



ATTACHMENT: MEMORANDUM

To: Andrew Linseisen, P.E.
Development Services Department

Date: March 25, 2016

Project: The Grove At Shoal Creek

CC: Scott A. James, P.E., PTOE
Development Services Department

From: Eric Bollich, P.E., PTOE
Austin Transportation Department

Re: TIA Comments
(February 2, 2016
Revision)

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The Austin Transportation Department (ATD) has reviewed the February 2, 2016 revision of the traffic report regarding the *"The Grove at Shoal Creek, Traffic Impact Analysis"*, prepared by R-K Traffic Engineering, LLC. The following comments summarize our review findings.

TIA Comments

1. **Repeat comment** – The 2018 analysis does not include full build out of the Bull Creek and 45th street intersection. 2018 No Build forecasted operation of this intersection is not acceptable to ATD, regardless of the 2,700 daily trip threshold presented in the TIA. Based on the comprehensive review of the TIA and prior meetings with the Applicant and comments submitted to the Applicant, it is our understanding that this intersection will be fully built out to its ultimate design prior to the completion of Phase 1 of the development. We recommend that the Traffic Phasing Agreement include detailed analysis of the necessary improvements required prior to completion of Phase 1 and subject to ATD review and approval. .
2. It is unclear from the information contained in the TIA as to when the concrete safety barrier in association with the bike lane will be constructed along Bull Creek Road. Based on our meeting with the Applicant, the Applicant has agreed to construct this barrier when Bull Creek Road is reconstructed with proposed improvements.
3. **Repeat comment** – The TIA estimates 14% of site-generated traffic will use Jackson Avenue, more than doubling the total traffic volume on Jackson Avenue. While no additional analysis of Jackson Avenue is required at this time, based on the information submitted in the TIA and reviewed by staff, when a warrant study is conducted for the signal at Jackson Avenue and Bull Creek Road, the Applicant will also study Jackson Avenue south of Bull Creek Road to analyze and propose mitigation needed to address this increase in traffic.



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Bull Creek Road/45th Street Intersection Plan – Option 1: Not recommended

1. This option, as presented, creates safety concerns by shifting northbound traffic through the intersection by approximately nine (9) feet.

Bull Creek Road/45th Street Intersection Plan – Option 2: Recommended

1. The small grass panels on the northwest, northeast, and southeast corners should be eliminated to allow for wider sidewalks and the placement of traffic signal equipment. In addition, the sidewalk easement that the Applicant has indicated needs to allow for the installation of traffic signal equipment.

Bull Creek Road Improvements Plan (comments start at the north and head south)

1. The PHB, crosswalks and landings are not shown at Driveway 1. Please show this information.
2. The traffic signal, crosswalks and landings are not shown at Driveway 2/Jackson Avenue. In addition, no information is shown on Jackson Avenue related to length of turn lanes and tapers. Please show this information.
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Jackson Avenue / 45th Street

After interdepartmental discussion, the proposed development shall include Jackson Avenue as a public roadway dedicated to the City of Austin. As agreed by the applicant, Lot 43, Section 2, Shoal Village Subdivision, shall be dedicated as public right-of-way to the City of Austin for the extension of Jackson Avenue to 45th Street. Vehicular access at the intersection of 45th and Jackson Avenue shall be limited to "right-in, right-out only." Staff will review roadway design plans submitted by the Applicant as part of the subdivision and site development permit process. A pedestrian hybrid beacon may be installed at the intersection of Jackson Avenue and 45th street to facilitate pedestrian crossings across 45th Street at timing to be determined by ATD.

General Comment

Staff reserves the right to conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval, as they are considered integral to the viability of the subject development as proposed.

**MEMORANDUM**

TO: Mayor and Council

FROM: Rodney Gonzales, Director, Development Services Department (DSD)
Rob Spillar, Director, Austin Transportation Department (ATD)

DATE: May 9, 2016

SUBJECT: Grove at Shoal Creek Traffic Impact Analysis

CC: Marc Ott, City Manager
Sue Edwards, Assistant City Manager
Robert Goode, Assistant City Manager
Greg Guernsey, Director, Planning and Zoning

This memorandum provides information regarding the Traffic Impact Analysis (TIA) review for the Grove at Shoal Creek Planned Unit Development (PUD) and related transportation issues.

TIA Review Process and March 22, 2016 Meeting with Applicant

The TIA review process began with the submittal of the PUD Development Assessment on April 3, 2015. Over the last approximately 12 months, the TIA has been through four formal review cycles; meetings with the applicant, interested neighbors and the Bull Creek Road Coalition (BCRC); multiple revisions; and review of informal submittals.

Staff from the Development Services Department and Austin Transportation Department (ATD) extensively reviewed the TIA. The applicant has been required to provide much more detailed transportation information than a typical PUD to ensure adequate right-of-way and acceptable operations for improvements proposed to mitigate the traffic impacts of the project.

On February 2, 2016, the applicant submitted an updated TIA. Due to interdepartmental discussion on several major elements of the TIA, comments had not been released as of March 21, 2016. On Tuesday, March 22, 2016, staff from ATD, DSD and the Planning and Zoning Department (PAZ) met with representatives and transportation consultants for the Grove, at the applicant's request, to discuss the transportation elements of the PUD.

Staff present at the meeting were Eric Bollich, PE, PTOE, Managing Engineer, ATD; Annick Beaudet, AICP, System Development Division Manager, ATD; George Adams, CNU-A, Assistant Director, DSD; Andy Linseisen, PE, Managing Engineer, DSD; Bryan Golden, Transportation Reviewer, DSD; and Jerry Rusthoven, AICP, Current Planning Manager, PAZ. Scott James, PE, Transportation Engineer, DSD, was invited to the meeting but could not attend due to a conflict.

This meeting has been portrayed as being inappropriate or favoring the applicant and this is not the case. It is neither unusual nor inappropriate for senior staff to meet with an applicant to discuss the details of a project, and this is routine. For a project of this size, scope, complexity and controversy it is incumbent upon senior staff to be fully informed and responsible for key decisions. At the March 22nd meeting, the applicant agreed to provide substantial additional improvements not previously committed to, which include the following:

- Dedication of Jackson Street as public street and provision of a public roadway connection to 45th Street;
- Dedication of a 5 foot public access easement at the northwest corner of Bull Creek Road and 45th Street;
- Construction of a shared-use path for bicycles and pedestrians along Bull Creek Road as a protected facility;
- Dedication of public access easements to Shoal Creek at the north and south end of the property for bike and pedestrian facilities;
- Funding of design and construction of a bike and pedestrian bridge over Shoal Creek;
- Minimum geometric standards for internal private streets; and
- Establishment of a cap on the Phase 1 development prior to completion of the improvements to Bull Creek Road and the intersection of Bull Creek Road and 45th Street. The final cap is to be established as part of the Traffic Phasing Agreement.

The applicant's agreement to provide the above improvements, in addition to previously identified improvements, allowed ATD and DSD staff to determine the project was mitigating the traffic impacts of the proposed development and to advance the transportation review process subject to conditions outlined in the staff comment memo dated March 25, 2016. A list of transportation improvements proposed by the applicant and the March 25 Memo is included as attachments. Remaining transportation issues which are to be finalized prior to third reading of the PUD ordinance include requirements for fiscal posting and phasing of construction for required improvements, which will be outlined in the Traffic Phasing Agreement that will accompany the final PUD Ordinance.

As noted in the staff comment memo dated March 25, 2016, comments related to detailed design requirements were deferred to the subdivision construction and site development permit review. These comments will be issued to the applicant under separate memorandum (attached) and will be required to be addressed as part of ATD and DSD review of detailed construction plans for the proposed improvements. Deferral of the final design of these improvements has also been portrayed as favoring the applicant; however, this is standard practice for PUD and conventional zoning cases. The alternative is to require the applicant to design and engineer, at significant cost, transportation infrastructure improvements prior to Council review or approval of zoning entitlements for the property.

Public Street Connection to W. 45th Street

Representatives from BCRC and neighborhood residents have expressed concern over a proposal to provide a public street connection from Bull Creek Road, through the Grove property, and connecting to W. 45th Street where a single-family residence is currently located. The applicant acquired the property at 2627 W. 45th Street in April 2015 for the purpose of

providing access between the proposed PUD and W. 45th Street. The applicant presented their Master Plan showing the proposed street connection to the BCRC in July 2015 and identified the street connection as an option for staff consideration. The Alternative Vision plan proposed by BCRC (<http://www.bcrctx.org/alt-vision/>) also shows a pedestrian and bicycle connection through the property at 2627 W. 45th Street.

The proposal was idle for many months as no additional analysis was provided and the focus was on other potential transportation improvements. As part of their February 2, 2016 TIA submittal, the applicant provided an analysis of the W. 45th Street connection, and staff was able to determine this provided measureable improvement for traffic circulation. Based on this determination, staff recommended including the street connection as part of the transportation improvements.

The property at 2627 W. 45th Street is 59.8' wide. If utilized as a street, the proposed ROW width of 59.8' is greater than the typical 50' ROW width common to other local streets in the area. It is anticipated that this connection will be designed as right-in, right-out only and will be limited to passenger and emergency services vehicles. Staff has requested a preliminary design from the applicant and will evaluate the proposal in more detail prior to review by the Zoning and Platting Commission.

Additional Questions Asked by the Community

Two questions have been asked by the community regarding the process for review and approval of TIA's. The first is which department has authority over the TIA Application? In the case of TIA's, the responsible Director refers to the Director of the Austin Transportation Department.

The second is related to Land Development Code Section 25-6-141. In the zoning context, Chapter 25-6 affords Council the legislative discretion to approve an application if it finds that adverse traffic effects are "satisfactorily mitigated" or that additional traffic will have "an insignificant effect on a residential street." That standard, which is the basis for staff's evaluation, does not prevent approval of a zoning case where adjacent roads are operating below the standards established by Section 25-6-116 (*Desirable Operating Levels for Certain Streets*).

Additional Analysis Requested by Council Member Pool

In a letter to the City Manager dated April 13, 2016, Council Member Pool made the following transportation-related requests. A brief response to each of the requests is provided below.

Analysis of Jackson Avenue Connection to W. 45th Street

As mentioned above, staff has requested the applicant provide a preliminary design of the proposed Jackson Avenue street connection to W. 45th Street. As of May 6, 2016, staff has not received the preliminary design from the applicant. Once provided, staff will evaluate the proposal in more detail prior to review by the Zoning and Platting Commission.

Full Build-Out Analysis of Jackson Avenue

The applicant has proposed mitigation at the intersections of Jackson Avenue/35th Street and Jackson Avenue/Bull Creek Road, including modified lane configurations and signalization,

respectively. ATD and DSD deem this mitigation as acceptable under future traffic conditions. Streets can typically accommodate thousands of daily vehicles and are constrained by their intersections. Because the intersections of Jackson Avenue with 35th Street and Bull Creek Road are projected to operate acceptably under build-out conditions, further mitigation measures have not been identified at this time. However, ATD and DSD are requiring that Jackson Avenue be evaluated when the intersection improvements are needed to determine whether additional measures, such as traffic calming, would be appropriate.

Adequate Right-of-Way for Improvements Proposed to the Intersection of W. 45th and Bull Creek Road

The applicant submitted a preliminary layout of the proposed intersection which shows existing and proposed rights-of way and easements for improvements. The applicant has indicated they are working to acquire necessary easements or right-of-way on the southeast corner to accommodate a proposed right turn lane from Bull Creek Road to eastbound 45th Street. The applicant is also obtaining an easement on the northwest corner to accommodate sufficient space for receiving the dual northbound to westbound left turn lanes. If the applicant is unable to acquire the needed land, a revised design or phasing of improvements to secure missing rights-of-way will need to be reviewed and approved by ATD and DSD.

TIA Phasing Agreement to be presented to ZAP

Staff is working with the applicant to formalize the terms of the TIA Phasing Agreement. If a draft is available at the time of ZAP consideration, staff will provide the draft agreement. The Phasing Agreement will be provided as part of City Council back up material for consideration of the PUD.

Proposed Bridge over Shoal Creek

The applicant will provide an engineer's estimate of the proposed bridge over Shoal Creek to provide pedestrian and bicycle connectivity between the project site and the adjacent Texas State Library and Archives Commission property. ATD and DSD will determine whether this estimate exceeds the maximum funding that the applicant is willing to contribute to construction of the bridge.

Median on Bull Creek Road at Oakmont Boulevard

A raised median is proposed on Bull Creek Road at its intersection with Oakmont Boulevard/W. 40th Street/Driveway 4. It would assist pedestrian crossings and prohibit left turns to and from Bull Creek Road.

Examples of other Street Widening

Streets are frequently widened within the City's right-of-way to accommodate additional travel or turn lanes. A comprehensive database of examples is not maintained.

Next Steps

Planning and Zoning Department staff, with assistance from other City departments, are formulating a PAZ recommendation for the Grove PUD. PAZ staff intends to meet with the applicant and interested parties prior to finalizing the recommendation. Once this is complete, the case will be heard by the Environmental Board, the Zoning and Platting Commission, and finally the City Council. The dates for these public hearings have not yet been determined.

I hope this provides useful information for your consideration. Please feel free to contact me at (512) 974-2313 or George Adams, Assistant Director at (512) 974-2146 if you have questions or concerns.

Attachments:

- List of Proposed Transportation Improvements
- March 25, 2016 Memorandum
- May 9, 2016 Memorandum
- Staff Response to Questions from Grayson Cox

**List of Transportation Improvements Proposed for the Grove at Shoal Creek PUD
May 6, 2016**

1) Funding and construction of traffic mitigation improvements identified for Bull Creek Road.

Improvements include additional auxiliary lanes at Jackson Avenue and other site driveways, widening of Bull Creek Road between Driveway 1 and 45th Street, and dedication of right-of-way from the subject site to construct these improvements.

2) Funding and Construction of intersection improvements for 45th and Bull Creek Road.

Improvements include eastbound and westbound left turn lanes on 45th Street, additional northbound left turn lane on Bull Creek Road, and additional northbound right turn lane on Bull Creek Road as well as improved pedestrian crossings and reconstruction of sidewalk at all four corners of the intersection.

3) Dedication of right-of-way and construction of Jackson Avenue from Bull Creek Road to W. 45th Street.

4) Providing trail connectivity to Ridglea Greenbelt.

5) Constructing 12-foot Shared Use Path along Bull Creek Road.

6) Constructing 12-foot Shared Use Path along 45th Street Greenbelt.

7) Constructing protected southbound Bike Lane on Bull Creek Road in front of site.

8) Installation of Pedestrian Hybrid Beacon on Bull Creek Road and 45th Street to facilitate pedestrian connectivity.

9) Post fiscal for, and if easement obtained on State property, construct bike and pedestrian bridge across Shoal Creek and trail connection from bridge to Shoal Creek Blvd. Provide additional easement for access to Shoal Creek.

10) Bike lanes on major internal street cross-sections.

11) Contribution of \$100,000 for neighborhood multi-modal improvements.

12) Minimum geometric criteria for internal streets.

13) Funding and construction of traffic signal and intersection improvements at Jackson/Bull Creek Road and intersection improvements at 35th/Jackson.

14) Analysis of additional traffic mitigation on Jackson Avenue at full build-out.

16) Require shower facilities in offices to help facilitate bicycle commuters.



Date: March 25, 2016

To: Brian Williams, P.E. Brown & Gay, Engineering
James Schwerdtfeger, P.E., Big Red Dog Engineering

CC: Sherri Sirwaitis, Case Manager

Reference: Bull Creek Parcel (aka "The Grove at Shoal Creek")
CD – 2015 – 0009

Staff from the City of Austin Development Services and Transportation Departments have reviewed the revised Traffic Impact Analysis for the Bull Creek Parcel development proposal (hereafter called "The Grove") and offer the following comments:

GENERAL COMMENTS

- A. Written approval from the Texas Department of Transportation (TxDOT) of the proposed Traffic Phasing Agreement is required for the proposed PUD as various state-maintained roadways are bordering the PUD area.
- B. Pedestrian crossings should be identified and paired with the (proposed) location of transit stops. Provide map showing location(s) of transit stops (current and proposed). The TIA allows for a 5% transit reduction, assuming bus headways are decreased from current service levels. Applicant to provide final written confirmation from CapMetro that current and future services levels on Bull Creek Road will support the 5% transit reduction as presented in the TIA prior to final Council approval.
- C. Comment cleared.

Development Services (Bryan Golden/Scott A. James):

- DSD1. Update 1** – After interdepartmental discussion, the proposed development shall dedicate Jackson Avenue as a public roadway to the City of Austin. As agreed by the applicant, Lot 43, Shoal Village Section 2, shall be dedicated as public right-of-way to the City of Austin for the extension of Jackson Avenue to 45th Street. Vehicular access at the intersection of 45th Street and Jackson Avenue shall be limited to "right-in, right-out only." Staff will review roadway design plans submitted by the Applicant as part of the subdivision and site development permit

TIA – The Grove (Revised 2-2-2016)

March 25, 2015

process. A pedestrian hybrid beacon may be installed at the intersection of Jackson Avenue and 45th Street to facilitate pedestrian crossings across 45th Street. The timing of the installation of the pedestrian hybrid beacon shall be determined by the Austin Transportation Department.

DSD2. Comment cleared.

DSD3. **Update 1** - Project will be built in two phases: for initial 2018 build conditions (Phase 1), the improvement of the Bull Creek Road/45th Street intersection is required. The phase one improvements shall be inclusive of the following elements: dedication of right-of-way, bicycle lanes, medians, turn lanes, sidewalks, and trails. The details of the phasing and timing of the specific improvements will be finalized with the Traffic Phasing Agreement that accompanies the final PUD Ordinance per the comment below as DSD5. NOTE: TxDOT agreement of the terms of fiscal participation for off-site improvements is required.

DSD4. **Repeat comment** - 2024 build conditions (Phase 2) will include full width reconstruction of Bull Creek Road and improvements to Jackson Avenue. In accordance with ATD TIA Comment 3, the improvements to Jackson Avenue will be identified and addressed at the time of the warrant study to support the signalization of Jackson Avenue and Bull Creek Road.

DSD5. **Repeat comment** - Please provide a draft Traffic Phasing Agreement that clearly outlines the traffic improvements to be built for each phase of the development. NOTE: the traffic phasing agreement will require the approval from the COA Legal Department.

DSD6. Jackson Avenue should be extended to the north through the site from its intersection with Bull Creek Road to 45th Street as a public street, provided the following:

- The City approves the street design sections for the northern extension of Jackson Avenue in lieu of standard City street sections, as shown in the Design Guidelines; and
- The City agrees to provide code modifications to allow the Jackson Avenue right-of-way to be included in site calculations and to allow property on both sides of the northern extension of Jackson Avenue to be included in a single site. DSD and PAZ will determine how this provision is incorporated into the final PUD Ordinance.

DSD7. Other roadways in the project may be private roadways, provided the following:

- Public access and utility easements are provided for the entirety of the private street lengths, granting control to the City of Austin of all traffic elements for intersections between public right-of-way and any private streets/driveways within the development;

TIA – The Grove (Revised 2-2-2016)

March 25, 2015

- Retail Streets, Green Streets, and Connector Streets shall be designed to include 50 feet minimum tangent for intersection approaches and a 100 feet minimum centerline radius for horizontal curves. Horizontal design geometry for these streets may be varied with approval of the Director.

DSD8. A note will be provided on the Land Use Plan and/ or a provision of the PUD ordinance will be provided stating the following:

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 Blvd. The amount of the fiscal shall be based on the Applicant's approved engineering cost estimate. Subject to City approval of the proposed bridge location (the City considering environmental, connectivity and other factors) the Applicant will construct the bridge and trail. If the City of Austin or the applicant is unable to secure an easement to allow for the construction of said bridge, the posted fiscal may be utilized by the City to complete other bicycle and pedestrian improvements in the area. The Applicant further agrees to provide easements for future bicycle and pedestrian bridge crossings at both the northern and southern portions of Shoal Creek, whether or not the bridge described above is constructed.

Austin Transportation Department:

For the proposed intersection of 45th Street/ Bull Creek Road:

- ATD1. Comment cleared per Option 2 diagram provided.
- ATD2. Comment cleared per Option 2 diagram provided.
- ATD3. Comment cleared per Option 2 diagram provided.
- ATD4. Comment cleared per Option 2 diagram provided.
- ATD5. Comment cleared per Option 2 diagram provided.
- ATD6. Comment cleared.
- ATD7. Repeat comment - Projected volumes onto Jackson Avenue require mitigation measures along Jackson Avenue.
- ATD8. Comment cleared.
- ATD9. Comment cleared per Bull Creek Road diagram provided.
- ATD10. Comment cleared.

TIA – The Grove (Revised 2-2-2016)

March 25, 2015

ATD11. Comment cleared.

ATD12. Comment cleared per Option 2 diagram provided.

ATD13. Comment cleared per Option 2 diagram provided.

ATD14. Comment cleared per Option 2 diagram provided.

ATD15. Comment cleared per Option 2 diagram provided.

ATD16. Comment cleared per Option 2 diagram provided.

ATD17. Comment cleared per Bull Creek Road diagram provided.

General Comment

Additional comments from ATD are provided in the attachment. Staff reserves the right to conduct further review of the subject application with regard to geometric constraints that may arise due to inadequate or unavailable right-of-way that may affect the operational objectives of proposed infrastructure improvements. These elements may affect site plan review and approval, as they are considered integral to the viability of the subject development as proposed.

We thank you for the revised TIA submitted in support of this PUD application. City staff will continue to review elements of the proposal and the related Traffic Phasing Agreement. If you have any questions please feel free to contact me or Bryan Golden at (512) 974-3124.



Andrew Linseisen, P.E.
Managing Engineer
Division Manager, Land Use Review Division
Development Services Department

Attachment



ATTACHMENT: MEMORANDUM

To:	Andrew Linseisen, P.E. Development Services Department	Date:	March 25, 2016
CC:	Scott A. James, P.E., PTOE Development Services Department	Project:	The Grove At Shoal Creek
From:	Eric Bollich, P.E., PTOE Austin Transportation Department	Re:	TIA Comments (February 2, 2016 Revision)
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MEMORANDUM

To: Jeff Howard
McLean & Howard, LLP

Date: May 9, 2016

Project: The Grove At Shoal
Creek

CC: Sherri Serwaitis
Planning and Zoning Department

From: Eric Bollich, P.E.
Austin Transportation Department

Re: Detailed Design
Comments

Andrew Linseisen, P.E.
Development Services Department

As part of the review of the February 2, 2016 revision of the traffic report regarding the "*The Grove at Shoal Creek, Traffic Impact Analysis*", prepared by R-K Traffic Engineering, LLC, the Austin Transportation Department (ATD) has additional comments related to the final detailed design documents that must be addressed as part of the site plan review process.

ATD shall be distributed for review of all stages of the site development permit process related to the permitting of public infrastructure improvements and connections from the development to the surrounding public streets.

The following comments summarize items to be addressed as part of the site development permit submittals based on staff review of the current conceptual design submittals.

Bull Creek Road/West 45th Street Intersection Plan – Preferred Option 2

1. The northbound free right turn appears to be too narrow to allow for a WB-50 design vehicle to make the turn. The Applicant should provide further analysis verifying that a WB-50 design vehicle can be accommodated, or the lane should be widened by shifting the outermost curb and while not affecting the island curb line.
2. The northern curb face of the pork-chop island should be offset by two (2) feet from the travel lane for eastbound traffic.
3. On the eastbound approach, the 100 feet approach taper is insufficient in length. The taper length should be lengthened by narrowing the painted island.
4. All sidewalks must be five (5) feet minimum in width.



