

WEDNESDAY, APRIL 10, 2024 | 6:00 P.M.

The Planning and Zoning Commission will meet in a regular session on Wednesday, April 10, 2024, at 6:00 p.m. in the City Council Chambers, 9400 Municipal Parkway, Garden Ridge, Texas. This is an open meeting, open to the public, subject to the Open Meetings Law of the State of Texas, and as required by law, notice is hereby posted providing time, place, date, and agenda thereof. The meeting facility is wheelchair accessible and accessible parking spaces are provided. Requests for accommodations or interpretative services must be made to the City Secretary 48 hours prior to this meeting.

1. Call to Order/Roll Call**2. Pledge of Allegiance****3. Citizen Comment Period – limited to 30 minutes total**

Rules for Citizens' Participation: The Commission welcomes citizen participation and comments at all Commission Meetings. If you speak, you must follow these guidelines:

a) Respect and courtesy:

1. Direct your comments to the entire Commission, not to an individual member, nor to the audience.
2. Show the Commission the same respect that you would like to be shown.
3. End your speaking at the time allotted below.

b) Speaking:

1. First citizen comment period.
 - 1.1. You are required to sign up to speak and you are limited to one 3-minute period.
2. Second citizen comment period.
 - 2.1. You are not required to sign up and you are limited to one 2-minute period.
3. State your name and address before your comments begin.
4. You are only allowed to speak once per topic, unless also speaking during a posted Public Hearing.

NOTE: The Texas Open Meetings Act permits a member of the public or a member of the governmental body to raise a subject that has not been included in the notice for the meeting. However, any discussion of the subject must be limited to a proposal to place the subject on the agenda for a future meeting and any response to a question posed to the City Council is limited to either a statement of specific factual information or a recitation of existing policy. TEX. GOV'T CODE § 551.042.

4. Business Items

The following items are for discussion, consideration, and action.

- a) Approval of Minutes for February 14, 2024, Planning and Zoning Commission Regular Meeting.
- b) Natural Features Overlay (NFO) District Technical Committee Update.
- c) Petition by Eric Fischer for three (3) Specific Use Permits for The Revival to be located on a 1.707-acre tract and a 1.40-acre tract totaling 3.107 acres zoned as Community Commercial (CC) District, and further located at 19186 FM 2252, Garden Ridge, Texas.
 1. Restaurant or Cafeteria, Bar/Tavern: To be allowed an indoor/outdoor bar area serving beer, wine, and mixed drinks with inside and outside seating on premises.
 - 1.1 Hold a public hearing.
 - 1.2 Discuss and make a recommendation.
 2. Amusement, Commercial (Outdoors): To be allowed up to four (4) pickleball courts on premises.
 - 2.1. Hold a public hearing.
 - 2.2. Discuss and make a recommendation.
 3. Food Truck and Mobile Retail Park: To be allowed up to four (4) food trucks with electric and water hookups on premises.
 - 3.1. Hold a public hearing.
 - 3.2. Discuss and make a recommendation.



- d) Garden Ridge Walkable Community Workshop Report findings related to speed limits and marked crosswalks.
- e) Items applicable to the Planning and Zoning Commission discussed at City Council meetings.
- f) Future Agenda Items.
 - 1. Commissioners input on agenda items.
 - 2. Announce date, time, and location for next meeting (May 8, 2024, at 6:00 p.m. at City Hall).

5. Citizen Comment Period – limited to 20 minutes total
See “Rules for Citizens’ Participation” under Item 3.

6. Adjournment

AGENDA NOTICES:

Decorum Required: Any disruptive behavior, including shouting or derogatory statements or comments may be ruled out of order by the Presiding Officer. Continuation of this type of behavior could result in a request by the Presiding Officer that the individual leave the meeting, and if refused, an order of removal.

Action by Commission Authorized: The Commission may vote or act upon any item within this Agenda.

Attendance By Other Elected or Appointed Officials: It is anticipated that members of the City Council, other city boards, commissions, and/or committees may attend the meeting in numbers that may constitute a quorum of the other city boards, commissions, and/or committees. Notice is hereby given that the meeting, to the extent required by law, is also noticed as a meeting of the City Council, other boards, commissions, and/or committees of the City, whose members may be in attendance. The members of the boards, commissions, and/or committees may participate in discussions on the same items listed on the agenda, which occur at the meeting, but no action will be taken by such in attendance unless such item and action are specifically provided for on an agenda for that board, commission, or committee subject to the Texas Open Meetings Act.

This is to certify that I, Marisa Spencer, posted this Agenda at 12:00 p.m. on April 3, 2024, on the bulletin board located at the entrance to Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas.

Marisa Spencer

Marisa Spencer
City Secretary



MINUTES
PLANNING AND ZONING COMMISSION
REGULAR MEETING
WEDNESDAY, FEBRUARY 14, 2024 | 6:00 P.M.

Commissioners Present:

Chair Kerim Jacaman
Vice-Chair Karen Diaz
Commissioner Dr. Jim Miller
Commissioner Darren Bates
Commissioner Joe Maloney

Commissioners Absent:

Commissioner Gwen Estrada
Commissioner Richard Howard

City Staff and City Councilmembers Present:

Nancy Cain, City Manager
Marisa Spencer, City Secretary

1. Call to Order/Roll Call

With a quorum of the Planning and Zoning Commissioners present, Chair Jacaman called the regular meeting of the Garden Ridge Planning and Zoning Commission to order at 6:00 p.m. on Wednesday, February 14, 2024, in the City Council Chambers of Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

2. Pledge of Allegiance

Chair Jacaman led the Pledge of Allegiance.

3. Citizen Comment Period

No one signed up to speak.

4. Business Items

The following items are for discussion, consideration, and action.

a) Approval of Minutes for December 13, 2023, Planning and Zoning Commission Regular Meeting.

Motion: A motion was made by Commissioner Bates, seconded by Vice-Chair Diaz, to approve the Minutes for December 13, 2023, Planning and Zoning Commission Regular Meeting. The Commission voted four (4) for and none (0) opposed. The motion carried unanimously.

b) Development Application by Comal Independent School District for a zoning change (rezoning) from Agriculture and Agricultural Homestead (AG) District to Public and Institutional (P) District, for an 18.00-acre tract known as Lot 1, Block 1, Comal ISD Garden Ridge, located at 9401 Municipal Parkway, Garden Ridge, Texas. The property is further described as the location of Garden Ridge Elementary School.

1. Hold a public hearing.

Chair Jacaman opened the public hearing at 6:03 p.m.

No one wished to speak, and City Secretary Marisa Spencer stated no written comments were submitted.

Chair Jacaman closed the public hearing at 6:04 p.m.

2. Discuss and make a recommendation.

The Commission discussed the Development Application by Comal Independent School District for a zoning change from Agriculture and Agricultural Homestead (AG) District to Public and Institutional (P) District.



Motion: A motion was made by Commissioner Maloney, seconded by Commissioner Dr. Miller, to recommend to City Council the approval of a Development Application by Comal Independent School District for a zoning change (rezoning) from Agriculture and Agricultural Homestead (AG) District to Public and Institutional (P) District, for an 18.00-acre tract known as Lot 1, Block 1, Comal ISD Garden Ridge, located at 9401 Municipal Parkway, Garden Ridge, Texas, and further described as the location of Garden Ridge Elementary School. The Commission voted four (4) for and none (0) opposed. The motion carried unanimously.

c) Master Development Plan for Cedar Hollow Subdivision.

1. Discuss and make a recommendation.

City Manager Nancy Cain stated the applicant withdrew the Master Development Plan for Cedar Hollow Subdivision.

d) Preliminary Plat for Cedar Hollow Subdivision.

1. Discuss and make a recommendation.

City Manager Nancy Cain stated the applicant withdrew the Preliminary Plat for Cedar Hollow Subdivision.

e) Items applicable to the Planning and Zoning Commission discussed at City Council meetings.

Chair Jacaman provided the Commission with an update on items applicable to the Planning and Zoning Commission discussed at City Council Meetings.

f) Natural Features Overlay (NFO) District Technical Committee Update.

Chair Jacaman provided the Commission with an update related to the Natural Features Overlay (NFO) District Technical Committee.

g) Future Agenda Items.

1. Commissioners input on agenda items.

Commissioner Maloney requested to discuss the findings related to speed limits and marked crosswalks contained in the Garden Ridge Walkable Community Workshop Report.

2. Announce date, time, and location for next meeting (March 13, 2024, at 6:00 p.m. at City Hall).

Chair Jacaman stated the next meeting is scheduled for March 13, 2024, at 6:00 p.m. at City Hall.

5. Citizen Comment Period

No one wished to speak.

6. Adjournment

There being no further business, the Wednesday, February 14, 2024, Planning and Zoning Commission Regular Meeting was adjourned at 6:17 p.m. by Chair Jacaman.

ATTEST:

Kerim Jacaman
Chair

Marisa Spencer
City Secretary



LEGAL NOTICE

NOTICE OF PUBLIC HEARINGS CITY OF GARDEN RIDGE PLANNING AND ZONING COMMISSION

The Planning and Zoning Commission of the City of Garden Ridge, Texas, will conduct three (3) public hearings on Wednesday, April 10, 2024, at 6:00 p.m. in the City Council Chambers of the Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas.

The public hearings will be to consider a petition by Eric Fischer for three (3) Specific Use Permits for The Revival to be located on a 1.707-acre tract and a 1.40-acre tract totaling 3.107 acres and further located at 19186 FM 2252, Garden Ridge, Texas. The property is zoned Community Commercial (CC) District. The following uses are allowable in the Community Commercial (CC) District with the issuance of Specific Use Permits. The Specific Use Permits petitioned for are:

1. Public Hearing #1: Restaurant or Cafeteria, Bar/Tavern. To be allowed an indoor/outdoor bar area serving beer, wine, and mixed drinks with inside and outside seating on premises.
2. Public Hearing #2: Amusement, Commercial (Outdoors). To be allowed four (4) pickleball courts on premises.
3. Public Hearing #3: Food Truck and Mobile Retail Park: To be allowed up to four (4) food trucks with electric and water hookups on premises.

The City's current Zoning Map, Development Application for Specific Use Permits, and associated attachments to the application can be viewed on the City's website at <https://www.ci.garden-ridge.tx.us/292/PublicLegal-Notices> or at Garden Ridge City Hall, 9400 Municipal Parkway, Garden Ridge, Texas 78266.

This notice gives you the opportunity to express your support of, or objection to, the proposed petitions. The public is invited and welcome to attend the public hearing in person and may present oral comments on this matter. Alternatively, written comments on this matter may be submitted in accordance with the ***City of Garden Ridge Notice of Procedures for Written Comments during Public Hearings*** (located on the link above).

Marisa Spencer, TRMC, CMC
City Secretary



Specific Use Permit Checklist

Incomplete submissions will NOT be accepted

For Office Use
Case No. _____

Application Completeness Requirements:

- ☐ Development Application signed by owner
- ☐ This checklist (signed by applicant or authorized representative)
- ☐ Application fees in the form of a check made payable to City of Garden Ridge
- ☐ 3 Copies of a Site Plan prepared in accordance with this checklist
- ☐ Metes and Bounds Description (field notes) - on 8 ½" by 11" paper including surveyor seal and signature.
- ☐ Certified Copy of a Tax Certificate showing no taxes owed (if taxes are owed submit Tax Receipts with the Certificate showing a zero balance owed)
- ☐ Letter of Intent (see letter of intent requirements below)
- ☐ Traffic impact analysis determination form (traffic impact analysis if required by determination form)
- ☐ Agent authorization letter (if required)
- ☐ Digital copy in .pdf format of entire application submission (application, checklist, exhibits, etc.) on CD or USB drive
- ☐ Any additional information required by this application, City Staff, City Council, City Codes & Ordinances and State Statutes, needed to evaluate this request

Submittal Information

- INCOMPLETE APPLICATIONS AND SUBMITTALS WILL BE REJECTED; an application may be deemed incomplete after initial staff review.

Questions shall be directed to, and complete applications shall be submitted in person to the following:

City of Garden Ridge
Attn: City Administration
9400 Municipal Parkway
Garden Ridge, TX 78266
(210) 651-6632
Administrator@ci.garden-ridge.tx.us

Letter of Intent Requirements

The letter of intent is a narrative to describe the specific use permit request and generally should contain the following (some items may only be applicable for new development proposals):

- Describe in detail the location of the property (including distance from nearest intersection). Additionally, include the County Appraisal District property identification no. and address when available.
- Define acreage of subject property and current zoning district
- General description of the proposed development
- Specify proposed land uses with specific operations defined.
- Specify if the proposed development will be developed in phases.
- Detail any special considerations.
- Any additional information from the owner/applicant to thoroughly describe the request.
- The letter of intent must provide the signature and contact information of the owner or applicant.

SUP Site Plan Technical Requirements

Use the following technical checklist in preparing a SUP site plan:

Applicant	SUP Site Plan Technical Requirements <i>**Do not leave any items unchecked**</i>	
☐	1)	Location / vicinity map with north arrow and scale and showing all adjacent arterial or collector roadways and City and County limits where applicable
☐	2)	Surveyed property with bearings and distances
☐	3)	Title block placed in the lower right corner, containing proposed subdivision name, complete legal description including survey name and abstract number, acreage, city, county, and preparation date
☐	4)	Graphic and written scale, appropriate for level of detail
☐	5)	North arrow
☐	6)	Legend containing all symbols and abbreviations used
☐	7)	Location of City limits boundary and/or County boundary if they traverse the property, form part of the boundary of the property or are contiguous to such boundary
☐	8)	Show all existing and proposed rights-of-way and easements, including recording information for existing easements and any proposed street names
☐	9)	Location of significant manmade features, including railroads, buildings, utilities, or physical features
☐	10)	Location of existing and proposed FEMA 100-year floodplain and floodway limits
☐	11)	Existing and proposed improvements to the property (buildings/structures, paving, parking lots, driveways, landscaped areas, buffers and screening, etc.)
☐	12)	Show the location of adjacent residences and buildings
☐	13)	Show the location and area coverage of outdoor lighting
☐	14)	Show building setbacks
☐	15)	Provide the location and sizes of proposed water, wastewater and storm drainage facilities to serve the development, including the sewer flow arrows.
☐	16)	Street access to property, width of proposed ingress/egress, street names, intersection, centerline and ultimate right of way dimensions
☐	17)	Owner's name, current land use, zoning and recording information of adjacent properties
☐	18)	Any additional information as required to clarify the proposal

Preparer's Signature: 
 Date: 2024-01-25

Printed Name: Christian Laijas

Company Name: Laijas Project Resource Group



Development Application

For Office Use
Case No. _____

Submission of an application does not indicate acceptance by the City of Garden Ridge.

