u>	19	55	100	0.19	53.8	Ω	158	278	100	0.86
Relation All-Ways Steps 172 B 18 54 100 0.19 22.9 C 30.1 C 30.1 C 110 60 0.40 13.7 R 1 20.1 C 110 20 100 0.40 13.7 A 1 2.1 C 10 2 4 150 0.00 13.7 A 1 2.1 C 10 2 10 0.40 13.7 6.10 1.3 A 1 1 0.0 1 10 0.0 1.30 0.00 1.3 A 1.0 0.0	Eastbound through/right		26,4	၁	23	89	NA	0.19	36.4	Ω	47	93	N/A	0.27
Ramap 301 C 31 85 100 0.02 82.6 F FRamap 9.5 A 0 49 100 0.04 13.7 A C Ramap Signad A 0 49 100 0.040 13.7 A E Ramap Signad 12.2 C 110 259 NA 0.02 7.3 A A A Lis D 12.2 A 0 150 0.00 13.7 A A A Lis D 17.3 NA 0.35 11.2 B A <t< th=""><th>Westbound left</th><th></th><th>17.2</th><th>В</th><th>18</th><th>54</th><th>100</th><th>0.19</th><th>29.9</th><th>ပ</th><th>37</th><th>74</th><th>901</th><th>0.36</th></t<>	Westbound left		17.2	В	18	54	100	0.19	29.9	ပ	37	74	901	0.36
Parameter 95 A 0 49 100 0.40 13.7 B A 0 49 100 0.40 13.7 B A 10 20 4 150 0.00 7.3 A A 10.7 2.2 C 110 209 NA 0.42 4.1 D A 10.7 10.2 A 0 0 150 0.00 1.3 A A 10.0 A 0 0 10.0 0.00 1.12 A A 10.0 A 0 0 0 1.90 0.00 1.12 A A 0.0 A 0 0 1.00 0.00 1.12 A A 0.0 A 0 0 1.10 0.00 1.12 A A 0.0 A 0 1.10 0.00 1.10 0.00 1.10 0.00	Westbound through		30.1	၁	31	82	100	0.32	82.6	F	73	176	100	0.84
Katagapa Signal 713 A 0 0 0 150 0.00 713 A 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Westbound right		9.5	٧	0	49	100	0.40	13.7	В	0	55	100	09.0
CRANING 21.2 C 110 299 NA 0.42 46.1 D CRANING 0.2 A 0.0 0 0 10.7 0.0 0 CRANING Signal 27.8 C 0 0 0 0.0 1.3 0 0.0 1.12 B CRANING 27.8 C 0 0 0 0 0.0 1.13 0.0 1.13 B B ALLWAY Shep 6.0 A 0 0 0 0 0 0.0 1.13 0.0 1.14 A ALLWAY Shep 6.0 A 0 0 0 0 0 0.0 1.14 A ALLWAY Shep 6.0 A 0 0 0 0 0 1.1 A A Sup 74.2 F N/A 1.2.4 N/A 1.14 N/A 1.14 N/A 1.14 N/A 1.1	Northbound left		9.5	٧	0	4	150	0.00	7.3	٧		4	150	10.0
Relation O.2 A 0 0 150 0.07 0.1 A Relation Signal 2.7.3 C 10.7 31 17.2 300 0.29 318.4 D Relation Signal 27.3 C 1.20 316 N/A 0.53 11.2 B All-Way Step 6.0 A 0 0 0 0 1.30 0.01 1.13 B All-Way Step 68.7 A 0 0 1 175 0.01 1.14 A All-Way Step 68.7 F NA 12.4 NA 0.19 37.2 F All-Way Step 68.7 F NA 12.4 NA 0.19 77.2 F Step 74.7 F NA 12.4 NA 1.134 F A Step 13.2 B NA 12.4 NA 1.134 F A <th< th=""><th>Northbound through</th><th></th><th>21.2</th><th>Ü</th><th>110</th><th>500</th><th>N/A</th><th>0.42</th><th>46.1</th><th>D</th><th>408</th><th>657</th><th>N/A</th><th>0.95</th></th<>	Northbound through		21.2	Ü	110	500	N/A	0.42	46.1	D	408	657	N/A	0.95
Relation 10.7 B 3.2 7.2 300 0.29 38.4 D c Rump Signal 7.14 B 120 316 N/A 0.53 11.2 B c Rump Signal 7.7 0 0 0 50 0.00 1.13 B All-Way Step 67.7 A 0 0 0 1.14 D 1.22 2.29 1.200 1.13 A All-Way Step 68.7 A 0 0 0 1.149 NA 1.149 D 1.2 1.2 NA 0.19 3.7 D A	Northbound right		0.2	4	•	٥	150	0.07	0.1	٧	0	0	150	0.04
Ke Rausap Signast 12.9 316 N/A 0.53 11.2 B Realization 27.3 C 0 0 50 0.00 1.13 B Realization 0.0 A 0 0 50 0.00 1.13 B 41.5 D 192 229 1200 0.75 19.2 B 6.0 A 0 0 1 17.5 B A 6.0 A 0 0 1 10.0 0.75 19.2 B ABLWay Step 66.7 A 0 0 1 10.0 0.75 17.2 D ABLWay Step 66.7 F N/A 12.4 N/A 1.14 A <td< th=""><th>Southbound left</th><th></th><th>10.7</th><th>В</th><th>32</th><th>72</th><th>300</th><th>0.29</th><th>38.4</th><th>D</th><th>51</th><th>159</th><th>300</th><th>0.78</th></td<>	Southbound left		10.7	В	32	72	300	0.29	38.4	D	51	159	300	0.78