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TIA Comments
The Grove at Shoal Creek
May 9, 2016
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Bull Creek Road Improvements Plan (comments start at the north and head south)

The Applicant will include design plans addressing these comments, and those addressed by the ATD memorandum dated March 28, 2016 as part of the site plans.

1. The Applicant shall include a concrete safety barrier for the bicycle lane along Bull Creek Road as part of the design plans. This barrier shall be installed with the site development permit for the reconstruction of Bull Creek Road.
2. Tapers shown between the back-to-back turn lanes are insufficient in length. A single taper between the two turn lanes should be provided.
3. The 185 feet taper on the northbound left turn approach to Jackson Avenue is insufficient in length. Lengthen the taper and narrow the painted island.
4. Between Driveway 4 and Driveway 5, the Applicant is proposing a 10-foot wide southbound lane, 11-foot wide lane northbound with a 9-foot wide shoulder. The Applicant should revise the design to provide two 10-foot wide travel lanes and include a center two-way left-turn lane.

Vehicular connection to West 45th Street from Jackson Avenue Extension

1. The Applicant has purchased the lot at 2627 West 45th Street to provide approximately 60 feet of right-of-way and facilitate this vehicular connection. The Applicant has proposed only right-in, right-out turns at this new connection. The Applicant will provide design plans showing the geometric layout of this intersection as part of the site plans for the development. Plans will show how these turning movements will be restricted, which design vehicles can be accommodated, and how a future pedestrian hybrid beacon could be placed.
2. The site plan will include the proposed cross section for the Jackson Avenue Extension from Bull Creek Road to West 45th Street. At the connection to West 45th Street, the cross section of Jackson Avenue should be wide enough to accommodate emergency vehicles. Bicycles and pedestrians should be accommodated, preferably off the street on a shared-use path. The Applicant shall construct screening barrier with vegetation where right-of-way is adjacent to existing single-family dwellings as part of the design of the roadway.

PART XX. The Grove at Bull Creek PUD Affordable Housing Program.

A. In order to meet the City's affordable housing goals and to ensure long-term affordability, the Landowner and the Landowner's successors and assigns (collectively referred to as the "Landowner") agree to the following:

1. 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 (each an "Affordable Rental Unit," collective "Affordable Rental Units") in the Austin metropolitan statistical area for a rental affordability period of forty years (collectively, the "Rental Affordability Requirement") from the date of a certificate of occupancy. In addition the Landowner agrees to comply with the following:
 - a) The Rental Affordability Requirement period for each multifamily development with Affordable Rental Units (the "Affordable Development") begins on the date a final certificate of occupancy is issued for each Affordable Development.
 - b) Affordable Rental Units must contain a product unit mix of studio, one, two and three bedroom units in accordance with Fair Housing Laws.
 - c) Each lot or site sold or developed for use as an Affordable Development shall be subject to a restrictive covenant using the form shown in Exhibit XX (subject to revision) or agreed upon by the Director of Neighborhood Housing and Community Development (NHCD) and Landowner at the time of the sale or development and recorded in the official public records of the county where the Affordable Development is located.

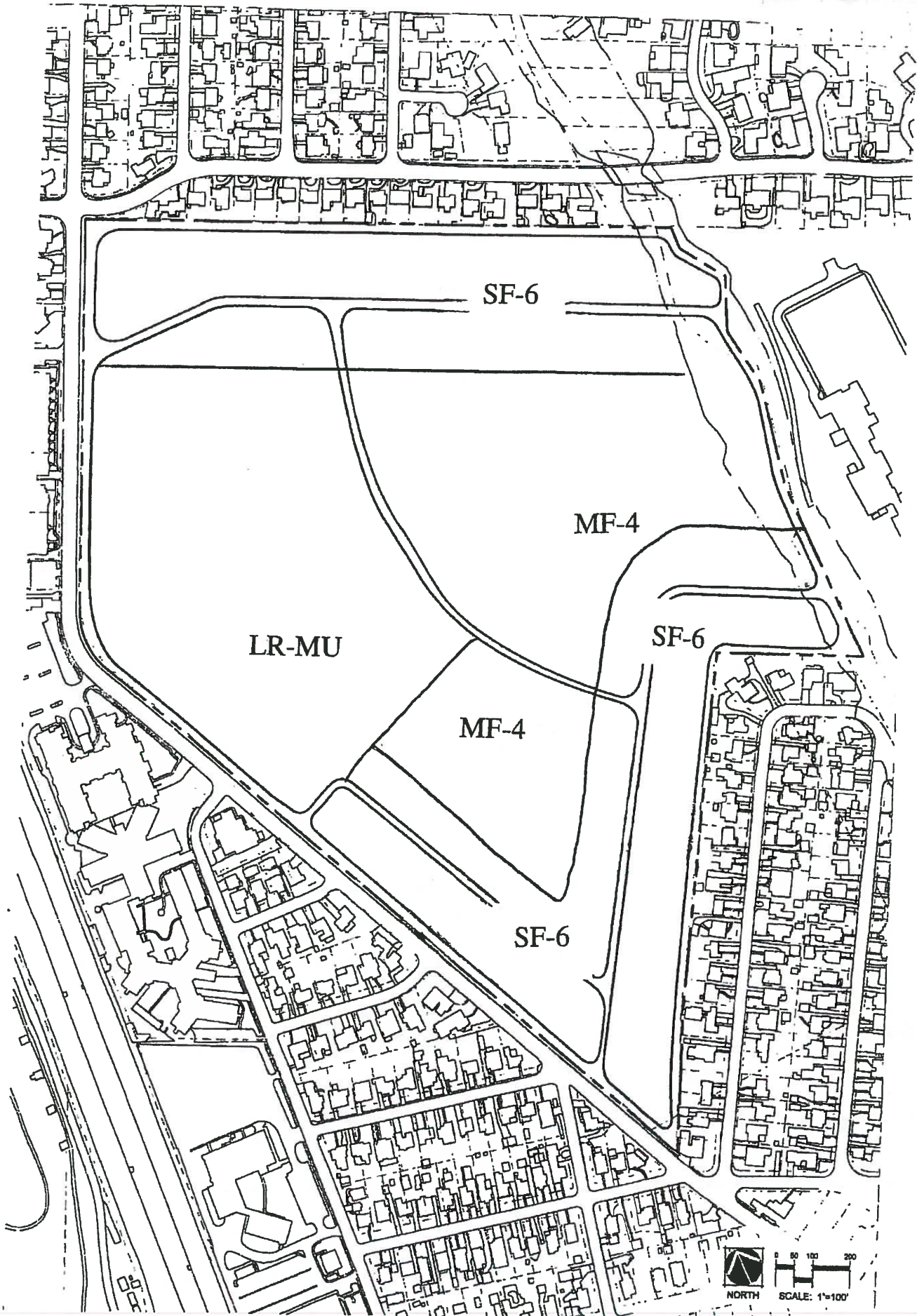
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B. At least 5 percent of the total number of units sold as owner-occupied residential housing units located within the Grove at Bull Creek PUD will, through a mechanism agreed upon by the City and Landowner, be made permanently available at a price affordable to households with incomes at 80 percent of or below the median family income (each an "Affordable Ownership Unit," collective "Affordable Ownership Units") in the Austin metropolitan statistical area (collectively, the "Ownership Affordability Requirement").

1. The Affordable Ownership Units constructed on any site shall have substantially similar architectural design and restrictions as other residential units offered for sale to the general public on such site.
2. The Affordable Ownership Units must contain a product unit mix of studio, one, two and three bedroom units deemed feasible by Developer; provided that, however, no fewer than 50% of the Affordable Ownership Units shall have at least 2 bedrooms.
3. Affordable Ownership units must:

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- a) Be sold to an income eligible household at 80 percent of or below median family income;
 - b) Include resale restrictions that require that resale of the affordable unit must be to a household at 80 percent of or below median family income; and
 - c) Contain restrictions that will cap the equity gain to the homeowner that can be realized upon resale of the affordable unit. The resale formula will be set by the director of the Neighborhood Housing and Community Development Department, and may change from time to time; and
 - d) Contain a Right of First Refusal to the Austin Housing Finance Corporation (AHFC) or other entity designated by the City that is assignable to an income-qualified buyer, to ensure long term affordability.
- C. The Landowner agrees to enter into an agreement with the City of Austin that ensures compliance with Part XX of this PUD ordinance.
- D. Income limits for the Affordable Housing Requirements shall be established annually as determined by the United States Department of Housing and Urban Development.
- E. The Landowner shall file a written report with the Director on the number and location of each Affordable Ownership Unit and Affordable Rental Unit meeting the Affordable Housing Requirements within the Grove at Bull Creek PUD (the "Affordability Report"). The initial Affordability Report shall be filed within 15 calendar days following the March 31 or September 30 next following the date of recordation of a plat or site plan within the Grove at Bull Creek PUD and be continuously filed on a semi-annual basis until the project is fully built out and sold.
- F. Compliance with the Affordable Housing Requirements will be monitored by the City's Neighborhood Housing and Community Development Department through an annual audit of the sale and rental of Affordable Ownership Units and Affordable Rental Units within the Grove at Bull Creek PUD. Income qualifications, rents and sales price of the ownership units must comply with NHCD compliance guidelines.
- G. Compliance with this Part XX of this PUD Ordinance satisfies the requirements of Section 25-1-704(B)(2)(a) of the Austin City Code so that 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 Section 25-1-704 and Section 25-9-397 of the Austin City Code as allowed by and in accordance with the City's SMART Housing Program.



The Grove at Shoal Creek Planned Unit Development

C814-2015-0074

April 4, 2016

List of Superiority Items:**Parks Superiority**

- 1) The project exceeds the minimum amount of parkland by at least 1.55 acres. This is clearly superior to the minimum code requirements for parkland dedication as this represents a 13.66% increase above code requirements.
- 2) The developer will spend \$1 million for the improvements to the Parks within the project whereas there is no code requirement for any monies to be spent on park improvements. This represents a 100% increase over Code requirements.
- 3) The developer will perpetually maintain the parkland. The estimate is over \$200,000 per year and this is at no cost to the City of Austin or the taxpayers. This represents a 100% increase over Code requirements.

Transportation Superiority

- 1) Funding and Constructing all mitigation measures identified for Bull Creek Road. Mitigation measures include additional auxiliary lanes at Jackson Avenue and other Site Driveways, widening of Bull Creek Road between Driveway 1 and 45th Street, and the dedication of ROW from the subject Site to construct these improvements.
- 2) Funding and Constructing 100% of Intersection Improvements for 45th and Bull Creek when pro-rata share is 26.5%. Improvements will include eastbound and westbound left turn lanes on 45th Street, additional northbound left turn lane on Bull Creek Road, and additional northbound right turn lane on Bull Creek Road as well as improved pedestrian crossings and reconstruction of sidewalk at all four corners of the intersection.
- 3) Providing trail connectivity to Ridglea Greenbelt.
- 4) Constructing 12-foot Shared Use Path along Bull Creek Road.

- 5) Constructing 12-foot Shared Use Path along 45th Street Greenbelt.
- 6) Constructing protected southbound Bike Lane on Bull Creek Road in front of Site.
- 7) Installation of Pedestrian Hybrid Beacons on Bull Creek Road and 45th Street to facilitate pedestrian connectivity.
- 8) Post fiscal for, and if easement obtained, construction of Bike and Pedestrian Bridge across Shoal Creek and trail connection from Bridge to Shoal Creek Blvd.
- 9) Bike lanes on major internal street cross-sections.
- 10) Installation of racks to park 400 bicycles.
- 11) Require shower facilities in offices to help facilitate bicycle commuters.
- 12) Contribution of \$100k in seed money for neighborhood multi-modal improvements.

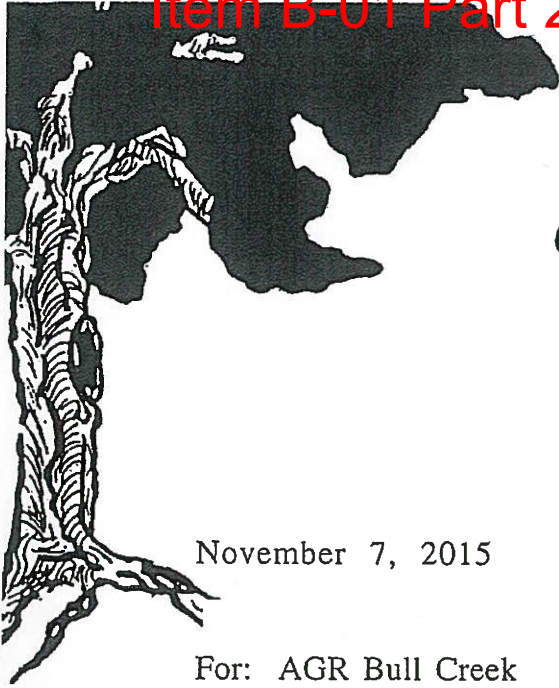
Environmental Superiority

- 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 $\frac{3}{4}$ 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.

Affordable Housing

- 1) At least 10% of the rental units affordable to 60% MFI or less with long term affordability provided.
- 2) At least 5% of for sale units affordable to 80% or less with long term affordability.



Don Gardner
Consulting Arborist

Registered Consulting Arborist #438
Certified Arborist TX0228

**PECANS ON
THE GROVE SITE**

November 7, 2015

For: AGR Bull Creek

I examined all protected trees on this entire site in February and March, 2015.

The magnificent live oak grove is a natural wonder. How can trees this old be so healthy and vigorous? Now, the job is to make sure they stay healthy. Protecting 3/4 of the critical root zone, which I've heard is proposed, is one of the ways to do that.

Most of the pecans on the site, however, are an altogether different story. They are all planted pecan varieties, not native pecans.

Orchardists have been developing new pecan varieties for decades. None are as good a tree (i.e., hardy, strong structure, long-lasting) as the old, original native varieties. Some varieties are better than others, but some are truly horrendous and should have never gotten out into the landscape market.

These varieties are not good, strong pecan trees, but are weak with multiple structural issues. They have more in common with Arizona ash trees, with notorious flaws, than with native pecan trees.

The health of a tree can go bad, or the structure can go bad.

The structural issues with the pecans in question include, 1) poor branch attachment, 2) co-dominant trunks with one trunk growing laterally, not upward, and 3) included bark that holds water, and decays easily and rapidly.

In addition, pecans have the reputation for branch breakage, which they deserve. And, it can be counted on, the newer varieties will break when they get a little size and weight on them.

Further, due to prolonged heat and drought, many of the pecans at this site, like pecans all over central Texas, have major crown dieback, with all the decay and structural issues that come with large dead wood.

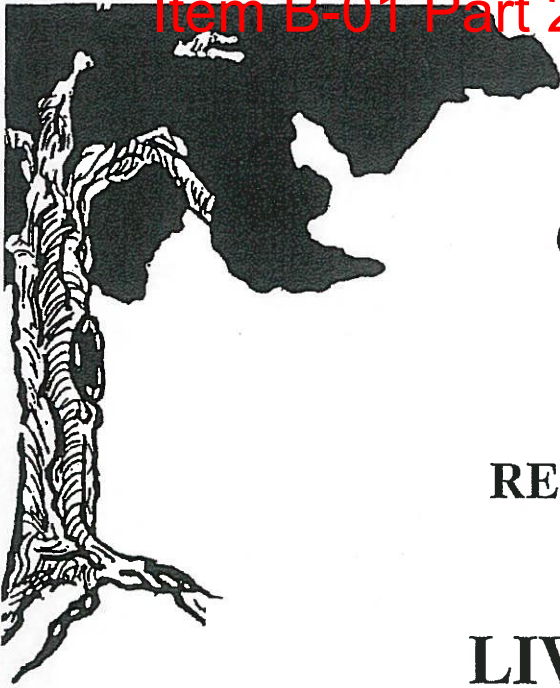
Someone planted poor pecan varieties and they lasted a while. But now, the trees are coming apart. They should be removed.

Unfortunately, the pecans are not good, strong, long-lived natives like the live oaks in the groove.

Please contact me if you have any questions.



Don Gardner, RCA
Registered Consulting Arborist #438
Certified Arborist TX 0228



Don Gardner
Consulting Arborist

Registered Consulting Arborist #438
Certified Arborist TX0228

**TREE CARE
RECOMMENDATIONS
FOR
LIVE OAK GROVE**

**ON FORMER
TX DOT PROPERTY
LOCATED NEAR THE
INTERSECTION OF
BULL CREEK ROAD AND 45TH STREET**

SPRING, 2015

**PRODUCED FOR
MILESTONE BUILDERS
NORRIS DESIGN**

**Produced By
Don Gardner, RCA
Registered Consulting Arborist #438
Certified Arborist TX0228**

LEGEND FOR ABBREVIATIONS USED IN THE FIELD REPORT FORMS

By Don Gardner, RCA

- RV: Remove volunteers. The areas around and between the trees has been mowed using a tractor and shredder for many years. Fortunately, the mowers stayed away from the bases of trees and did not regularly hit them, which is often the case. However, in the spaces between the mowed areas and the tree trunk bases, many young sapling trees have grown. They range from one-half inch to three inches in diameter. In many instances there are so many volunteer trees and shrubs around the bases, one can barely get to the tree. The volunteer tree root systems are becoming interwoven with the large tree's root system. All of these volunteers must be removed. This work must be done carefully and sensitively.
- DW: Prune dead wood two inches in diameter and larger. Pruning large dead and decayed wood minimizes and prevents larger decay in trees, prevents many structural problems from happening, and preserves the tree many more years. Proper and skilled pruning, according to International Society of Arboriculture standards, is critical to preserving trees.
- Rep.: Repair is a pruning term that means to prune broken branches (usually caused by high winds) properly so the wound will close and decay will be minimized.
- Train: When tree crowns grow into each other, become tangled and branches interwoven, training prunes to separate the trees so they don't constantly rub wounds and cause broken and dead branches.
- Vines: Wild grape vines and poison ivy vines are not good for trees. They eventually shade out and break canopy branches.

1=dead or dying 2=poor 3=fair 4=good 4-17-15 PL

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3211	C elm						RV = remove vegetation RV, DW, repair, remove low limbs around base tail
3212	LO						DW, repair remove characteristics
3213	LO						RV, close by
3215	LO						RV, DW, Repair
3214	C elm						RV DW, repair
3608	LO				Three 3/5 sum 1 tree		RV Repair and
3609	LO				leave it possible		RV Repair, DW, leave
3216	LO						RV DW, repair
3926	LO						RV, DW, Rep
3217	LO						RV DW, rep.
3218	LO						RV DW, rep.
3925	LO						RV

P2

Tree ID	Tree Species	Vigor	Structure	Observations	Maint. Task	Maint. Priority	Tree Comment
3927	LO						Remove trunk lateral and under other
3928	elm.		DW	repair	RV-12ep		
3219	LO						RV, DW, rep
3220	LO						RV, DW, rep
3233	LO						RV, DW, rep, remove
3234	LO						RV, DW, rep
3235	LO						RV, DW, rep
3236	LO		Crown not right on survey				RV, DW, rep, poison ivy
3238	LO		1 crown				RV, DW, rep, remove
3237	LO		1 crown				RV, DW, rep, vines
3241	LO						RV, DW, rep, vines
3242	LO						RV, DW, rep.
3239	LO						RV, DW, rep, train
3240	LO						RV, DW, rep, train
3244	LO						RV, DW, rep, train
3245	LO						DW, Rep, train
3251	LO						RV, DW, Rep, vines

1=dead or dying 2=poor 3=fair 4=good

P33

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3252	LO						RV, DW, Rep., Vines, train
3253	LO						RV, DW, Rep., Vines, train
3254	LO						RV, DW, Rep., train
3255	LO						RV, DW, rep.
3246	LO	/	1 crown				RV, DW, rep, train
3247	LO	/					RV, DW, rep, train
3248	LO						RV, DW, rep, train
3249	LO						RV, DW, rep, train
3250	LO						RV, DW, rep, train
3224	LO						RV, DW, rep. Vines
3225	LO						RV, DW, rep, train, Vines
3226	LO						RV, DW, rep, train

1=dead or dying 2=poor 3=fair 4=good P4

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3221	LO						Dead - remove
3220	LO						RV, DW, rep
3222	LO						RV, DW, rep
3223	LO						RV, DW, rep, vines
3257	LO						RV, DW, rep, vines
3240	elm						Remove - center loader bridge
3248	LO						RV, DW, Rep
3249	LO						RV, DW, Rep
3230	LO						RV, DW, Rep
3227	elm						RV, DW, Rep
3258	LO						RV, DW, Rep
3259	LO						RV, DW, Rep

1=dead or dying 2=poor 3=fair 4=good P.S

Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3260	LO						RV, DW, Rep
3261	LO						RV, DW, Rep
3262	LO						RV, DW, Rep
3265	LO						RV, DW, Repair, Veneer
3266	LO						RV, DW, Repair, Veneer
3263	LO						RV, DW, Repair
3264	LO						RV, DW, Repair
3268	LO						RV, DW, Rep
3269	LO						RV, DW, Repair, Veneer
3267	Dead						RV, DW
3295	LO						RV, DW, Repair, Veneer
3293	LO						RV, DW, Repair, Veneer