Type of Request:

- ☐ Annexation
- ☐ Zone Change
- ☐ Zoning Change PUD
- ☐ Zoning Variance
- ☐ Zoning Special Exception
- ☒ Specific Use Permit

- ☐ Tree Removal Permit
- ☐ Preliminary Plat
- ☐ Final Plat
- ☐ Replat
- ☐ Plat Variance
- ☐ Other: _____

Project Name/Description: The Revival

Site Location Information

Legal Description: 19186 FM 2252, Garden Ridge, TX 78266

County Appraisal District Parcel ID # (all properties): 74448, 74426

Property Deed recorded in Comal County Volume # _____ Page(s) # _____

Address: _____ Number of Lots: 2 Acreage: 3.1

General Location of Property (if no address): East side of 2252, South of 3009

Subdivision Name: _____ Block: _____ Lot: _____

Zoning Information

Current Zoning: Neighborhood Service Requested Zoning (if applicable): B-1, Community Commercial

Existing Land Use: Rural Land Proposed Land Use (if applicable): _____

Property Owner Information (if not sole owner, a signed development application must be submitted for each owner)

Owner Name: Eric Fischer

Owner Address: 7703 Ramble Ridge San Antonio TX 78266
(Street) (City) (State) (Zip)

Phone #: 210-621-7039 Email: etfischer17@gmail.com

Applicant Information - ☒ Check box if same as property owner

Name: _____

Address: _____
(Street) (City) (State) (Zip)

Phone #: _____ Email: _____

Engineer/Surveyor Information (if applicable)

Name: _____
(Company) (Contact Person)

Address: _____
(Street) (City) (State) (Zip)

Phone #: _____ Email: _____

Authorized Agent Information (if applicable)

Name: _____

Address: _____
(Street) (City) (State) (Zip)

Phone #: _____ Email: _____

I certify that I am the actual owner of the property described above and this application is being submitted with my consent (include corporate name if applicable) OR I am authorized by the property owner to submit this application and have attached written evidence of such authorization AND that I have reviewed the application, and all information submitted here in is true and correct. I understand that the information provided herein may be used by the City of Garden Ridge for sending required notices and I consent to the posting of hearing notices on the said property if required.

Signature Owner: Eric Fischer Date: 11-30-2023

Printed Name: Eric Fischer

Office Use Only

Received Date: _____ Date Application Deemed Complete: _____

Case No.: _____ Review By: _____

Planning and Zoning Form 3
APPLICATION FOR SPECIAL USE PERMIT
(Type or Print)

1. Date: _____ Case #: _____

2. Applicant Name: Eric Thomas Fischer
(First) (Middle) (Last)

Doing Business as: The Revival
(First) (Middle) (Last)

Texas Sales & Use Tax Permit Number: _____

3. Mailing Address: 19315 FM2252, Suite 312
(Street)
Garden Ridge, Texas 78266
(City) (State) (Zip)

Phone: (210)- 621-7039

4. Physical Address of Business: 19186 FM2252
(Street)
Garden Ridge, Texas 78266
(City) (State) (Zip)

Phone: (210)- 621-7039

5. Applicant's relationship to property or business:
Sole owner () Part owner ☒ Other; _____
(Specify)
(If not sole owner, furnish a notarized letter of authorization from all owners as attachment 1.)

6. Legal description of property on which business is to be located:

Plat: Lot(s) _____ Block(s) _____

Subdivision _____

Acreage: _____ (If acreage, provide separate metes and bounds description as attachment 2.)

Property Deed recorded in Comal County Volume # _____ Page # _____

7. Existing use of property; Raw Land

8. Use of property being requested (Be specific and give details - attach additional sheets as needed):
Bar, Ice Cream Shop, Pickleball Courts, Food Truck Area, Office Space, Barber Shop

9. Give dimensioned map with north orientation, scaled 100 or 200 feet per inch, of the property showing all streets and parcels of land within 300 feet of the property as attachment 3. Key each adjoining land parcel to a list of current owners and addresses as attachment 4.
10. Give site plan showing location, dimensions and uses of existing or proposed structures, easements, water sources, fences, curb cuts, street and alley right-of-way lines within one foot of property for which variance is requested, on another map of larger scale, as attachment 5.
11. Identify any deed restrictions on agriculture, residential, business or other use. If none, so state: _____

12. The undersigned hereby requests that the property identified in this application be approved for the Special Use(s) requested above in accordance with in accordance with Garden Ridge City Ordinance 13, section 12. I consent to the posting of hearing notices on the said property. I understand that the information provided herein might be used by the City of Garden Ridge for sending required notices to adjacent property owners, if required. I bear full responsibility and liability for any losses or costs incurred by the City, or others, caused by errors or omissions in this application.

13. Applicant Signature: _____

____ Attachments:

1. Owner(s) letters of authorization, if applicable
2. Metes and Bounds description of property, if applicable
3. Map of property
4. List of adjacent property owners
5. Site plan
6. Check for Special Use Permit fee per Garden Ridge City Ordinance 11.

----- CITY USE ONLY -----
Special Use Permit

		Date
City Admin.:	Application received	_____
	Application verified	_____
	Fee received \$_____ Check #_____	_____
	Application sent to P&Z	_____
P&Z:	Owners' acceptance of application	_____
	Notice to adjoining property owners, if required	_____
	Notice of public hearing, if required	_____
	Public hearing conducted, if required	_____
	P&Z decision on Special use Permit	_____
City Council:	P&Z recommendation to City Council	_____
	Notice to adjoining property owners, if required	_____
	Notice of public hearing, if required	_____
City Admin.:	Public hearing conducted, if required	_____
	Applicant notified of Council Decision	_____

NOTICE OF CONFIDENTIALITY RIGHTS: IF YOU ARE A NATURAL PERSON, YOU MAY REMOVE OR STRIKE ANY OR ALL OF THE FOLLOWING INFORMATION FROM ANY INSTRUMENT THAT TRANSFERS AN INTEREST IN REAL PROPERTY BEFORE IT IS FILED FOR RECORD IN THE PUBLIC RECORDS: YOUR SOCIAL SECURITY NUMBER OR YOUR DRIVER'S LICENSE NUMBER.

GENERAL WARRANTY DEED WITH VENDOR'S LIEN

Date: August 15, 2017

Grantor: Gonzo Properties, LLC, a Texas limited liability company

Grantor's Mailing Address: 2310 N. Loop 1604, #4
San Antonio, Texas 78248

Grantee: Rock'Em Realty, LLC, a Texas limited liability company

Grantee's Mailing Address: 8107 Sky Vista
San Antonio, Texas 78266

Consideration:

Ten and No/100 Dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged; and the amount of **One Hundred Fifty Thousand and 00/100 Dollars (\$150,000.00)** advanced to Grantee by Broadway National Bank ("Lender") whose address is 1177 N.E. Loop 410, San Antonio, Texas 78209, which funds Grantee has agreed to repay in accordance with the terms of that certain Promissory Note of even date herewith (the "Note") in the stated principal sum of **\$150,000.00** executed by Grantee and payable to the order of Lender. The Note is secured by a vendor's lien against, and superior title to the Property retained in this Deed in favor of Lender and also secured by a Deed of Trust (the "Deed of Trust") dated of even date herewith from Grantee to D'Layne Rhynsburger, Trustee.

Property (including any improvements):

A TRACT OF LAND CONTAINING 1.40 ACRES (CALLED 1.395 ACRES) OUT OF THE GEORGE M. DOLSON SURVEY NO. 96, ABSTRACT NO. 120, COMAL COUNTY, TEXAS, BEING OUT OF A CALLED 10.0 ACRE TRACT AS DESCRIBED IN A CONVEYANCE TO H.L. MCLAUGHLIN IN VOLUME 148, PAGE(S) 89-90, DEED RECORDS OF COMAL COUNTY, TEXAS, BEING THE SAME TRACT OF LAND AS CONVEYED FROM H. L. MCLAUGHLIN AND WIFE, JUANIMA W. MCLAUGHLIN TO GARY L. MILLER AND WIFE, PAULETTE J. MILLER IN VOLUME 316, PAGE 300, DEED RECORDS OF COMAL COUNTY, TEXAS, SAID TRACT BEING MORE PARTICULARLY DESCRIBED IN EXHIBIT "A", ATTACHED HERETO AND MADE A PART HEREOF.

Reservations from Conveyance and Warranty: None

Exceptions to Conveyance and Warranty:

This conveyance is made and accepted subject to any and all valid easements and rights-of-way of record, all presently recorded restrictions, reservations, covenants, conditions and other instruments other than liens and conveyances, filed of record, to the extent, if any, that they are valid and subsisting against the Property or any part thereof.

Grantor, for the consideration and subject to the reservations from and exceptions to conveyance and warranty, grants, sells, and conveys to Grantee the Property, together with all and singular the rights and appurtenances thereto in any wise belonging, to have and hold it to Grantee, Grantee's heirs, executors and administrators forever. Grantor binds Grantor and Grantor's heirs, executors and administrators to warrant and forever defend all and singular the Property to Grantee and Grantee's successors and assigns against every person whomsoever lawfully claiming or to claim the same or any part thereof, except as to the reservations from and exceptions to conveyance and warranty, when the claim is by, through or under Grantor, but not otherwise.

But it is expressly agreed and stipulated that Grantor expressly reserves and retains for itself, its successors and assigns, a vendor's lien as well as superior title in and to the Property until the Note and the indebtedness evidenced thereby are fully paid in accordance with the terms of the Note, whereupon this Special Warranty Deed with Vendor's Lien will become absolute. The Note represents the purchase price hereof and is payable directly to Lender, who has advanced to the Grantor at the request of the Grantee, and in consideration thereof, the Grantor does hereby SELL, TRANSFER, and ASSIGN, unto Lender, its successors and assigns, the vendor's lien and superior title herein retained against the Property to secure payment of the Note, hereby fully and completely subrogating Lender, its successors and assigns, to all rights, titles, equities and interests in and to the Note, and all liens against the Property securing payment thereof as if the Note were payable to Grantor and assigned to Lender without recourse.

Ad valorem taxes and assessments attributable to the year 2017 have been prorated between Grantor and Grantee as of the date of this Special Warranty Deed with Vendor's Lien and Grantee hereby expressly assumes and agrees to pay the same for the current year and subsequent years.

When the context requires, singular nouns and pronouns include the plural.

GRANTOR:
Gonzo Properties, LLC,
a Texas limited liability company

By: Mark Gonzalez
Mark Gonzalez, Managing Member

THE STATE OF TEXAS

COUNTY OF GUADALUPE

§
§
§

The foregoing instrument was acknowledged before me this 15th day of August, 2017 by **Mark Gonzalez**, as Managing Member of **Gonzo Properties, LLC, a Texas limited liability company**, on behalf of said limited liability company.



Notary Public, State of Texas

AFTER RECORDING, PLEASE RETURN TO:

Chicago Title of Texas, LLC

Attn: Jayme Jeffreys

17115 IH 35, Suite 125

Schertz, Texas 78154

EXHIBIT "A"

(insert Metes and Bounds Legal Description)



410 N. Seguin Ave.
New Braunfels, TX 78130
HMTNB.COM
830.625.8555 • FAX: 830.625.8556
TBPLS FIRM 10153600

METES AND BOUNDS DESCRIPTION
FOR A
1.40 ACRE TRACT OF LAND

Being a 1.40 acre tract of land out of the G.M. Dolson Survey No. 96, Abstract No. 120, Comal County, Texas, and being all of a tract of land called 1.40 acres, described in Document No. 201406013131, Official Public Records, Comal County, Texas, said 1.40 acre tract of land being more particularly described as follows:

BEGINNING at a 1/2" iron pin (with cap stamped "HMT") set in the Southerly right-of-way line of Nacogdoches Road, for the Northwesterly corner of said 1.40 acre tract, common with the Northeasterly corner of a called 5.423 acre tract recorded in Volume 865, Page 95, Official Public Records, Comal County, Texas, from which a concrete right-of-way monument found bears S 88°04'48" W a distance of 192.24 feet;

THENCE along the Southerly right-of-way line of Nacogdoches Road, common with the Northerly line of said 1.40 acre tract the following two (2) calls:

1. N 88°04'48" E a distance of 43.58 feet to a broken concrete right-of-way monument found for a corner;
2. S 81°36'25" E a distance of 191.71 feet to a 1/2" iron pin (with cap stamped "HMT") set for a Northeasterly corner of said 1.40 acre tract, common with the Northwesterly corner of a called 1.734 acre tract, recorded in Document No. 201406013130, Official Public Records, Comal County, Texas, from which a concrete right-of-way monument found bears S 81°36'25" E a distance of 50.43 feet;

THENCE along the Westerly line of said 1.734 acre tract, common with the Easterly line of said 1.40 acre tract, S 29°36'57" E a distance of 249.03 feet to a 1/2" iron pin (with cap stamped "HMT") set for a Southeasterly corner of said 1.40 acre tract, common with the Northeasterly corner of a called 3.319 acre tract, recorded in Document No. 201406026781, Official Public Records, Comal County, Texas;

THENCE along the Northerly line of said 3.319 acre tract, common with the Southerly line of said 1.40 acre tract, S 60°29'27" W a distance of 188.81 feet to a 1/2" iron pin found for a Southwesterly corner of said 1.40 acre tract, common with the Northwesterly corner of said 3.319 acre tract, being in the Easterly line of the aforementioned 5.423 acre tract;

THENCE along the Westerly line of said 1.40 acre tract, common with the Easterly line of said 5.423 acre tract, N 29°44'19" W a distance of 386.99 feet to the POINT OF BEGINNING and containing 1.40 acres of land in Comal County, Texas.

17-0815

Bearings are based upon a call of S 81°36'25" E along the Northerly line of said 1.40 acre tract.

Surveyed this the 1st day of August, 2017.

Reference survey of said 1.40 acre tract of land prepared this same date.



Mark F. Conlan
Registered Professional Land Surveyor No. 6342

S:\Projects\Title Surveys\Dolson, GM\1.395ac - 19185 FM 2252\1.40 ac M&B.docx



Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
08/16/2017 09:12:11 AM
TERRI 5 Pages(s)
201706038380



Bobbie Koepp

etc 1802884 AC

CORRECTION INSTRUMENT AS TO A RECORDED ORIGINAL INSTRUMENT*[Non-material correction pursuant to §5.028, Texas Property Code, where the parties to the recorded original instrument have not signed the correction affidavit (instrument)]*

Date: November 1, 2022

File No.: 1802884

Title Company: Stewart Title Company

Affiant: Ana M. Chapa

Description of Original Instrument (include name of instrument, date, parties and recording information):

GENERAL WARRANTY DEED, October 18, 2022, Grantor: GONZO PROPERTIES, LLC
 Grantee: ROCK'EM REALTY LLC, recorded document number 202206045529.

Affiant on oath swears that the following statements are true and within the personal knowledge of Affiant:

1. My name is Ana M Chapa. My address is 111 W. San Antonio St. Suite 110, New Braunfels, TX 78130. I am over the age of eighteen (18) years and am otherwise competent to make this Correction Affidavit.
2. I have personal knowledge of the facts relevant to the correction of the above referenced Original Instrument as evidenced by the following facts (describe facts indicating personal knowledge below):

I am the Escrow Officer.

3. I am making this Affidavit as a correction instrument pursuant to §5.028 of the Texas Property Code, with regard to the following clerical error in the Original Instrument (describe error below):

Incorrect Legal Description.

4. The Original Instrument should correctly read as follows with respect to the clerical error described above, this being a non-material change to the Original Instrument (Insert corrected language below):

BEING, all that certain 1.707 acre tract of land out of the George M. Dolson Survey 96, Abstract 120, Comal County, Texas, and being out of a called 1.734 acre tract described in Document No. 201406013130, of the Official Public Records, Comal County, Texas, (O.P.R.C.C.TX.) and being more particularly described by metes and bounds in Exhibit "A" attached hereto.