c, Ramp Signad 27.8 C 0 0 17.8 B A 6,00 A 0 1 175 0.00 1.8 A 1 0.0 A 0 1 175 0.01 1.8 A 1 0.0 A 0 1 175 0.01 1.4 A 1 0.0 A 0 0 1 175 0.01 1.4 A 1 1.4 B 3 7 NA 0.09 37.0 D 2 0.0 A 0 0 0 0 0.00 1.13 A A 3 4 0	Southbound through/right		14.4	В	120	316	N/A	0.53	11.2	æ	2	186	N/A	0.36
Mary Step 1,000	45th Highland Terrace at MoPac Ramp	Signal	27.8	C					17.8	8				
All-Way Step 47.5 D 192 229 1200 0.75 192 B All-Way Step 69.7 F N/A 1.74 N/A 1.149 N/A 1.24 N/A 1.149 N/A 1.24 N/A 1.144 F N/A 1.24 N/A 1.144 N/A 1.24 N/A 1.144 N/A 1.24 N/A 1.144 N/A 1.24 N/A 1.144 N/A 1.24 N/A 1.24 N/A 1.24 N/A 1.27 N/A	Eastbound		0.0	<		0	8	00'0	1.8	A	10	38	20	0.35
Mary Step 0.0 A 0 1 175 0.01 1.4 A	Westbound left		47.5	Δ	192	229	1200	0.75	19.2	В	203	267	1200	0.77
All-Way Step 60.7 F NA 12.4 NA 0.06 37.0 D All-Way Step 69.7 F NA 12.4 NA 1.149 77.3 F Step 74.2 F NA 12.4 NA 1.135 77.3 F Step 74.2 F NA 12.4 NA 1.135 77.5 F Step 74.2 F NA 12.4 NA 1.135 77.6 F Step 74.2 F NA 12.4 NA 1.135 77.6 F Step 74.2 F NA 12.4 NA 1.135 78.4 F Step 74.2 F NA 12.4 NA 1.135 78.4 F Step 74.2 F NA 12.4 NA 1.135 78.4 F Step 18.9 C NA 1.13 NA 1.135 78.4 F Step 18.1 F NA 1.13 NA 1.135 78.4 F Step 14.2 B NA 0.9 100 0.078 15.2 C Twe-Way Step 1.5 A NA 0.9 100 0.025 1.5 F Step 1.5 C NA 0.1 NA 0.047 52.5 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.047 57.2 F Twe-Way Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1 A NA 0.1 NA 0.01 57.0 C Step 1.1	Westbound right		0.0	<		_	175	0.01	1.4	٧	0	13	175	90.0
14.9 B 35 73 NA 0.06 34.7 C All-Way Step 8.8 A 6.2 105 NA 0.19 73.2 P Step 74.2 F NA 12.4 NA 1.149 79.3 F Step 74.2 F NA 12.4 NA 1.124 78.6 F Step 74.7 F NA 12.4 NA 1.124 78.6 F Step 74.7 F NA 12.3 NA 1.137 78.6 F Step 74.7 F NA 12.3 NA 1.139 78.4 F Step 74.7 F NA 12.4 NA 1.134 78.6 F Step 78.1 F NA 11.3 NA 0.349 81.4 F Step 13.2 B NA 0.3 100 0.078 15.2 C Step 13.2 B NA 0.3 100 0.078 15.2 C Twe-Way Step 1.4 A NA 0.1 NA 0.211 15.1 C Twe-Way Step 1.5 C NA 0.1 NA 0.047 2.2 F Step 10.1 B NA 0.1 NA 0.004 0.0 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.004 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.005 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.005 0.006 14.9 B Twe-Way Step 1.1 A NA 0.1 NA 0.007 0.00 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.007 0.00 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.007 0.00 0.0 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.1 A NA 0.1 NA 0.001 1.0 0.00 Twe-Way Step 1.0 0.0 0.0 0.0 0.0 Twe-Way Step 1.0 0.0 0.0 0.0 0.0 0.0 Twe-Way Step 1.1 A NA 0.1 0.0 0.0 0.0 Twe-Way Step 1.1 A NA 0.1 0.0 0.0 0.0 Twe-Way Step 1.1 0.0 0.0 0.0 0.0 0.0 Twe-Way Step 1.1 0.0 0.0 0.0 0.0 0.0 0.0 Twe-Way Step 1.1 0.0 0.0 0.0 0.0 0.0 0.0 Twe-Way Step 1.1 0.0 0.0 0.0 0.0 0	Northbound left		0.0	<		٥	130	0.00	37.0	D	-	9	130	10.0
Alb Way Step 69.7 F NA 12.4 NA 1.149 77.5 F NA 12.4 NA 1.149 77.5 F NA 12.4 NA 1.149 77.5 F NA 12.4 NA 1.144 77.5 F NA 12.4 NA 1.144 77.5 F NA 12.4 NA 1.137 79.0 F NA 1.137 79.0 F NA 1.137 79.0 F NA NA 1.138 NA 1.137 F NA NA 1.138 NA 1.137 F NA NA NA NA NA NA NA	Northbound		14.9	m	35	73	ΝΑ	90.0	34.7	၁	42	89	N/A	0.18