P.6

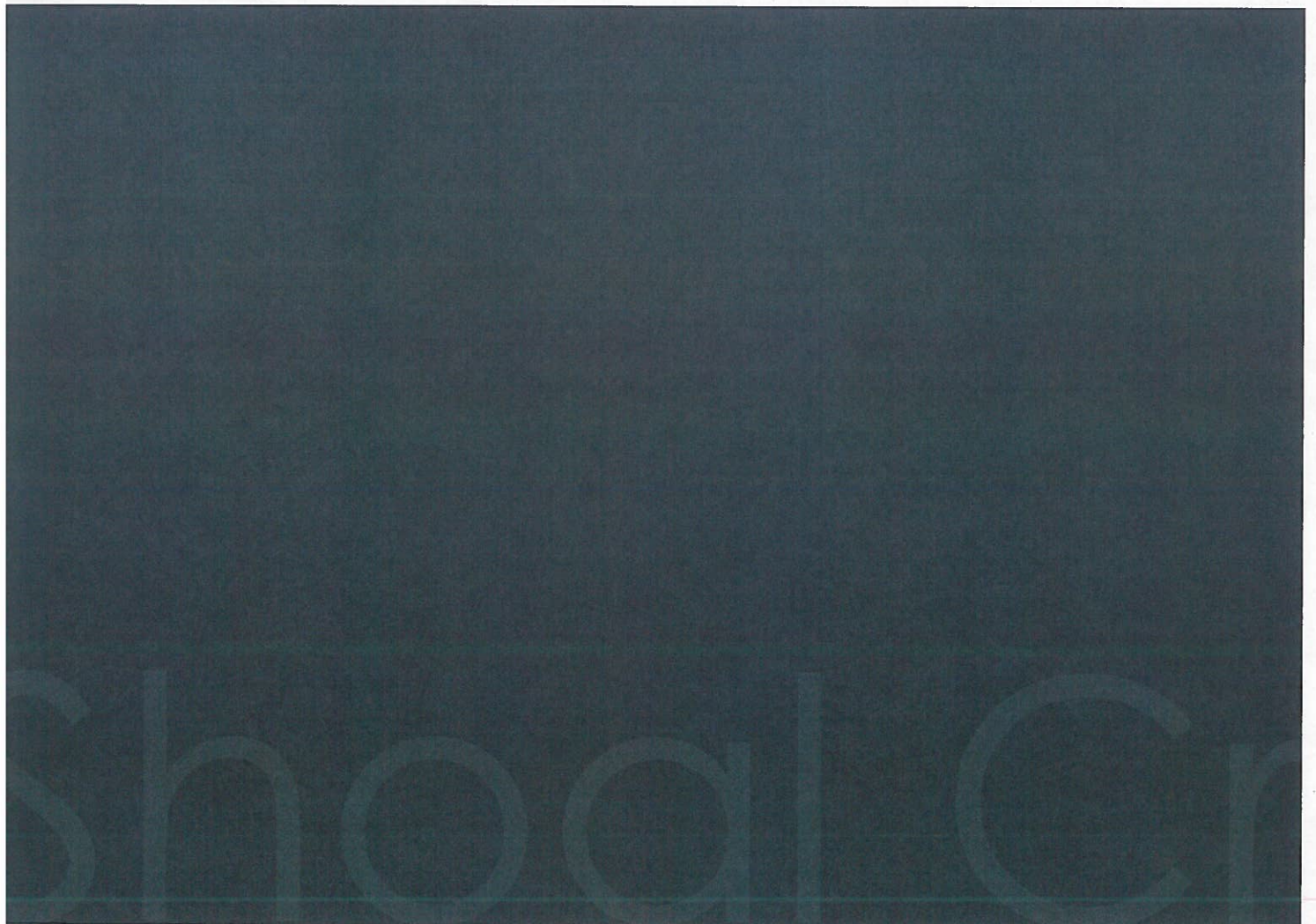
1=dead or dying 2=poor 3=fair 4=good

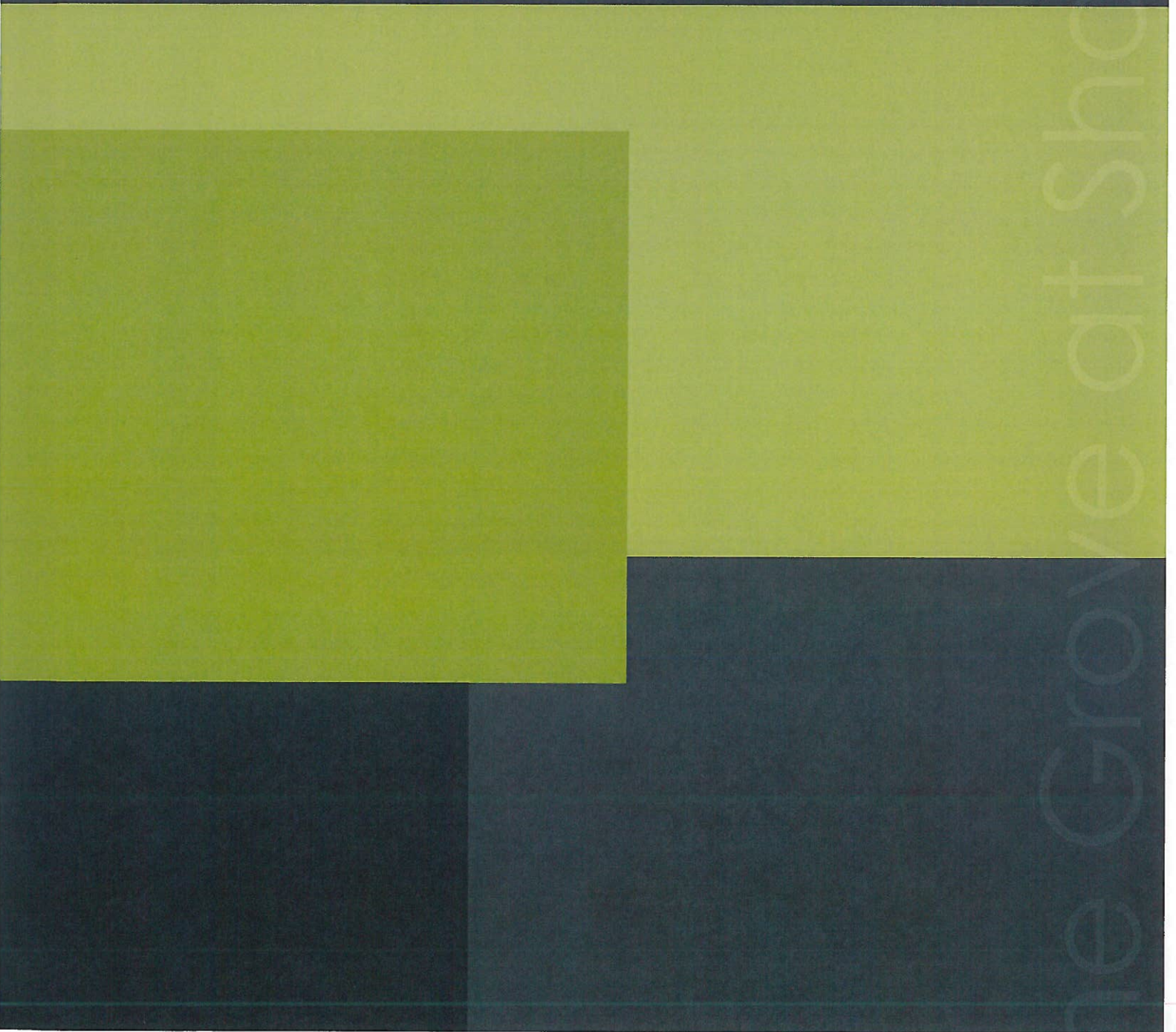
Tree ID	Tree Species	Vigor	Structure	RATING 1-4	Maint. Task	Maint. Priority	Tree Comment
3294	LO						RV, DW, Rep. Vene
3287	LO		no tree top				RV, DW, Rep. above outside edge of roof
3298	LO						
3299	—		not here				
3292	LO						RV, DW, Rep. Vene
3290	LO						RV, DW, Rep. Vene
3288	LO						RV, DW, Rep. Vene
3289	LO						RV, DW, Rep. Vene
3291	LO						RV, DW, Rep. Vene
3300	LO						DW, Rep.

The Grove at Shoal Creek

Design Guidelines

March 28, 2016





Contents

- 01. Background
- 02. Master Plan
- 03. Framework
- 04. Architecture
- 05. Landscape and Open Space

The Grove at Shoal Creek

1.0 BACKGROUND**1.1 The Site**

The site for The Grove at Shoal Creek is an approximate 76-acre parcel in north-central Austin. The property was owned by TxDOT until ARG Bull Creek acquired the site in early 2015 and initiated the planning process that resulted in the Master Plan, Planned Unit Development (PUD) Zoning, and this document.

The Grove at Shoal Creek is surrounded by existing and established Central Austin neighborhoods including Allandale and Shoalmont to the north, Rosedale to the east, Ridgelea and Oakmont Heights to the south, and Westminster and the Post West Austin Apartments to the west. The site is accessed by Bull Creek Road to the west and 45th Street to the North, with the Mopac Freeway located just one block west of the site. There are existing CapMetro bus routes on Bull Creek Road with stops adjacent to the site. There are existing bike lanes on Bull Creek Road which are planned for improvement. The Shoal Creek Trail is also planned to eventually extend up to the project site along Shoal Creek.

Topography on the site falls from west to east, with the west end of the site occupied by existing 1-story office buildings and parking areas as well as relatively flat, undeveloped land. The east end of the site has slightly higher gradients and is dominated by a large grove of heritage oak trees as well as Shoal Creek, which is the site's eastern boundary. About 3.5 acres along Shoal Creek are in the 100-year floodplain.

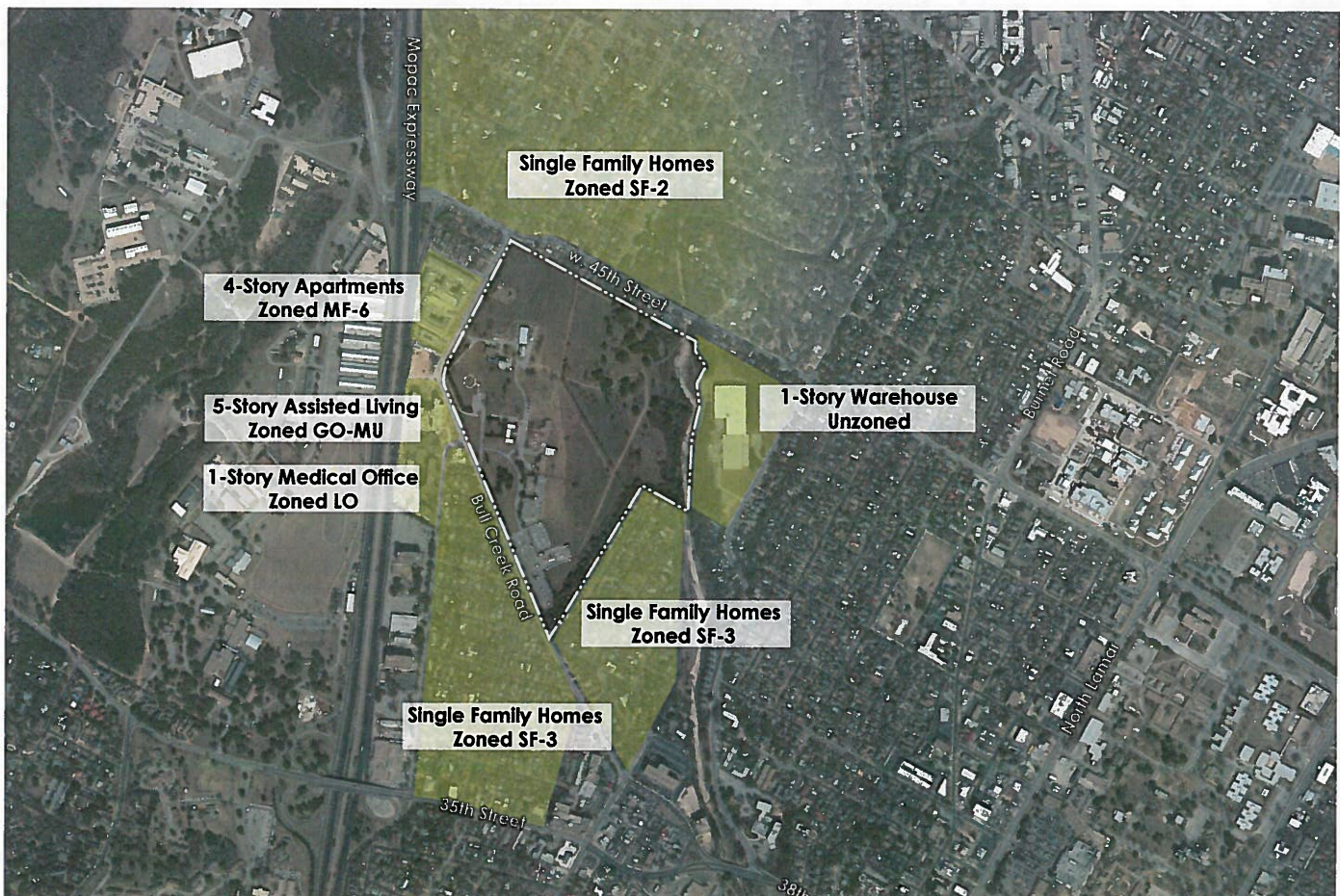


Figure 1.1: Context Map

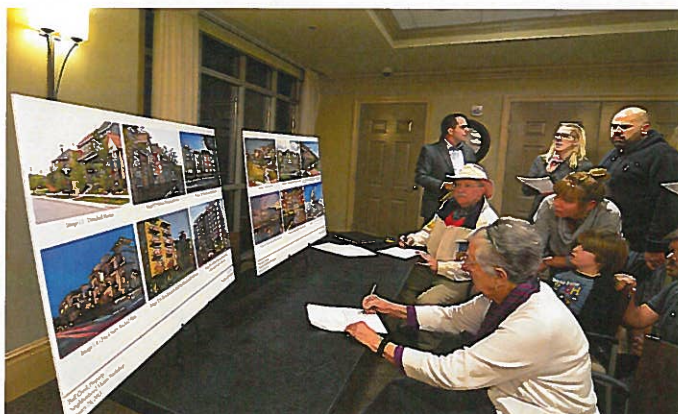
1.2 Project History

ARG Bull Creek has put considerable effort into building a shared vision for The Grove at Shoal Creek through an inclusive and productive process. To achieve that vision, the project team has conducted an energetic community outreach program for The Grove.

The process began in January 2015 by surveying residents in Allandale, Bryker Woods, Highland Park West/Balcones, Oakmont Heights, Ridgelea, Rosedale, and Westminster at two workshops, and also online. Approximately 216 surveys were collected at the workshops, and 488 were taken online for a total of 704 surveys. Using these survey results, the team developed a vision for The Grove that reflects the community's collective vision in terms of its residential and commercial character, open space and the density of the development.

The team also engaged in dozens of formal meetings with various community groups and neighborhood leaders. Among these groups is the Bull Creek Road Coalition, a group formed in 2012 to help craft a vision and voice for sustainable development on the land ARG Bull Creek purchased from the State of Texas in late 2014, as well as the more recently formed Friends of The Grove.

The effort to publicize these meetings, events, and activities has included hundreds of signs and thousands of pieces of direct mail. The team has also maintained a website (www.TheGroveAtShoalCreek.com).



The Grove at Shoal Creek

1.3 Using This Document

This document sets forth Design Guidelines for the design of the built environment within The Grove at Shoal Creek and is incorporated as part of the Planned Unit Development with the City of Austin. These guidelines are intended to supplement the zoning provisions of The Grove at Shoal Creek Planned Unit Development (PUD), which was adopted by the City of Austin on XXXX. The Design Guidelines will be administered by the City of Austin, through the Site Development Permit review process, and are subject to the final recommendations of the Traffic Impact Analysis (TIA).

The Design Guidelines are not intended to be prescriptive solutions that dictate a particular style, but rather performance criteria that can encourage diversity, creativity, and innovation within the framework established here. The Design Guidelines are organized into 5 Sections. This, the first Section, provides an introduction to the property and the document. Section 2 provides an overview of the overall vision and PUD Requirements. Section 3 establishes a framework of streets and transportation corridors that will form the structure of the community. This is the foundation off of which Sections 4 and 5 are built, and many of the guidelines in the other Sections are provided in relation to the framework established in Section 3. Section 4 establishes the architectural character of the community that will develop within that framework, and Section 5 establishes the landscape and open space character and establishes guidelines for lighting and signage. The NACTO Urban Street Design Guide was used as a reference in formulating the street designs in these guidelines and may be a useful guide in determining appropriate solutions for conditions not specifically addressed here.

2.0 THE PLAN

2.1 Vision

The Grove at Shoal Creek is envisioned as a legacy-quality neighborhood and model for innovative mixed-use urban infill development. This vision of community has three primary components: equity, economy, and ecology:



Build Bull Creek as a **legacy-quality neighborhood;**
a model for sustainable and innovative mixed-use
urban infill development.

Figure 2.1: Vision Diagram

The Grove at Shoal Creek

2.2 Guiding Principles

Based on that vision, the development team for The Grove at Shoal Creek developed the following Guiding Principles for the project. These principals where considered in developing the Master Plan and this document.

2.2.1 Create an inviting and integrated project that enhances the experience of the site and its surroundings

2.2.2. Develop a comprehensive built environment with high-quality parks and open spaces shaped by massing and appropriately scaled to their context

2.2.3 Establish a vibrant, people-oriented development pattern that promotes connectivity and prioritizes pedestrian and bicycle circulation over cars

2.2.4 Establish a restorative approach to the development of the site by integrating sustainable strategies and honoring the history and natural character of the land

2.2.5. Create an economically viable development model that maximizes the mix of uses and captures the essence of Austin living.

2.2.6 Shift the conventional interaction between developer and neighborhood to a shared-purpose relationship

2.3 Development Districts

The project is composed of two development districts and a number of park and open space elements. The Development District Map below shows the conceptual layout of these districts on the site. For each building or project on the site, the applicant may select the most appropriate district for the desired use. As described in Section 4, the Architectural Design Guidelines for that building will be based on the selected district.

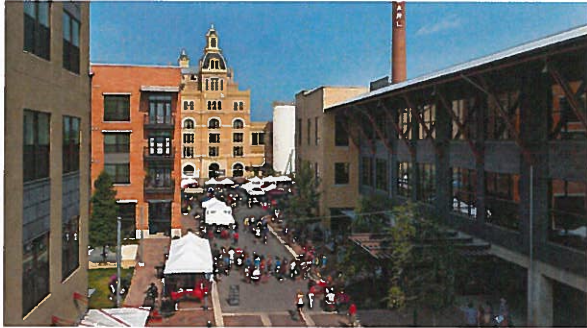
The Development District Map shown here is conceptual in nature and is not intended as a regulating document. Land Use regulations shall be governed by the approved Land Use Plan in the PUD zoning ordinance approved by the city of Austin on XXXX. Each building or project may select the most appropriate district for the desired project if the project is located in a Tract where that district is allowed, as described in 2.3 below.



Figure 2.3: Development District Map

The Grove at Shoal Creek

2.4 Description of Development Districts



2.4.1 The Mixed-Use District. The heart of the master plan, this district contains a vibrant mix of uses which may include retail, office, high-density residential, live/work, and/or congregate care. This district is allowed in Tracts B, F, and G of the Land Use Plan.



2.4.2 The Residential District. This district contains a mix of for-sale and rental housing products including detached residential, townhomes, row houses, live-work units, stacked flats, and apartments. This district is allowed in all Tracts of the Land Use Plan.



2.4.3 Parks and Open Space. The parks and open space component of The Grove at Shoal Creek shall consist, at a minimum, of the Signature Park, Pocket Park, Greenbelt, Plaza, and Bull Creek Road Trail, with approximate locations and sizes as depicted in Figure 2.3.

2.5 Planned Unit Development Land Use Plan

The Land Use Plan, shown here for reference, as adopted in the City's zoning ordinance, provides the land use regulations for the project and asserts the site development regulations for each tract, including height, FAR, setbacks, and impervious cover limitations for each parcel.