5. I have given notice of this correction of the Original instrument by sending a copy of this Correction Affidavit by US mail to each party to the Original Instrument, in accordance with §5.028 (d) (2) of the Texas Property Code. The evidence of said notice is attached to this affidavit as required by §5.028 (d) (1) of the Texas Property Code.

AFFIANT:


 Ana M. Chapa

State of Texas
County of Comal

SWORN TO AND SUBSCRIBED before me on this 1st day of November, 2022 by Ana M. Chapa, to certify which witness my hand and seal of office.

[Signature]
Notary Public in and for the State of Texas
Notary Name Printed: Ana Chapa
My Commission Expires: _____

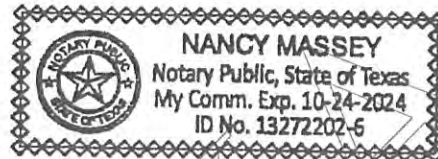


Exhibit "A"

Trihydro Corporation

1672 Independence Drive, Suite 315 * NEW BRAUNFELS, TX. 78130

PHONE (830) 626-3588

cking@trihydro.com

TBPELS Firm Registration #10194320

BEING, all that certain 1.707 acre tract of land out of the George M. Dolson Survey 96, Abstract 120, Comal County, Texas, and being out of a called 1.734 acre tract described in Document No. 201406013130, of the Official Public Records, Comal County, Texas, (O.P.R.C.C.TX.) and being more particularly described by metes and bounds as follows;

BEGINNING at an iron rod stamped "HMT" found on the southwest right-of-way line of FM 2252 marking the northwest corner of said 1.707 acre tract same being the northeast corner of a called 1.4 acre tract described in deed to Rockem Realty, LLC and recorded in Document No. 201706038380 of the Official Public Records of Comal County, Texas O.P.R.C.C.TX.;

THENCE, with the north line of said 1.707 acre tract along the southwest right-of-way line of said FM 2252 the following two (2) courses and distances.

1. South 82°30'03" East, 50.48 feet to a concrete monument found for corner, and
2. South 74°56'27" East, 322.01 feet to a TXDOT disk found on the south right-of-way line of said FM 2252 marking the northeast corner of said 1.707 acre tract same being the northwest corner of a called 0.0255 acre tract described in deed to the State of Texas recorded in Document No. 202006017763, O.P.R.C.C.TX.;

THENCE, South 36°14'56" East, 71.30 feet along southwest right-of-way line of said FM 2252 along the common line of said 1.707 acre tract and said 0.0255 acre tract to a TXDOT disk found marking an interior corner of said 1.707 acre tract same being the southwest corner of said 0.0255 acre tract;

THENCE, South 75°47'58" East, 11.70 feet along southwest right-of-way line of said FM 2252 to a 1/2-inch iron rod stamped "RPLS 4020" found marking a the northwest corner of a called 4.2313 acre tract described in deed to Vaquero Grande, LLC and recorded in Document No. 201906028430, O.P.R.C.C.TX., same being a southwest corner of a called 0.1707 acre tract described in deed to the State of Texas and recorded in Document No. 202006018060, O.P.R.C.C.TX., and for a northeasterly corner of said 1.707 acre tract;

THENCE, South 18°11'22" East, 83.97 feet departing southwest right-of-way line of said FM 2252 and with the common line of said 1.707 acre tract and said 4.2313 acre tract to a 1/2-inch iron rod found marking the southeast corner of said 1.707 acre tract on the west line of said 4.2313 acre tract same being the north corner of a called 2.672 acre tract described in deed to Nena M. Carroll and recorded in Document No. 202006016151, O.P.R.C.C.TX.;

THENCE, South 67°22'52" West, 262.23 feet along the common line of said 1.707 acre tract and said 2.672-acre tract to a 1/2-inch iron rod stamped "Baker Surveying" found marking the southwest corner of said 1.707 acre tract same being on the east line of a called 3.319 acre tract described in deed to Salvador Gallegos & Damaris Gallegos and recorded in Document No. 201406026781, O.P.R.C.C.TX.;

THENCE, North 31°53'15" West, 137.34 feet along the common line of said 1.707 acre tract and said 3.319 acre tract to a 1/2-inch iron rod stamped "HMT" found on the west line of said 1.707 acre tract marking the southeast corner of aforementioned 1.4 acre tract;

Intentionally left blank

THENCE, North 30°26'04" West, 284.94 feet to the POINT OF BEGINNING. The basis of bearing for this description is the Texas State Plane Coordinate System Grid, South Central Zone (FIPS 4204) (NAD'83). All distances are on the Grid and shown in U.S. Survey feet.

R A Goodwin

Richard A. Goodwin, RPLS 4069
Job No.: 202-200-230
Date: 9/8/2022



UNOFFICIAL

Filed and Recorded
Official Public Records
Bobbie Koepp, County Clerk
Comal County, Texas
11/01/2022 04:11:00 PM
LOUISA 4 Pages(s)
202206047142



Bobbie Koepp

Issued By:

Comal County Tax Office
PO Box 659480
San Antonio, TX 78265-9480

Property Information

Property ID: 74426 Geo ID: 740120002000
Legal Acres: 1.7085
Legal Desc: A-120 SUR- 96 G M DOLSON, ACRES 1.7085
Situe: 0 FM 2252 GARDEN RIDGE, TX 78266
DBA:
Exemptions:

Owner ID: 1082486 100.00%
ROCKEM REALTY LLC
19315 FM 2252 STE 312
GARDEN RIDGE, TX 78266

For Entities

(ESD6) COMAL COUNTY EMERGEN
CITY OF GARDEN RIDGE
COMAL COUNTY
COMAL COUNTY LATERAL ROAD
COMAL ISD
Rural Fire #3

Value Information

Improvement HS: 0
Improvement NHS: 0
Land HS: 0
Land NHS: 265,000
Productivity Market: 0
Productivity Use: 0
Assessed Value 265,000

Current/Delinquent Taxes

This is to certify that, after a careful check of the tax records of this office, the following delinquent taxes, penalties, interest and any known costs and expenses as provided by Tax Code §33.48, are due on the described property for the following taxing unit(s):

Year Entity	Taxable	Tax Due	Disc./P&I	Attorney Fee	Total Due
Totals:		0.00	0.00	0.00	0.00

Effective Date: 03/26/2024

Total Due if paid by: 03/31/2024 0.00



Tax Certificate Issued for:	Taxes Paid in 2023
COMAL COUNTY	599.43
COMAL COUNTY LATERAL ROAD	131.21
CITY OF GARDEN RIDGE	682.99
COMAL ISD	2,886.38
(ESD6) COMAL COUNTY EMERGEN	213.55

2024 PROPERTY TAXES WILL BE CALCULATED IN OCTOBER 2024 AND ARE DUE WHEN RENDERED. THE LAST DAY TO PAY BEFORE PENALTY AND INTEREST START TO ACCRUE IS JANUARY 31, 2025.

If applicable, the above-described property has/is receiving special appraisal based on its use, and additional rollback taxes may become due based on the provisions of the special appraisal (Comptroller Rule 9.3040) or property omitted from the appraisal roll as described under Tax Code Section 25.21 is not included in this certificate [Tax Code Section 31.08(b)].

Pursuant to Tax Code Section 31.08, if a person transfers property accompanied by a tax certificate that erroneously indicates that no delinquent taxes, penalties or interest are due a taxing unit on the property or that fails to include property because of its omission from an appraisal roll, the unit's tax lien on the property is extinguished and the purchaser of the property is absolved of liability to the unit for delinquent taxes, penalties or interest on the property or for taxes based on omitted property. The person who was liable for the tax for the year the tax was imposed or the property was omitted remains personally liable for the tax and for any penalties or interest.

A tax certificate issued through fraud or collusion is void.

This certificate does not clear abuse of granted exemptions as defined in Section 11.43 Paragraph(1) of the Texas Property Tax Code.

May Be Subject to Court Costs if Suit is Pending

Date of Issue: 03/26/2024
Requested By: ROCKEM REALTY LLC
Fee Amount: 10.00
Reference #:


Signature of Authorized Officer of Collecting Office

Through Tax Year
2023

TAX CERTIFICATE

Certificate #
15404

Issued By:

Comal County Tax Office
PO Box 659480
San Antonio, TX 78265-9480

Property Information

Property ID: 74448 Geo ID: 740120003003
Legal Acres: 1.4000
Legal Desc: A-120 SUR- 96 G M DOLSON, ACRES 1.4
Situs: 19186 FM 2252 GARDEN RIDGE, TX 78266
DBA:
Exemptions:

Owner ID: 982611 100.00%
ROCKEM REALTY LLC
7703 RAMBLE RIDGE
SAN ANTONIO, TX 78266

For Entities

(ESD6) COMAL COUNTY EMERGEN
CITY OF GARDEN RIDGE
COMAL COUNTY
COMAL COUNTY LATERAL ROAD
COMAL ISD
Rural Fire #3

Value Information

Improvement HS:	0
Improvement NHS:	0
Land HS:	0
Land NHS:	278,090
Productivity Market:	0
Productivity Use:	0
Assessed Value	278,090

Current/Delinquent Taxes

This is to certify that, after a careful check of the tax records of this office, the following delinquent taxes, penalties, interest and any known costs and expenses as provided by Tax Code §33.48, are due on the described property for the following taxing unit(s):

Year	Entity	Taxable	Tax Due	Disc./P&I	Attorney Fee	Total Due
Totals:			0.00	0.00	0.00	0.00

Effective Date: 03/26/2024

Total Due if paid by: 03/31/2024 0.00



Tax Certificate Issued for:

COMAL COUNTY
COMAL COUNTY LATERAL ROAD
CITY OF GARDEN RIDGE
COMAL ISD
(ESD6) COMAL COUNTY EMERGEN

Taxes Paid in 2023

629.04
137.70
716.74
3,028.96
224.10

2024 PROPERTY TAXES WILL BE CALCULATED IN OCTOBER 2024 AND ARE DUE WHEN RENDERED. THE LAST DAY TO PAY BEFORE PENALTY AND INTEREST START TO ACCRUE IS JANUARY 31, 2025.

If applicable, the above-described property has/is receiving special appraisal based on its use, and additional rollback taxes may become due based on the provisions of the special appraisal (Comptroller Rule 9.3040) or property omitted from the appraisal roll as described under Tax Code Section 25.21 is not included in this certificate [Tax Code Section 31.08(b)].

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This certificate does not clear abuse of granted exemptions as defined in Section 11.43 Paragraph(1) of the Texas Property Tax Code.

May Be Subject to Court Costs if Suit is Pending

Date of Issue: 03/26/2024
Requested By: ROCKEM REALTY LLC
Fee Amount: 10.00
Reference #:

Page: 1


Signature of Authorized Officer of Collecting Office

February 29, 2024

To: City of Garden Ridge
Attn: Nancy Cain, City Manager
9400 Municipal Parkway
Garden Ridge, TX 78266

From: Eric Fischer, The Revival
C: 210-621-7039
E: etfischer17@gmail.com

Project address:
19186 FM 2252
Garden Ridge, TX 78266

Property ID: 74448
Property ID: 74426
0.3 miles west of Fm 2252 and Nacogdoches Loop intersection
Zone: CC – Community Commercial
Acreage: 3.107 acres

In accordance with the Community Commercial District zoning, The Revival proposes to build a multi purpose entertainment venue which will have an area for food trucks. I am writing to formally submit my application for a Specific Use Permit to establish a food truck park on the above Project address. There will be 4 electrical and water hookups to allow up to four food trucks to operate at once. The food truck eating area will have numerous tables for pedestrians to sit and eat. There will be walking paths to and from the tables and food trucks. Along these paths will be numerous trash recepticals to ensure the cleanliness and safety of the food truck area. There will be minimal lights to illuminate the paths at night time. These lights will be in accordance with Garden Ridge's lighting ordinance. Each food truck will operate as its own business and pay rent to The Revival for parking and conducting business on the property. We are committed to being a responsible and contributing member of the community. It is our intention to create a space where the Garden Ridge community and surrounding area patrons can come together and enjoy time with friends and family. We are committed to engaging in open dialogue with the community to ensure that our establishment is a positive addition. Enclosed with this letter, you will find the completed application form along with all required supporting documents.

Sincerely,

A handwritten signature in black ink, appearing to read 'E. Fischer', with a long horizontal flourish extending to the right.

Eric Fischer

February 29, 2024

To: City of Garden Ridge
Attn: Nancy Cain, City Manager
9400 Municipal Parkway
Garden Ridge, TX 78266

From: Eric Fischer, The Revival
C: 210-621-7039
E: etfischer17@gmail.com

Project address:
19186 FM 2252
Garden Ridge, TX 78266

Property ID: 74448
Property ID: 74426
0.3 miles west of Fm 2252 and Nacogdoches Loop intersection
Zone: CC – Community Commercial
Acreage: 3.107 acres

In accordance with the Community Commercial District zoning, The Revival proposes to build a multi purpose entertainment venue which will have an area for pickle ball courts. I am writing to formally submit my application for a Specific Use Permit to construct a pickleball court at the above Project address. There will be 4 outdoor pickle ball courts with locations outlined in our previously submitted master plan that will be rented out to players on a first come first serve basis. The plan demonstrates compliance with setback requirements and other relevant regulations. We understand the importance of minimizing noise disturbances to neighboring properties. The pickleball court will be designed and operated in a manner that minimizes noise impact on the surrounding community. Hedges and landscaping will be planted to help create a natural noise barrier. The pickle ball courts will have outdoor lighting that will follow the Garden Ridge lighting ordinance. We are committed to being a responsible and contributing member of the community. It is our intention to create a space where the Garden Ridge community and surrounding area patrons can come together and enjoy time with friends and family. We are committed to engaging in open dialogue with the community to ensure that our establishment is a positive addition. Enclosed with this letter, you will find the completed application form along with all required supporting documents.

Sincerely,

A handwritten signature in black ink, appearing to read "Eric Fischer", with a stylized flourish extending to the right.