Shop 74,6 F N/A 12,4 N/A 1,149 73,3 F N/A 1,149	Southbound		90	<	29	105	NA	0.19	37.2	D	59	93	N/A	0.19
Stop 74,6 F N/A 1124 N/A 1149 793 F Stop 74,2 F N/A 12,4 N/A 1149 790 F Stop 74,2 F N/A 12,4 N/A 1307 76,0 F Stop 18,9 C N/A 11,4 N/A 1,135 76,4 F Stop 18,2 C N/A 1,2 N/A 0,349 81,4 F Stop 18,2 C N/A 1,1 N/A 1,135 77,7 F Stop 14,2 B N/A 1,1 N/A 1,1 F A	Shoal Creek at 45th	All-Way Step	69.7	124					72.5	F				
Stop 74.2 F NA 11.24 NA 11.124 78.6 F Stop 74.7 F NA 12.3 NA 1.137 78.6 F Stop 18.2 F NA 1.2 NA 1.137 78.4 F Stop 18.2 C NA 1.5 NA 1.137 78.4 F Stop 18.1 F NA 1.18 NA 1.176 57.7 F Twe-Way Stop 1.4 A NA 0.9 100 0.078 15.2 C Twe-Way Stop 1.6 A NA 0.0 <th>Eastbound inside lane</th> <th>Stop</th> <th>74.6</th> <th>t.</th> <th>N/A</th> <th>12.4</th> <th>N/A</th> <th>1.149</th> <th>79.3</th> <th>F</th> <th>N/A</th> <th>11.7</th> <th>N/A</th> <th>1.099</th>	Eastbound inside lane	Stop	74.6	t.	N/A	12.4	N/A	1.149	79.3	F	N/A	11.7	N/A	1.099
Stop 74.7 F NAA 12.3 NAA 1.207 79.0 F Stop 74.2 F N/A 15.4 N/A 1.135 78.4 F Stop 13.2 F N/A 15.4 N/A 1.135 77.4 F Stop 13.2 B N/A 1.5 N/A 1.176 57.7 F Stop 13.2 B N/A 1.18 N/A 1.176 57.7 F Twe-Way Step 1.4 B N/A 0.3 100 0.078 15.2 C Twe-Way Step 1.4 A N/A 0.0 210 0.000 0.0	Eastbound outside lane	Stop	74.2	Я	N/A	12.4	NA	1.124	78.6	Н	N/A	11.8	N/A	0.234
Stop 742 F NAA 12.4 NAA 1.135 78.4 F Stop 18.9 C NAA 1.3 100 0.078 18.14 F Stop 18.1 F NAA 0.13 100 0.078 18.14 F Stop 18.1 F NAA 0.18 1.00 0.078 18.12 C Stop 14.2 B NAA 0.19 1.00 0.025 1.59 C Stop 1.5 A NAA 0.0 2.10 0.000 0.0 A Twe-Way Stop 2.4 A NAA 0.1 NAA 0.041 1.51 C Stop 1.5 C NAA 0.1 NAA 0.047 2.23 F Stop 1.5 C NAA 0.1 NAA 0.047 2.25 F Stop 1.0 B NAA 0.1 NAA 0.004 1.40 B Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 1.40 B Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 1.40 B Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 1.40 B Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 1.40 B Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.001 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.007 2.41 F Stop 1.1 A NAA 0.1 NAA 0.001 2.41 F Stop 1.1 A NAA 0.1 NAA 0.001 2.41 F Stop 1.1 A NAA 0.1 NAA 0.001 2.41 B Free 8.0 A NAA 0.1 NAA 0.010 1.10 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 1.10 B Free 8.0 A NAA 0.1 NAA 0.101 1.10 1.10 1.10 1.10 1.	Westbound inside lane	Stop	74.7	11.	N/A	12.3	N/A	1.207	79.0	E.	N/A	11.7	N/A	1.164
Stop 18.9 C NAA 1.5 NAA 0.349 81.4 F Stop 13.2 B NAA 11.8 NAA 1.176 1.572 C Stop 14.2 B NAA 11.8 NAA 1.176 1.176 1.572 C Stop 14.2 B NAA 1.18 NAA 1.176 1.573 C Stop 14.2 B NAA 0.9 100 0.235 15.9 C Stop 0.0 A NAA 0.9 NAA 0.231 1.51 C Twe-Way Stop 0.4 A NAA 0.9 NAA 0.047 2.15 F Stop 10.1 B NAA 0.1 NAA 0.047 2.15 F Stop 1.1 A NAA 0.1 NAA 0.004 7.7 A Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 7.7 A Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 7.7 A Twe-Way Stop 1.1 A NAA 0.1 NAA 0.004 7.7 A Twe-Way Stop 1.1 A NAA 0.1 NAA 0.017 2.15 F Stop 1.1 A NAA 0.1 NAA 0.017 2.15 F Stop 1.1 A NAA 0.1 NAA 0.017 2.15 F Stop 1.1 B NAA 0.1 NAA 0.010 1.61 F Stop 1.1 A NAA 0.1 NAA 0.010 1.61 F Stop 1.1 A NAA 0.1 NAA 0.010 1.51 F Stop 1.16 B NAA 0.1 NAA 0.010 1.51 F Stop 1.0 B NAA 0.1 NAA 0.010 1.51 F Stop 1.0 B NAA 0.1 NAA 0.010 1.51 F Stop 1.0 B NAA 0.1 NAA 0.010 1.51 F Stop 1.0 B NAA 0.1 NAA 0.010 1.51 B Free 8.0 A NAA 0.1 NAA 0.010 1.51 B Free 8.0 A NAA 0.1 NAA 0.010 1.51 B Free 8.0 A NAA 0.1 NAA 0.010 1.51 B Stop 1.0 NAA 0.1 NAA 0.010 1.51 B Stop 1.0	Westbound outside lane	Stop	74.2	н	N/A	12.4	NA	1.135	78.4	£.	