



MEMORANDUM

TO: Assistant City Manager Robert Goode

FROM: Robert Spillar, P.E.
Austin Transportation Department Director
City Transportation Engineer

DATE: September 12, 2016

SUBJECT: **Proposed Grove Development
Technical Analysis Report On Traffic Review Process**



The purpose of this memorandum is to provide a technical analysis report of the Traffic Review Process performed under the supervision of the office of City Traffic Engineer and respond to specific questions asked of the analysis.

Development Phasing:

The Grove is a unique development in that it was previously owned by the State of Texas and therefore had no City of Austin zoning prior to its sale. The developer has proposed Planned Unit Development (PUD) zoning so that they can have greater assurances as to their final investment. Once zoning is established, PUD or otherwise, the development will then move to the site development stage. Staff review of the mobility attributes occurs at both stages of development, zoning and site development. **At the zoning stage of development, it is incumbent on the developer to show plausible concepts to mitigate the estimated transportation impacts caused by the development. They are required to provide a proof of concept for mitigation. Perfection of those mitigation concepts occurs during final design.** At the site development stage, design-tested mitigation solutions are presented to support the concepts proposed at zoning.

As part of the Grove Traffic Impact Analysis (TIA), a traffic phasing agreement is included as an integral part of the recommendation. The traffic phasing agreement becomes part of the restrictive covenant on the property. The phasing report describes specific traffic outcomes that are to be achieved prior to the attainment of certain development rights and milestones. As the project enters the project development phase, and if additional design level mitigation is determined to be needed, the City Traffic Engineer has the right to demand those modifications. **In other words, the developer is locked into the mitigation concept included in the recommended TIA and has to demonstrate through geometric design that the development can achieve the mitigation levels prior to receiving a site development permit for each phase of construction. The phasing agreement requires installation of all mitigation prior to the development exceeding 2000 trips per day (below 2000 trips per day, the development may proceed without constructing mitigation per code allowances). Because the site plan must be approved prior to the start of construction, the City maintains its authority and leverage over the development to achieve the necessary mitigation.**

For example, the proposed mitigation at the intersection of Bull Creek with 45th Street will result in two left turn lanes, a through lane and a right turn lane with sidewalks and bicycle accommodations. This design as recommended in the TIA will likely require additional right-of-way on the southeast corner. It is typical to

require a developer to donate the right-of-way necessary for mitigation at the time of PUD designation. However, when the necessary right-of-way is not currently owned at the time of PUD designation, the developer can be allowed to proceed at his/her own risk. In the case of the Grove, the developer can proceed at his/her own risk that they will not obtain the necessary right-of-way to complete the identified mitigation project. The City is protected for the Grove project through the traffic phasing agreement which limits the development to 2,000 trips per day if the identified mitigation is not delivered.

If for whatever reason a developer cannot deliver the mitigation in the manner proposed in the TIA, the developer may propose alternate designs or alternative delivery methods to achieve the level of required mitigation identified in the TIA. The developer remains locked into the level of mitigation in terms of outcomes identified in the TIA (intersection performance, trip production, etc.), even if alternative methods are employed. This sets a high bar for substitution of any mitigation by the developer.

The amount of mitigation required of a development must be commensurate with its impact on the system. This principal is known as rough proportionality and requires each development to pay its roughly proportionate amount of the cost of improvements needed for the surrounding networks as determined by the City Traffic Engineer. Funding from this calculation can only be used on new capacity improvements that are determined to have a benefit to the development.

The city is also bound by historical practices with regards to establishing developer participation rates. The local practice of pro rata share has been used for decades in setting mitigation levels and has often resulted in lower levels of developer participation as compared to the calculated rough proportionality.

When the Grove development was first presented to ATD reviewers for consideration, the developer approached it from the pro rata share perspective, yielding an offer of \$750 thousand in proposed mitigation. Because of the diligence of ATD review staff, mitigation proposed as part of the recommended TIA is nearly \$3.2 Million and includes major improvements to Bull Creek Road, a new public street through the development, bicycle improvements, a major multi-purpose trail connection across Shoal Creek, and many safety enhancements. This increased level of mitigation is directly the result of the coordinated review effort by front-line and management staff throughout the process. All have been at the table throughout the process. There has been no truncating of any review process as has been alleged. The increased commitment funding for mitigation by the developer, resulting from the comprehensive involvement of both front line staff and management, is evidence that the process was complete and inclusive.