Eric Fischer

February 29, 2024

To: City of Garden Ridge
Attn: Nancy Cain, City Manager
9400 Municipal Parkway
Garden Ridge, TX 78266

From: Eric Fischer, The Revival
C: 210-621-7039
E: etfischer17@gmail.com

Project address:
19186 FM 2252
Garden Ridge, TX 78266

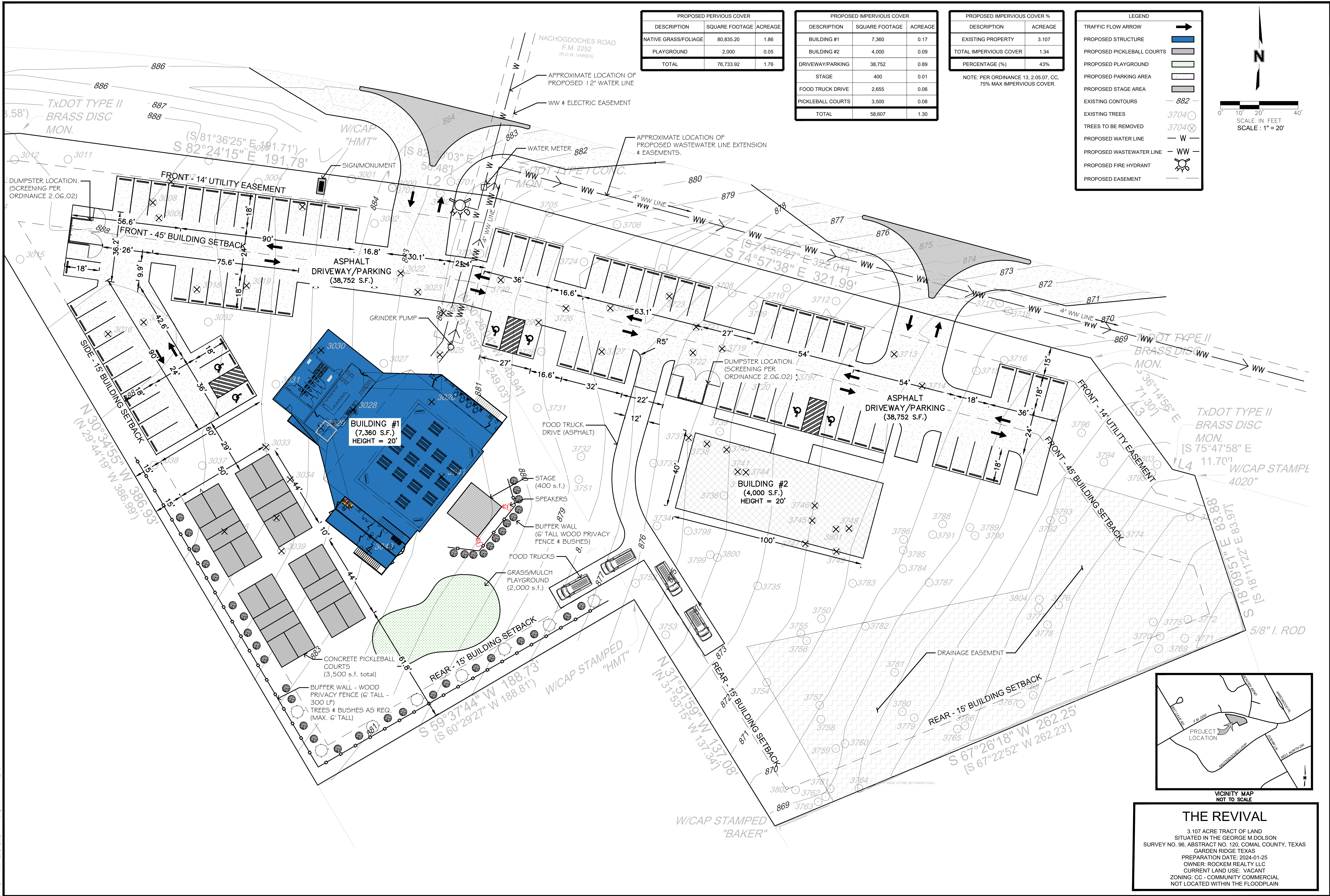
Property ID: 74448
Property ID: 74426
0.3 miles west of Fm 2252 and Nacogdoches Loop intersection
Zone: CC – Community Commercial
Acreage: 3.107 acres

In accordance with the Community Commercial District zoning, The Revival proposes to build a multi purpose entertainment venue which will have an indoor/outdoor bar area. I am writing to formally submit my application for a Specific Use Permit to establish a bar at the above Project address. The bar will serve beer, wine, and mixed drinks. There will be inside and outside seating, televisions, outdoor fans and heaters, as well as a small stage for acoustic style music to be played. The bar will not be cooking or serving food. There will be games spread around the bar such as corn hole, darts, shuffle board, and washers. The bar will have multiple elevated decks not to exceed the height ordinance for buildings. There will be indoor and outdoor lighting in accordance with the Garden Ridge lighting ordinance. Parking has been designed based on the size and seating available for the venue. The bar will implement measures to minimize noise disturbances and maintain a clean and safe environment. The establishment will implement adequate security measures to ensure the safety of patrons and surrounding residents. This may include cameras and security guards when needed. We are committed to being a responsible and contributing member of the community. It is our intention to create a space where the Garden Ridge community and surrounding area patrons can come together and enjoy time with friends and family. We are committed to engaging in open dialogue with the community to ensure that our establishment is a positive addition. Enclosed with this letter, you will find the completed application form along with all required supporting documents.

Sincerely,



Eric Fischer



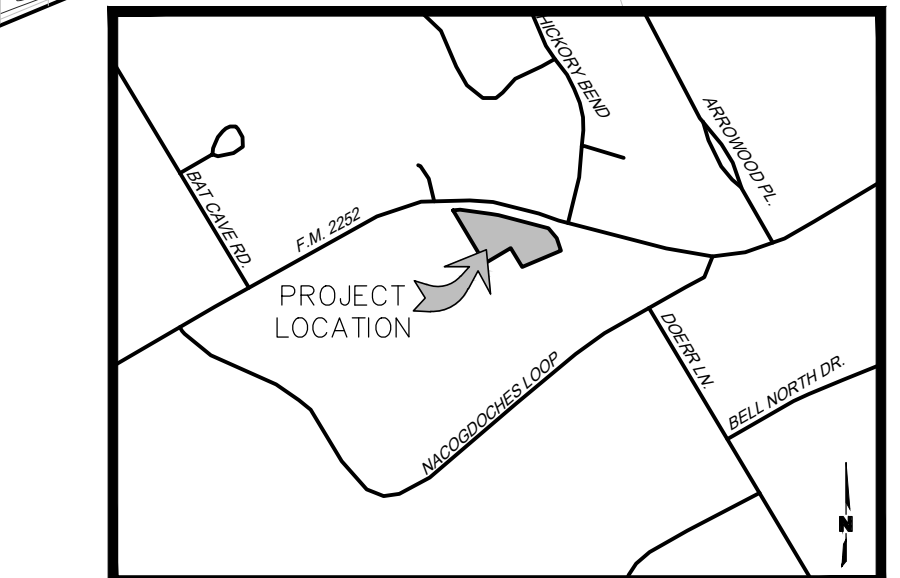
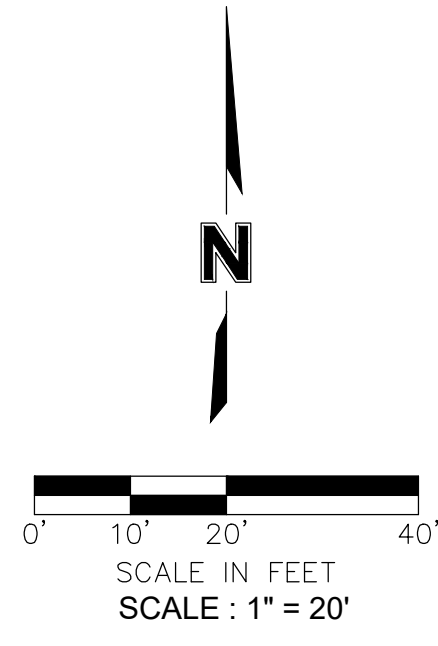
PROPOSED PERVIOUS COVER		
DESCRIPTION	SQUARE FOOTAGE	ACREAGE
NATIVE GRASS/FOLIAGE	80,835.20	1.86
PLAYGROUND	2,000	0.05
TOTAL	76,733.92	1.76

PROPOSED IMPERVIOUS COVER		
DESCRIPTION	SQUARE FOOTAGE	ACREAGE
BUILDING #1	7,360	0.17
BUILDING #2	4,000	0.09
DRIVEWAY/PARKING	38,752	0.89
STAGE	400	0.01
FOOD TRUCK DRIVE	2,655	0.06
PICKLEBALL COURTS	3,500	0.08
TOTAL	58,607	1.30

PROPOSED IMPERVIOUS COVER %	
DESCRIPTION	ACREAGE
EXISTING PROPERTY	3.107
TOTAL IMPERVIOUS COVER	1.34
PERCENTAGE (%)	43%

NOTE: PER ORDINANCE 13, 2.05.07, CC, 75% MAX IMPERVIOUS COVER.

LEGEND	
TRAFFIC FLOW ARROW	→
PROPOSED STRUCTURE	[Blue Shaded Area]
PROPOSED PICKLEBALL COURTS	[Dotted Pattern]
PROPOSED PLAYGROUND	[Green Dotted Pattern]
PROPOSED PARKING AREA	[Hatched Pattern]
PROPOSED STAGE AREA	[Diagonal Hatched Pattern]
EXISTING CONTOURS	882
EXISTING TREES	3704
TREES TO BE REMOVED	3704
PROPOSED WATER LINE	W
PROPOSED WASTEWATER LINE	WW
PROPOSED FIRE HYDRANT	[Fire Hydrant Symbol]
PROPOSED EASEMENT	[Line with Arrow]



VICINITY MAP
NOT TO SCALE

THE REVIVAL

3.107 ACRE TRACT OF LAND
SITUATED IN THE GEORGE M. DOLSON
SURVEY NO. 96, ABSTRACT NO. 120, COMAL COUNTY, TEXAS
GARDEN RIDGE, TEXAS
PREPARATION DATE: 2024-01-25
OWNER: ROCKEM REALTY LLC
CURRENT LAND USE: VACANT
ZONING: CC - COMMUNITY COMMERCIAL
NOT LOCATED WITHIN THE FLOODPLAIN



SCALE IN FEET

ADJACENT PROPERTY OWNERS

①	PROPERTY ID: 74449 ADDRESS: 19187 FM 2252 DOUGHERTY LAWRENCE & ANA RVCBL TRST ZONED: NC - NEIGHBORHOOD COMMERCIAL CURRENT LAND USE: DEVELOPED DEED VOLUME: 202206045544 LEGAL DESCRIPTION: A-120 SUR- 96 G M DOLSON
②	PROPERTY ID: 101076 ADDRESS: 19243 FM 2252 DUBOIS-TRE LLC ZONED: NC - NEIGHBORHOOD COMMERCIAL CURRENT LAND USE: DEVELOPED DEED VOLUME: 201706026260 LEGAL DESCRIPTION: HOWELL PARK, BLOCK 1, LOT 3
③	PROPERTY ID: 101075 ADDRESS: 19269 FM 2252 WMMT VENTURES LLC ZONED: NC - NEIGHBORHOOD COMMERCIAL CURRENT LAND USE: DEVELOPED DEED VOLUME: 20146202938 LEGAL DESCRIPTION: HOWELL PARK, BLOCK 1, LOT 2
④	PROPERTY ID: 101074 ADDRESS: 19295 FM 2252 19295 FM 2252, LLC ZONED: NC - NEIGHBORHOOD COMMERCIAL CURRENT LAND USE: DEVELOPED DEED VOLUME: 202206046375 LEGAL DESCRIPTION: HOWELL PARK, BLOCK 1, LOT 1
⑤	PROPERTY ID: 464603 ADDRESS: 19312 FM 2252 VAQUERO GRANDE LLC ZONED: CC - COMMUNITY COMMERCIAL CURRENT LAND USE: UNDEVELOPED (VACANT) DEED VOLUME: N/A LEGAL DESCRIPTION: PENSIONMARK OFFICE CENTER, BLOCK 1, LOT 1
⑥	PROPERTY ID: 74450 ADDRESS: 19197 NACOGDOCHES LOOP 19197 NACOGDOCHES LOOP TRUST ZONED: AG - AGRICULTURE AND AGRICULTURAL HOMESTEAD CURRENT LAND USE: DEVELOPED (RESIDENTIAL) DEED VOLUME: 202306004671 LEGAL DESCRIPTION: A-120 SUR- 96 G M DOLSON, ACRES 2.672
⑦	PROPERTY ID: 74447 ADDRESS: 19195 NACOGDOCHES LOOP GALLEGO SALVADOR & DAMARIS ZONED: AG - AGRICULTURE AND AGRICULTURAL HOMESTEAD CURRENT LAND USE: DEVELOPED (RESIDENTIAL) DEED VOLUME: 201406026781 LEGAL DESCRIPTION: A-120 SUR- 96 G M DOLSON, ACRES 3.319
⑧	PROPERTY ID: 74463 ADDRESS: 19204 FM 2252 COVENANT BAPTIST CHURCH OF GARDEN RIDGE ZONED: AG - AGRICULTURE AND AGRICULTURAL HOMESTEAD CURRENT LAND USE: DEVELOPED (COMMERCIAL) DEED VOLUME: 865, PG. 095, #865095 LEGAL DESCRIPTION: A-120 SUR- 96 G M DOLSON, ACRES 5.423

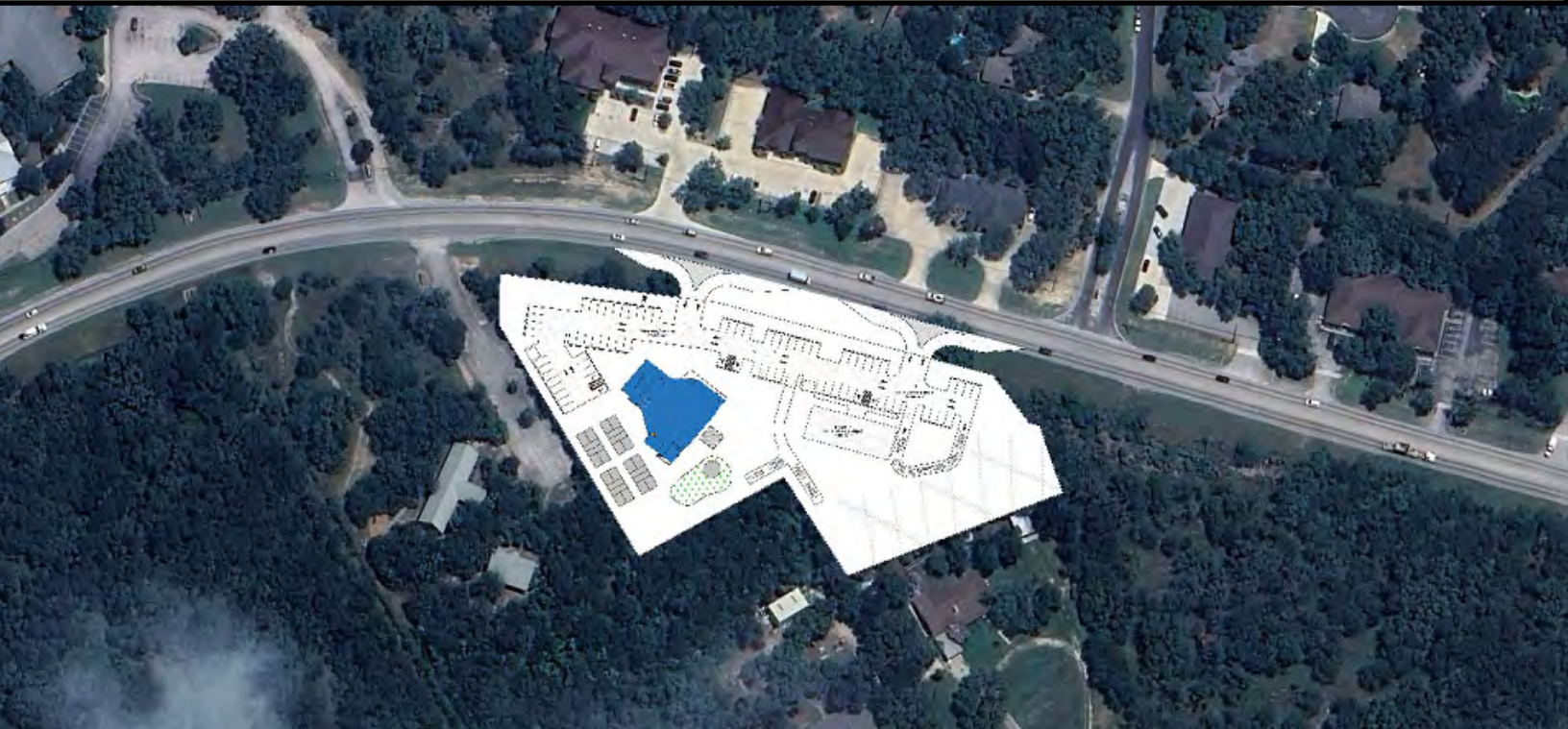
PROJECT LOCATION

ADJACENT PROPERTY MAP
NOT TO SCALE

THE REVIVAL
3.107 ACRE TRACT OF LAND
SITUATED IN THE GEORGE M.DOLSON
SURVEY NO. 96, ABSTRACT NO. 120, COMAL COUNTY, TEXAS
GARDEN RIDGE TEXAS
PREPARATION DATE: 2024-01-25
OWNER: ROCKEM REALTY LLC
CURRENT LAND USE: VACANT
ZONING: CC - COMMUNITY COMMERCIAL
NOT LOCATED WITHIN THE FLOODPLAIN