N/A	11.8	N/A	1.032
Stop 13.2 B N/A 0.3 100 0.078 15.2 C Stop 78.1 F N/A 11.8 N/A 1.176 57.7 F Stop 14.2 A N/A 0.9 100 0.235 15.9 C Stop 15.2 A N/A 0.0 2.10 0.000 0.0 A Twe-Way Step 0.0 A N/A 0.0 0.10 0.000 0.0 A Twe-Way Step 15.2 C N/A 0.1 N/A 0.047 52.5 F Stop 17.5 C N/A 0.1 N/A 0.047 52.5 F Stop 10.1 B N/A 0.1 N/A 0.004 14.9 B Twe-Way Step 1.1 A N/A 0.1 N/A 0.005 14.9 B Twe-Way Step 1.1 A N/A 0.1 N/A 0.037 3.7 A Twe-Way Step 1.1 A N/A 0.1 N/A 0.037 3.7 A Twe-Way Step 2.4 A N/A 0.1 N/A 0.037 3.7 A Stop 17.6 C N/A 0.1 N/A 0.057 5.1 F Stop 17.6 C N/A 0.1 N/A 0.015 5.1 F Stop 17.6 C N/A 0.1 N/A 0.015 5.1 F Stop 17.6 C N/A 0.1 N/A 0.016 14.9 B Stop 17.6 C N/A 0.1 N/A 0.016 1.0 F Free Stop 10.6 B N/A 0.1 N/A 0.016 1.1 B Free Stop 10.6 B N/A 0.1 N/A 0.001 1.1 B Free Stop 10.6 B N/A 0.1 N/A 0.001 1.1 B Free Stop 10.6 N/A 0.1 N/A 0.001 1.1 B Free Stop 1.0 N/A 0.1 N/A 0.001 1.1 B Free Stop 10.6 N/A 0.1 N/A 0.001 1.1 B Free Stop 10.6 N/A 0.1 N/A 0.001 1.1 B Free Stop 10.6 N/A 0.1 N/A 0.101 1.1 D.0 Free Stop 10.6 N/A 0.1 N/A 0.101 1.1 D.0 Free Stop 10.6 N/A 0.1 N/A 0.101 1.1 D.0 Free Stop 10.6 N/A 0.1 N/A 0.1 1.1 D.0 Free Stop 10.6 N/A 0.1 N/A 0.1 1.1 D.0 Free Stop 10.6 N/A 0.1 N/A 0.1 1.1 D.0 Free Stop 10.6 N/A 0.1 1.1 D.0 Free Stop 0.1 1.1 D.0 Free N/A 0.1 0.1 0.1 0	Northbound left/through	Stop	18.9	ပ	N/A	1.5	NA	0.349	81.4	Н	NA	11.4	N/A	1.332
Stop 78.1 F N/A 11.8 N/A 1.176 57.7 F F Stop 14.2 B N/A 0.9 100 0.235 15.9 C 1.5 Twe-Way Step 0.5 A N/A 0.0 2.10 0.000 0.0 A 1.5 Twe-Way Step 2.4 A N/A 0.0 2.10 0.000 0.0 A 1.5 Twe-Way Step 2.4 A N/A 0.0 N/A 0.231 15.1 C 1.5 Stop 17.5 C N/A 0.1 N/A 0.047 32.5 F 1.5 Stop 10.1 B N/A 0.1 N/A 0.0056 14.9 B 1.5 Twe-Way Step 1.1 A N/A 0.1 N/A 0.037 3.1 F 1.5 Twe-Way Step 1.1 A N/A 0.1 N/A 0.037 3.1 F 1.5 Stop 17.6 C N/A 0.1 N/A 0.037 3.1 F 1.5 Stop 17.6 C N/A 0.1 N/A 0.037 3.1 F 1.5 Stop 17.6 C N/A 0.1 N/A 0.035 3.1 F 1.5 Stop 17.6 C N/A 0.1 N/A 0.1037 3.1 F 1.5 Stop 10.6 B N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1037 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1031 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1031 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1031 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1031 3.1 7.9 C Eve 8.0 A N/A 0.1 N/A 0.1031 3.1	Northbound right	Stop	13.2	æ	N/A	63	901	0.078	15.2	၁	N/A	6.0	100	1,426
Stop 14.2 B	Southbound left/through	Stop	78.1	12.	N/A	11.8	N/A	1.176	57.7	12.	N/A	8.5	N/A	0,876
Twe-Way Step 1.5	Southbound right	Stop	14.2	В	N/A	6.0	001	0.235	15.9	O	N/A	1.1	100	0.270
Stop 0.0	Bell Creek at Driveway 1	Twe-Way Stop	1.5	٧					1.6	٧				
Free 9.6	Westbound right	Stop	0.0	٧	N/A	0.0	210	0.00	0.0	4	V/V	0.0	210	0.000