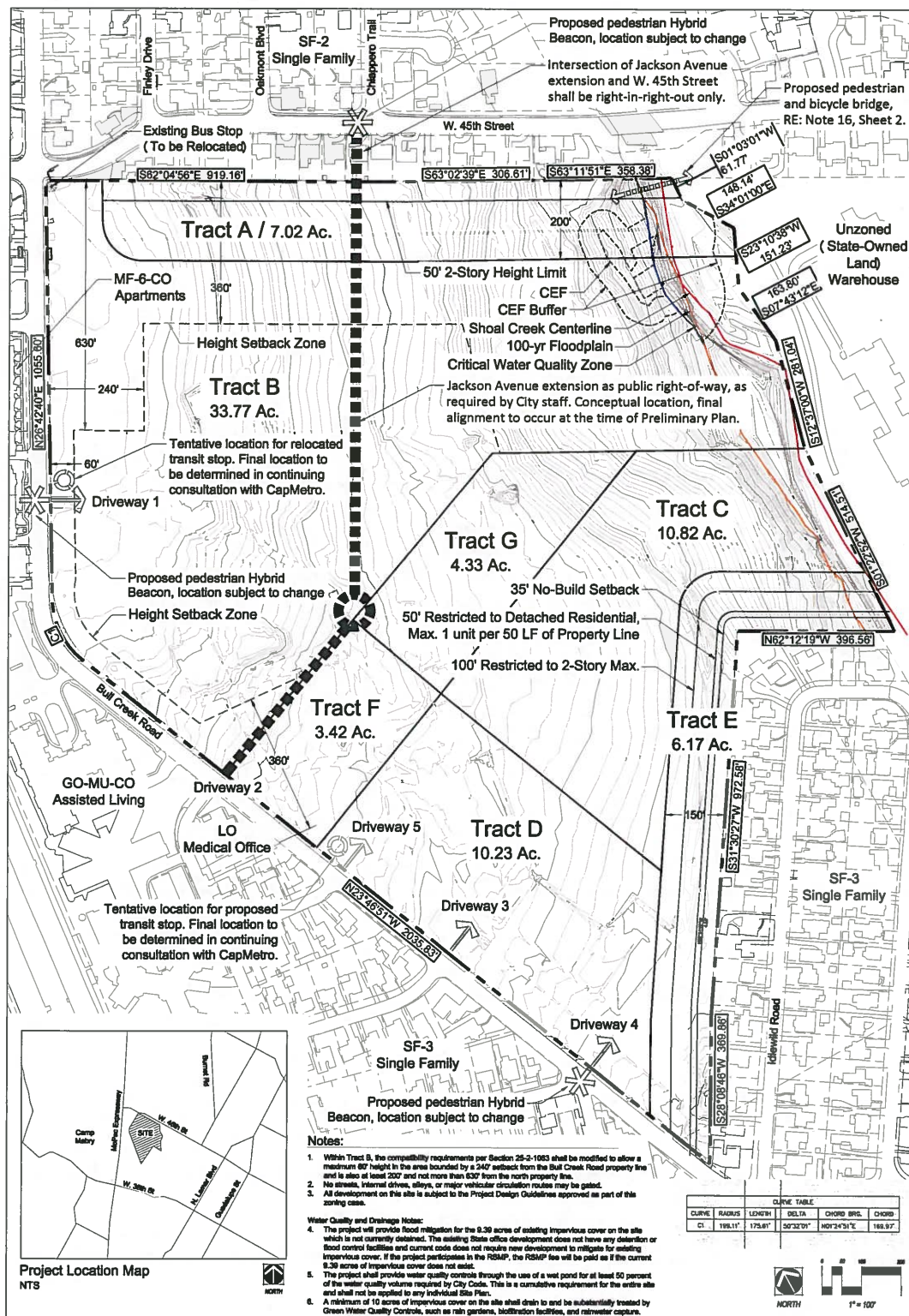


Figure 2.5: Planned Unit Development Land Use Plan

The Grove at Shoal Creek

TRACTS A & E Condominium Residential Duplex Residential Family Home 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 C 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	TRACT B Administrative & Business Offices Art Gallery Art Workshop Automotive Rentals Automotive Sales (max. 3000 SF) Automotive Washing (accessory only) Business or Trade School Business Support Services Cocktail Lounge College & University Facilities Commercial Off-Street Parking Community Garden Community Recreation (Private) Community Recreation (Public) Condominium Residential Congregate Living Consumer Convenience Services Consumer Repair Services Counseling Services Cultural Services Day Care Services (Commercial) 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 (Limited) Hospital (General) Hospital Services (Limited) Hotel-Motel Indoor Entertainment Indoor Sports & Recreation Liquor Sales Medical Offices (all sizes) Mobile Food Establishments Multifamily 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	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	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 (Limited) Hospital (General) Hospital Services (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 Single-Family Residential Small Lot Single-Family Residential Software Development Townhouse Residential Two-Family Residential Urban Farm	OPEN SPACE Drainage, Detention & Water Quality Facilities Park (Private Ownership, Privately Maintained, Publicly Accessible)	Notes: 1. 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 and/or Site Plans may vary above or below the listed limits, as long as the calculation for the overall 75.76 acre site does not exceed the limit. Applicants shall add a tabulation table (as adopted per this PUD ordinance) to each site plan and subdivision application submittal which will show the current standing of the overall Site Development Regulations. City Staff shall review the table provided with each application and verify that it is in accordance with the Site Development Regulations outlined in the PUD Land Use Plan. 2. Total residential units on the site is capped at 1515 dwelling units (affordable housing units are included in this cap). Congregate living does not count towards this 1515 unit cap, and is limited to a maximum of 600 beds. 3. Total multi-family residential units, that are not also condominium 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. 4. Total office uses on site, including Administrative and Business Office, Medical Office, and Professional Office, are capped at 225,000 square feet. 5. 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 tenant space. 6. Overall project impervious cover is capped at 65% and overall project building coverage is capped at 55%. 7. The FAR maximums listed in the Site Development Regulations table apply to Individual Tracts within the PUD and the FAR shall not be exceeded on an individual Tract basis but may be exceeded on an individual site plan within a Tract. Tacking the allotted and remaining FAR within each Tract is the responsibility of the Applicant. 8. Parks and open space are allowed uses in all Tracts. 9. Cocktail lounge uses are capped at 15,000 SF total and a maximum size of 7500 SF for any one tenant space. Additionally, cocktail lounge uses are not permitted within 300' of an SF-5 or more restrictive zoning district or properties on which uses permitted in an SF-5 or more restrictive zoning district are located. 10. Liquor sales uses are capped at 15,000 SF total and a maximum size of 10,000 SF for any one tenant space. 11. Hospital (General) 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. 12. Live-work units are defined as residential units which are similarly configured to residential row houses or townhomes but are distinguished by a workspace, studio, storefront, or business that is flush with the street frontage. The non-residential portion of 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. 13. Driveway 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 spent on public art within the PUD site. 15. Off-site Parking per 25-6-501 may be provided for a use located in any Tract within the PUD so long as the off-site parking is located in a Tract where Off-site Accessory Parking is a permitted use.	16. Proposed Pedestrian and Bicycle Bridge over Shoal Creek: 16.a. 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 Blvd. The amount of the fiscal shall be based on the Applicant's approved engineering cost estimate. Subject to City approval of the proposed bridge location (the City considering environmental, connectivity and other factors) the Applicant will construct the bridge and trail. If the City of Austin or the applicant is unable to secure an easement to allow for the construction of said bridge, the posted fiscal may be utilized by the City to complete other bicycle and pedestrian improvements in the area. The Applicant further agrees to provide easements for future bicycle and pedestrian bridge crossings at both the northern and southern portions of Shoal Creek, whether or not the bridge described above is constructed. Bridge location shown is approximate and subject to change. Bridge may be located elsewhere on site with City approval so long as it does not impact the wetland CEF or the portion of the wetland CEF buffer that is outside the 100-year flood plain. 17. The project shall provide the following benefits to encourage alternative transportation options: 17.a. A minimum of one location shall be set aside for a B-cycle station, as coordinated with B-cycle (station to be installed by B-cycle when network is expanded to encompass project). 17.b. A minimum of 5 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 will provide shower and changing facilities meeting the requirements of Austin Energy Green Build Commercial Ratings (2013). 17.d. Bike parking will be provided for a minimum of 10% of 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 Bull Creek Road. Each stop shall feature improvements including, at a minimum: a bench, a trash receptacle, and some form of shade located nearby (shade structure, bus shelter, trees, etc.). Bus stops should be approximately 25 feet in length by 10 feet in width and incorporated into the sidewalk. A larger area of approximately 15 feet in width (perpendicular to the road by 50 feet in length (parallel to the road) surrounding the stop should maintain a level slope to ensure that all ADA slope requirements are met. All multi-family developments shall incorporate bicycle cage parking for residents.
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SITE DEVELOPMENT REGULATIONS	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 Streets (4)							
Front Yard	10'	0'	10'	0'	10'	0'	0'
Street Side Yard	10'	0'	10'	0'	10'	0'	0'
Minimum Interior Yard Setbacks							
Interior Side Yard	0'	0'	0'	0'	0'	0'	0'
Rear Yard	0'	0'	0'	0'	0'	0'	0'
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 (6)	55%	NA (2)	NA (2)	NA (2)	55%	NA (2)	NA (2)
Building Coverage Maximum (6)	45%	NA (2)	NA (2)	NA (2)	45%	NA (2)	NA (2)
Maximum Residential Units	87	NA (2)	NA (2)	NA (2)	77	NA (2)	NA (2)

Figure 2.5.1: PUD Regulation

3.0 FRAMEWORK

3.1 Intent

Section 3 of The Grove at Shoal Creek Design Guidelines establishes standards and requirements for the framework of streets, sidewalks, paths, trails, alleys, and other circulation routes. These Framework Elements will organize the site and define not only the site's transportation system, but also some of its most important public spaces and pedestrian environments. The intent of this Section is to:



3.1.1 Create a basic framework for organizing the site and ensuring that buildings and other elements can relate appropriately to the street to create a cohesive visual identity and attractive street scene;

3.1.2 Ensure efficient pedestrian, bicycle, and vehicular circulation that is people-oriented, promotes connectivity, and prioritizes pedestrian and bicycles circulation over cars;

3.1.3 Create a high-quality street environment with street trees and properly scaled roadways and sidewalks;

3.1.4 Add urbanity to the street by providing opportunities for pedestrian friendly uses within and adjacent to the street;

3.1.5 Ensure that adequate vehicular parking is accommodated and well integrated into the street environment;

3.1.6 Provide opportunities for the integration of green infrastructure into the street environment;

3.1.7 Ensure that The Grove at Shoal Creek is developed as a comprehensive built environment.



The Grove at Shoal Creek

3.2 Using This Section

This Section provides a Master Framework Plan indicating the overall layout of streets and other circulation patterns on the site. Each street, alley, or trail indicated on the Master Framework Plan is keyed to a specific cross section defining its dimensions, characteristics, and features.

Jaskcon Avenue will be a publicly dedicated street within The Grove at Shoal Creek. All other streets in The Grove at Shoal Creek will be privately owned and maintained but permanently accessible to the public. This means there is no public right-of-way, except for Bull Creek Road and Jackson Avenue. Instead, this document defines a "Street Zone" for each street, as well as supplemental "Greenway Zones" in certain instances. These zones establish the area in which the Framework Section sets the design standards. Other Sections of this document will set the Design Standards for spaces and elements outside the Street Zone, and may set standards for how those elements shall relate to the street using the Street Zone as a boundary line.

For the Retail Main Street, Green Streets, Secondary Retail Streets, and Residential Streets, the following additional standards apply:

1. Public access and utility easements (where needed) shall be provided for the entirety of the private street lengths, granting control to the City of Austin of all traffic elements for intersections between public right-of-way and any private streets/driveways within the development.
2. These streets shall be designed to include 50 feet minimum tangent for intersection approaches and a 100 feet minimum centerline radius for horizontal curves. Horizontal geometry for these streets may be varied with approval of the Director.

Dimensions are provided in the roadway sections that follow. These dimensions are labeled as follows:

- Min: Represents the minimum allowable dimension for this feature or space
- Max: Represents the maximum allowable dimension for this feature or space
- Approx: This dimension is approximate and may be modified as needed by the design team

Tree spacing is also provided within the roadway sections. In all areas, tree spacings are meant to represent an average spacing, and this average applies only to the length of the street between intersections. Tree spacing may be regular or irregular as appropriate to the individual design of the street and the limitations of utility locations, driveway locations, existing trees, and other existing or planned obstacles that may interfere with tree placement. Street trees are generally located in a planting zone that is a minimum of 7' wide. The planting zone shall be continuous and located adjacent to the curb. Utility compatible trees may be substituted for shade trees where utility conflicts exist. In some cases, trees may be provided adjacent to the Street Zone where utility and/or driveway conflicts prevent the placement of the tree within the street zone.

Rain gardens and biofiltration facilities are also shown in many of these sections. The feasibility of these features is subject to a number of engineering factors outside of the scope of these Design Guidelines including slope, utility conflicts, etc. While the PUD ordinance requires a certain amount of these facilities, and these facilities are generally allowable as shown and desired where feasible, they are not required in any given Street Zone or street section. Rather, the commitments made in the zoning ordinance to provide a certain percentage of the site's water quality through innovative water quality controls and to drain a certain percentage of the site's streets directly into rain gardens or other landscape features will dictate the minimum requirements for these features.

3.3 Master Framework Plan

The Master Framework Plan provides an overview of the possible layout of streets and other framework elements. Certain elements of the Master Framework Plan are considered Primary Framework Elements. The general location and orientation of these Primary Framework Elements should be followed only minor variations as appropriate to improve alignments or traffic performance and optimize building parcels. By contrast final alignment and orientation of the Secondary Framework Elements is flexible and may vary from the Master Framework Plan so long as the final arrangement still creates a well-connected framework consistent with the Intent of this Section.

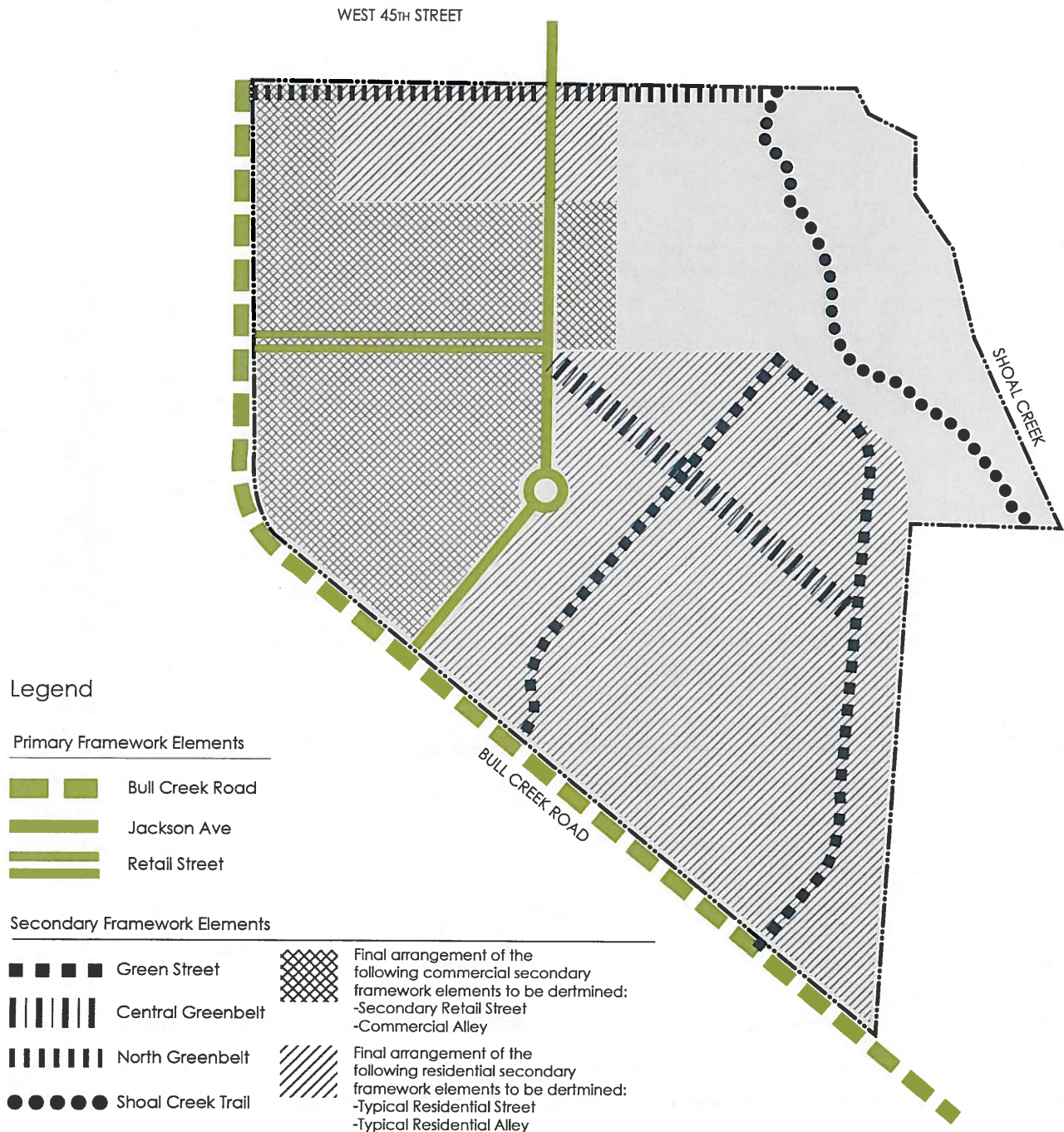


Figure 3.3: Master Framework Plan

The Grove at Shoal Creek

3.4 Primary Framework Elements

3.4.1 Bull Creek Road

The intent of Bull Creek Road is to create a high-quality edge for the project that is inviting and provides exceptional facilities for pedestrians and bicyclists. These standards define the relationship of the site and the Bull Creek Road Trail to Bull Creek Road. The final design of the roadway within the right-of-way will be determined by the project's Traffic Engineer and is not governed by this document.

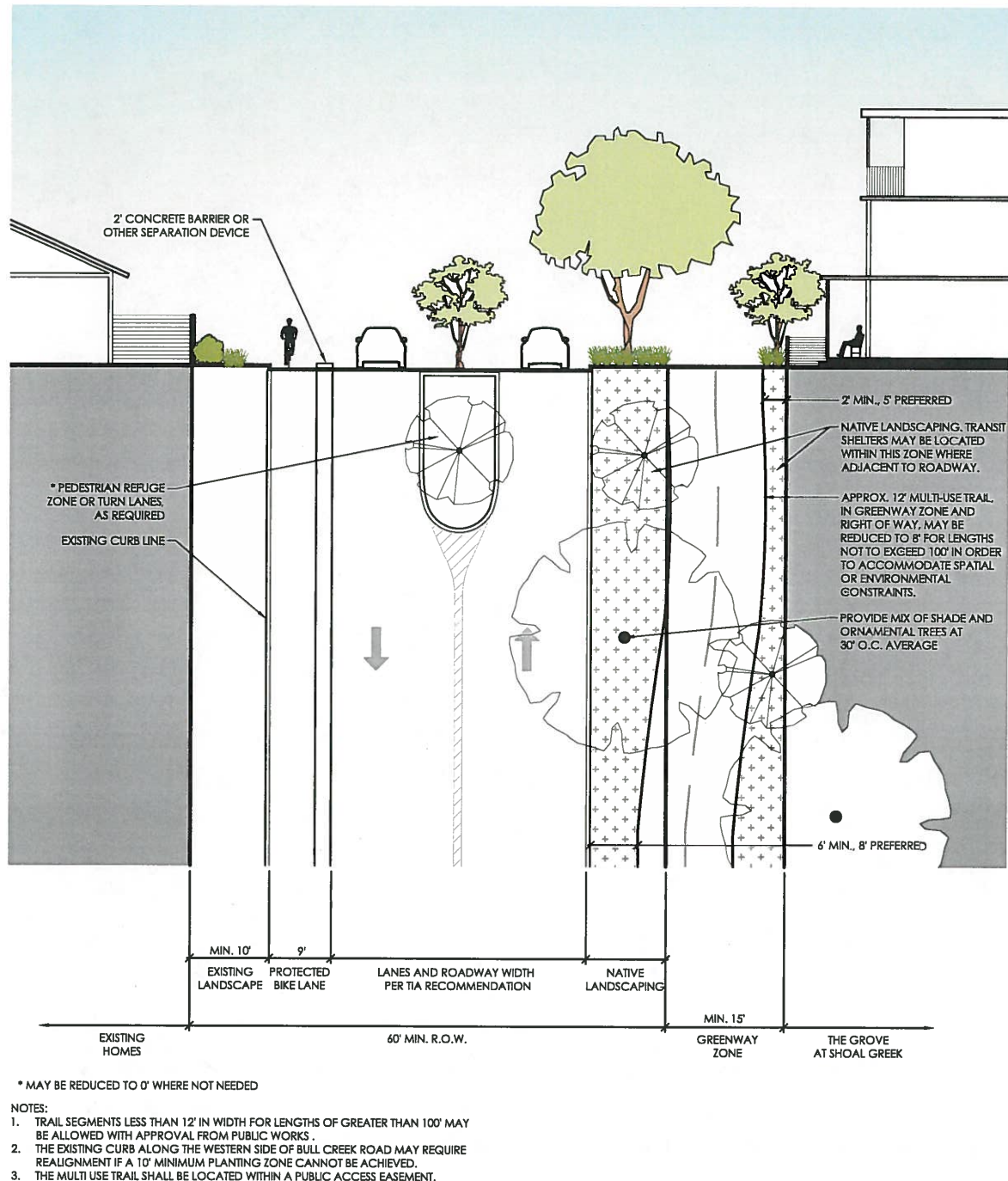


Figure 3.4.1: Bull Creek Road

3.4.2 Retail Main Street

The intent of the Retail Main Street is to create a wide, comfortable pedestrian environment that is conducive to successful retail uses and promotes interaction between users.

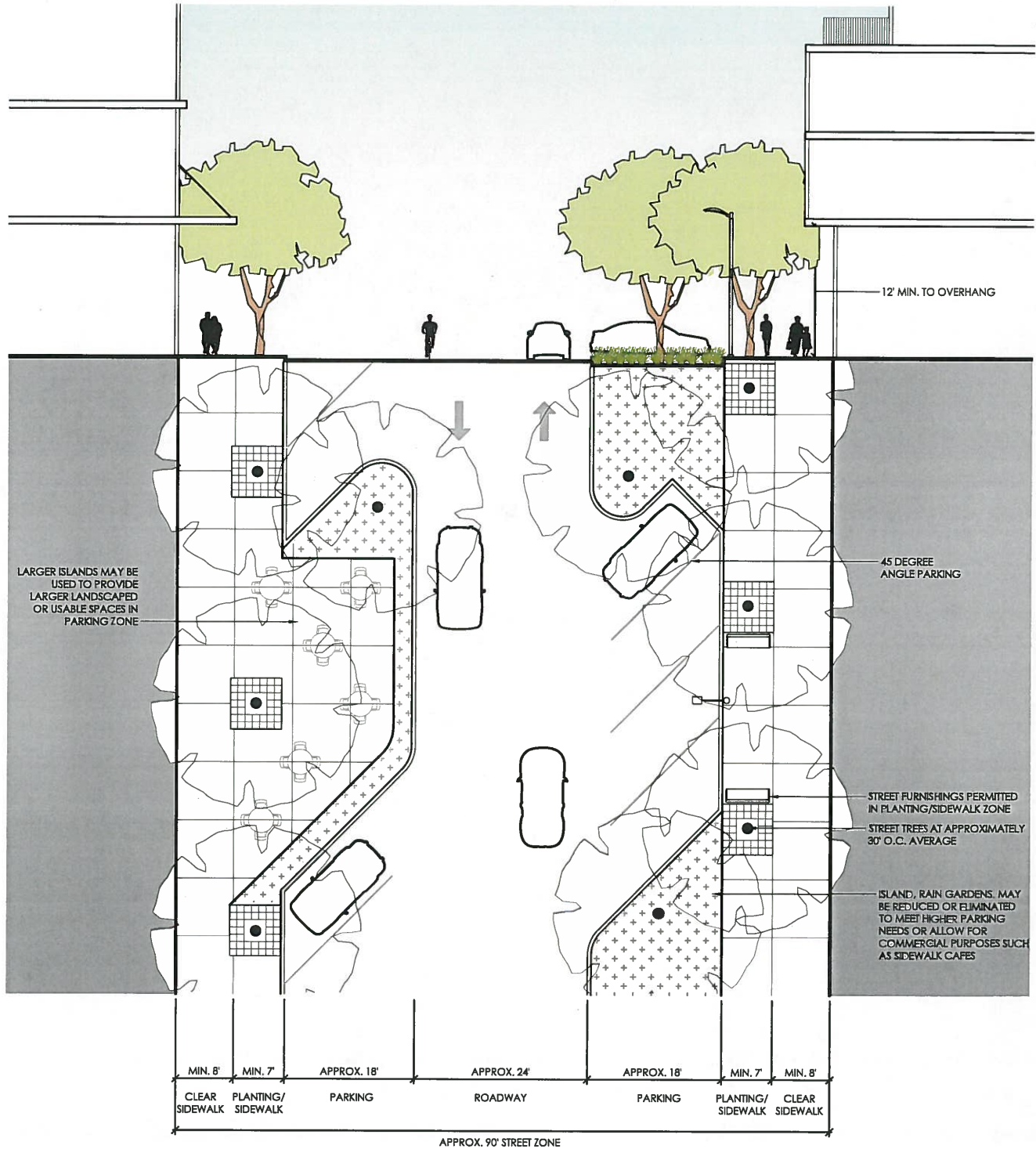
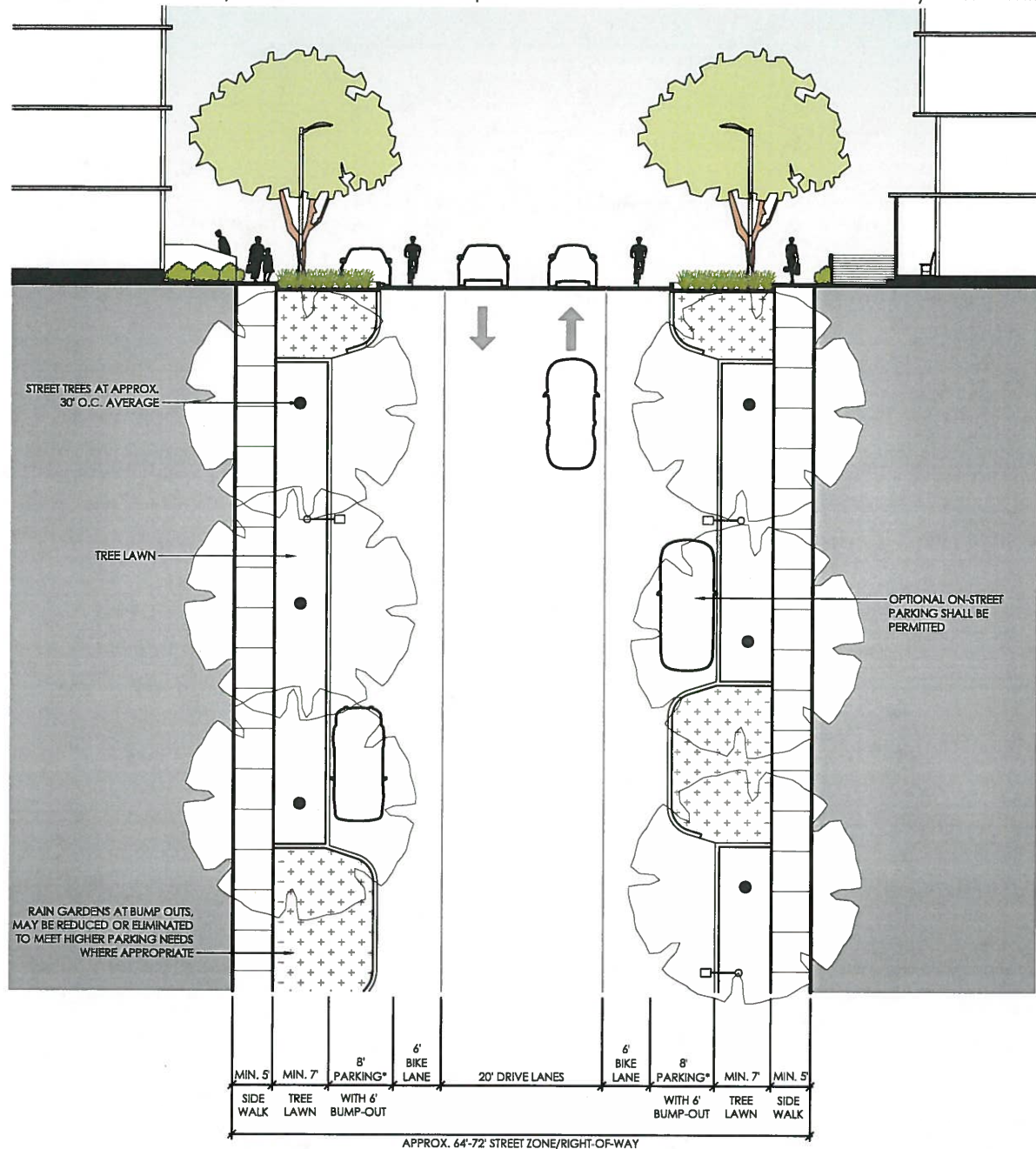