TRAFFIC IMPACT ANALYSIS

The Revival Commercial Development
FM 2252 (Nacogdoches Road)
Garden Ridge, Texas



Prepared for: Rock'em Realty, LLC
7703 Ramble Ridge
San Antonio, Texas 78266

Prepared by: AC Group, LLC
5828 Sebastian Place, Suite 108
Seguin, Texas 78249

February 29, 2024
Project No. 2024001100

Revised: March 25, 2024



3/25/24



Texas TBPE Firm No. F-11727

TRAFFIC IMPACT ANALYSIS

The Revival Commercial Development Garden Ridge, Texas

**March 2024
Version 1
Revision 2**

Prepared by:



**AC Group, LLC
5828 Sebastian Place, Ste. 108
Seguin, Texas 78249
(210) 535-3558
TBPE Firm Registration No. F-11727**

EXECUTIVE SUMMARY

Project Description

As per the requirements of the City of Garden Ridge, a Traffic Impact Analysis (TIA) has been prepared on behalf of TX2 Engineering for the proposed The Revival Commercial Development to be located at FM 2252 in Garden Ridge, Texas. The proposed The Revival Commercial Development will have as much as 3,763 square feet of Drinking Place – Bar (ITE Code: 975), as many as 4 courts of Pickle Ball (ITE Code: 490), as much as 4,699 square feet of Strip Retail Plaza (ITE Code: 822), and as many as 4 Food Trucks (ITE Code: 926). The proposed development will generate as many as 116 evening peak hour trips.

TxDOT is currently under design of proposed improvements to FM 2252 from Evans Road to FM 3009 in Bexar and Comal Counties. Proposed improvements to FM 2252 include: reconstruction and widening of the existing facility from a two-lane roadway to a four-lane roadway with a raised median or continuous left-turn lane; addition of bicycle lanes, shared-use path, curb and sidewalks in each direction; and replacement of an existing bridge over Cibolo Creek and an overpass at the Union Pacific Railroad crossing.

Access Driveways

Access to the proposed The Revival Commercial Development will include two proposed access driveways along FM 2252 (Nacogdoches Road) to be located approximately 180' west of Hickory Bend (Driveway No. 1) and approximately 580' west of Hickory Bend (Driveway No. 2). Both proposed access driveways will operate as right-in / right-out driveways as a result of a future TxDOT roadway widening to include a concrete raised median adjacent to the proposed commercial development.

Traffic Impact Analysis

Traffic simulation models developed for The Revival Commercial Development study area intersections demonstrated minor impacts to the surrounding roadway system as a result of the trips to be generated by the proposed development. All intersections were shown to continue to operate at Level-of-Service (LOS) A however at the FM 2252 and Bat Cave Road intersection, the southbound Bat Cave Road approach was shown to worsen from a LOS D (33.1 seconds delay per vehicle) to LOS E (37.1 seconds delay per vehicle) during the evening peak hour. Proposed roadway improvements by TxDOT, discussed on page 13, will include the installation of a traffic control signal at FM 2252 and Bat Cave Road and will return the intersection southbound approach to an acceptable level of service (LOS B during the morning and evening peak hours). No additional mitigation measures would be recommended for this intersection.

Turn Lane Analysis

Table 2-3 of the TxDOT *Access Management Manual* requires that a left or right-turn lane be installed when turn volumes exceed 50 vehicles per hour in a 45 mile per hour (or greater) speed zone and 60 vehicles per hour in speed zones less than 45 miles per hour. FM 2252 has a posted speed limit of 50 miles per hour and would have a threshold turn volume of 50 vehicles per hour.

Proposed Driveway No. 1 along FM 2252 has a projected eastbound right-turn volume of 4 vehicles per hour during the morning peak hour and 32 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 1 along FM 2252.

Proposed Driveway No. 2 along FM 2252 has a projected eastbound right-turn volume of 3 vehicles per hour during the morning peak hour and 31 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 2 along FM 2252.

TRAFFIC IMPACT ANALYSIS

The Revival Commercial Development Garden Ridge, Texas

PROJECT SCOPE

As per the requirements of the City of Garden Ridge, a Traffic Impact Analysis (TIA) has been prepared on behalf of TX2 Engineering for the proposed The Revival Commercial Development to be located along FM 2252 in Garden Ridge, Texas. The proposed The Revival Commercial Development will have as much as 3,763 square feet of Drinking Place – Bar (ITE Code: 975), as many as 4 courts of Pickle Ball (ITE Code: 490), as much as 4,699 square feet of Strip Retail Plaza (ITE Code: 822), and as many as 4 Food Trucks (ITE Code: 926). The proposed development will generate as many as 116 evening peak hour trips. Figure 1 below shows a location map for the proposed The Revival Commercial Development along FM 2252 (Nacogdoches Road) in Garden Ridge, Texas.

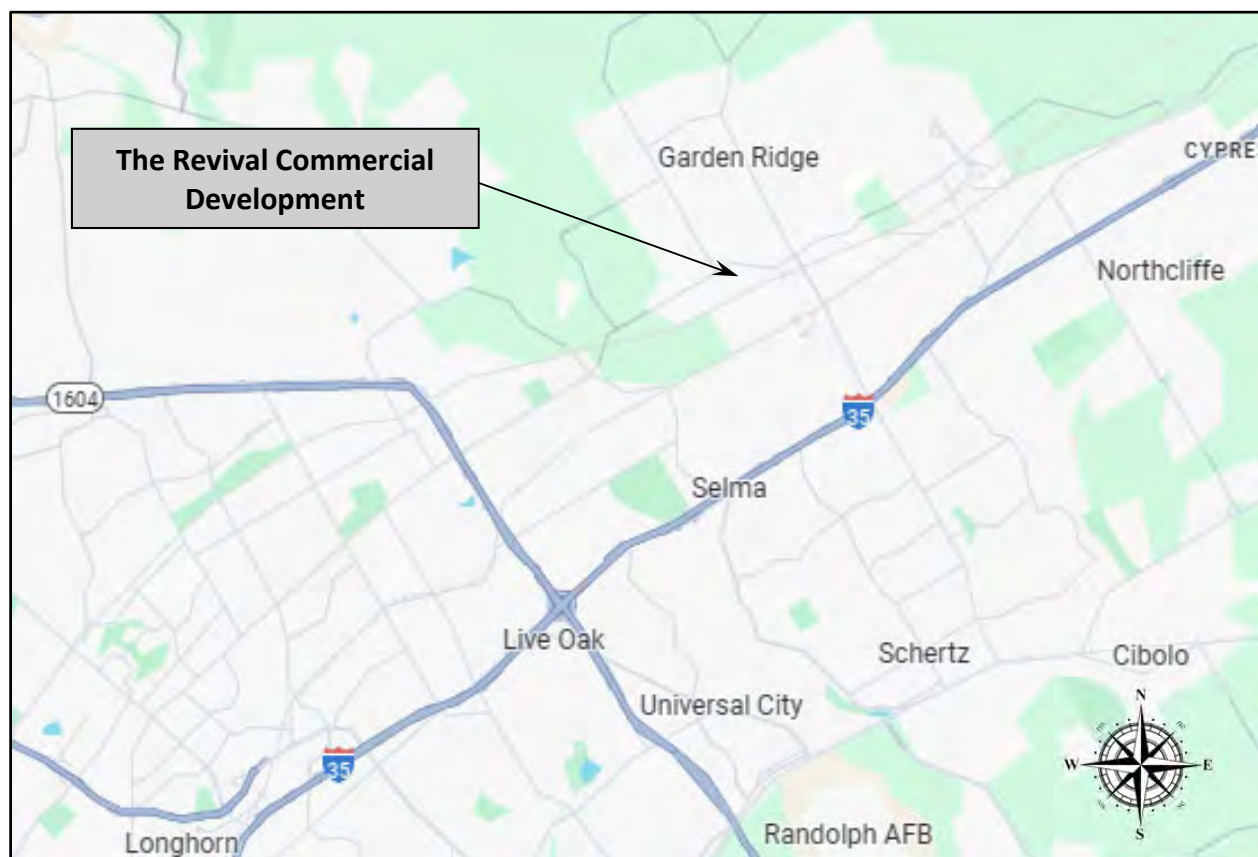


Figure 1. Location Map for the Proposed The Revival Commercial Development

Access to the proposed The Revival Commercial Development will include two proposed access driveways along FM 2252 (Nacogdoches Road) to be located approximately 180' west of Hickory Bend (Driveway No. 1) and approximately 580' west of Hickory Bend (Driveway No. 2). Both proposed access driveways will operate as right-in / right-out driveways as a result of a future TxDOT roadway widening to include a concrete raised median adjacent to the proposed commercial development. Figure 2 below shows an aerial location map of the proposed Armadillo Den Development along FM 306 and Figure 3 shows a site plan of the proposed Armadillo Den Development.



Figure 2. Aerial Location Map for the Proposed The Revival Commercial Development

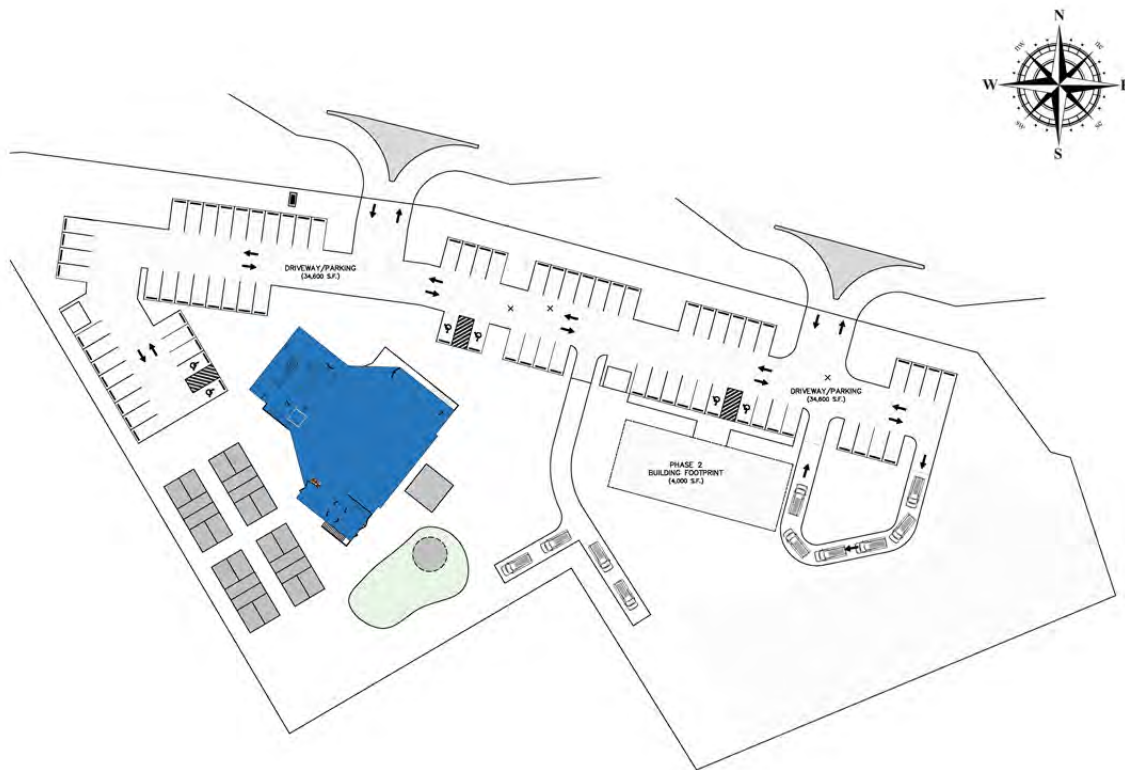


Figure 3. Site Plan for Proposed The Revival Commercial Development

STUDY AREA

The City of Garden Ridge has determined the study area for this traffic impact analysis to include the FM 2252 and Hickory Bend intersection, the FM 2252 and Bat Cave Road intersection and each of the proposed access driveways along FM 2252. Figure 4 below shows existing and proposed study intersections along FM 2252.



Figure 4. Study Intersections for the Proposed The Revival Commercial Development TIA

LAND USE AND ZONING

The proposed The Revival Commercial Development is to be located on a site zoned as Agriculture and Agricultural Homestead (AG) land use and has a legal description of A-120 SUR-96 G M DOLSON, ACRES 1.7085. The surrounding zoning districts along FM 2252 include other Agriculture and Agricultural Homestead (AG) and Neighborhood Commercial Districts (NC) along FM 2252, as shown in Figure 5 below. The proposed The Revival Commercial Development is also partially located within an Aquifer Protection (AP) District.