Twe-Way Step 2.4 A NA 0.1 NA 0.047 52.5 A Stop 15.2 C N/A 0.4 90 0.105 51.3 F Stop 10.1 B N/A 0.2 90 0.105 51.3 F Stop 10.1 B N/A 0.2 90 0.066 14.9 B Free 8.0 A N/A 0.1 N/A 0.004 7.7 A Twe-Way Stap 1.1 A N/A 0.1 N/A 0.004 7.7 A Twe-Way Stap 1.1 A N/A 0.1 N/A 0.004 7.7 A Twe-Way Stap 1.1 A N/A 0.1 N/A 0.005 14.9 B Stop 1.16 B N/A 0.1 N/A 0.005 76.1 F Stop 1.76 C N/A 0.3 190 0.103 15.0 C Stop 1.06 B N/A 0.1 N/A 0.010 15.2 F Free 8.0 A N/A 0.1 N/A 0.010 17.9 A Free 8.0 A N/A 0.1 N/A 0.010 17.9 B Free 8.0 A N/A 0.1 N/A 0.010 10.1 B Free 8.0 A N/A 0.1 N/A 0.010 10.1 B	Southbound lefts	Free	9.6	٧	YN.	6.0	N/A	0231	15.1	٥	Y _N	8:1	٧×	0.385
Stop 15.2 C N/A 0.1 N/A 0.047 52.5 F Stop 17.5 C N/A 0.4 90 0.120 51.3 F Stop 17.5 C N/A 0.2 90 0.120 51.3 F Free 8.0 A N/A 0.2 90 0.064 7.7 A Free 7.9 A N/A 0.1 N/A 0.037 9.7 A Twe-Way Step 1.1 A N/A 0.1 N/A 0.035 76.1 F Stop 17.6 C N/A 0.3 190 0.152 77.2 F Stop 17.6 C N/A 0.3 190 0.152 77.2 F Stop 10.6 B N/A 0.1 N/A 0.001 15.0 C Free 8.0 A N/A 0.1 N/A 0.001 15.0 C Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001 10.1 B Free 8.0 A N/A 0.1 N/A 0.001	Bull Creek at Driveway 3/41st	Twe-Way Stop	2	4					3	4		-		
Stop 17.5 C N/A 0.4 90 0.130 51.3 F Stop 10.1 B N/A 0.0 90 0.056 14.9 B Free R. 1.0 A N/A 0.0 N/A 0.004 7.7 A Free 7.9 A N/A 0.1 N/A 0.004 7.7 A Stop 1.1 A N/A 0.1 N/A 0.037 9.7 A Stop 1.4 B N/A 0.1 N/A 0.026 76.1 F Stop 17.6 C N/A 0.2 190 0.152 77.2 F Stop 17.6 C N/A 0.2 190 0.103 15.0 C Stop 10.6 B N/A 0.1 N/A 0.001 13.0 C Free R	Eastbound	Stop	15.2	ü	××		Y/X	0.047	52.5		YN.	6.	¥,	0.440
Stop 10.1 B N/A 0.2 90 0.066 14.9 B Free	Westbound left/through	dogs	2	اد	VX	4.0	3	0.120	21.3		Y.	-	R	0.433
Free 8.0	Westbound right	Slop	<u>.</u>		×2	0.5	8	990	14.9		Š	3	3	0.132
Free 7.9 A N/A 0.1 N/A 0.037 9.7 A Twe-Way Step 2.4 A N/A 0.3 85 0.090 14.9 B Step 14.9 B N/A 0.1 N/A 0.026 76.1 F Step 10.6 B N/A 0.1 190 0.152 97.2 F Step 10.6 B N/A 0.3 190 0.153 15.0 C Step 10.6 B N/A 0.3 190 0.193 15.0 C Free 8.0 A N/A 0.1 N/A 0.091 10.1 B	Northbound lefts	Free	8.0	<	Y.	0.0	N/A	0.004	1.7	<	٧×	0.0	4/2	9000
Twe-Way Step 1.1 A N/A 0.3 85 0.090 0.8 A Step 2.4 A	Southbound lefts	Prec	7.9	4	¥	-6	Y/A	0.037	7.6	<	¥	6.4	¥N	0.120
Skep 9.8 A N/A 0.3 8.5 0.050 14.9 B B N/A 0.1	Bull Creek at Driveway 4	Twe-Way Stop	=	<					8.0	4				
Twe-Way Step	Westbound right	Stop	9.8	4	V _N	63	82	0000	14.9	_	¥×	0.5	88	0.132
Stop 14.9 B N/A 0.1 N/A 0.026 76.1 F	Bull Creek at Driveway 5/42ad	Twe-Way Stop	2.4	۷					83	4				
Slop 17.6 C N/A 0.5 190 0.152 97.2 F Slop 10.6 B N/A 0.3 190 0.103 15.0 C Free R.0 A N/A 0.1 N/A 0.101 R.1 B Free R.0 A N/A 0.1 N/A 0.101 R.1 B	Eastbound	Stop	14.9	В	N/A	0.1	ΝA	970.0	76.1	ш,	ΥN	22	N/A	0.543
Stop 10.6 B N/A 0.3 150 C	Westbound left/through	Stop	17.6	၁	N/A	0.5	190	0.152	97.2	124	×	3.4	81	0.681
Prec 8.0 A N/A 0.0 N/A 0.001 7.9 A N/A 0.1 N/A 0.019 10.1 B	Westbound right	Stop	9'01	В	N/A	0.3	190	0.103	15.0	Ü	V/A	07	8	0.070
80 A N/A 0.1 N/A 0.019 10.1 B	Northbound lefts	Prec	8.0	۷	N/A	0.0	N/A	0.001	7.9	٧	N/A	0.0	V/V	9000
100 00 00 00 00 00 00 00 00 00 00 00 00	Southbound lefts	Free	8.0	A	N/A	0.1	N/A	0.019	10.1	В	N/A	0.5	N/A	0.145