Figure 3.4.2: Retail Main Street

The Grove at Shoal Creek

3.4.3 Jackson Avenue Extension

The Jackson Avenue Extension is the site's primary collector road. The intent is to accommodate a larger volume of vehicular traffic than the site's other roadways while still promoting a high quality pedestrian environment. Two potential sections are provided to allow for options with how this street deals with bicycles. A minimum of



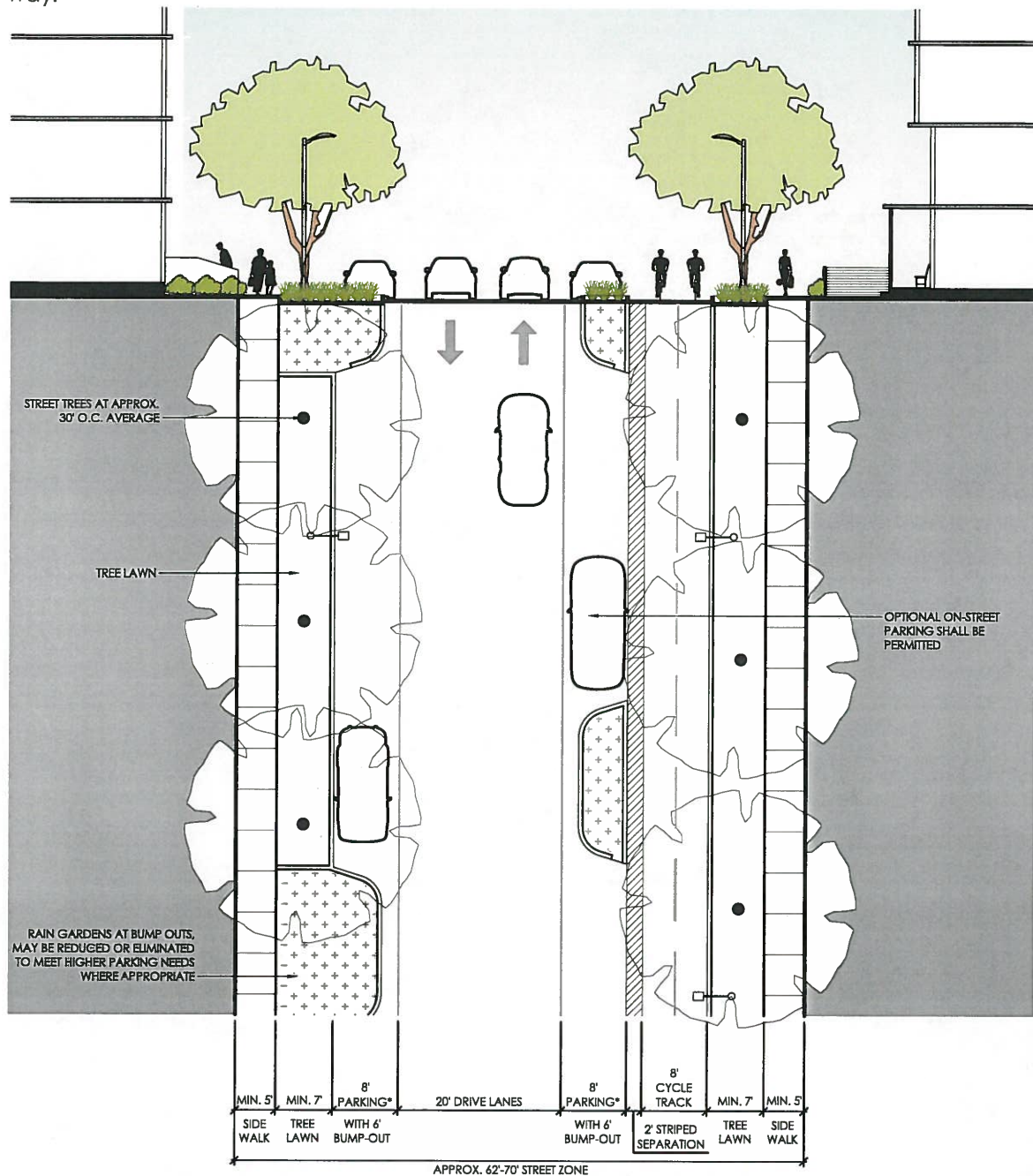
*SEE NOTE 1, BELOW

NOTES:

1. PARKING ZONE IS OPTIONAL AND MAY BE REMOVED FROM SECTION. IF PARKING IS REMOVED, BIKE LANE MAY BE REDUCED TO 5' WIDTH. THIS WILL REDUCE THE OVERALL WIDTH OF THE STREET ZONE BY 9'.
2. DEDICATED RIGHT-OF-WAY SHALL BE A MINIMUM OF 64'. IF OVERALL STREET ZONE IS LARGER THAN 64' THE ADDITIONAL WIDTH MAY BE INCLUDED IN THE RIGHT-OF-WAY OR THROUGH EASEMENTS.
2. ELEMENTS OF THE STREET ZONE INCLUDING SIDEWALKS, TREE LAWN, AND CYCLE TRACK MAY OCCUR OUTSIDE OF THE DEDICATED RIGHT-OF-WAY SO LONG AS AN APPROPRIATE EASEMENT IS PROVIDED.

Figure 3.4.3.a: Jackson Avenue Extension

62' of right-of-way shall be dedicated for Jackson Avenue. If the total Roadway Zone exceeds 62' of width, the applicant may choose to dedicate additional right-of-way or to dedicate public access easements for the remainder of the street zone. All roadway paving and bike lane / cycle track paving must be contained within the right-of-way.



*SEE NOTE 1, BELOW

NOTES:

1. PARKING ZONE IS OPTIONAL AND MAY BE REMOVED FROM SECTION. IF PARKING IS REMOVED, BIKE LANE MAY BE REDUCED TO 5' WIDTH. THIS WILL REDUCE THE OVERALL WIDTH OF THE STREET ZONE BY 9'.
2. DEDICATED RIGHT-OF-WAY SHALL BE A MINIMUM OF 62'. IF OVERALL STREET ZONE IS LARGER THAN 62' THE ADDITIONAL WIDTH MAY BE INCLUDED IN THE RIGHT-OF-WAY OR THROUGH EASEMENTS.
2. ELEMENTS OF THE STREET ZONE INCLUDING SIDEWALKS, TREE LAWN, AND CYCLE TRACK MAY OCCUR OUTSIDE OF THE DEDICATED RIGHT-OF-WAY SO LONG AS AN APPROPRIATE EASEMENT IS PROVIDED.

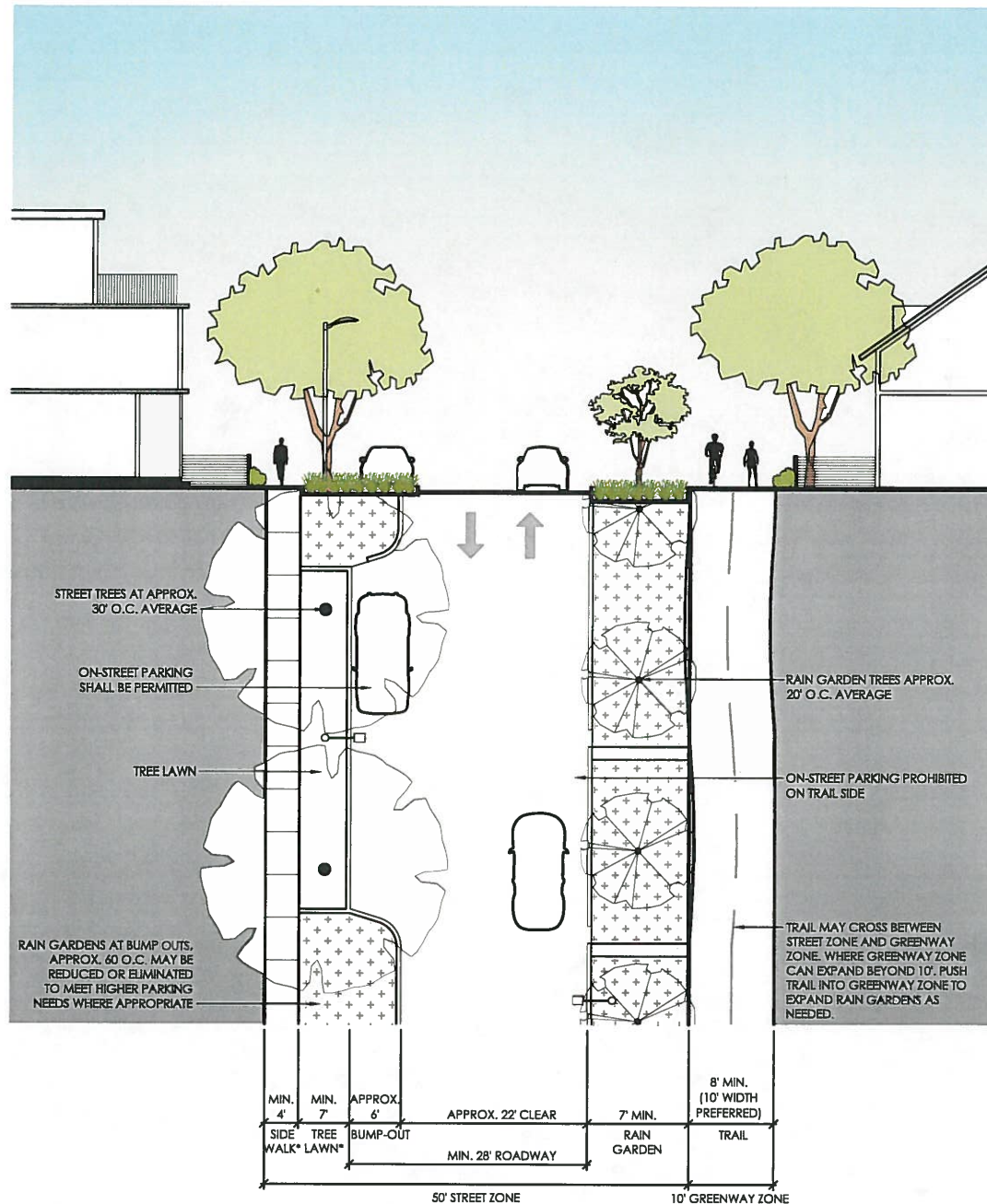
Figure 3.4.3.b: Jackson Avenue Extension

The Grove at Shoal Creek

3.5 Secondary Framework Elements

3.5.1 Green Streets

The sites Green Streets are designed to accommodate safe movement through the site and to the park for pedestrians and cyclists in particular. They also form a key element in the site's green infrastructure system.



NOTES:

1. A 5' MINIMUM SIDEWALK AND A 7' MINIMUM TREE LAWN ARE REQUIRED IF THE ROADWAY ABUTS A NON-RESIDENTIAL USE.
2. WHERE THE ROADWAY ABUTS A PARK, THE REQUIRED SIDEWALK OR TRAIL MAY BE LOCATED WITHIN THE PARK SO LONG AS IT IS LOCATED WITHIN 15' OF THE ROADWAY.
3. WHERE THE ROADWAY ABUTS A PARK, HEAD-IN OR ANGLED PARKING MAY REPLACE PARALLEL PARKING. IN THESE CASES, THE STREET ZONE WILL NEED TO EXPAND AS NECESSARY TO ACCOMMODATE THIS PARKING LAYOUT.

Figure 3.5.1: Green Streets

3.5.2 Central Greenbelt

The Central Greenbelt links the pedestrian and mixed-use zones of the site, and is designed to promote casual interaction between residents and visitors to the site.

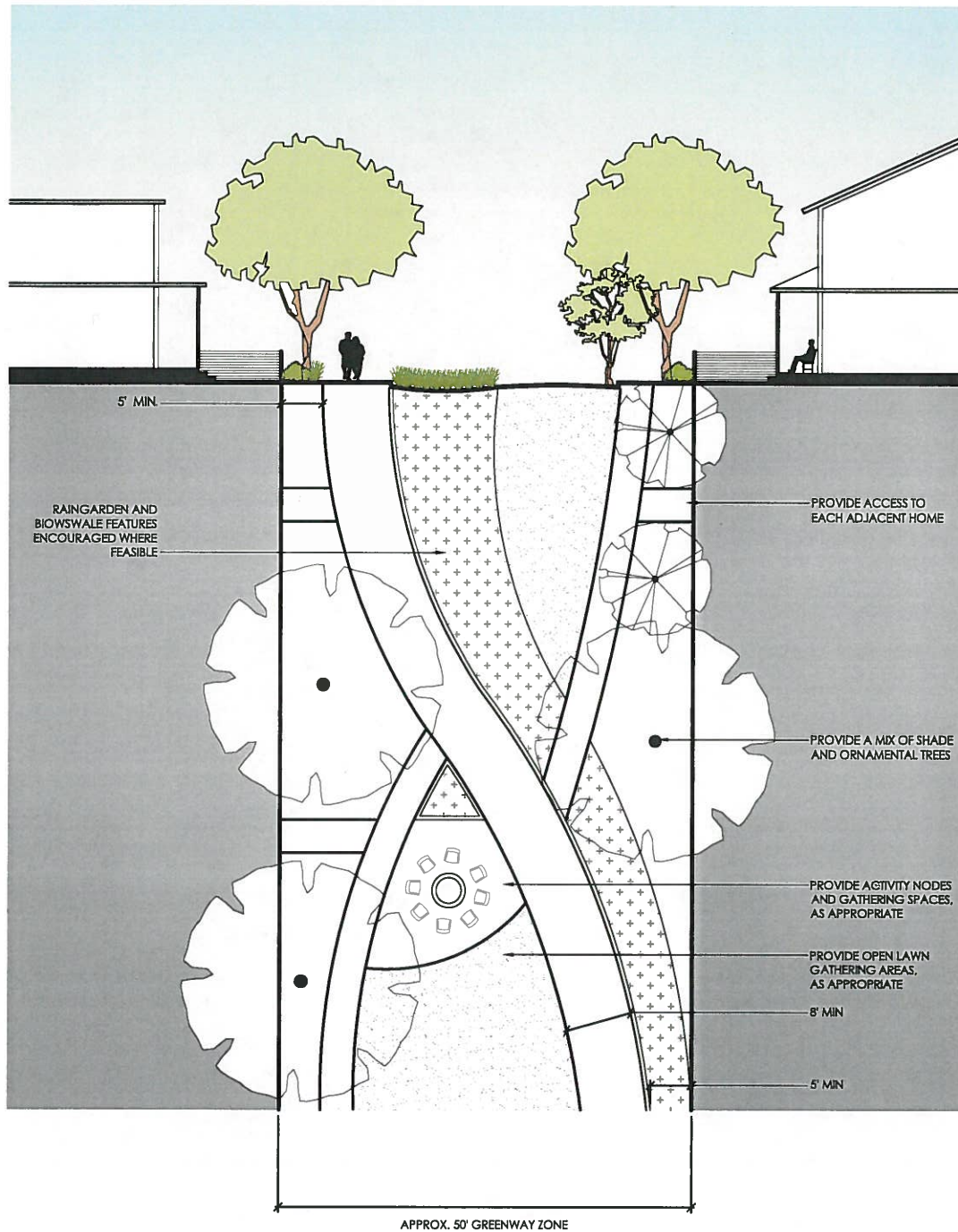
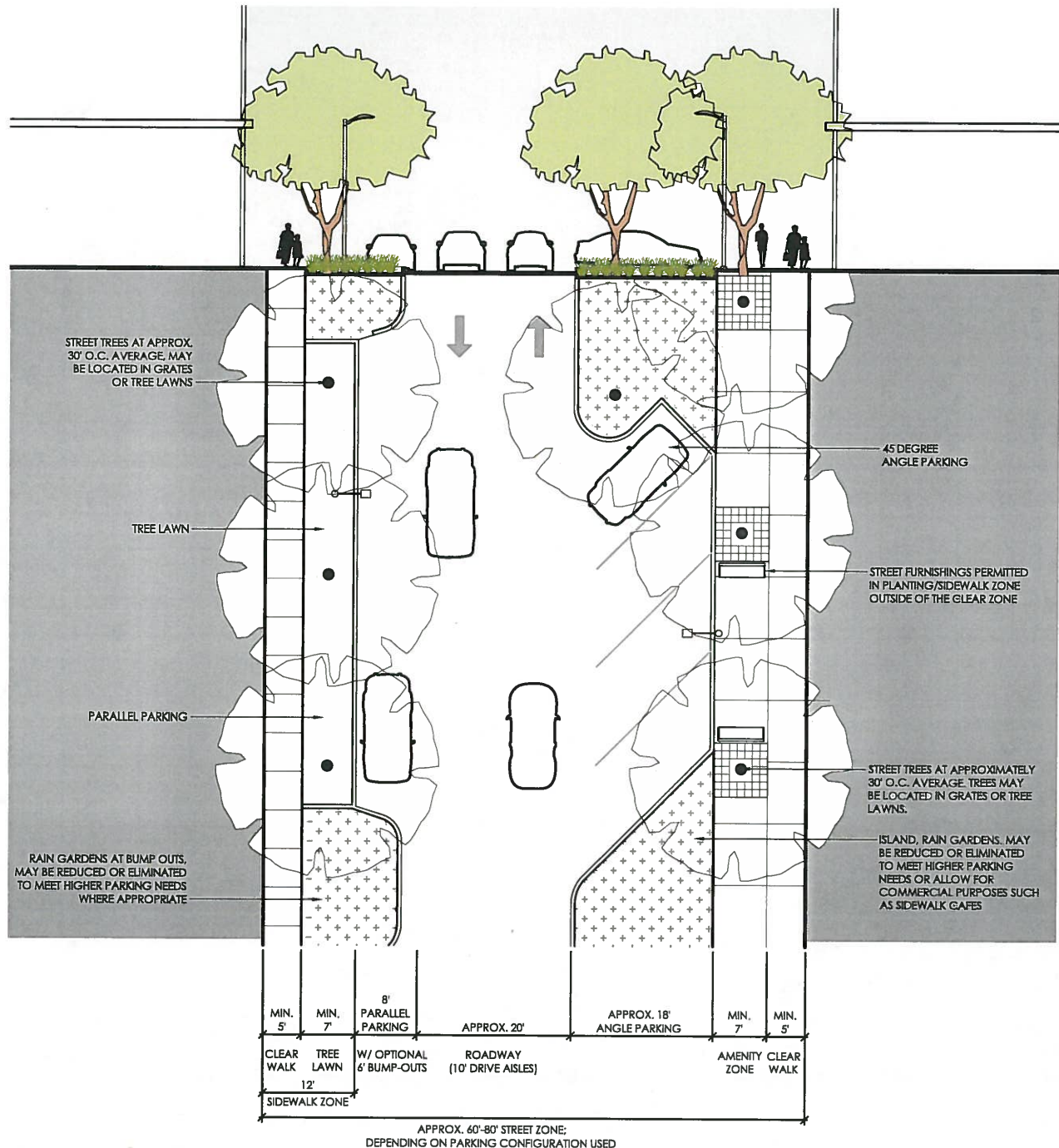


Figure 3.5.2: Central Greenbelt

The Grove at Shoal Creek

3.5.3 Secondary Retail Street

The Secondary Retail Street is designed to accommodate a higher volume of parking within the Street Zone while still maintaining a street-like character. Either head-in angled or parallel parking options may be used on either side of the street.



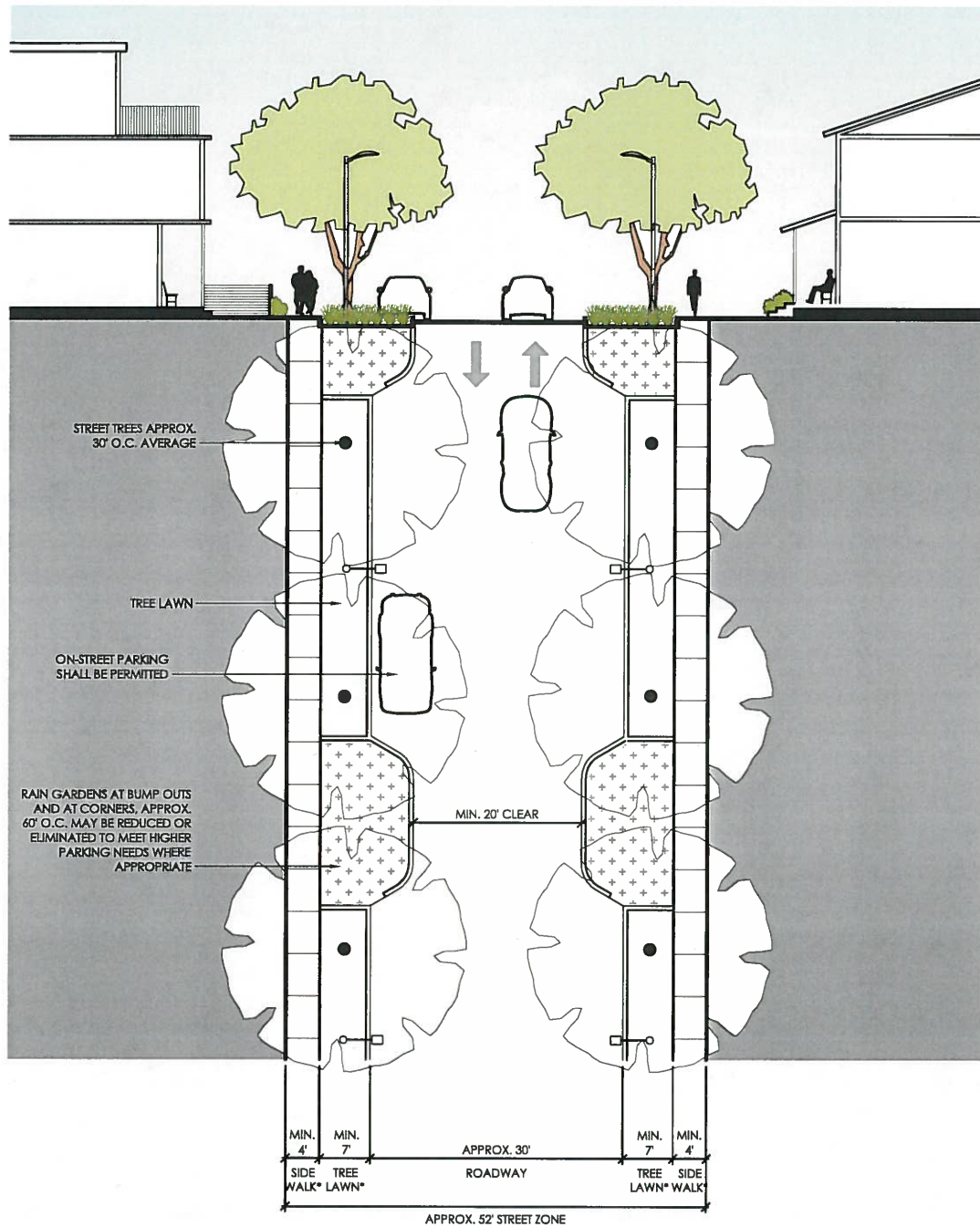
NOTES:

1. ANY COMBINATION OF THE TWO PARKING CONFIGURATIONS (PARALLEL OR ANGLED) AND TWO SIDEWALK CONFIGURATIONS (TREE LAWN OR TREE GRATES) SHOWN ABOVE MAY BE USED.