Traffic Analysis:

As part of the staff review process, ATD traffic engineers reviewed trip generation, trip distribution and assignment, traffic operations, and preliminary geometrics:

- Trip Generation:
Trip generation from the proposed development was reviewed to assure adherence to the trip generation rates for the proposed land uses, as approved through the TIA scoping process. Transit and non-motorized trip assumptions included in the TIA were reviewed during trip generation review and confirmed for validity. **It is my professional engineering opinion as the City Traffic Engineer that the trip generation documented in the recommended TIA is appropriate.**
- Traffic Distribution and Assignment:
Trip distribution and network assignment of those trips identified for the proposed development were reviewed as part of the TIA analysis to verify the underlying assumptions were practical,

based on the location of the proposed development and existing adjacent transportation network. **It is my professional engineering opinion as the City Traffic Engineer that the traffic distribution and assignment assumptions documented in the recommended TIA are reasonable.**

- Traffic Operations:

Traffic operational analysis included in the TIA was reviewed by City staff. Traffic analysis included intersection capacity analysis (i.e., volume/capacity ratios, level of service calculations, vehicular delay, and queuing analysis at all intersections included within the scope of the TIA). Different traffic scenarios (AM and PM peak hours) were reviewed to identify the impact of the site traffic from the proposed development on the adjacent roadway network.

Mitigation improvements proposed to address traffic capacity issues were reviewed for adequacy based on the post development traffic analysis presented with the TIA. Review of proposed mitigations included optimization of signal timing at signalized intersections, additional turn-lanes at intersections, extension of turn bays to address potential queuing issues, additional traffic signals, and additional traffic control at driveways. Review of proposed mitigations were based on the post-development traffic analysis (volume/capacity ration, level of service, vehicular delay, and queuing analysis) for all the intersections as presented in the TIA scope. **It is my professional engineering opinion as the City Traffic Engineer that the traffic operations and resulting modifications to the transportation network adequately mitigate the mobility impacts of the development.**

- Geometric Review:

As part of the TIA review process, a geometric review was conducted to assess the proposed mitigations. A conceptual design of 45th Street at Bull Creek Rd intersection (Option 2 dated December 15, 2015) was submitted by the applicant (as per a developer transmittal, dated March 25, 2016) showing the proposed improvements at the intersection. The conceptual design included the use of potential right-of-way that is currently not owned by the developer.

The conceptual network design also includes the proposed alignment of a multi-use path east of Bull Creek Road (northbound) and an on-street protected bicycle facility in the southbound direction. Additionally, truck turning templates for the proposed northbound dual left turns at this intersection were reviewed.

Through the geometric review, the developer has made city traffic engineers aware of an existing geometric issue at the southeast corner of 45th Street and Bull Creek. Without the improvements proposed as mitigation by the developer, northbound single-unit panel trucks (the design vehicle used for analysis of truck maneuverability within the urban parts of Austin) cannot make a right turn and stay within their assigned lane. This creates the potential for crashes as the truck tries to maneuver around the substandard turning radius by intruding on adjacent or on-coming lanes. Although this situation exists throughout many of our older neighborhoods, identification of this deficiency now puts the city on notice of an existing network geometric safety issue that should be addressed. The geometric design at the intersection of 45th Street and Bull Creek, proposed by the developer, corrects the existing safety concern of the overly small right-turn turning radius. Since this is an existing condition, if the proposed mitigation is not achieved, it is incumbent on the City

Traffic Engineer to address the existing identified safety issue of insufficient turning radius for a single-unit vehicle to maneuver safely.

In my professional engineering opinion as the City Traffic Engineer, the geometric improvements proposed in the recommended TIA are adequate to mitigate the impacts of the development. Furthermore, implementation of the multi-use trail provides pedestrian east-west capacity that is constrained today on 45th Street.