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delay, freedom to maneuver, existing traffic congestion, and sense of comfort, convenience and perceived safety. Presented below is a summary table for the six LOS capacity conditions designated from "A" to "F" for both unsignalized and signalized intersections.

TABLE 13 - Definitions of Level of Service (LOS) Criteria

Level of Service	Delay Range for Unsignalized Intersections (sec/veh)	Delay Range for Signalized Intersections (sec/veh)	Description
А	≤10	<u>≤</u> 10	Very low delays, nearly free traffic flow
В	>10 and <15	>10 and <20	Good traffic flow, more vehicles stop than LOS A
С	>15 and <25	>20 and <u><</u> 35	Stable traffic flow, significant number of vehicles stop
D	>25 and <35	>35 and <u><</u> 55	Noticeable traffic congestion, longer delays and queue lengths
E	>35 and <50	>55 and <u><</u> 80	Unstable traffic flow, significant congestion, traffic near roadway capacity
F	>50	>80	Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds capacity

Neighborhood Traffic Analysis

Section 25-6-116 of the Land Development Code (LDC) specifies the desirable operating levels for streets with various pavement widths. Based on LDC, 25-6-116, a residential collector with a pavement width of 30' should not exceed 1,800 vehicles per day (vpd) to continue to operate at a desirable level. Several residential streets were reviewed as a part of this TIA to determine if the existing or projected daily volumes of traffic will exceed the thresholds set forth in the LDC. Table 14 below summarizes the evaluation of neighborhood streets performed for this project.

TABLE 14 - Neighborhood Traffic Analysis

Roadway	Width (ft)	Threshold Volume (vpd)	Existing Volume (vpd)	Site Volume (vpd)	Total Volume (vpd)	% Site Traffic
West 44 th St.	27	1,200	268	0	268	0%
Jackson Ave.	27	1,200	2,333	2,746	5,079	54.1%
West 42 nd St.	27	1,200	293	587	880	66.7%
West 41 st St.	27	1,200	428	536	964	55.6%
West 40 th St.	27	1,200	422	0	422	0%
Oakmont St.	27	1,200	551	0	551	0%
West 39 th St.	27	1,200	354	0	354	0%
Lawton St.	27	1,200	574	0	574	0%

Development of the project is proposed in two phases:

For Phase 1, only residential land uses are proposed:

TABLE 15
Adjusted Trip Generation – Phase 1

Land Use	Size	e	24- Hour	Adjace Hou	eak Hount Street or Betwee and 9 am	One	Adjace Ho	Peak Hou ent Stree ur Betwe and 6 pn	t One en
	Amount	Units		Total	Enter	Exit	Total	Enter	Exit
Single Family (210)	110	DU	1,089	82	21	62	109	69	40
Residential Condo (230)	375	DU	1,929	141	24	117	169	113	56
TxDOT Office				-88	-74	-14	-90	-10	-80
Total			3,019	136	-29	165	188	172	16

Phase 2 includes the remaining land uses (full buildout) and will reflect all the land uses described previously in Table 2.

TABLE 16
Adjusted Trip Generation – Full Buildout (Phase 2)