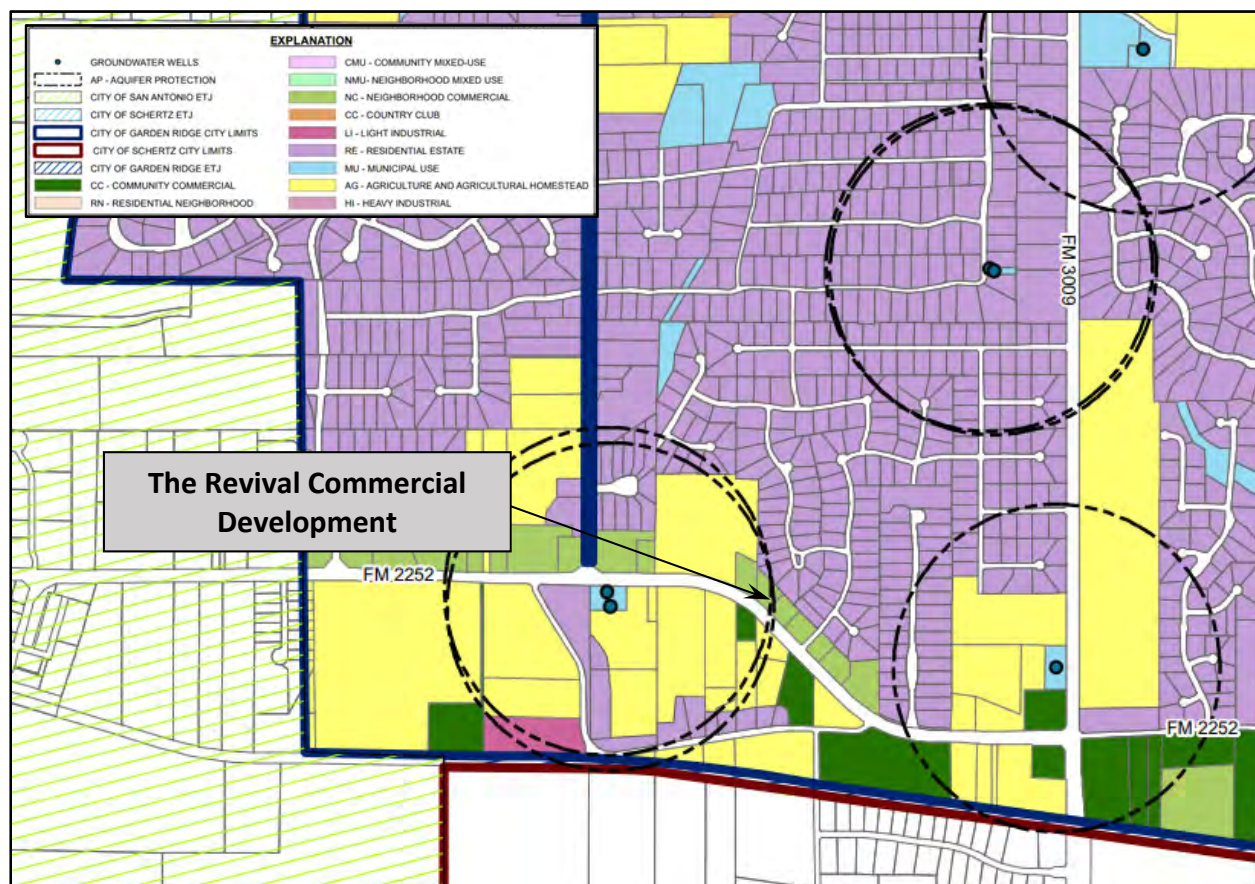


Figure 5. City of Garden Ridge Zoning Map in the Vicinity of the Proposed The Revival Commercial Development

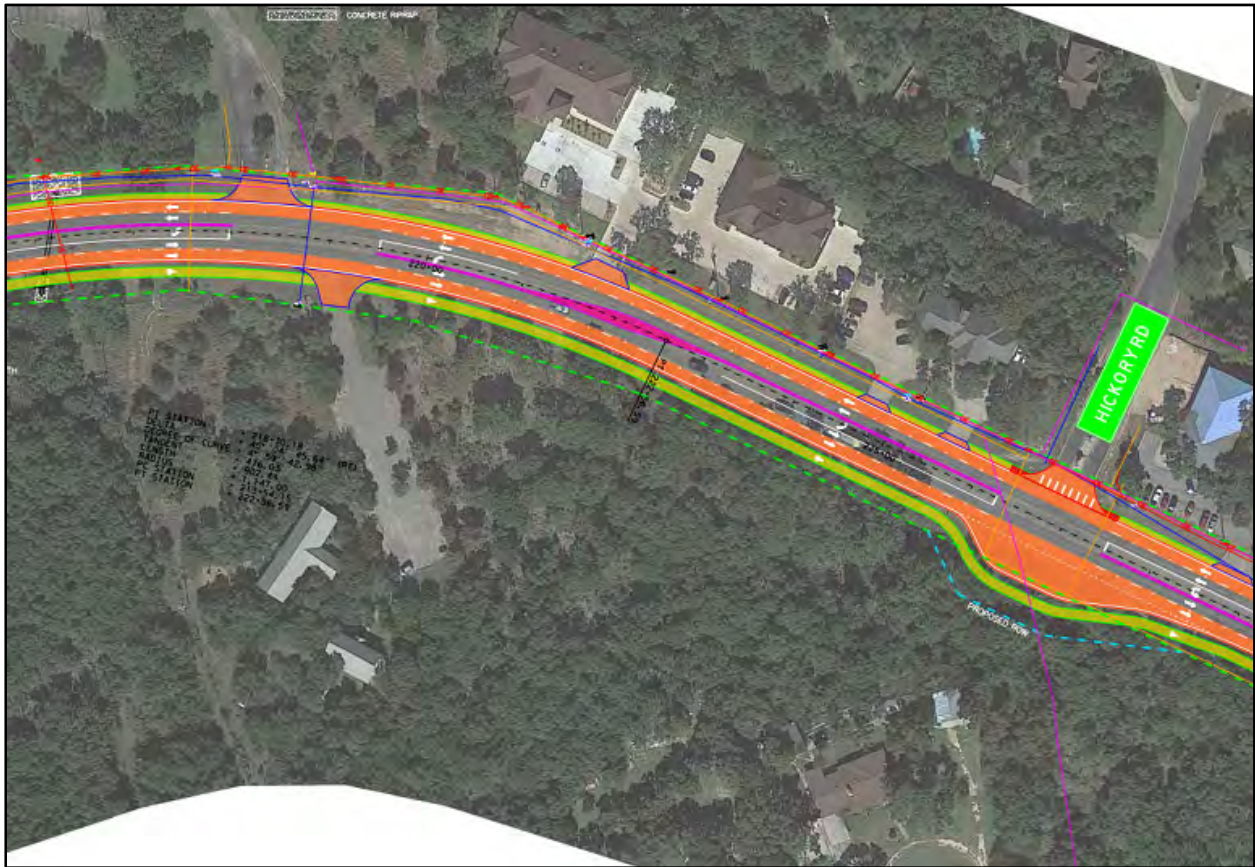
EXISTING ROADWAYS

Nacogdoches Road (FM 2252) is an uncurbed 42' wide paved roadway with one 12' lane in each direction of travel, a 14' continuous two-way, left-turn lane (CTWLTL), and 2' shoulders. FM 2252 has no sidewalks and no bicycle lanes in the vicinity of the proposed development. FM 2252 is classified as a Farm-to-Market roadway by the City of Garden Ridge and has a posted speed limit of 50 miles per hour. FM 2252 currently has fair pavement conditions with no observed longitudinal cracks and fading pavement markings. Figure 6 below shows FM 2252 adjacent to the proposed development.

TxDOT is currently under design of proposed improvements to FM 2252 from Evans Road to FM 3009 in Bexar and Comal Counties. Proposed improvements to FM 2252 include: reconstruction and widening of the existing facility from a two-lane roadway to a four-lane roadway with a raised median or continuous left-turn lane; addition of bicycle lanes, shared-use path, curb and sidewalks in each direction; and replacement of an existing bridge over Cibolo Creek and an overpass at the Union Pacific Railroad crossing. Figure 7 shows the proposed FM 2252 schematic adjacent to the proposed development.



Figure 6. Nacogdoches Road (FM 2252) – Facing South from Hickory Bend



AC GROUP LLC
TRAFFIC ENGINEERING AND DATA COLLECTION

Hickory Bend is an uncurbed 22' wide paved roadway with one 11' lanes in each direction of travel and no shoulders. Hickory Bend does widen to 44' at FM 2252 with a 16' lane in each direction and a 12' raised median. Hickory Bend has no sidewalks and no bicycle lanes in the vicinity of the proposed development. Hickory Bend has a posted speed limit of 30 miles per hour. Hickory Bend currently has fair pavement conditions with sealed longitudinal cracks and no pavement markings. Figure 8 below shows Hickory Bend across from the proposed development.



Figure 8. Hickory Bend – Facing North from Nacogdoches Road

Bat Cave Road is an uncurbed 22' wide paved roadway with one 11' lane in each direction of travel and no shoulders. Bat Cave Road has no sidewalks and no bicycle lanes in the vicinity of the proposed development. Bat cave Road has a posted speed limit of 35 miles per hour. Bat Cave Road currently has fair pavement conditions with no observed longitudinal cracks and fading pavement markings. Figure 9 below shows Bat Cave Road west of the proposed development.



Figure 9. Bat Cave Road – Facing North from Nacogdoches Road

As discussed previously, TxDOT is currently under design of proposed improvements to FM 2252 from Evans Road to FM 3009 in Bexar and Comal Counties. Proposed improvements to the FM 2252 and Bat Cave Road intersection include reconstruction and widening of the existing FM 2252 facility from a two-lane roadway to a four-lane roadway with a raised median east of Bat Cave Road and a continuous two-way, left-turn lane (CTWLTL) west of Bate Cave Road. The intersection is also proposed for traffic signal control. Figure 9 shows the proposed FM 2252 and Bat Cave Road schematic west of the proposed development.

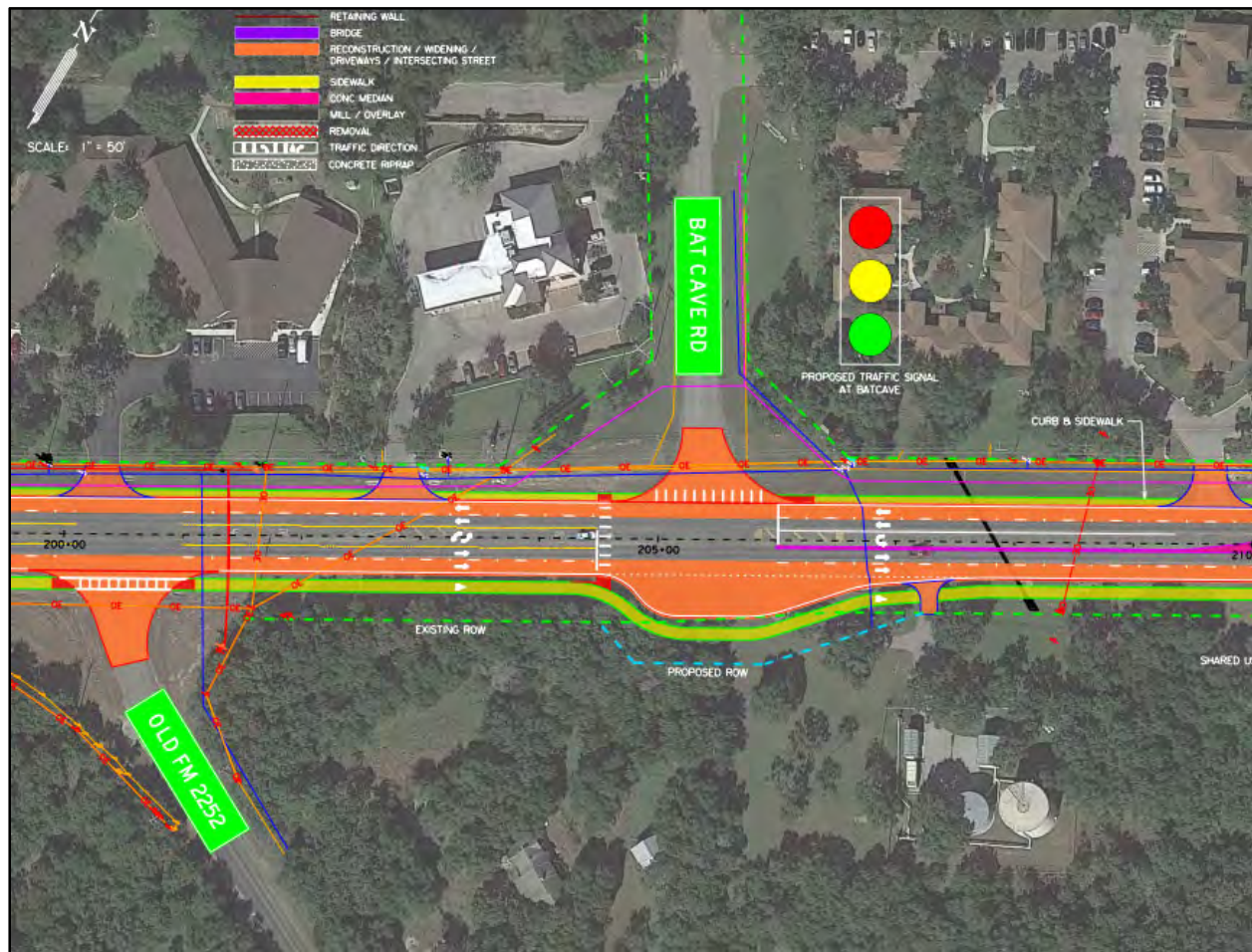


Figure 9. Bat Cave Road – Facing North from Nacogdoches Road

ACCESS DRIVEWAYS

Access to the proposed The Revival Commercial Development will include two proposed access driveways along FM 2252 (Nacogdoches Road) to be located approximately 180' west of Hickory Bend (Driveway No. 1) and approximately 580' west of Hickory Bend (Driveway No. 2). Both proposed access driveways will operate as right-in / right-out driveways as a result of a future TxDOT roadway widening to include a concrete raised median adjacent to the proposed commercial development. Figure 11 below shows the proposed access driveways along FM 2252 west of Hickory Bend.



Figure 11. Proposed Access Driveways for The Revival Commercial Development

EXISTING TRAFFIC DATA

The TxDOT Traffic Count Database System (TCDS) shows that FM 2252, west of FM 3009 had an average daily traffic (ADT) volume of 10,722 vehicles per day in 2020 and 11,683 vehicles per day in 2022. Turning movement count (TMC) data collected at each of the study intersections on Wednesday, February 14, 2024 and TxDOT TCDS sheets are included in Appendix D.

BACKGROUND TRAFFIC GROWTH

An annual average growth rate (AAGR) was calculated at 4.50% per year based on historical average daily traffic (ADT) counts available on the Texas Department of Transportation (TxDOT) Traffic Count Database System (TCDS) for 2020 and 2022. Historical average daily traffic data was available for FM 2252, west of FM 3009. This rate represents the annual average growth rate (AAGR) for the area surrounding in the vicinity of the proposed development. The table below illustrates ADT data for FM 2252, west of FM 3009.

Table 1. Annual Average Growth Rate for FM 2252, West of FM 3009

Location	Year	ADT	Rate of Growth	Proposed AAGR (%)
FM 2252	2020	10,722	-	
	2022	11,683	0.04385	4.50%

PROJECTED TRAFFIC DATA

Projected traffic volume data may be calculated for a 2025 project completion using a 4.50% annual average growth rate (AAGR), as determined in the previous section. The 2025 projected average daily traffic (ADT) volume for FM 2252, west of FM 3009 was calculated as 13,332 vehicles per day.

TRIP GENERATION

Using the Eleventh Edition of the ITE *TRIP GENERATION MANUAL* reference, the proposed The Revival Commercial Development is projected to generate trips based on as many as four Pickle Ball Courts (ITE Code: 490), as much as 4,699 square feet of Strip Retail Plaza (ITE Code: 822) building space, as much as four Food Trucks (ITE Code: 926) and as much as 3,763 square feet of Drinking Place (ITE Code: 975). The proposed development will generate as many as 11 morning peak hour trips and 116 evening peak hour trips. Table 2 shows projected trip generation for the proposed The Revival Commercial Development.

The ITE Trip Generation Manual describes Tennis (Pickle Ball) Courts (ITE Code: 490) as indoor or outdoor facilities specifically designed for playing tennis. Tennis courts can either be public or private facilities and do not typically include any ancillary facilities other than limited spectator seating.

The ITE Trip Generation Manual describes a Strip Retail Plaza (<40K) (ITE Code: 822) as an integrated group of commercial establishments that is planned, developed, owned, and managed as a unit. Each study site in this land use has less than 40,000 square feet of gross leasable area (GLA). Because a strip retail plaza is open-air, the GLA is the same as the gross floor area of the building.