Figure 3.5.3: Secondary Retail Street

3.5.4 Residential Streets

The residential streets are designed to create a high quality residential street that will moderate traffic speeds, allow for convenient guest parking, and integrate street trees and green infrastructure into the streetscape.



NOTES:

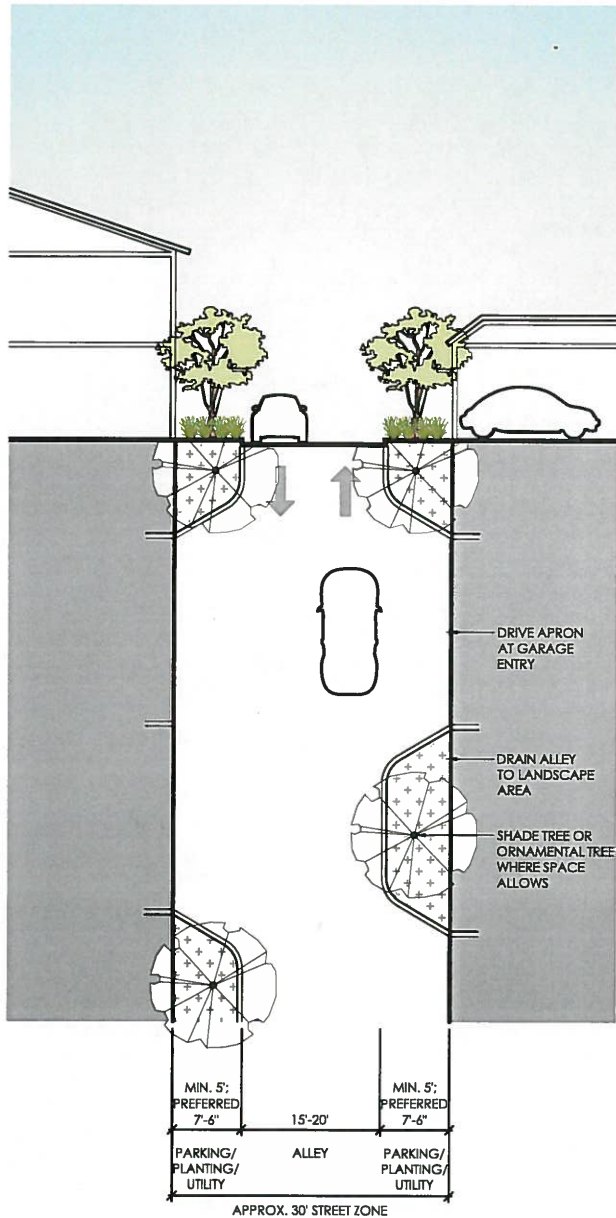
1. A 5' MINIMUM SIDEWALK AND A 7' MINIMUM TREE LAWN ARE REQUIRED IF THE ROADWAY ABUTS A NON-RESIDENTIAL USE.
2. WHERE THE ROADWAY ABUTS A PARK, THE REQUIRED SIDEWALK OR TRAIL MAY BE LOCATED WITHIN THE PARK SO LONG AS IT IS LOCATED WITHIN 15' OF THE ROADWAY.
3. WHERE THE ROADWAY ABUTS A PARK, HEAD-IN OR ANGLED PARKING MAY REPLACE PARALLEL PARKING. IN THESE CASES, THE STREET ZONE WILL NEED TO EXPAND AS NECESSARY TO ACCOMMODATE THIS PARKING LAYOUT.
4. THERE SHALL BE A MAXIMUM OF 200' BETWEEN BUMP-OUTS WHERE THERE IS ON STREET PARKING.

Figure 3.5.4: Residential Streets

The Grove at Shoal Creek

3.5.5 Typical Residential Alley

The intent of the typical alley is to provide a functional alley that maximizes the visual appeal and integrates as much landscaping as possible. The smaller pavement section should be used wherever feasible and expanded where necessary for fire access.



NOTES:

1. ALLEY WIDTH SHALL BE 20' WHERE FIRE ACCESS IS REQUIRED.
2. ALLEY WIDTHS LESS THAN 16' ARE INTENDED FOR ONE-WAY TRAFFIC. DIRECTIONAL SIGNAGE IS REQUIRED AT ALLEY ACCESS POINTS FOR ONE-WAY ALLEYS.

3.5.6 Commercial Alley

Commercial Alleys are allowable at The Grove at Shoal Creek and are generally encouraged where they would minimize the conflicts and visual impacts created by the service functions and utility requirements of retail and other commercial buildings. A specific section is not provided for Commercial Alleys, but they should generally be designed similar to the residential alleys to include as much landscaping as feasible.

Figure 3.5.5: Typical Residential Alley

3.5.7 North Greenbelt Trail

The North Greenbelt trail will provide convenient access to the Signature Park and function as an east/west pedestrian and bicycle path on the south side of 45th Street (south of the existing homes). An optional 12' wide alley may be provided along the north property line to provide access to the existing homes which front on 45th Street at the developer's discretion and may be constructed only if allowed by the City of Austin. If the alley is constructed additional building setback from the north property line may be required to ensure the greenway zone still meets the minimum acreage designated in the Parks Plan for the North Greenbelt.

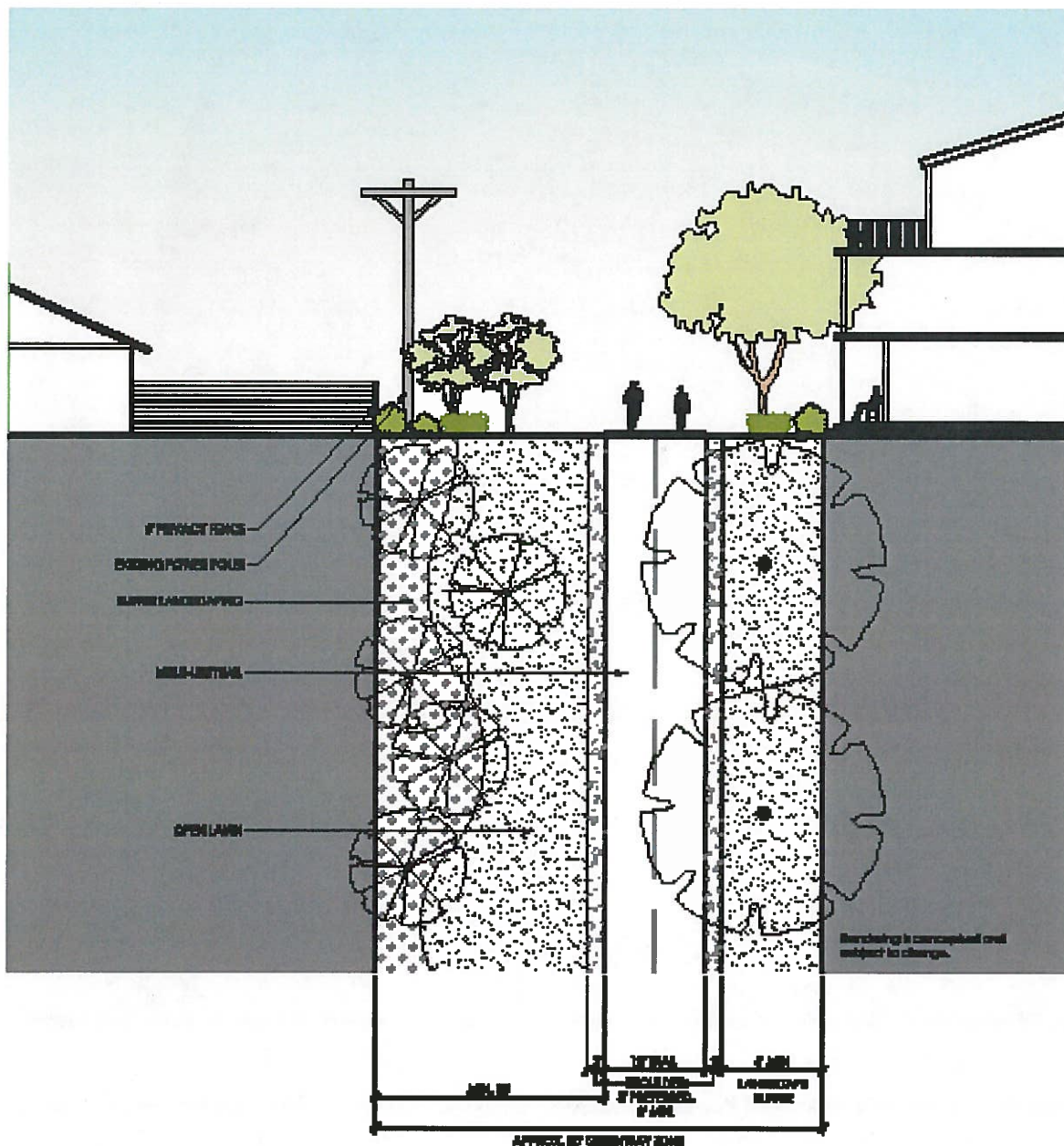


Figure 3.5.7.: North Greenbelt Trail

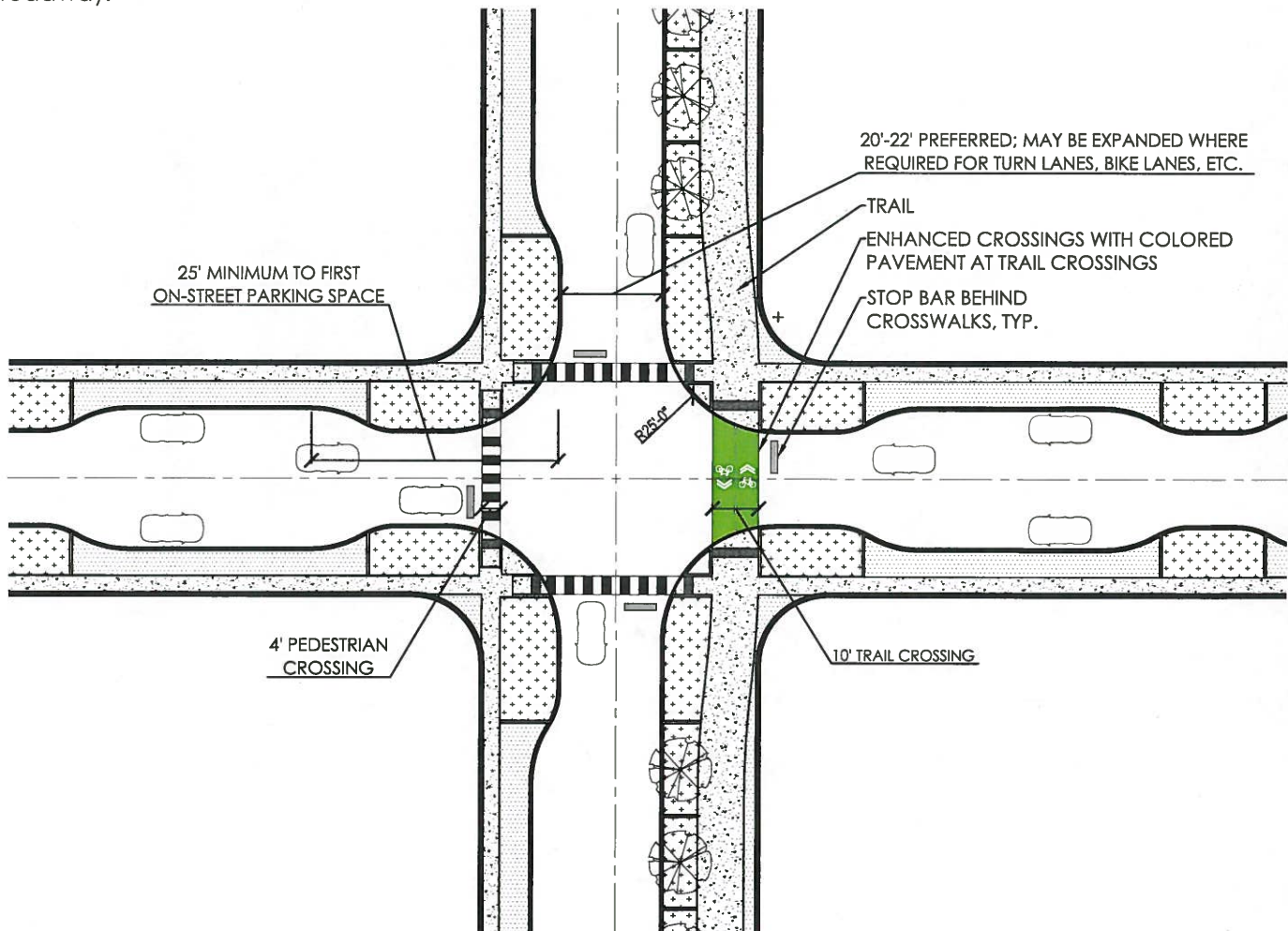
The Grove at Shoal Creek

3.6 Typical Intersection Design

Intersections will take many distinct forms throughout The Grove at Shoal Creek as different street types intersect, additional turn lanes may occasionally be appropriate, some skew may be required, and bike lanes, trails, traffic controls, and other elements all impact the final design of an intersection. The typical intersections shown here are intended to set a general standard for intersections within The Grove that move traffic calmly but efficiently, provide for safe interactions between various modes of transportation, and contribute to the overall creation of a high quality, safe, and walkable urban environment.

3.6.1 Typical Intersection

The intersection shown here is between a Green Street and a typical residential street, but it reflects many of the qualities desired for all of the intersections at The Grove including minimal turning radii, bump-outs to shorten pedestrian crossings, clearly marked crosswalks, and clean integration of landscape, sidewalk, and roadway.



NOTES:

1. REFERENCE STREET STANDARDS FOR REQUIREMENTS FOR ROADWAYS, SIDEWALKS, STREET TREES, ETC.
2. ACCESSIBLE CURB RAMPS SHALL BE PROVIDED FOR ALL SIDEWALKS AT INTERSECTIONS UNLESS AN ACCESSIBLE ROUTE IS NOT POSSIBLE DUE TO SITE CONSTRAINTS. AN ACCESSIBLE ROUTE IS REQUIRED ON AT LEAST ONE SIDE OF ALL STREETS.

Figure 3.6.1: Typical Intersection Layout

3.6.2 Typical Traffic Circle

The roundabout is envisioned as the terminus for the extension of Jackson Avenue, and will function to distribute traffic into The Grove at Shoal Creek, while also performing an important aesthetic function. The design below is conceptual and intended to communicate design intent, rather than to lock in specific dimensions, and may be modified based on final street design, etc. Because this facility is designed for relatively low vehicular speeds, the safest solution for cyclists is to merge with the vehicular lane and traverse the roundabout in the same manner as a vehicle. Cyclists who chose may dismount at the pedestrian ramp and instead traverse the roundabout as a pedestrian.

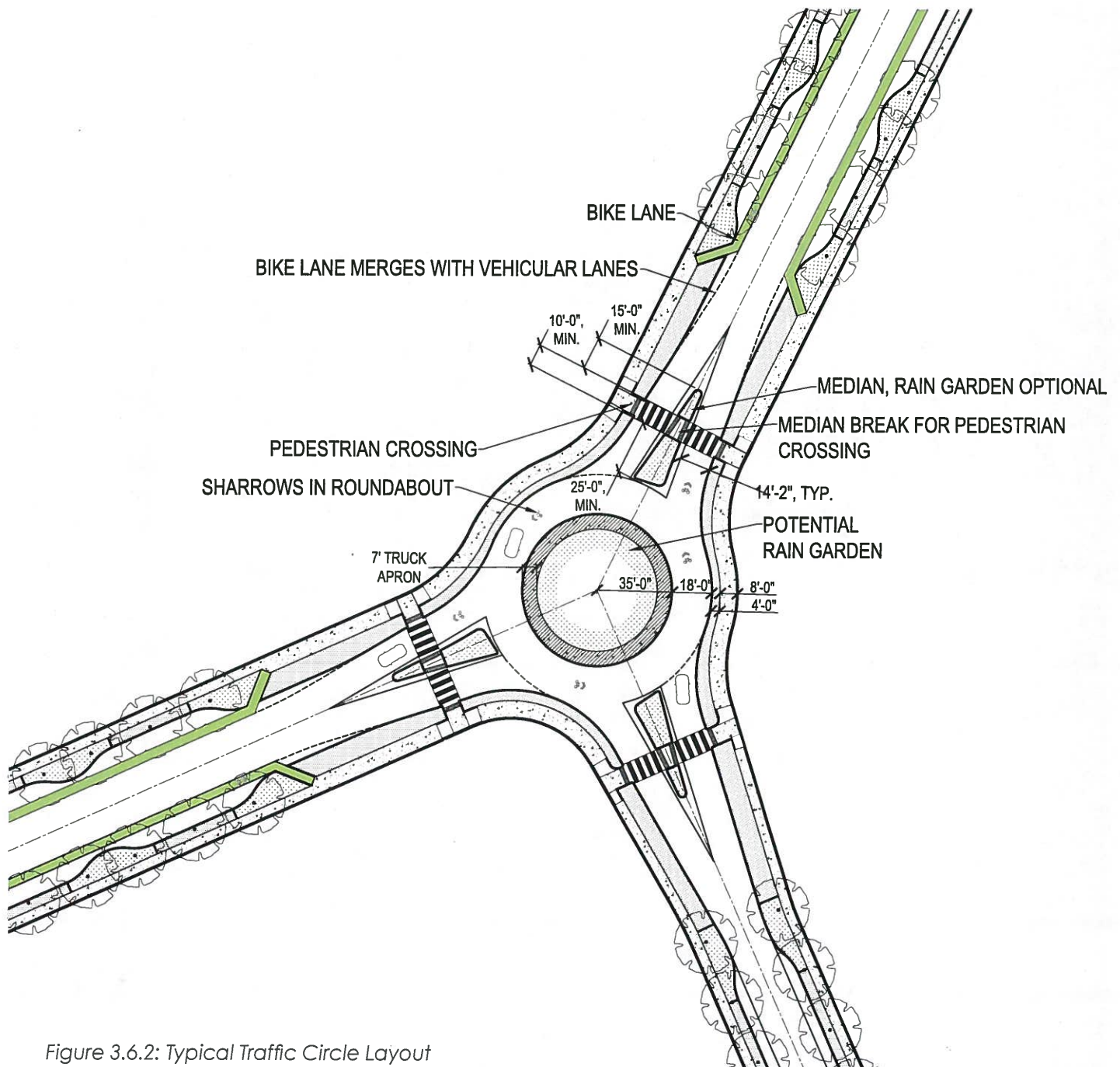


Figure 3.6.2: Typical Traffic Circle Layout

The Grove at Shoal Creek

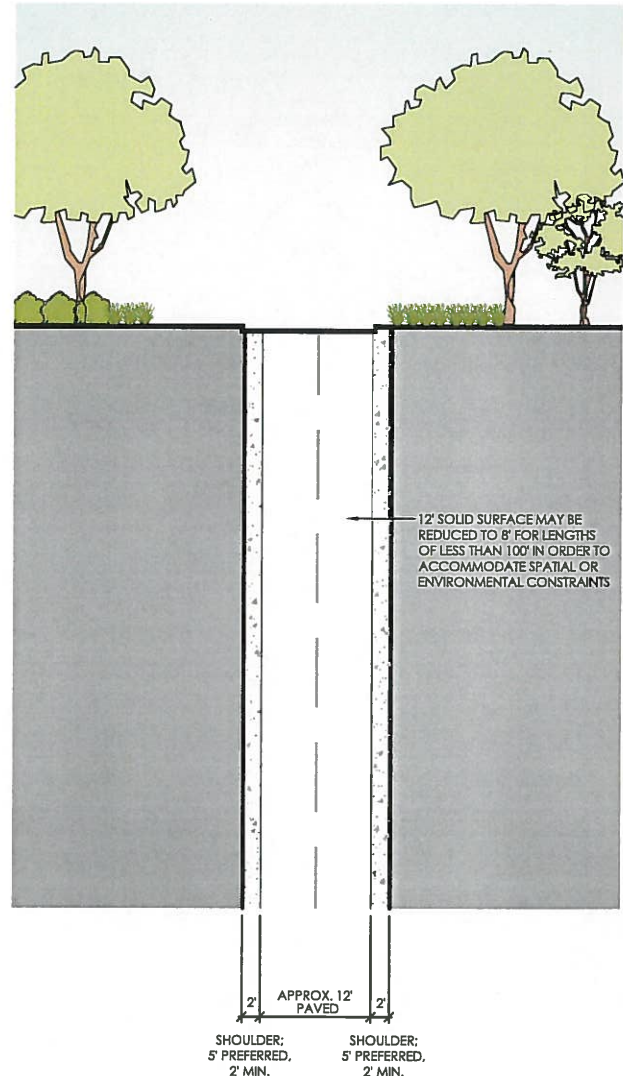
3.7 Trail Requirements

Trails at The Grove at Shoal Creek include the Shoal Creek Trail and North Greenbelt Trail as well as the trails along Bull Creek Road and the Green Streets, which are described in Sections 3.4 and 3.5. Section 3.7.1 defines requirements for the trails listed above, while 3.7.2 provides additional requirements for the Shoal Creek Trail. These requirements are intended to apply only to the urban trails on the site and do not apply to soft-surface trails, sidewalks, paths, and secondary trails within the park.

3.7.1 The following requirements apply to all urban trails on the site:

- Unless specifically noted otherwise, these trails shall follow the requirements of the City of Austin Urban Trail Master Plan.
- While a 12' width is desired for all trails, a width of 8' is acceptable for trails, other than the Shoal Creek Trail and Bull Creek Road Trail. The width of any trail may be reduced to 8' for a length of up to 100' to accommodate spatial or environmental constraints.
- All trails within the development shall include wayfinding elements that describe distance, direction, and destination, at intervals of $\frac{1}{4}$ to $\frac{1}{2}$ mile. The purpose of these wayfinding elements is to orient users and visitors to the trail's destination, provide educational or informational background on the site, and facilitate recreational use (e.g. mile markers).
- Multi-use Trails should have a minimum centerline radius of 100'. Centerline radii where approaching curb ramps at intersections, road crossings, street islands, etc. should be no less than 10'.
- Raised street crossings should have a level surface that is the same width as the multi-use trails. The crossing surface should be 3" above the adjacent roadway with a 6' long transition to the road surface on either side. Where site drainage patterns do not allow for raised crossings, this geometry may be adjusted with approval from the City of Austin.