Land Use	Size	•	24- Hour	Adjace Hou	eak Hou nt Street r Betwee ind 9 am	One	Adjace Ho	Peak Hou ent Stree ur Betwe and 6 pn	t One en
	Amount	Units		Total	Enter	Exit	Total	Enter	Exit
Single Family (210)	110	DU	1,032	82	21	62	97	61	36
Apartment (220)	600	DU	3,384	283	57	226	296	192	103
Residential Condo (230)	425	DU	2,038	156	27	130	167	112	55
Congregate Care Facility (253)	600	DU	1,151	34	20	14	97	53	44
Health/Fitness Club (492)	7,500	SF	235	10	5	5	25	14	11
Office (710)	200,000	SF	1,912	303	267	36	241	41	200
Medical Office (720)	25,000	SF	727	57	45	12	71	20	51
Specialty Retail (826)*	55,000	SF	1,706	100	62	38	83	37	47
Supermarket (850)	35,000	_ SF	2,576	113	70	43	180	92	88
Pharmacy/Drugstore w/o DT (880)	8,500	SF	574	10	7	4	43	21	22
Walk-in Bank (911)**	3,000	SF	355	0	0	0	35	15	19
Drinking Place (925)**	8,000	SF	780	0	0	0	67	44	23
Quality Restaurant (931)	15,000	SF	1,012	11	9	2	68	46	23
High Turnover Restaurant (932)	9,000	SF	858	90	49	40	54	32	22
Coffee/donut shop w/o DT (936)***	2,000	SF	1,101	151	77	74	49	25	25
TxDOT Office				-88	-74	-14	-90	-10	-80
Total			19,442	1,312	640	672	1,485	796	689

Applicant Proposed Improvements and Recommendations from the TIA

The analysis presented in the TIA assumes the following infrastructure improvements prior to the 2018 completion of Phase 1:

- Installation of a traffic signal at the 45th Street/Highland Terrace and Mo-Pac southbound exit ramp intersection to provide dual lefts prior to 2018 (by others).
- Construction of a second northbound lane at both West 35th and West 45th exit ramps for serving Mo-Pac traffic (by TxDOT).
- Construction of a northbound approach lane on Bull Creek Road to serve left turn movements at the intersection of West 45th Street. This improvement is to be constructed 100% by the developer.
- Construction of Driveway 3 on Bull Creek Road (across from 41st Street).

The analysis was not updated to reflect the construction of the 2024 improvements in the 2018 analysis. The AM and PM peak hour results for the 2024 Build Conditions indicate the following additional improvements are required (beyond those listed previously):

- Construct Driveway 2 across from Jackson Street.
- Stripe 150 feet of northbound and 300' southbound left turn lanes on Bull Creek.
- Construct 150 feet of right turn lane on northbound Bull Creek at Driveway 2.

- Restripe Jackson Avenue to provide a left turn lane and shared through/right turn lane.
- Install a traffic signal at Jackson Avenue/Bull Creek Road when warranted per Texas MUTCD.
- Construct Driveway 1 with 350 feet of southbound left turn bay on Bull Creek Road.
- Restripe and sign the southbound Jackson Avenue approach to West 35th Street to provide a shared left/through lane and right turn only lane.
- Reconstruct 45th Street to provide 100 feet of eastbound and 250 feet of westbound left turn bays at Bull Creek and
- Add a 250 feet northbound right turn lane on Bull Creek at 45th.
- Reconfigure traffic signal to remove split phasing at 45th and Bull Creek.
- Construct Driveway 4 across from West 40th Street (right-in/right-out).
- Construct Driveway 5 on Bull Creek Road across from West 42nd Street.

Conclusions of staff review

Staff evaluation of the TIA has determined that there are details related to the traffic operations and geometric elements of the proposed improvements that are as yet unresolved. The TIA assumed certain improvements, if those improvements cannot be completed then a revised TIA will have to be submitted or the development will be limited less than 2,000 trips per day. Specifically, the need for additional right-of-way at the intersections identified for signal upgrades and/or installation (West 45th Street/Bull Creek Road and Jackson Avenue/Bull Creek Road) and right-of-way required along Bull Creek Road to accommodate the improvements proposed, and the specific design details of the connection of Jackson Avenue to 45th Street.

Assuming all of the proposed improvements are constructed, staff finds this proposed development will adequately mitigate the anticipated traffic impact as determined in the TIA document, however, staff reserves the right to request further detailed analysis during the subdivision and site plan review process. Further, all traffic operations and design elements and transportation related improvements will be subject to review and approval by the Austin Transportation Department as part of the site development review process in coordination with DSD.

Staff Recommendations

- 1. Prior to the permitting of any portions of the development that exceed the Phase 1 trip limit of 2,000 daily vehicle trips, the dedication of the right-of-way or easements at the southeast and northwest corners of the Bull Creek/45th Street intersection, and the dedication of the right-of-way along Bull Creek Road sufficient to allow construction of the proposed improvements.
- 2. All the improvements listed in Table 17 below as being constructed by the developer must be constructed when EITHER the 110 single-family homes and 188 residential condominium units OR when 375 residential condominiums units are complete. No certificate of occupancies on-site will occur beyond these unit thresholds until all the developer constructed improvements identified as being constructed by the developer in 2018 Phase 1 are complete.