Technical Tools:

Questions related to technical process and tools have also been raised. These include the selection of land use based trip production rates documented in the TIA (TIA Table 1), questions related to the transit assumptions, extension of Jackson Street, and the submission of a TIA Amendment by the developer.

- SYNCRO Files:

As part of our standard review process, we request SYNCRO traffic simulation files from developers when they prepare a TIA. Professional traffic engineers, under the supervision and authority of the City Traffic Engineer request and analyze these files to verify the information summarized by the developer in the TIA. Staff also use the files to test assumptions and input information asked of the developer, and may generate an array of outcomes to consider before making a recommendation.

SYNCRO is a proven tool for analyzing traffic operations. The typical analysis approach is to first model existing conditions and then project a future “no-build” based on the existing condition network and funded transportation projects. The no-build condition represents the future transportation conditions in the absence of the proposed development (i.e., a no-build scenario). The future “build condition” model runs represent the future transportation conditions with the proposed development in place (i.e., after the development is built). Traffic projections for the build condition is compared to the no-build condition. Differences between the build and no-build condition define the projected impacts caused by the development. These estimates of impacts are used by licensed engineers to plan and design mitigation for the development. Input assumptions to the SYNCRO modeling tool are based on professional engineering guidelines such as the *ITE Trip Generation Manual*, and professional judgement.

SYNCRO is simply a tool used by transportation reviewers to form a professional opinion. Input assumptions as well as output measures and simulations are summarized in the TIA to explain the opinion of the engineer. ATD traffic engineers typically request the electronic copies of the SYNCRO runs from the developer and use them with the permission of the applicant to check inputs, geometric assumptions, intersection characteristics, test alternative solutions, and to evaluate the reasonableness of the mitigation proposals. These files represent intellectual information developed and owned by the applicant.

ATD professional engineering staff reviewed the inputs and outputs of the SYNCRO files provided by the Grove developer. ATD staff determined that the use of the SYNCRO model by the applicant’s engineer was reasonable and responsible. I believe that the appropriate amount of due diligence was applied to the TIA submittal. **In my professional opinion as the City Traffic Engineer, I believe that the resulting mitigation proposed by the developer resulting from the use of SYNCRO adequately mitigates the proposed development.**

- Trip Generation Rates:

The transportation industry relies on the *ITE Trip Generation Manual* as a proven accepted methodology for estimating trip generation rates of future land uses. In the absence of local data, this national standard provides a consistent approach for traffic impact analyses. The manual provides two basic approaches for estimating trip generation: use of regression equations or the use of weighted averages. The *ITE Trip Generation Manual, Volume 1, Chapter 3.3 Guiding Principles, p.9* provides guidance on when to use regression equations and when to use weighted averages (curve diagrams) for land uses when estimating trip generation rates. Engineering practice, including the City of Austin’s standard practice, is to follow the ITE guidance which is based on the number of observations incorporated into the statistical analysis provided by the manual.

ATD traffic engineering staff reviewed Table 1 upon receipt of the TIA. When concerns related to the accuracy of values in this table surfaced, ATD staff again completed an additional supplementary review of each entry in the TIA’s Table 1 related to trip generation rates (see Annotated TIA Table 1 below). Our finding is that the applicant’s engineer followed the appropriate methods while estimating the trip generation values for the Grove.

In my professional opinion as a registered engineer and as the City Traffic Engineer, the basis for using the *ITE Trip Generation Manual, including its guidance in Volume 1, Chapter 3.3 Guiding Principles p.9* on when to use regression equations or averages, was followed by the developer’s engineer and that the engineering calculations and resulting opinions are reasonable. Trip generation rates used in the analysis all conform to our standard practice of deferring to the advice provided in the *ITE Trip Generation Manual*.