3.7.2 Requirements for the Shoal Creek Trail



NOTES:
1. TRAIL SEGMENTS LESS THAN 12' IN WIDTH FOR LENGTHS OF GREATER THAN 100' MAY BE ALLOWED WITH APPROVAL FROM PUBLIC WORKS.

Figure 3.7.2: Shoal Creek Trail

3.8 Parking Requirements

It is important that The Grove at Shoal Creek provide ample parking to meet the needs of the project's users. The majority of the site's parking needs will be met in parking garages, residential garages, and with on-street parking within the site. Some off-street surface parking may be necessary to ensure the viability of specific retail uses. Off-street surface parking is defined as a vehicle parking lot consisting of at least 10 spaces where neither the parking space themselves nor the drive isle serving the spaces is located within the street zone. Off Street Surface Parking does not include parking in residential driveways. Parking for the Grove shall meet the following standards:

3.8.1 Off-street surface parking may not cumulatively exceed 400 spaces for the entire site. Compliance with this standard shall be determined at final site plan and shall not apply to prior site plans.

3.8.2 Off-street surface parking should generally be located beside or behind buildings and should not occur between a building section and its Primary Frontage as described in Section 4 of this document.

3.8.3 Off-street surface parking shall be constructed to meet or exceed City of Austin requirements for parking lot landscaping.

3.8.4 Off-street surface parking lots are encouraged to be designed such that the paved surface drains into landscaped parking islands and peninsulas.

3.8.5 Required ADA parking shall be no more than 250' from the site it is serving.

3.8.6 Parking on the site shall not cumulatively exceed the parking requirements of Appendix A of the LDC. Where a site plan includes a structured parking facility intended to serve future phases, the portion of that facility that exceeds parking requirements for that site plan must be barred from use until the future phase which it serves comes on-line.

3.8.7 Unless otherwise noted in this document, requirements of the City of Austin Land Development Code and Transportation Criteria Manual shall apply to parking in the project, including requirements regarding ADA parking, off-site parking, and design and construction standards.

The Grove at Shoal Creek**4.0 ARCHITECTURE****4.1 Intent**

Section 4 of The Grove at Shoal Creek Design Guidelines establishes standards and requirements for placement and design of buildings within the site. They are meant to ensure that buildings contribute to creating a walkable/ pedestrian scaled neighborhood and to establish the relationship/ placement of buildings to the variety of streets within the Grove at Shoal Creek. It is not the intent of this section to mandate any particular architectural style or character or to unduly limit creative expression. The intent of this section is to:

4.1.1 Ensure that buildings relate appropriately to surrounding uses and streets and create a cohesive visual identity and attractive pedestrian friendly streetscape.

4.1.2 Provide appropriate architectural direction to create a high-quality community development and streetscape environment.

4.1.3 Provide for a strong physical relationship between buildings and adjacent streets and sidewalks. Provide for convenient and easy pedestrian access to buildings

4.1.4 Provide design flexibility in building placement standards to allow for unique and diverse architectural expressions as well as for pedestrian-scaled uses such as outdoor dining terraces, porches, patios, and landscape features to enliven and enrich the streetscape environment.

4.1.5 Encourage buildings with appropriate human and pedestrian scale that create a sense of community. Building Architectural elements will be encouraged to help create gateways and public spaces and identify key intersections.

4.1.6 Encourage appropriate use of glazing, shading, and shelter to ensure that buildings contribute to the creation of a pedestrian-friendly environment with an active ground-floor experience.

4.1.7 Provide the flexibility necessary for diverse and well-articulated buildings throughout the site. Standards should encourage rather than hinder architectural creativity and expression.

4.2 Using This Section

Standards in this section are provided for the two Development Districts identified in Section 2: The Mixed-use District and the Residential District. If designing a building within a Tract where both districts are allowable, it will be up to the design team to determine which district is most appropriate for each building or site. For buildings where 10% or more of the gross square footage is dedicated to retail or office uses, and buildings where the primary frontage is the Retail Street, the Mixed-Use District must be used. Otherwise, this decision is fully at the discretion of the design team.

Standards for building placement are given in relationship to the Street Zone, Greenway Zone, or adjacent Park Space. Many building sites will be surrounded on three or more sides by such zones. For each building or site, it will be at the discretion of the design team to determine which of these is the Primary Frontage for the project. A Street Zone, Greenway Zone, or Park Space, may be selected to serve as the Primary Frontage. However, for sites bounded by the Retail Street, the Retail Street must serve as the Primary Frontage.

Bull Creek Road is the only public roadway abutting the project. Some standards are given in relationship to the Bull Creek Road right-of-way that will apply regardless of whether that is selected as the project's Primary Frontage.

The Grove at Shoal Creek

4.3 Building Placement

4.3.1 Mixed-Use District

- a. Buildings may be constructed immediately adjacent to the Street Zone, Greenway Zone, or Park Space. There is no minimum setback.
- b. The maximum setback for buildings along their Primary Frontage is 30'.
- c. At least 50% of a site's Primary Frontage must consist of continuous building façade constructed within the maximum setback described in 4.3.1.b.
- d. Shade structures and canopies are permitted to encroach into the Street Zone or Greenway Zone above 12 feet of height to provide shade and architectural interest. There is no limitation to the distance which shade structures and canopies may encroach into the Street Zone or Greenway Zone, and support posts are allowed within the Street Zone or Greenway Zone as long as they do not interfere with the required sidewalk. Shade structures and canopies shall not interfere with street trees at maturity.
- e. Occupied space in buildings above the first floor is permitted to encroach into the Street Zone or Greenway Zone above 12 feet of height to increase the developable area of the structure and provide architectural interest. This type of encroachment may be a maximum of 7' or 10% of the width of the combined Street and Greenway Zone, whichever is smaller. Buildings in the street zone shall not interfere with street trees at maturity.
- f. Buildings may not encroach into Park Space.
- g. Off-street surface parking is not permitted between the building and the Primary Frontage. (Note: off-street surface parking is allowed between the building and other Street Zones, Greenway Zones, or Park Spaces not selected as the Primary Frontage).
- h. Off-street surface parking is not permitted between any building and the Bull Creek Road right-of-way regardless of whether Bull Creek Road is the Primary Frontage of the site.
- i. For sites bounded by Bull Creek Road at least 50% of the site's Frontage on Bull Creek Road must consist of continuous building façade constructed within the maximum setback described in 4.3.1.b, regardless of whether Bull Creek Road is selected as the Primary Frontage.

4.3.2 Residential District

- a. Buildings in the Residential District may not encroach into the Street Zone, Greenway Zone, or Park Zone.
- b. Detached residences:
 - 1. The minimum setback from the Primary Frontage is 10'. The minimum setback for porches or stoops is 5'.
 - 2. The minimum setback for front-facing garages is 18'. Parking is allowed in the driveway of a front-facing garage.
 - 3. The maximum setback for the Primary Frontage is 25'.

c. Attached Residences (e.g. Townhomes, Row Homes, Duplexes, Multifamily Buildings)

1. The minimum setback from the Primary Frontage is 5' for the first floor only to allow for porches and stoops. There is no minimum setback above the first floor.
2. There is no minimum setback for porches, stoops, balconies, etc.
3. The maximum setback from the Primary Frontage is 30'.
4. At least 50% of a site's Primary Frontage must consist of continuous building façade constructed within the maximum setback described above.
5. Front-facing garages are generally discouraged but will be allowed where necessary. There is no minimum setback for front-facing garages is 5'. Parking is allowed in the driveway of a front-facing garage so long as that garage is set back a minimum of 18' from the Street Zone.
6. Tandem parking is permitted.
7. Off-street surface parking is not permitted between the building and the Primary Frontage. (Note: off-street surface parking is allowed between the building and other Street Zones, Greenway Zones, or Park Spaces not selected as the Primary Frontage).
8. Off-street surface parking is not permitted between any building and the Bull Creek Road right-of-way regardless of whether Bull Creek Road is the Primary Frontage of the site.
9. For sites bounded by Bull Creek Road at least 50% of the site's Frontage on Bull Creek Road must consist of continuous building façade constructed within the maximum setback described in 4.3.2.c.3 regardless of whether Bull Creek Road is selected as the Primary Frontage.

4.4 Building Design Standards**4.4.1 General Design Standards**

All buildings at The Grove shall meet the following standards:

- a. Generally, pedestrian entries to the buildings are encouraged as frequently as practical along all Street Zones, Greenway Zones and Park Space frontages. At least one major pedestrian entry must occur along the Primary Frontage.
- b. Ground floor residential units that are oriented toward the street should have direct access from the street where practical, via porch, stoop, or other entries. At a minimum, 50% of such units shall have direct entries from the street. Where feasible, Elevation of ground floor units should be slightly elevated above the sidewalk elevation. A range of 12-36 inches is considered optimal and should be utilized where feasible. However, site grading constraints may result in a wider range of acceptable ground floor elevations. Where these conditions exist, the building or first floor should generally be set back sufficiently from the Street Zone to allow for a porch, stoop, terrace, or other pedestrian access.

The Grove at Shoal Creek

- c. Ground floor retail uses shall generally have a height and depth sufficient to support the intended use and shall have at least one pedestrian entry along the street they are oriented towards.
- d. Parking structures, when utilized, should be designed to not dominate the built environment, and should be visually screened from the street through use of architectural treatment or green screens. Where possible, wrapping parking structures with buildings is encouraged.
- e. Building cladding materials shall be high quality and attractive. Preferred materials include Texas limestone or sandstone, smooth horizontal bevel or lap-siding fiber-cementous siding with mitre corners, smooth finish or painted brick, smooth finish stucco; or other similar or special materials where appropriate and complimentary to the overall context and character.

4.4.2 Mixed-Use District Standards

- a. Medium Density residential and commercial mixed-use building are strongly encouraged – they should be designed to extend and enliven the fabric of the streets. These mixed-use buildings and uses are not intended to be stand-alone buildings but an integral part and core of the Grove at Shoal Creek community creating ground level activity and neighborhood oriented uses. They will provide a scale transition to adjacent Townhomes and Single family districts of the master plan.
- b. For buildings whose primary frontage is the Retail Street, at least 70% of the primary frontage shall consist of pedestrian oriented uses, including retail, lobbies serving office uses, and lobbies, sales centers, or amenity areas serving residential uses. Buildings facades along the Retail Street that exceed 200ft in length shall have a building entrance at least every 100ft.
- c. Mixed-use buildings are encouraged to be designed with pedestrian friendly outdoor elements such as extended/projecting eaves for shade and the use of loggias, porches, terraces, and/or courtyards.
- d. For all uses in a Mixed-Use building, the minimum off-street parking requirement shall be 60 percent of that prescribed by the City of Austin Off-Street Parking and Loading Requirements. This reduction may not be used in combination with any other parking reduction.
- e. Glazing
 1. For non-residential uses on the ground floor along a building's Primary Frontage, at least 30% of the wall area of the first floor between 0 and 12' must consist of glazing.
 2. For residential uses on the ground floor along a building's Primary Frontage, at least 10% of the wall area of the first floor between 0 and 12' must consist of glazing.
 3. Along a building's Primary Frontage, at least 10% of the wall area for the second floor (if provided) must consist of glazing.
 4. Where a building faces any Street Zone, Greenway Zone, or Park Space that is not its Primary Frontage, at least 10% of the wall area of the first two floors must consist of glazing unless building code prevents windows on such facades.

4.4.3 Residential District Standards**a. Detached Residence**

1. On the front façade, at least 10% of the wall area of the first floor of detached residences must consist of glazing. The area of a front facing garage door is not counted in this calculation.
2. Use of porches, terraces, and other front-facing outdoor spaces is strongly encouraged.
3. Homes on corner lots should be designed so that architecturally attractive elevations are presented to both sides by using such elements as wrap-around porches, landscape design elements, massing, façade composition, and other design elements. If necessary when a garage faces a side elevation on a corner it shall be designed as an extension of the primary elevation.

b. Attached Residences / Multi-family Buildings

1. Grouping of townhomes/row homes shall have a minimum separation of 10ft every 180 ft or 8 units whichever is less. This separation shall allow for pedestrian access and circulation to/from alleys and through the neighborhood.
2. Townhomes/Row Houses on corner lots shall be designed and situated so that both street frontages are front facades; with corner elements and architectural compositions encouraged to create handsome facades on both sides.
3. Multi-family buildings are encouraged to be designed with pedestrian friendly outdoor elements such as extended/projecting eaves for shade and the use of loggias, porches, terraces, and/or courtyards.
5. Where a building faces any Street Zone, Greenway Zone, or Park Space, at least 10% of the wall area of the first two floors must consist of glazing unless building code prevents windows on such facades. The area of a garage door is not counted in this calculation.

The Grove at Shoal Creek

5.0 Site, Landscape, and Open Space

5.1 Intent

Section 5 of The Grove at Shoal Creek Design Guidelines establish standards to ensure that the landscape, park space, and open space elements within the project support the overall Guiding Principles of The Grove. Landscape elements throughout the project will be implemented in ways that enhance experience of the urban spaces, create high quality parks, and support environmental sustainability. The intent of this section is to:

5.1.1 Ensure the creation of high quality parks and common open spaces for the enjoyment of residents and visitors alike.

5.1.2 Ensure that the landscape within the streetscapes of The Grove provide shade as well as a quality environment.

5.1.3 Ensure screening of equipment and utilities.

5.1.4 Provide standards for lighting within The Grove to minimize off-site impacts.

5.1.5 Provide standards for signage within The Grove, allow signage as advertisement to support economic sustainability, and encourage signage that is pedestrian scaled and supportive of the urban vision for The Grove.

5.2 Parks and Open Spaces

5.2.1 Introduction

The park spaces throughout the site are meant to provide a variety of uses and activities to serve the area neighborhoods and create space for multi-modal and sustainable infrastructure. Park Space includes both publicly dedicated and privately owned but publicly accessible open spaces. As shown on the PUD Park Space Exhibit, the park spaces will consist of:

- The Signature Park (13 acres minimum) along Shoal Creek
- A public plaza within the Mixed-Use District
- A Greenbelt connecting the districts (ref. Framework section for guidelines)
- A trail corridor along Bull Creek Road (ref. Framework section for guidelines)
- A Neighborhood Park on Bull Creek Road

5.2.2 Signature Park

The Signature Park will be the largest park at The Grove and will house most of the site's mature oak trees. The following guidelines should be used in developing plans for the Signature Park:

- The park character should evolve from an urban, active edge on its west end with restaurants and townhomes to a restored natural area with trails and enhanced native prairie and grow zone on its east end as it approaches Shoal Creek.

Figure 5.2: Required Park Spaces

Section 05. Landscape and Open Space

- Amenities within the Signature Park should include, at a minimum, a children's playscape, paved trails, soft-surface trails, a wet pond with overlooks and picnic areas, an open lawn area and the Shoal Creek Trail on the east end of the project.
- Outside of trails and necessary parking, large areas of paving should generally be avoided in the Signature Park.
- Great care should be taken in preserving the existing trees in the Signature Park. While it is important to provide park users with access to the trees and the shade they provide, care should be taken when planning or constructing improvements within the critical root zone of existing trees.

5.2.3 Central Plaza

The Central Plaza will be the central urban gathering place within the project. The following guidelines should be used in developing plans for the Central Plaza:

- Provide plenty of shade with shade structures and shade trees.
- While heavy use will dictate large paved areas in the plaza, ensure green spaces are integrated as frequently as practical.
- Outdoor dining should be encouraged for restaurant uses surrounding the plaza. Kiosks are also encouraged.
- An interactive water feature is encouraged within the plaza.

5.2.4 Bull Creek Road Neighborhood Park

Situated around a grove of mature live oaks, the Bull Creek Road Neighborhood Park will provide a welcoming entrance into the residential portion of the site off of Bull Creek Road as well as a neighborhood amenity for the site and nearby neighbors. The following guidelines should be used in developing plans for the Bull Creek Road Neighborhood Park:

- Open lawn space for passive uses should predominate the park
- Amenities may include a picnic pavilion, a small children's play area, a garden area, sidewalks, and trails.
- Great care should be taken in preserving the existing trees in the Neighborhood Park. While it is important to provide park users with access to the trees and the shade they provide, care should be taken when planning or constructing improvements within the critical root zone of existing trees.

5.2.5 Pocket Parks

Pocket parks may be included throughout the site to provide small amenity and gathering spaces near homes and places of business. Where included, these pocket parks should generally be at least 10,000 SF in size and should include a range of passive amenities which may include:

- Open lawn
- Gardens
- Seating and picnic areas
- Small gazebos or shade structures
- Small gathering spaces

5.2.6 Other Green Spaces

Throughout the site there will be additional, dispersed green spaces. These spaces should take a form and character that complements the context in which they lie. Raingardens and other green infrastructure are encouraged to be included where feasible and appropriate within the overall drainage of the site.

5.2.7 Greenbelt and Trails

Reference Section 3

The Grove at Shoal Creek



5.3 Landscape and Streetscape

5.3.1 Landscape Character and Plant Selection

- a. Landscape applications should complement the context in which they are located. For example, landscape in an urban setting may include more intensive treatments. Landscape in the parks and green spaces should have a natural look with lawns and organic planting patterns among the existing trees. Landscape in the residential areas should focus on creating a sense of safety and community with well maintained and diverse plantings.
- b. Native and drought tolerant plant species should be used as much as possible in order to support to the project's sustainability goals. A minimum of 95% of non-turf plant materials on any project should be from the Austin Grow Green Guide or should demonstrate equal appropriateness to the Austin environment.

5.3.2 Street Trees

- a. Street trees shall be provided as specified in the Framework Section. Spacings specified are intended to be approximate and may vary based on infrastructure, intersections, driveways, utilities, etc.
- b. Street trees shall be a minimum of 3" caliper measured 6" above the base at the time of planting. Street trees may be counted toward requirements for mitigation of existing trees.
- c. Street tree species should vary throughout the site. While a single street or project may contain a monoculture of trees, no single species should represent more than 25% of street trees planted at The Grove. This requirement is intended to apply to the site as a whole and should not apply to any one street, project, or site plan.

5.3.3 Green Infrastructure

- a. Raingardens, Bioswales, and other green infrastructure elements shall be designed and landscaped to create a well-maintained and visually appealing character.
- b. Green infrastructure elements shall be planted in accordance with the City of Austin Environmental Criteria Manual, in effect on the date of approval of these guidelines.

5.3.4 Tree preservation and replacement

- a. Tree preservation for this project is dictated by the approved PUD Ordinance.
- b. All healthy, non-invasive trees on site should be preserved to the extent feasible, unless those trees are creating a negative impact on higher value trees (e.g. located too closely together causing competition for space and nutrients). Removal and mitigation of these trees is governed by the Tree Disposition Plan attached to the PUD.
- c. Preservation of trees shall be in accordance with the City of Austin Code and Environmental Criteria Manual.

5.3.5 Street Furniture and Paving

- a. Furnishings such as benches, trash and recycling receptacles, etc should be placed within the high pedestrian traffic areas and transit stops at intervals which ensure convenience and comfort.
- b. The aesthetics of the site furnishings should create a cohesive theme throughout the project. But may vary depending on context. For example, furnishings may be a more contemporary style in the urban plaza and a more classic style along trails in the signature park.
- c. Special pavement applications are encouraged in plaza areas, other specialty pedestrian areas, and may be used to help delineate pedestrian crossing. Permeable pavers or porous pavements may be considered where possible.

5.3.6 Screening of Equipment and Utilities

- a. All mechanical equipment and utilities, with the exception of solar panels, will be screened from view from the streets by either landscaping or decorative enclosure.
- b. Loading docks, truck parking, outdoor storage, trash collection, trash compaction, and other service functions shall be incorporated into the overall design of the building and landscape so that the visual impacts of these functions are contained and out of street-level view from adjacent streets and street zones. Screening materials for solid waste collection and loading areas shall be the same as, or of equal quality to, the materials used for the principal building. These functions may be placed along commercial alleys without the necessity of screening from the alley.

5.3.7 Walls and Fences

Fencing is allowed on site and is generally encouraged where necessary to define private spaces and create necessary boundaries between uses. Fencing in the residential zone shall meet the following standards:

- a. Fences or walls located at the sides or backs of buildings are permitted and may be up to 7 feet in height. These fences shall be constructed of wood, decorative metal, masonry, or other quality materials.
- b. Fences located between the front of buildings and the street zone are allowed in the Residential Zone only to define private front yard spaces. These fences must be no greater than 4' in height and must be constructed of wood, decorative metal, masonry, or similar quality material. Height limit is not inclusive of any retaining walls.

5.4 Exterior Lighting

5.4.1 Street and Area Lighting

Lighting is an important component to site safety. Street lighting should provide light for both the vehicular lanes and pedestrian sidewalks. Lighting along pedestrian paths and within parks should meet minimum safety standards in all locations where night use is expected.

All site and area lighting shall limit off-site impacts by meeting the following requirements based on the International Dark-Sky Association / Illuminating Engineering Society Joint Model Lighting Ordinance published in 2011, and utilizing the BUG rating system. The BUG rating system consists of three components: B (Backlight), U (Uplight), and G (Glare). The following requirements are for all site and area lighting fixtures on site:

- a. The maximum allowable Uplight rating shall be U2. Fixtures that do not have a BUG rating but are rated as Full Cut-off shall be assumed to be in compliance with this requirement.
- b. For fixtures located less than 2 mounting heights from the boundary of the The Grove at Shoal Creek, the maximum Backlight rating shall be B2.
- c. For fixtures located less than 2 mounting heights from the boundary of The Grove at Shoal Creek, the maximum Glare rating shall be G1.
- d. Where the site abuts Bull Creek Road, the centerline of the road shall be considered the boundary of The Grove at Shoal Creek for the purposes of determining compliance with the above requirements.

5.4.2 Accent Lighting

Lighting is also a useful tool for enhancing architectural and landscape aesthetics and enjoyment of a site. Accent lighting should be utilized to highlight trees, architectural elements, landscape elements, artwork, and other unique features as appropriate, especially in the public plaza and along the Retail Street. The following regulations will govern accent lighting:

a. Directional Luminaires

Directional Luminaires may be used to illuminate signs and flagpoles. Such luminaires shall be installed and aimed so that they illuminate only the specific object or area and do not shine directly onto neighboring properties or roadways.

b. Landscape Lighting

Uplighting and downlighting of trees, artwork, kiosks, and other landscape features shall be allowed. Landscape lighting fixtures must be 24 volts or less unless they are directed downward and shielded.

c. Lighting of Building Facades

1. Downlighting of buildings and structures is permitted if fixtures are fully shielded or full cut-off or if they meet the requirements below for Uplighting.
2. Uplighting of building facades should only be used to highlight specific architectural features such as principal entrances, corners, terminus elements, and towers, and allowed in the Mixed-use District only. Luminaires used for uplighting are limited to 100 Lumens per linear foot of façade to be lit (measured horizontally), unless the fixture is 24 volts or less.
3. Direct view fixtures are permitted in the Mixed-use District on building facades and are limited to 250 lumens per linear foot of fixture.

d. Festoon Lighting

String lights and festoon lighting are permitted over roadways and in outdoor use areas within the Mixed Use District as temporary or permanent installations.