The ITE Trip Generation Manual describes a Food Cart Pod (ITE Code: 926) as a group of food carts or food trucks congregated in an established location, such as a parking lot, on a semi-permanent or regular basis. A food cart pod typically operates during both the lunch and dinner timeframes. A food cart pod often includes limited covered seating or a dining area. A food cart pod may also include the sale of alcoholic beverages.

The ITE Trip Generation Manual describes a Drinking Place (ITE Code: 975) as a place that contains a bar, where alcoholic beverages and food are sold, and possibly some type of entertainment, such as music, television screens, video games, or pool tables. Establishments that specialize in serving food but also have bars are not included in this land use.

Table 2. ITE Trip Generation for the Proposed The Revival Commercial Development

TRIP GENERATION									
ITE Code	Weekday 24 Hour		Weekday AM Peak		Weekday PM Peak		Saturday 24 Hour	Saturday Peak Hour	
490	Tennis Courts (Pickle Ball Courts)								
Rate / Court	30.32		No ITE Trip Data Available		4.21		No ITE Trip Data Available	No ITE Trip Data Available	
Courts	4				4				
Trips	121				17				
% Enter/Exit	50%	50%			50%	50%			
# Enter/Exit	60	61			8	9			
822	Strip Retail Plaza								
Rate / KSF	54.45		2.36		6.59		No ITE Trip Data Available	6.57	
KSF	4.699		4.699		4.699			4.699	
Trips	256		11		31			31	
% Enter/Exit	50%	50%	60%	40%	50%	50%		51%	49%
# Enter/Exit	128	128	7	4	15	16		16	15
926	Food Truck								
Rate / KSF	No ITE Trip Data Available		No ITE Trip Data Available		6.16		No ITE Trip Data Available	No ITE Trip Data Available	
KSF					4				
Trips					25				
% Enter/Exit					50%	50%			
# Enter/Exit					12	13			

Source: ITE Trip Generation Manual, Eleventh Edition

Table 2. ITE Trip Generation for the Proposed The Revival Commercial Development
(Continued)

TRIP GENERATION										
ITE Code	Weekday 24 Hour		Weekday AM Peak		Weekday PM Peak		Saturday 24 Hour		Saturday Peak Hour	
975	Drinking Place (Bar Area)									
Rate / KSF	No ITE Trip Data Available		No ITE Trip Data Available		11.36		No ITE Trip Data Available		No ITE Trip Data Available	
KSF					3.763					
Trips					43					
% Enter/Exit					66%	34%				
# Enter/Exit					28	15				
Total Trips	188	189	7	4	63	53	No ITE Trip Data Available		16	15
	377		11		116				31	

Source: ITE Trip Generation Manual, Eleventh Edition

TRIP DISTRIBUTION

Trip distribution for the proposed The Revival Commercial Development was based on the surrounding roadway system and anticipated routes to and from the surrounding major highway system, specifically along FM 2252. Trip distribution for the proposed The Revival Commercial Development was forecasted as 50% from areas east of the proposed development traveling along FM 2252 and 50% from areas west of the proposed development traveling along FM 2252. Table 3 below shows the projected trip distribution of trips to be generated by the proposed The Revival Commercial Development to be located along FM 2252 west of Hickory Bend in Garden Ridge, Texas.

Table 3. Trip Distribution for the Proposed The Revival Commercial Development

TRIP DISTRIBUTION								
	Weekday AM Peak				Weekday PM Peak			
Enter	EB FM 2252	WB FM 2252			EB FM 2252	WB FM 2252		
	50%	50%			50%	50%		
	4	3			32	31		
	7				63			
Exit	EB FM 2252	WB FM 2252			EB FM 2252	WB FM 2252		
	50%	50%			50%	50%		
	2	2			27	26		
	4				53			

TRAFFIC IMPACT ANALYSIS

In determining traffic impacts to the surrounding roadway system as a result of trips to be generated by the proposed The Revival Commercial Development, a microscopic traffic simulation model was developed to evaluate capacity and levels-of-service at each of the study intersections. The Synchro traffic simulation software was used to analyze the existing traffic conditions (2024), projected without proposed development (No Build – 2025), and projected with the proposed development (Built Out – 2025) traffic conditions. The results from the traffic simulation analysis are used to determine the need for appropriate traffic impact mitigation measures.

TRAFFIC SIMULATION ANALYSIS

The Synchro traffic signal software simulation software was utilized for comparison of the alternative scenarios. The analysis process involved the development of a base model (network with existing conditions), calibration of the base model (validation of traffic conditions), and alternative comparisons to the base model (traffic impact assessment).

Development of the base model involves the development of a system network, also referred to as the link-node network. The network development inputs include: link-node assignment, traffic control (e.g., stop signs and traffic signalization), roadway and intersection geometry, lane assignments, traffic volumes, and turning movements. The calibration of the base model requires the iterative adjustment of the network inputs to simulate existing roadway traffic conditions. Traffic data was collected for the FM 2252 at Hickory Bend and the FM 2252 and Bat Cave Road intersections on Wednesday, February 14, 2024. **The traffic simulation analysis periods were 7:15 to 8:15 AM for the morning weekday peak period and 4:30 to 5:30 PM for the evening weekday peak period.**

An intersection capacity analysis was conducted for the following intersections:

- FM 2252 and Hickory Bend
- FM 2252 and Bat Cave Road (Proposed Traffic Signal by TxDOT)
- FM 2252 and Access Driveway No. 1
- FM 2252 and Access Driveway No. 2

It should be noted that the FM 2252 and Bat Cave Road intersection was analyzed as a stop controlled intersection during existing and no-build traffic conditions but changed to traffic signal control at build-out, as proposed by the Texas Department of Transportation (TxDOT) for installation during the TxDOT roadway widening project.

TRAFFIC SIMULATION RESULTS

Results from the traffic simulation analysis are correlated to the level-of-service criteria shown in Table 4 and summarized in Tables 5 and 8. The tables show approach control delay (seconds per vehicle) and the overall average intersection delay (seconds per vehicle).

Table 4. Level-of-Service Criteria for Signalized and Unsignalized Intersections

Level-of-Service (LOS)	Control Delay (seconds/vehicle)		Description
	Signalized Intersections	Unsignalized Intersections	
A	≤10.0	≤10.0	Very low vehicle delay, free traffic flow, good signal progression
B	10.1 to 20.0	10.1 to 15.0	Good signal progression, more vehicle stops and higher delay than LOS A
C	20.1 to 35.0	15.1 to 25.0	Stable traffic flow, fair signal progression, significant number of vehicle stops
D	35.1 to 55.0	25.1 to 35.0	Noticeable traffic congestion, longer delays and unfavorable signal progression
E	55.1 to 80.0	35.1 to 50.0	Limit of acceptable vehicle delay, unstable traffic flow, poor signal progression
F	> 80.0	> 50.0	Unacceptable delay, extremely unstable flow, heavy congestion, traffic exceeds capacity

Source: [Highway Capacity Manual](#), Transportation Research Board, 2000.

Baseline Traffic Conditions

Traffic operational impacts are determined by a comparison of the “Build Out” traffic conditions (traffic conditions with completion of the proposed development) to the “No Build” traffic conditions (traffic conditions without proposed development) for each of the study intersections, as shown in Tables 5 through 8. The No Build traffic conditions are considered the baseline traffic conditions. “Existing” traffic conditions are also included in each LOS summary table and shown as a benchmark.

Table 5. LOS Summary for the FM 2252 and Hickory Bend Intersection

	Intersection Approaches									
	Northbound		Southbound Hickory		Eastbound FM 2252		Westbound FM 2252		Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
Morning Peak Period										
Existing (2024)			16.0	C	0.1	A	0.0	A	0.6	A
No Build (2025)			16.9	C	0.1	A	0.0	A	0.6	A
Built Out (2025)			16.9	C	0.1	A	0.0	A	0.6	A
Evening Peak Period										
Existing (2024)			16.7	C	0.2	A	0.0	A	0.4	A
No Build (2025)			17.2	C	0.2	A	0.0	A	0.4	A
Built Out (2025)			18.1	C	0.2	A	0.0	A	0.4	A

Table 6. LOS Summary for the FM 2252 and Bat Cave Road Intersection

	Intersection Approaches									
	Northbound		Southbound Bat Cave		Eastbound FM 2252		Westbound FM 2252		Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
Morning Peak Period										
Existing (2024)			26.0	D	1.4	A	0.0	A	3.2	A
No Build (2025)			29.9	D	1.5	A	0.0	A	3.6	A
Built Out (2025)			14.6	B	8.8	A	23.3	C	16.9	B
Evening Peak Period										
Existing (2024)			28.0	D	2.3	A	0.0	A	3.4	A
No Build (2025)			33.1	D	2.5	A	0.0	A	3.9	A
Built Out (2025)			14.5	B	9.9	A	20.2	C	14.3	B

Table 7. LOS Summary for the FM 2252 and Driveway No. 1 Intersection

	Intersection Approaches									
	Northbound Driveway 1		Southbound		Eastbound FM 2252		Westbound FM 2252		Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
Morning Peak Period										
Existing (2024)										
No Build (2025)										
Built Out (2025)	10.2	B			0.0	A	0.0	A	0.0	A
Evening Peak Period										
Existing (2024)										
No Build (2025)										
Built Out (2025)	12.0	B			0.0	A	0.0	A	0.2	A

Table 8. LOS Summary for the FM 2252 and Driveway No. 2 Intersection

	Intersection Approaches									
	Northbound Driveway 2		Southbound		Eastbound FM 2252		Westbound FM 2252		Average	
	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS	Delay (Sec)	LOS
Morning Peak Period										
Existing (2024)										
No Build (2025)										
Built Out (2025)	10.2	B			0.0	A	0.0	A	0.0	A
Evening Peak Period										
Existing (2024)										
No Build (2025)										
Built Out (2025)	12.0	B			0.0	A	0.0	A	0.2	A

TRAFFIC SIMULATION OBSERVATIONS

Traffic simulation models developed for The Revival Commercial Development study area intersections demonstrated minor impacts to the surrounding roadway system as a result of the trips to be generated by the proposed development. All intersections were shown to continue to operate at Level-of-Service (LOS) A however at the FM 2252 and Bat Cave Road intersection, the southbound Bat Cave Road approach was shown to worsen from a LOS D (33.1 seconds delay per vehicle) to LOS E (37.1 seconds delay per vehicle) during the evening peak hour. Proposed roadway improvements by TxDOT, discussed on page 13, will include the installation of a traffic control signal at FM 2252 and Bat Cave Road and will return the intersection southbound approach to an acceptable level of service (LOS B during the morning and evening peak hours). No additional mitigation measures would be recommended for this intersection.



Figure 12. Synchro Model for Proposed The Revival Commercial Development
(Build-Out PM Peak Period)

TURN LANE ANALYSIS

Table 2-3 of the TxDOT *Access Management Manual* requires that a left or right-turn lane be installed when turn volumes exceed 50 vehicles per hour in a 45 mile per hour (or greater) speed zone and 60 vehicles per hour in speed zones less than 45 miles per hour. FM 2252 has a posted speed limit of 50 miles per hour and would have a threshold turn volume of 50 vehicles per hour.

Proposed Driveway No. 1 along FM 2252 has a projected eastbound right-turn volume of 4 vehicles per hour during the morning peak hour and 32 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 1 along FM 2252.

Proposed Driveway No. 2 along FM 2252 has a projected eastbound right-turn volume of 3 vehicles per hour during the morning peak hour and 31 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 2 along FM 2252.

CONCLUSION

Based on trip generation and distribution projections for the proposed The Revival Commercial Development, it is not anticipated that trips entering or exiting the proposed site would have a significant impact on the surrounding roadway system, specifically FM 2252.

Traffic Impact Analysis

Traffic simulation models developed for The Revival Commercial Development study area intersections demonstrated minor impacts to the surrounding roadway system as a result of the trips to be generated by the proposed development. All intersections were shown to continue to operate at Level-of-Service (LOS) A however at the FM 2252 and Bat Cave Road intersection, the southbound Bat Cave Road approach was shown to worsen from a LOS D (33.1 seconds delay per vehicle) to LOS E (37.1 seconds delay per vehicle) during the evening peak hour. Proposed roadway improvements by TxDOT, discussed on page 13, will include the installation of a traffic control signal at FM 2252 and Bat Cave Road and will return the intersection southbound approach to an acceptable level of service (LOS B during the morning and evening peak hours). No additional mitigation measures would be recommended for this intersection.

Turn Lane Analysis

Table 2-3 of the TxDOT *Access Management Manual* requires that a left or right-turn lane be installed when turn volumes exceed 50 vehicles per hour in a 45 mile per hour (or greater) speed zone and 60 vehicles per hour in speed zones less than 45 miles per hour. FM 2252 has a posted speed limit of 50 miles per hour and would have a threshold turn volume of 50 vehicles per hour.

Proposed Driveway No. 1 along FM 2252 has a projected eastbound right-turn volume of 4 vehicles per hour during the morning peak hour and 32 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 1 along FM 2252.

Proposed Driveway No. 2 along FM 2252 has a projected eastbound right-turn volume of 3 vehicles per hour during the morning peak hour and 31 vehicles per hour during the evening peak hour. Based on turning volume criteria, an eastbound right-turn lane would not be required for proposed Driveway No. 2 along FM 2252.



Prepared by:

A handwritten signature in blue ink, appearing to read "Rene Arredondo", written over a light blue rectangular background.

Rene Arredondo, P.E., P.T.O.E.