TIA Table 1 (Annotated)
 Trip Generation - Unadjusted

	Land Use	Size		24-Hour	AM Peak Hour of Adjacent Street One Hour Between 7 and 9 am			PM Peak Hour of Adjacent Street One Hour Between 4 and 6 pm		
		Amount	Units		Total	Enter	Exit	Total	Enter	Exit
E	Single Family (210)	110	DU	1,146	87	22	65	114	72	42
E	Apartment (220)	600	DU	3,760	298	60	238	348	226	122
E	Residential Condo (230)	425	DU	2,265	164	28	136	197	132	65
R	Congregate Care Facility (253)	600	DU	1,212	36	21	15	102	56	46
R	Health/Fitness Club (492)	7,500	SF	247	11	5	5	26	15	11
E	Office (710)	200,000	SF	2,223	333	293	40	298	51	247
E	Medical Office (720)	25,000	SF	807	60	47	13	84	23	60
R	Specialty Retail (826)*	55,000	SF	2,438	108	67	41	153	68	86
R	Supermarket (850)	35,000	SF	3,578	119	74	45	332	169	163
E	Pharmacy/Drugstore w/o DT (880)	8,500	SF	766	11	7	4	71	35	36
R	Walk-in Bank (911)**	3,000	SF	364	0	0	0	36	16	20
R	Drinking Place (925)**	8,000	SF	907	0	0	0	91	60	31
R	Quality Restaurant (931)	15,000	SF	1,349	12	10	2	112	75	37
R	High Turnover Restaurant (932)	9,000	SF	1,144	97	54	44	89	53	35
R	Coffee/donut shop w/o DT (936)***	2,000	SF	1,762	217	111	106	82	41	41
Total				23,969	1,465	724	741	2,045	1,082	963

- E Value correctly calculated using regression equation
- R Value correctly calculated using average rate method

See: Trip Generation Handbook, 2nd Edition, Volume 1, Chapter 3.3, p. 9

- Trip Reduction Rates based on Transit Assumptions:

As part of the TIA recommended by the City Traffic Engineer, the developer has agreed to achieve a 5% trip reduction as a result of transit usage and other non-auto oriented travel methods. Initial discussion and comment from the City Traffic Engineer is that the developer's proposal was heavily based on untested assumptions that existing infrequent transit service on Bull Creek will be increased. Staff comments recommended that the developer verify this assumption with Capital Metro.

Capital Metro has recently published a 2025 Draft Concept of Service plan that would actually eliminate or further reduce the infrequent transit service along Bull Creek while at the same time dramatically increasing the frequency of services on 35th Street (See attached e-mail memorandum from Todd Hemingson, Capital Metro, August 31, 2016). The transit services on 35th Street are within one quarter mile of the development and based on consultation with Capital Metro, both the developer and the City Traffic Engineer believe that the trip reduction assumptions are reasonable. **Regardless of the potential change in the transit networks, the developer is responsible for achieving the 5% stated trip reduction goal recommended in the TIA.** In addition to the increased transit services on 35th Street, there are also a range of private transit and private mobility options that are available to the developer as tools to achieve the committed trip reduction (e.g., car share, transportation network companies, bike share, private shuttles, telecommuting, etc.). **Because the developer is bound by the phasing agreement and based on the input of Capital Metro, it is my professional opinion as a registered engineer and as the City Traffic Engineer that the trip reduction rate assumed as part of the development is appropriate and can be achieved.**

- Signal at MoPAC and 45th Street/Camp Mabry Gate:

Concerns have been voiced that the developer analyzed this intersection as a signalized intersection using SYNCRO but that construction of a signal at this location is not included in the mitigation plan and therefore the entire analysis is invalid. The intersection was analyzed as a signalized intersection in the future build condition using SYNCRO. This is acknowledged in the recommended TIA. The intersection is currently failing only during the PM Peak period, due to a lack of gaps in the traffic stream on 45th street and the delay created for westbound turning traffic off of the MoPAC ramp. At other times of the day, the intersection operates in uncongested conditions (level of service A). Because the intersection is at the end of a MoPAC ramp and because the movement now failing during the PM peak is the off-bound ramp left turn, the decision to request mitigation at this intersection was deferred and not requested of the applicant. The failing of this intersection only occurs when MoPAC is congested during the PM Peak period, when travel speeds on the off-ramp are similar to those on the mainline (low speed and congested). Lack of a signal at this location is not seen to present a safety concern.