5.5 Signage

5.5.1 Free Standing Signs

a. Community Identity Signs

For each major entry to The Grove, two permanent subdivisions identification signs with combined sign area of not more than 128 square feet and height not exceeding 6 feet are permitted.

b. Commercial Multi-tenant Signs

Up to two (2) multi-tenant signs are allowed for The Grove at Shoal Creek development. These signs are subject to the following standards:

- A maximum area of 250 square feet
- A maximum height of 20'

c. Project Identity Signs

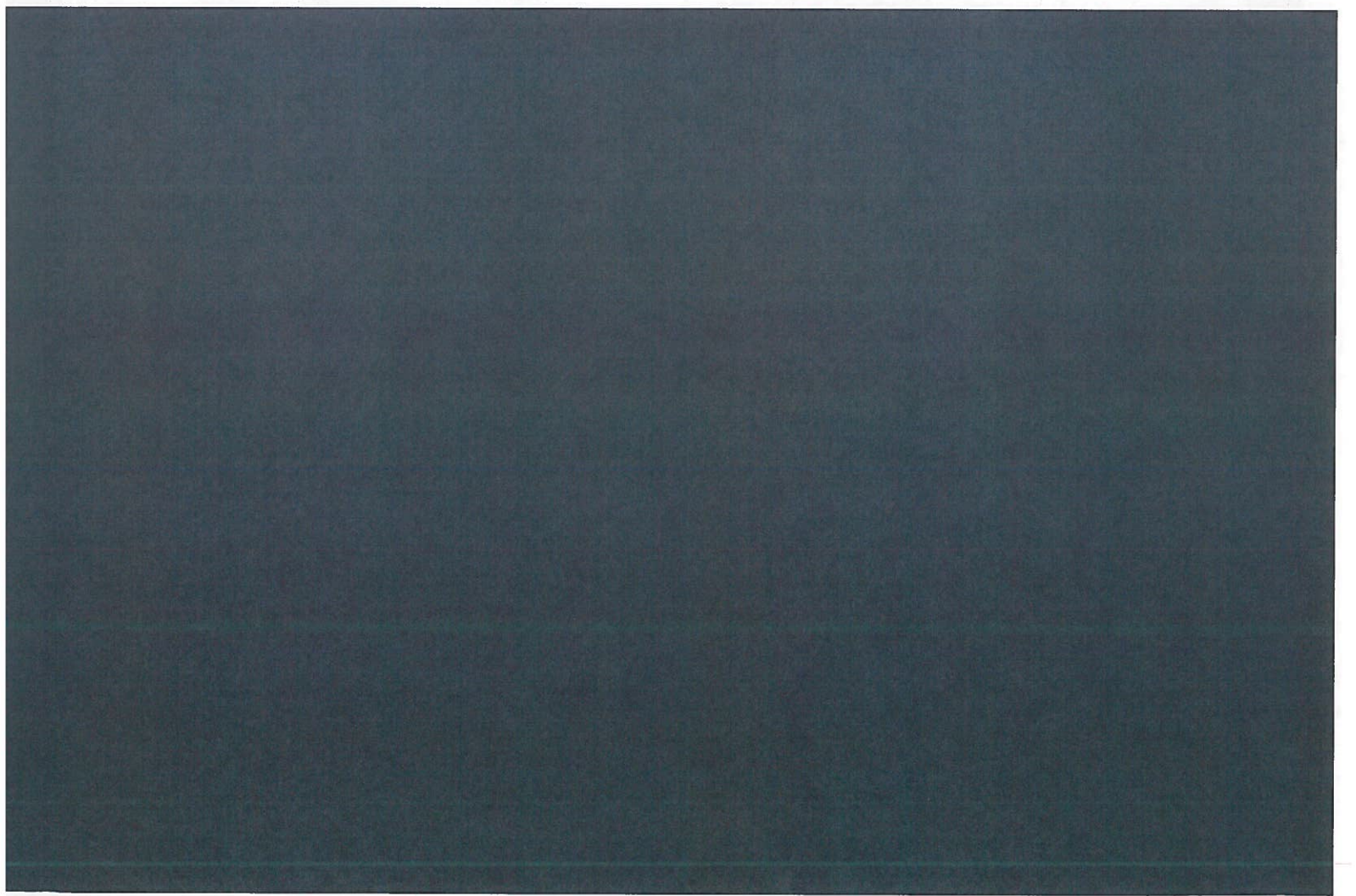
For each building containing a non-residential use or more than one residence, a free standing sign is permitted on the same lot. This sign shall not exceed 35 sf in area or 6' in height.

5.5.2 Building Signs

Building signs are permitted on all buildings within The Grove except detached single family residences. Blade signs, awning signs, under-canopy signs, heraldic signs, and letter-mounted signs are encouraged. The total sign area on any building shall not exceed 20 percent of the façade area of the first 15 feet of the building.

5.5.3 Non-permanent Signs

Signs such as commercial flags and street banners add vibrancy and character to the street scene and reinforce community events and programs. These temporary signs are permitted within the borders of The Grove without restriction.





CONCEPTUAL PARKS PLAN
THE GROVE AT SHOAL CREEK

EV Commission Progress:

1. *Obtain superiority in regards to parkland by working with the Parks and Recreation Board and the Parks and Recreation Department*

Update: The applicant is in a continued dialogue with PARD on this subject. An updated proposal was provided to PARD on 6/7/16. The applicant is committed to working with PARD to achieve this superiority and anticipates that further discussions will be warranted.

2. *Comply with at least three star green building requirements*

Update: Austin Energy prefers a 2-star requirement for logistical, permitting and process reasons, as explained in its memo. A 3-star determination is typically made *after* a building is occupied and operating. This creates an implementation challenge if that rating is a requirement for approval of the building. The project team will endeavor to achieve a 3-star rating where practical, but agrees with Austin Energy's request that a 2-Star rating be the PUD requirement.

3. *Create a drainage plan to ensure the safety of the surrounding properties.*

Update: The drainage concerns seem to be most specifically in regards to the homes on Idlewild that back to the project. While the applicant has already carefully considered these homes in our preliminary drainage studies, we are willing to make the following additional commitments:

- a. No stormwater from any surface north / west of the existing berm will be allowed to drain to the property boundary of the Idlewild homes in a 100-year storm.
- b. The surface area of land south / east of the existing berm that currently drains to Idlewild (approximately .89 acres) will be reduced, and will be comprised of building setback area, thereby decreasing the amount of drainage area that currently drains to the property boundary of the Idlewild homes.
- c. At least 50% of the existing drainage area that drains to the existing berm and swale system (approximately 20 acres) will be captured and diverted upgradient from the new roadway that parallels the Idlewild property line, thereby significantly reducing the drainage area that is currently draining to this area.
- d. Drainage system on site will be designed to convey the 100-year storm to the water quality pond or existing storm sewers and away from the Idlewild homes.

4. *Draft a contingency plan to ensure the safety of the surrounding properties.*

Update: The proposed drainage plan and City code are adequate to ensure the safety of surrounding properties. The additional design commitments set forth above will further ensure this safety.

The applicant would also point out that the drainage system will be designed to the City's current, rigorous drainage standards, and also extensively reviewed and inspected by the City. The drainage system will be located within easements and subject to restrictive covenants that will both allow for and require the repair, replacement and upgrading of the drainage system as needed. Once designed, reviewed, permitted, constructed, and inspected, in the very, very unlikely event that the drainage system encounters problems, both the City and a property owners association (with the

ability to levy assessments) will have all means necessary to address any such problems through these easements and restrictive covenants.

5. Remove Flex Space from the Parkland

Update: This is a component of our ongoing discussions with PARD, and was included in our updated proposal on 6/7/16.

6. Evaluate the impact that increased traffic to the site would have on air quality and noise pollution.

Update: While the City has not established standards or criteria for evaluating these impacts, Environmental Staff has asked that Air Quality staff evaluate the proposal and specifically the data and analysis provided by the applicant in its June 1 presentation. Unfortunately, ATD declined to have the Air Quality Program staff review the potential air quality impacts of the project. The analysis provided by the applicant in its June 1 presentation is attached.

7. Protect 100% of the critical root zone of all trees.

Update: There are two components to this request. Protecting 100% of all trees on site is not feasible on this site and would work directly against the goals of providing the maximum possible protection for the highest quality trees and most environmentally sensitive areas of the site by clustering development away from these areas. We have committed to protecting at least 75% of the protected size trees on site, which is established in the code as a Tier 2 Superiority item, and exceeds the standard met by the vast majority of development projects in Austin.

Protecting 100% of the CRZ of trees that are being protected on site is a standard that unnecessarily and infeasibly exceeds both the already far superior Tier 2 PUD item and best established practices for tree protection. It is an excessive standard that exceeds what is needed to protect the health of existing trees. We have committed to protecting at least the $\frac{3}{4}$ CRZ of many key trees on site, a standard which far exceeds code requirements, Tier 2 PUD items and the health requirements of the existing trees, as established through arborist review of specific trees on site.

Austin's Heritage Tree Foundation applies a very high standard for the protection of trees and spoke in favor of the proposed Tree Plan at the prior commission meeting. The conditions for their support, which the applicant has agreed to, include:

- a. Prioritizing air spading, root pruning, and other best practices for the required tree care plans.
- b. Requiring that any cuts within the $\frac{3}{4}$ CRZ be made with air spades in the Signature Grove.
- c. Preventing utilities from the full CRZ of the Signature Grove.
- d. Requiring decks or root spanning constructions in high use areas around trees.

These conditions will be included in the final zoning document. Updated Tree Disposition Plan, Code Modification Table, and Tier Compliance Table are attached here with proposed revisions to meet these conditions.

8. List all the trees on the property including those 8-19".

Update: A full survey is attached including 8-19" trees.

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.*

Update: The applicant has been in discussions with Capitol Metro since the early stages of the project. The #19 bus route currently serves the site and the project will greatly improve the viability and ridership of this underutilized route. We are also examining options for shuttles to the BRT routes on North Lamar and other Transportation Demand Management strategies. A letter from Capitol Metro regarding our ongoing dialogue is attached.

In addition, the applicant contends that trip reduction is an already inherent feature of this mixed-use, urban infill project that has not been recognized by City in the traffic generation assumptions. The traffic generation assumptions imposed by the City staff as part of a very conservative analysis, provide a far smaller credit (very, very little actually) for internal capture and bicycle and pedestrian trips than the City's own Transportation Criteria Manual and accepted standards would allow. As a result, the applicant believes the trip generation numbers assumed by the City are already as much as 50% higher than they should be. Higher density, mixed-use urban infill development in and of itself is a recognized and established method of reducing trip generation.

10. *Reduce the total development to 2.1 millions square feet.*

Update: The reduction in square footage was not discussed or requested by staff or public speakers during the commission meeting and the applicant is unclear as to the purpose of the request. A reduction in total square footage is not a position item sought by the BCRC and would result in a reduction in residential units. As such, a reduction of this magnitude would dramatically decrease both affordable housing and parkland requirements for the site per code. Specifically, a 300,000 square foot reduction in density bonus (from the staff's recommendation of 2.4 million square feet) equates to a reduction of 42 affordable housing units that could be required under the PUD density bonus requirements. The staff recommended reduction in square footage already greatly impacts the project, and the additional massive reduction being proposed by the commission's motion would frankly so greatly reduce any benefit of PUD zoning to the applicant so as to make PUD zoning infeasible. Furthermore, it is unclear as to how this is an environmental consideration. We look forward to discussing the overall density of the project and corresponding benefits with the Land Use Commission and City Council.

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.*

Update: Preliminary mapping of the erosion hazard zone and ECM requirements for armoring and erosion hazard zone impacts have been considered in the applicant's proposals. In addition, we are working on a more detailed study of the erosive conditions along the creek with staff.

However, it should be noted that the applicant is not responsible or the cause of any current or future erosion of the Shoal Creek frontage as confirmed by staff. The erosion in Shoal Creek is due to undetained runoff upstream of the site, including runoff from existing development where no detention was ever established. Even if the entire 76 acre site owned by the applicant were turned in to a park or a detention pond, erosion and its impacts in this area would still occur. Given that the project will neither cause nor contribute to erosion, the applicant is simply not responsible for addressing erosion

caused by existing up stream development as a matter of current code or in order to be superior to current code as has already been established by City staff.

In addition, erosion in a creek caused by the flow of water in the creek is a natural consequence of that flow. City staff has indicated that a creek will naturally find its channel and, once it does, further erosion will be limited especially if natural riparian areas are maintained. As the applicant understands Texas law, the City will have no liability for such erosion, whether to a private owner or to PARD upon dedication, unless that erosion is the result of an intentional and deliberate act of the City to cause unnatural erosion. As a result, merely accepting land that the City desperately wants as parkland would not appear to trigger some liability on the City to perform expensive erosion mitigation.

Here, while staff's preliminary analysis is ongoing, initial information from the City indicates that most (if not all) of the erosion will occur in the 25-year floodplain and 100-year floodplain (especially where there is a bend in the centerline of the creek) – areas where no and almost no parkland credit is given. In fact, the riparian "grow zone" established by the project will actually help protect the creek from further erosion once the channel is established. To the extent, there is minor erosion caused by upstream properties within the CEF buffer or CWQZ, these areas have also been excluded from parkland calculations. Finally, even if there is minor erosion caused by upstream properties in the "grow zone" area, that erosion is likely to have a minimal (if any) impact on that area's use for passive recreation and for soft trails and benches to support hiking in the area. In any case, PARD staff has consistently and significantly minimized this area's importance to the overall park.

Air Quality Data for The Grove

Regional Air Quality benefits for the Grove should be considered in light of the transportation benefit of mixed use, connected, infill developments as well as locating housing supply close to job centers. The Grove development plans meets the following guidance from various environmental agencies:

Washington State Department of Ecology

- Development patterns that locate jobs, housing, and recreation in close proximity increase the use of alternative forms of travel, such as walking, biking, and mass transit.

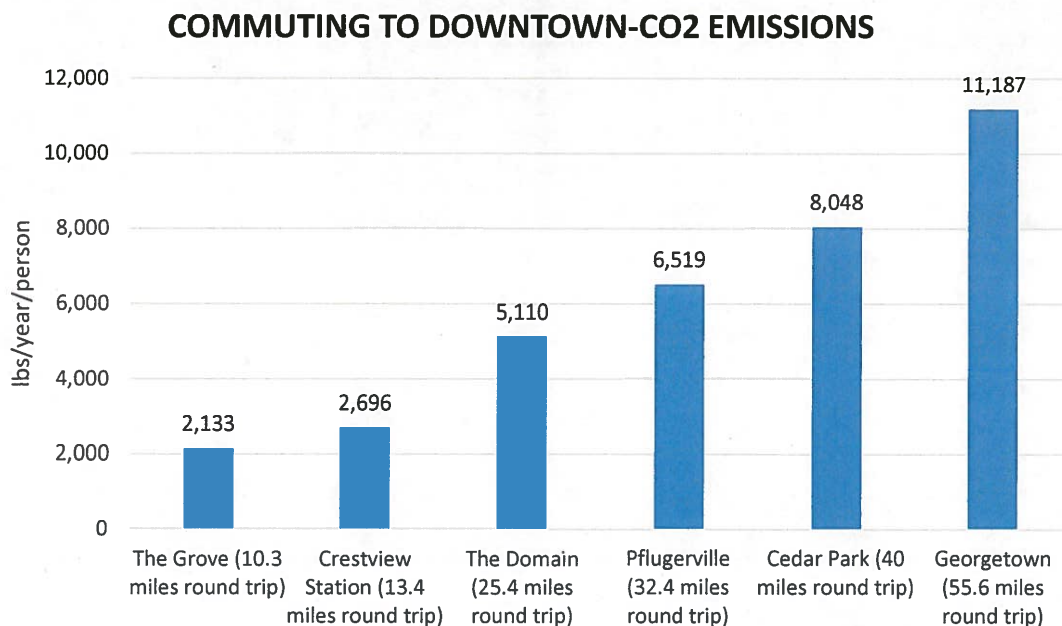
Transportation Benefits

- Internal Capture Trip – Trip made between land uses in a mixed use development. Trips do not use the street network outside the development.
- EPA Smart Growth Strategies – “Research Consistently shows that neighborhoods that mix land uses, make walking safe and convenient, and are near other development, allow residents and workers to drive significantly less if they choose. In fact, in the most centrally located, well designed neighborhoods, residents drive as little as half as much as residents of outlying areas.”

EPA: Improving Air Quality Through Land Use Action

- Encourage pedestrian and transit travel by creating nodes of high density mixed use development.
- Infill and Densification – Encourage pedestrian and transit travel by locating new development in already developed areas, so activities will be closer together.
- Interconnected Street Network: Encourage pedestrian and bicycle travel by providing more direct routes between locations.
- Pedestrian and Bicycle Facilities.

The chart below assumes a round trip drive commuting to work downtown, the densest employment center for Austin, for a year from different housing locations:



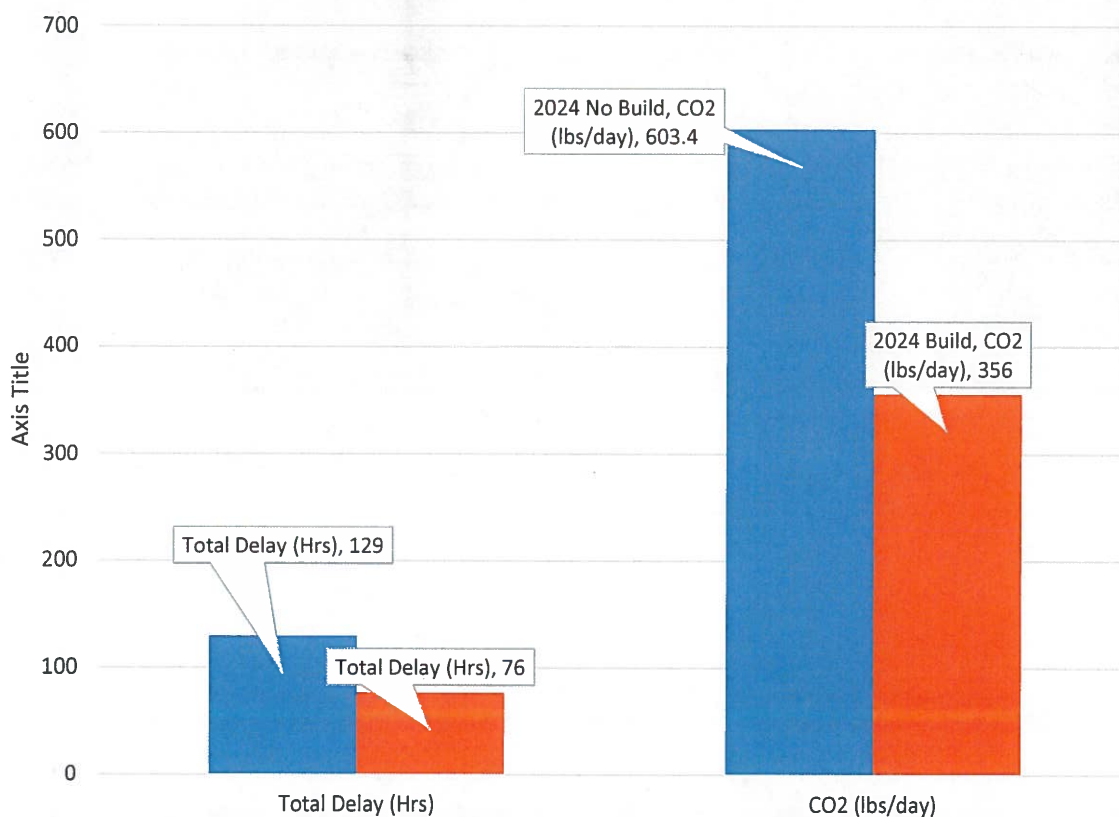
Besides the benefits of the type and location of the Grove, improvements are proposed to the intersection of Bull Creek Road and 45th Street which will decrease delay and overall vehicle idle time at the intersection. The chart and table below shows the reduction in CO2 emission of idling cars at the intersection due to intersection improvements.

Trips and delay time data are taken from the TIA performed for the Grove at Shoal Creek

45th Street/Bull Creek Intersection Comparison					
PM Peak Hour					
	Vehicles	Avg Delay (sec)	Total Delay (Hrs)	CO2 (lbs/day)*	CO2 (lbs/yr)*
2024 No Build	2,615	95.7	69.5	324	
2024 Build	3,536	36.2	35.6	166	
		Delta Subtotal:	34.0	158	
AM Peak Hour					
	Vehicles	Avg Delay (sec)	Total Delay (Hrs)	CO2 (lbs/day)*	CO2 (lbs/yr)*
2024 No Build	2,332	92.3	59.8	279	
2024 Build	3,198	45.8	40.7	190	
		Delta Subtotal:	19.1	89	
		Delta Total:	53.1	248	90,386

* CO2 rate of 0.588 g/s based on emissions of 2011 Ford Fusion mid sized sedan, 2.5 L 4-Cylinder

2024 Build vs. 2024 No Build



**MEMORANDUM**

To: Garrett Martin, Milestone Community Builders & Caitlin Admire, Norris Design
From: Louis Alcorn, Capital Metro Planning
Date: 9 November 2015
Subject: RESPONSE - Site Evaluation for Potential Future Bus Stop Placement (*The Grove at Shoal Creek*)

Mr. Martin and Ms. Admire:

This is a follow up to our conversation regarding your project proposed along Bull Creek Road south of West 45th Street, *The Grove at Shoal Creek*. As you know Capital Metro currently operates one bus route, bi-directionally along Bull Creek Road, with fully accessible bus stops already located within the vicinity of your project's extent. Currently, Capital Metro is conducting a holistic service plan update (*Connections 2025*) during which all routes will be evaluated in terms of productivity, efficiency, and equity with respect to Austin's rapidly changing urban environment in order to recommend service changes and/or expansions to be implemented in the next five to ten years. The 19-Bull Creek route will be evaluated in this process and staff remains optimistic that transit-supportive densities in the form of new development should lead to increased ridership along this corridor.

Regarding your question concerning the flexibility of moving or redesigning certain bus stops to better serve future residents, we would be interested in working with you to identify suitable areas for new and improved bus stops. Our current stops within proximity to the project extent (identified on the attached map) exist in the following locations:

- Northbound (NB): Along Bull Creek Rd. at West 45th St., Jackson Ave., and West 39th Street
- Southbound (SB): Along Bull Creek Rd. at West 44th St., Jackson Ave., and West 40th Street

As per the Fall 2015 Update to our Service Guidelines and Standards, stop spacing in an area with medium density should generally be a minimum of 1,200 feet. This being said, the following map depicts our proposed bus stop placements, including the potential to relocate the W 45th & Bull Creek NB stop up to 300 feet south of its current location.

Bus stops should be approximately 25 feet in length by 10 feet in width and incorporated into the sidewalk. A larger area of approximately 15 feet in width (perpendicular to the road by 50 feet in length (parallel to the road) surrounding the stop should maintain a level slope to ensure that all ADA slope requirements are met.

What I have suggested here is based on what we know today and what is depicted in your site plan. We would want to continue to work with you as you develop your plans to help in refining these suggestions as you move forward.

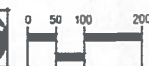
Louis Alcorn
Capital Metro – Planning
(512) 389-7491



JHP

NORRIS DESIGN

The Grove at Shoal Creek
Austin, Texas



NORTH SCALE: 1"=100'
*Not a final site plan