- 3. Prior to 3rd reading at Council, fiscal surety in the amount of \$750,000 shall be paid to the City of Austin for construction of a pedestrian/bicycle bridge across Shoal Creek. The applicant shall be responsible for the full cost of construction of said bridge crossing, if the City of Austin secures the required easement to complete extension to Shoal Creek Boulevard. Should the City be unable to secure the necessary easement within seven (7) years of the date of PUD approval, the fiscal dedication shall become a non-refundable contribution and will satisfy the applicant's obligation for this pedestrian/bicycle improvement.
- 4. The multi-use trail along Bull Creek Road shall be within a public access easement for its entirety.
- 5. Prior to 3rd reading at Council, fiscal surety for all other TIA improvements shall be paid to the City of Austin as listed in Table 17 below:

	Table 17 – List of improvements for Site Development	
Intersection	Proposed Improvements	Developer Share
	Initial Improvements	
Bull Creek Road Trail	 Dedicate an easement for the 12' shared use path from 45th to south end of development 	100%
lackson Ave to 45 th Street	 Dedicate and construct Jackson Avenue extension from Bull Creek to West 45th Street 	100% (*Note 1)
Bull Creek from Driveway 5 to 45 th	Dedicate Right-of-way to accommodate the improvements per the TIA	100%
	•	
West 45th Street at	2018 – Built as part of Phase 1 Construct additional northbound left turn lane on Bull Creek to westbound 45th	100%
Bull Creek Road	Restripe northbound approach as dual lefts and shared through/right lane	\$259,000 (*Note 2)
Highland Terrace /45 th /MoPac Exit Ramp	 Install Traffic Signal when/if warranted Restripe to provide westbound dual lefts when signal installed 	12.2% \$30,388
Shoal Creek Trail	Construct from south end of park to Idlewild Road	100% \$30,000 (*Note 2)
Bull Creek Road Trail	Construct 12' shared use path from 45 th to south end of development	100% \$5,000 (*Note 2)
MoPac at West 45 th	Update signal timing	100% \$5,000

Description to an artist to the second	1000/
	100%
i i	\$770,000
Modify signal to remove split phasing	(*Note 2)
	100%
 Construct 2nd north bound lane 	\$253,000
	(*Note 2)
	100%
Construct 2 nd north bound lane	\$253,000
	(*Note 2)
	100%
 Across Bull Creek Road adjacent to Driveway 4 	\$250,000
improvements as part of the warrant study for the	100%
Jackson / Bull Creek signal	
Across Bull Crook Boad adjacent to Drivoway 1	100%
Across buil creek Road adjacent to Driveway 1	\$250,000
Construction of padastrian/higuela bridge coross	100%
	\$750,000
Silodi Creek	(*Note 3)
Total cost estimate Phase 1 Improvements	\$2,855,388
2024 - Built as part of Phase 2	
and the second	100%
Restripe approach of Jackson Avenue at 35" Street	\$3,500
Implement mitigation recommendations of study	1000/
of Jackson Ave.	100%
	100%
	\$330,000
Road when warranted per Texas MUTCD.	
·	(*Note 2)
	 Across Bull Creek Road adjacent to Driveway 4 Complete Study of potential mitigation improvements as part of the warrant study for the Jackson / Bull Creek signal Across Bull Creek Road adjacent to Driveway 1 Construction of pedestrian/bicycle bridge across Shoal Creek Total cost estimate Phase 1 Improvements 2024 – Built as part of Phase 2 Restripe approach of Jackson Avenue at 35th Street Implement mitigation recommendations of study of Jackson Ave. Install a traffic signal at Jackson Avenue/Bull Creek

- Note 1 Final design of the extension of Jackson Street to 45th Street will be completed as part of the subdivision infrastructure improvements internal to the development. The applicant is responsible for 100% of this construction cost as part of the subdivision infrastructure to serve the development.
- Note 2 Construction costs shown are based on engineer's estimates of probable cost provided by the applicant's engineer. Applicant's cost contribution is not limited to this estimated amount and the applicant is responsible for the full construction of these improvements.
- Note 3 Construction cost shown is based on engineer's estimates of probable cost provided by the applicant's engineer. Applicant's cost contribution is not limited to this estimated amount and the applicant is responsible for full the construction cost of these improvements provided the City of Austin secures the required easement to complete extension to Shoal Creek Boulevard. Should the City be unable to secure the necessary easement within seven (7) years of the date of PUD approval, the fiscal dedication shall become a non-refundable contribution to be used bicycle and pedestrian improvements in the adjacent area and will satisfy the applicant's obligation for this pedestrian/bicycle improvement.
- 6. A signal warrant study is to be conducted by the developer for the intersection of Jackson Avenue and Bull Creek Road once the extension of Jackson Avenue from Bull Creek Road to West 45th Street is complete.

- 7. The developer will also study Jackson Avenue to determine appropriateness of additional mitigation to address traffic impacts from the development prior to the start of construction on Phase 2 of the development.
- 8. Right-of-way for the proposed Jackson Avenue extension shall be dedicated with the first subdivision plat for the project. The final detailed design of the connection at Jackson Avenue will be completed as part of the review of the subdivision construction plan application(s).
- 9. As recommended in the TIA, the site driveways and all internal streets/ private drives shall meet City of Austin geometric street design criteria and shall be located in accordance with City of Austin standards. Cross sections may reflect approved Grove Design Guidelines as provided by the PUD.
- 10. No later than five (5) years after approval, the TIA shall be revised by the developer and/or updated to reflect current conditions. Upon completion of the revised analyses, copies of the TIA revisions shall be submitted to the City of Austin for review and approval.
- 11. Based on the proposed PUD land use plan, outlets for additional street access may be required at the time of subdivision application.
- 12. Development of this property should be limited to uses and intensities which do not exceed or vary from the from the projected traffic conditions assumed in the TIA, including peak hour trip generation, traffic distribution, roadway conditions, and other traffic related characteristics.