The City is aware that TxDOT does not have funding to build a signal at this location. However, should the intersection warrant a signal for longer periods of the day, either the State or the City could be obligated to construct the signal. Neither the City nor TxDOT tend to construct signals if only one signal warrant (i.e. a peak period warrant) is met. Although signalization could help the existing PM peak operations, it is likely in my opinion that a signal would increase delay during other times of day, negatively affecting travel. It should also be noted that any project at this location requires TxDOT concurrence before installation.

Not mitigating the known existing PM Peak congestion does not invalidate the remainder of the TIA and allows the City to concentrate mitigation benefits near to the development and within the surrounding neighborhood. It is my opinion that regardless of the signalization at this intersection, the conclusions of the TIA and selection of mitigation measures are valid and consistent with industry practices.

It is my professional opinion that the proposed development, even without signalization at this intersection, is adequately mitigating the impacts of the proposed development.

- Extension of Jackson Street through the Development as a Public Street:

Over the course of the review process for the Grove TIA, the option for a connection of Jackson Street to 45th Street became available when the developer purchased an adjacent house parcel as part of their initial development planning. As the City Traffic Engineer, I believe that the tenets of the *Imagine Austin Comprehensive Plan* direct me to seek increased grid connectivity throughout the urban network and I observed that a new Jackson Street connection would provide greater permeability of the development and connectivity to the grid. I also believed that a second connection through the center of the proposed development would provide better access for public services (fire, medical aid, utilities, garbage collection, etc.) As steward of the transportation network, I requested that this connection be added to the list of mitigation to be required of the developer. The Public Works Director, who was present at the meeting with the developer when the request was made, determined that this street should be a publicly owned street due to the connectivity it provided and in support of my recommendation to preserve a public through-way within the development. Public ownership maximizes the City's flexibility in managing the street over the long term. The City is able to establish appropriate speed limits, set regulations as to the use of the street by large vehicles, manage parking, and locate necessary public utilities. Another key reason for the determination of Jackson Street remaining public is the proposed connection to 45th Street. This is a connection that is requested by the City Traffic Engineer. It is not clear that a private connection through the residential properties purchased by the developer could be constructed due to the restrictive covenants placed on these properties when they were platted. As a public street, the Jackson Street connection through to 45th Street is not controlled by the restrictive covenants. The Public Works Director, in conjunction with the City Traffic Engineer, is responsible for making this decision because of his/her responsibility for maintaining the roadway network once it is established. In this way, the City has the ability to mandate pavement and subsurface designs and is in charge of long-term easements within the street, should a new one require designation. Public access to the roadway cannot be limited by the adjacent property owners and the City has the ability to protect the rights of the traveling public that may or may not be doing business in the adjacent development.

Other streets within the developer's proposed network connecting to the central public Jackson Street spine, on the other hand, are recommended to remain private streets. This too was a joint decision by the Public Works Director and City Traffic Engineer. This recommendation shifts the cost of maintaining these local streets to the developer or his/her successor. All of the remaining streets provide only local access within the proposed development. The design of a private street, unlike a public one, can be made more consistent with the surrounding development as long as it is not in conflict with City design concerns (for example, it could be paved using brick rather than the standard asphalt design of a public street). Private streets remain the responsibility of the land owner and do not require public maintenance, saving the city from using public taxes to maintain and preserve roadways wholly within the development and providing only access to the affected properties and hence having a limited public purpose. These local access roadways are distinctly different as compared to the proposed Jackson Street which will provide access to and through the entire proposed development and serve as a public access portal into the development. **Functioning as a collector, the proposed new section of Jackson Street serves a public purpose and it is my professional engineering opinion that it should be owned and maintained by the City in trust for the public.**

To accommodate the concern of local residents that this new connection will generate additional left turns from 45th Street or could become a preferred cut-through, City staff requested that its intersection

at 45th Street be designed as a right-in and right-out only connection. This operational control does not diminish the anticipated public nature of this connection. A pedestrian hybrid beacon and pedestrian crosswalk will also be provided, connecting the neighborhood with a safe pedestrian crossing of 45th Street that does not exist today at this location. To accommodate these requests, the developer has notified the City that it has in fact purchased an additional property adjacent to the first house they acquired. These two parcels provide a preferred alignment for the Jackson Street Connection and a right-in and right-out design. It provides better alignment with the existing street north of 45th Street and allows for a safer placement of the requested pedestrian amenities. Detailed designs of this intersection, along with the pedestrian amenities, will be developed during the site design process, allowing City traffic engineers to review its specific attributes. At this phase of analysis, it provides a reasonable concept as part of the mitigation proposal.

In my professional engineering opinion as the City Traffic Engineer, I believe this new intersection conforms to the guidance of Imagine Austin and also conforms to safe engineering geometric and operational design standards and that the extension of Jackson Street should be a public street.

- TIA Amendment:

On July 21, 2016, the developer for the Grove submitted a proposed amendment to their original TIA, subsequent to the approval by the Planning Commission, and prior to consideration by Council. The primary difference proposed with the amendment is an alternate design of the 45th at Bull Creek intersection. Additionally, through the amendment, the developer has disclosed that they now own a second house parcel not previously identified in the TIA and can now provide an optimum alignment for the Jackson Street public connection to 45th Street. ATD met with the developer's engineer several times to confirm the changed assumptions and geometric proposals incorporated in the amendment proposal.

On September 12, 2016, the developer informed staff that they wished to withdraw the amendment because they have now obtained all necessary right-of-way to provide the originally proposed design of the intersection at 45th Street and Bull Creek (See Attachment). They have confirmed that they also acquired the additional property at the proposed connection of Jackson Street and 45th Street. This additional property will allow a more optimal design and would allow a right-in and right-out connection with improved pedestrian connectivity and safety equipment. Additional review of this alignment and design will occur at the site design phase of development.

Given the withdrawal of the developer's TIA amendment, staff will cease further analysis of the amendment. The recommended TIA remains the official documentation of potential impacts and mitigation.

In my professional engineering opinion, I believe that this recommendation to stop any further analysis is consistent with our previous engineering recommendation to you based on the official TIA.

In closing, the role of the City Traffic Engineer is one of trust and professionalism. I believe that I and my professional engineering staff that work in ATD have performed admirably, honestly, and professionally. As a registered professional engineer, I believe I and my professional engineering staff have conducted themselves consistent with the Texas Engineering Code of Ethics and with Texas Law. I and my staff are available should you require further information regarding these issues.

Attachments:

- Todd Hemingson E-Mail Memorandum, August 31, 2016
- Jeffery Howard Letter Withdrawing TIA Amendment, September 12, 2016

Spillar, Rob

From: Hemingson, Todd <Todd.Hemingson@capmetro.org>
Sent: Wednesday, August 31, 2016 2:38 PM
To: Spillar, Rob
Subject: The Grove and Connections 2025

Rob- Per our discussions, I'm writing to update you on the recent recommendations of the Connections 2025 Plan as it relates to The Grove development. Our team has recommended eliminating Route 19 due to low ridership and other factors, which would in turn remove service from Bull Creek Road which fronts the development site. We are currently taking public input on the Connections 2025 Plan and expect to present a final plan to the board in November. However, specific service changes resulting from the plan will also include a second round of public input, and board action, several months prior to implementation. The specific timing for the route change has yet to be determined, but preliminarily would occur in mid-to-late 2017.

The plan also recommends establishing a new crosstown route on W. 35/38th Streets with stops near the intersection with Bull Creek Road. This service is slated to offer more frequent (every 15 minute), provide a greater span of service (operating earlier and later) and include improved weekend service levels compared to the current #19 route. The 35/38th Street service is within walking distance of a significant portion of the development site. While we do recognize that the walking distance will increase, and that such a walk will not always be feasible for many (on the hottest days of summer, for example), we do believe that based on national and even global experience people will use transit more with increased frequency even if it means a slightly further walk. Also, we do plan to be flexible and remain open to adjusting the plan to accommodate growth and development; we would consider a Community Service route in the future (although it may be necessary to identify supplemental funding to help support it); and we do intend to find ways to develop 'layers' of mobility that work together to provide alternatives to driving single-occupant vehicles, with TNCs, bikeshare and ultimately autonomous vehicles as examples of complementary mobility options that could provide improved connectivity to The Grove location.

Transit supportive developments featuring higher densities and walkable mixed use, along with well-managed parking and transportation demand management programs are, in our view, consistent with Imagine Austin and Connections 2025 and do facilitate less drive-alone behavior and more walking, biking and transit use. We welcome the opportunity to work with the City of Austin, the developer and other interested stakeholders in developing and refining mobility solutions for this development.

If you have questions or need more information, please let me know.

Todd Hemingson, AICP
V.P. Strategic Planning & Development
Capital Metro

September 12, 2016

Mr. Robert J. Spillar, P.E., Director
Austin Transportation Department
City of Austin
3701 Lake Austin Blvd.
Austin, Texas 78703

via email at rob.spillar@austintexas.gov

RE: Withdrawal of July 21, 2016 TIA Addendum for The Grove at Shoal Creek PUD;
City of Austin File No. C814-2015-0074

Dear Mr. Spillar:

As you recall, on or about July 21, 2016, my client ARG Bull Creek, Ltd. (the "Applicant") submitted an "Addendum to The Grove at Shoal Creek Traffic Impact Analysis" prepared by James Schwerdtfeger, P.E. On behalf of the Applicant, please be advised that the Applicant is hereby withdrawing the Addendum and asks that the City take no further action regarding it.

The purpose of the Addendum was *not* to serve as a new or substitute analysis to the existing approved traffic impact analysis ("TIA") for The Grove at Shoal Creek PUD. The approved TIA remains in full effect and is the operative TIA that governs traffic mitigation for this project as reflected in the City's TIA Memo dated July 11, 2016. The currently approved TIA requires a very, very small amount of additional right-of-way to accommodate a 4-lane north bound Bull Creek Road configuration. As a result, the City's TIA Memo noted that if right-of-way were unavailable at the time of site plan review, such unavailability "may affect site plan review and approval."

The Addendum was, therefore, submitted for the sole purpose of demonstrating that a 3-lane north bound Bull Creek Road alternative approach could mitigate traffic at the 45th Street and Bull Creek Road intersection without any right-of-way being required from the lot located at 2645 W. 45th Street. The Addendum only presented an alternative for staff to consider that did not involve right-of-way in an effort to answer any concerns about the unavailability of the right-of-way in the future.

I am very pleased to report that the Applicant has now entered into a contract to acquire the entire 2645 W. 45th Street lot. As a result, the Applicant can confirm that any right-of-way required by the approved TIA is fully available and the Addendum is no longer necessary. For these reasons, the Addendum is hereby withdrawn and there is no further need for the City to

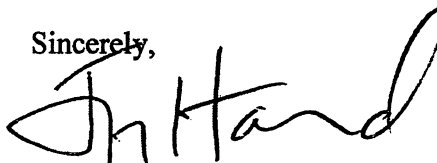
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City of Austin
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review the Addendum. The TIA as currently approved by City staff, reflected in the TIA Memo of July 11, 2016, and recommended by the Zoning and Platting Commission shall continue to apply to the project.

Notwithstanding the foregoing, and for clarification, the most recently proposed intersection of Jackson Avenue and 45th Street that is being considered by staff simultaneously with the Addendum remains the Applicant's proposed configuration of that intersection. That proposed intersection will be (i) right-in, right-out only, and (ii) aligned with Chiappero Street, as depicted in the attached conceptual design. The City's TIA Memo calls for this connection, and the enclosed conceptual design was provided to staff to answer any questions over how this connection might occur. Withdrawal of the Addendum does not mean that this connection or the proposed configuration is also being withdrawn. The Applicant understands that the enclosed conceptual design of this intersection has, subject to review and approval of final construction drawings, been accepted by the City staff as a generally and conceptually feasible approach to this intersection.

If you should have any questions or comments, please do not hesitate to contact me. Thank you and all of your staff for your consideration of this matter.

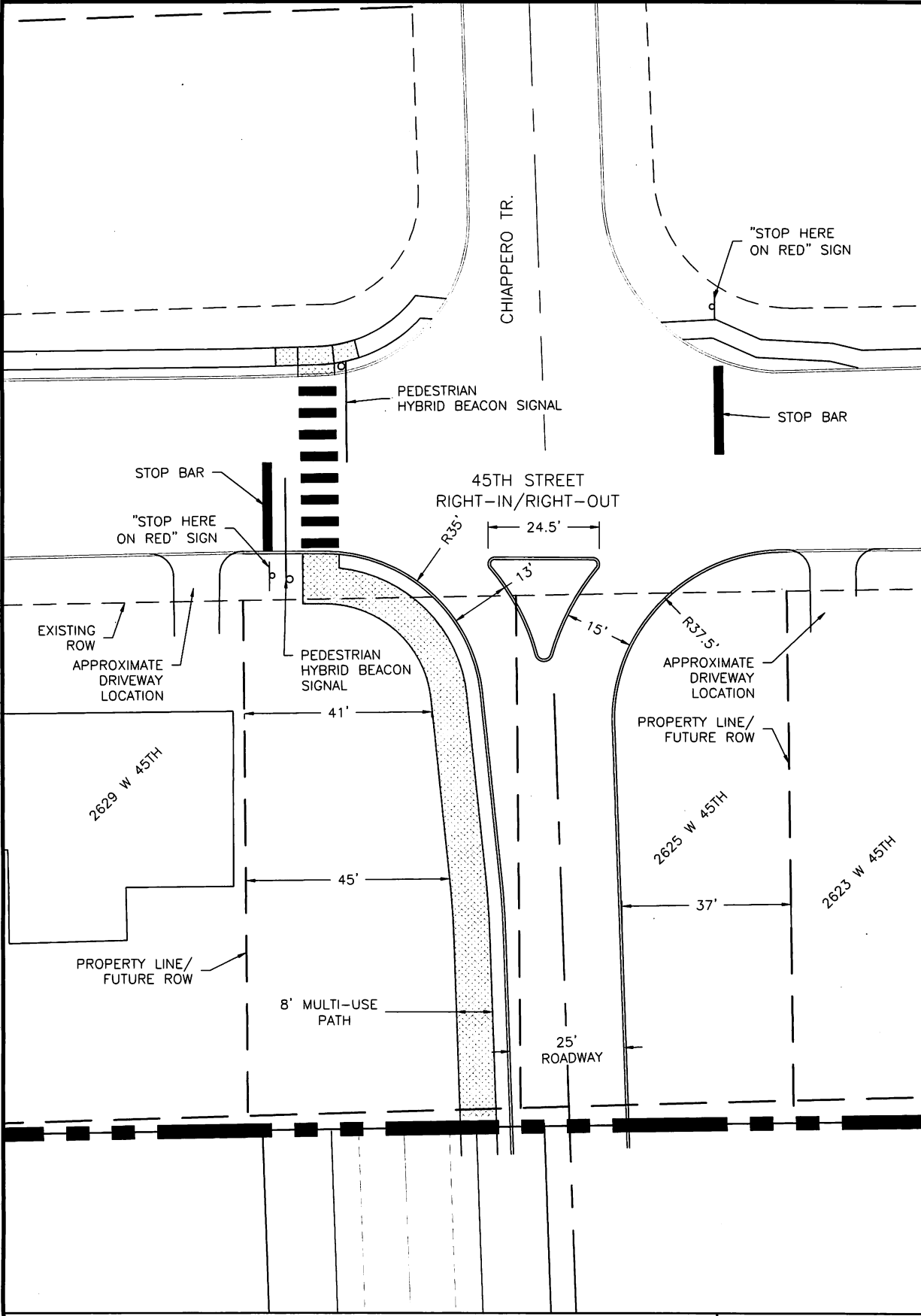
Sincerely,



Jeffrey S. Howard

cc: Rodney Gonzales, Development Services Department
Andrew Linseisen, Development Service Department
Greg Guernsey, Planning and Zoning Department
Jerry Rusthoven, Planning and Zoning Department
Eric Bollich, Austin Transportation Department
Garrett Martin
Ron Thrower
Robert Deegan
Brian Williams

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CONCEPTUAL ROADWAY PLAN
 THE GROVE
 JACKSON STREET & 45th STREET

BROWN & GAY ENGINEERS, INC.
 7000 NORTH MOPAC SUITE 330 AUSTIN
 TX 78731 TWP Registration No. F-1040
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