APPENDIX INDEX

Appendix A Site Layout - Exhibit A

Appendix B Aerial Photo – Exhibit B

Appendix C Trip Distribution Exhibits – Exhibits C, D, E, F and G

Appendix D Traffic Data Sheets

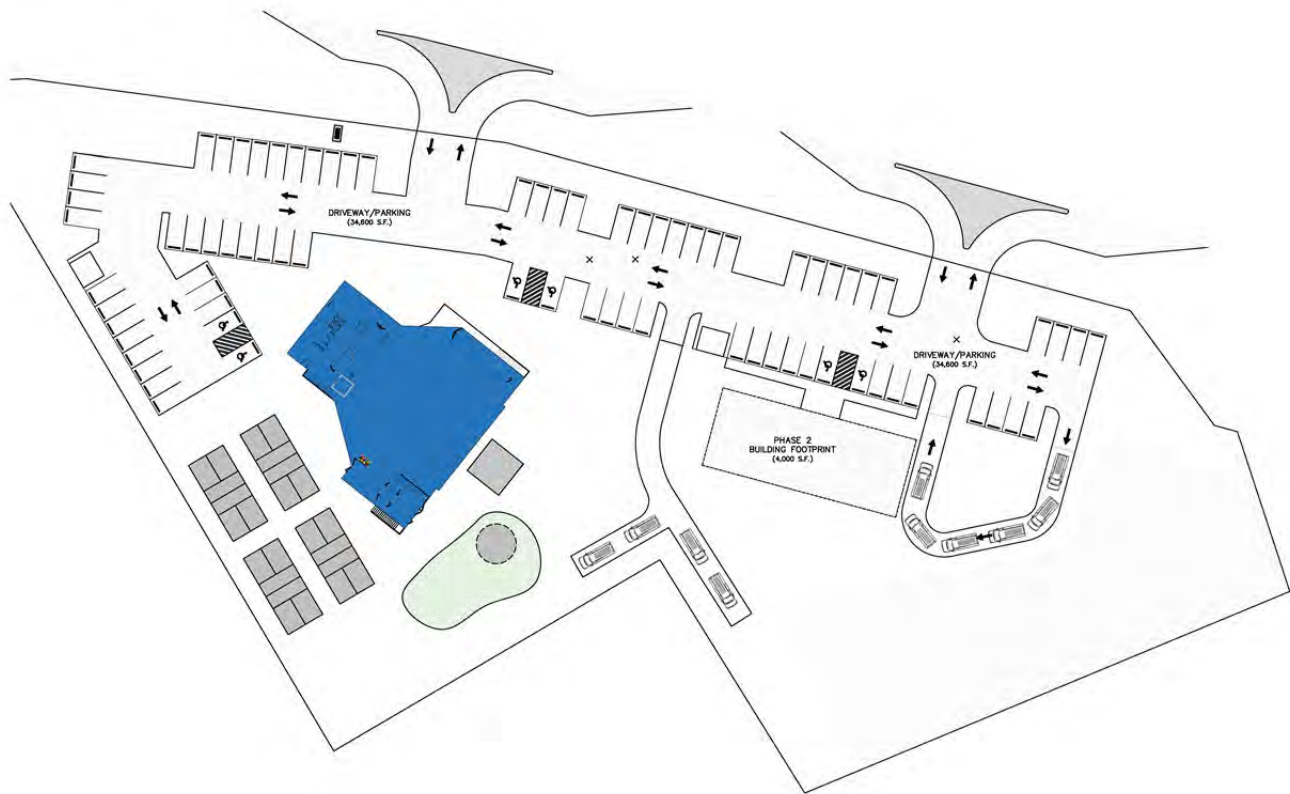
Appendix E Synchro Output Reports

Appendix F Existing and Proposed Roadway Pavement markings

SITE LAYOUT

EXHIBIT A

APPENDIX A



FIRM TYPE No. F111727

5828 Sebastian Place, Suite 138
San Antonio, Texas 78250

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SITE LAYOUT

THE REVIVAL COMMERCIAL DEVELOPMENT



EXHIBIT A

AERIAL PHOTOGRAPH

EXHIBIT B

APPENDIX B



FIRM TBPE No. F111727

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(210) 509-9680

AERIAL PHOTOGRAPH

THE REVIVAL COMMERCIAL DEVELOPMENT



EXHIBIT B

TRIP DISTRIBUTION EXHIBITS

- Exhibit C – Trip Generation and Distribution Percentages
- Exhibit D – Trip Generation and Distribution Volumes
- Exhibit E – Existing Traffic Volumes
- Exhibit F – No Build Traffic Volumes
- Exhibit G – Build Out Traffic Volumes



THE REVIVAL COMMERCIAL DEVELOPMENT

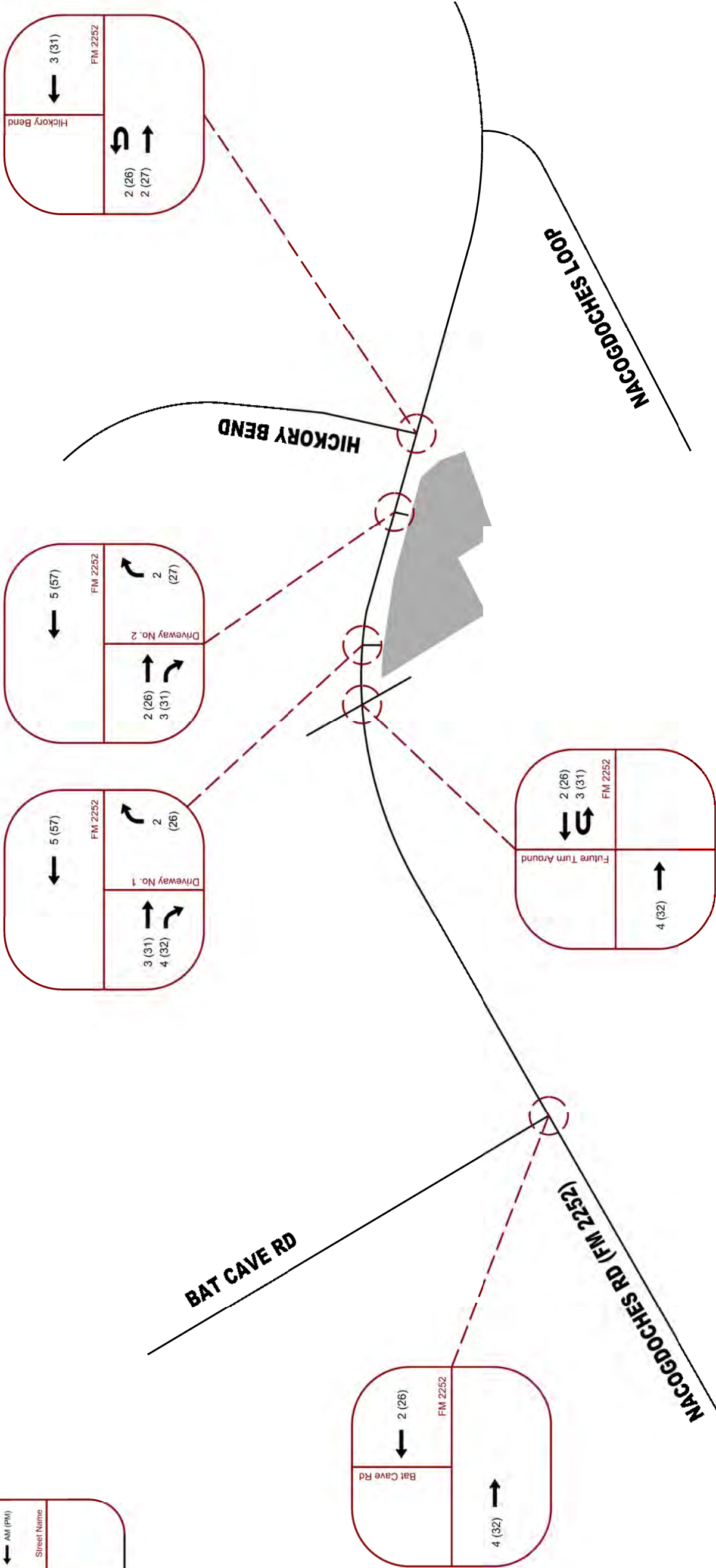
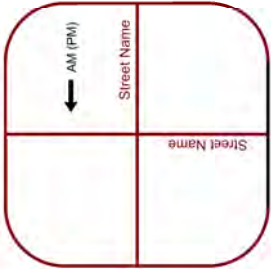
EXHIBIT C



5828 Sebastian Place, Suite 108
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LEGEND



FIRM TBPE No. F-11727

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TRIP DISTRIBUTION (VOLUMES)

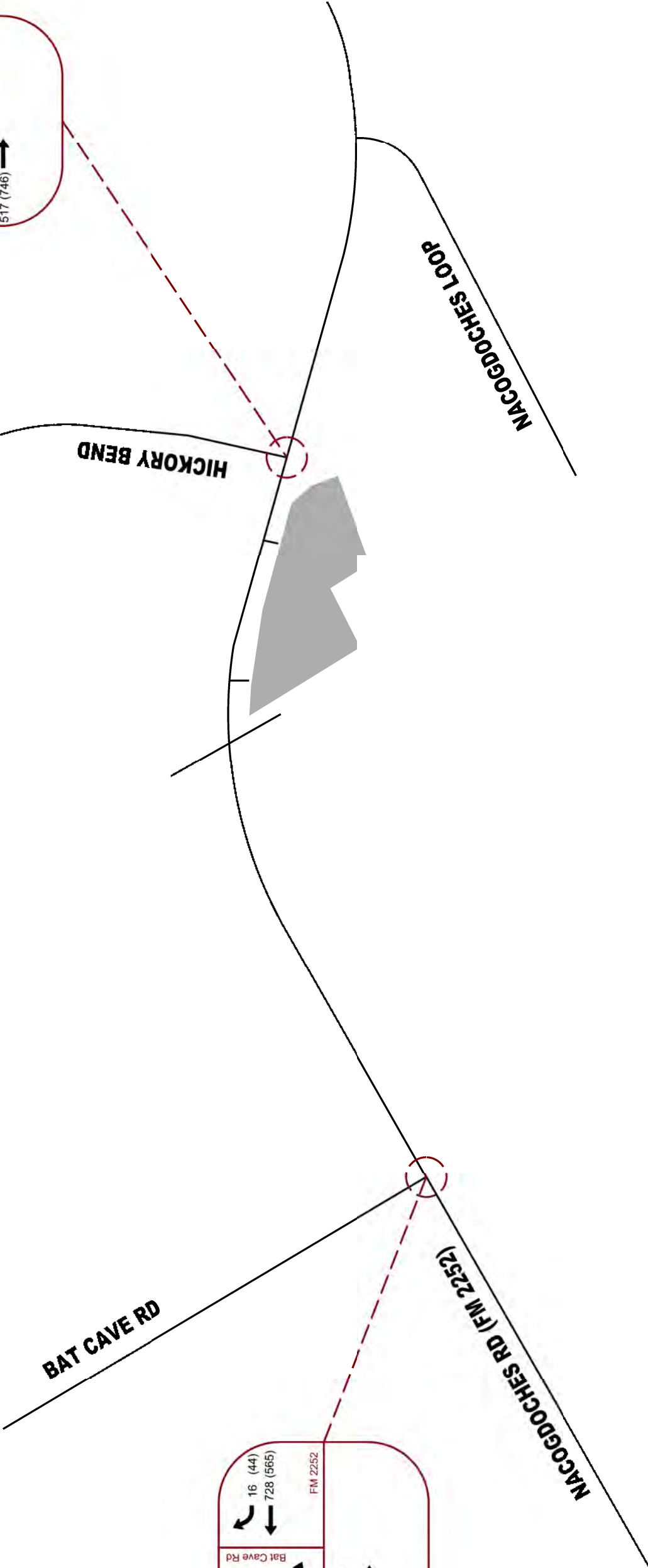
THE REVIVAL COMMERCIAL DEVELOPMENT

LEGEND

	Street Name
	Peak Hours 7:15 - 8:15 AM 4:30 - 5:30 PM
	Street Name

Hickory Bend	
28 (12)	14 (11)
5 (15)	725 (566)
FM 2252	

Bat Cave Rd	
101 (90)	44 (32)
16 (44)	728 (565)
FM 2252	



FIRM TBPE No. F-11727

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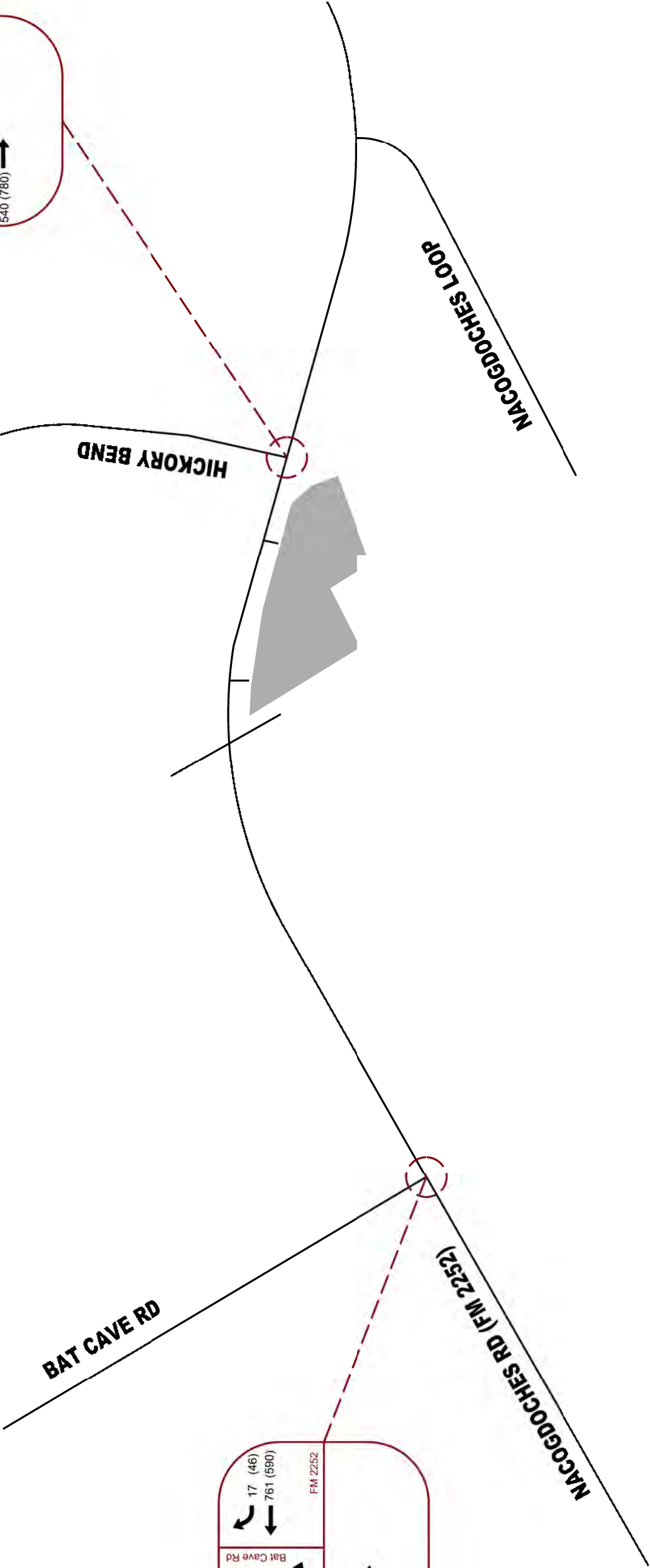
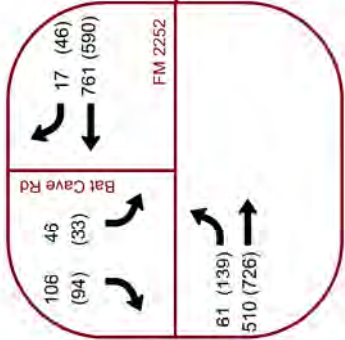
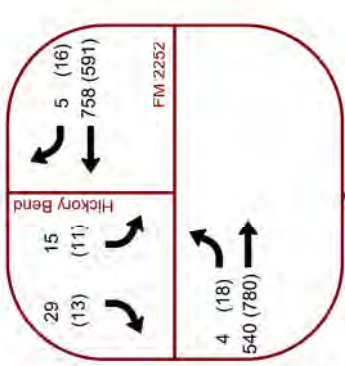
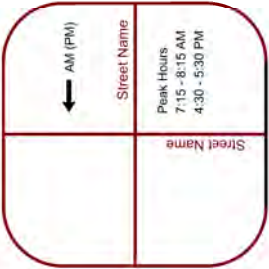
EXISTING TRAFFIC VOLUMES (2024)

THE REVIVAL COMMERCIAL DEVELOPMENT



EXHIBIT E

LEGEND



FIRM TBPE No. F-11727

5828 Sebastian Place, Suite 108
San Antonio, Texas 78250

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Fax: (210) 509-9680

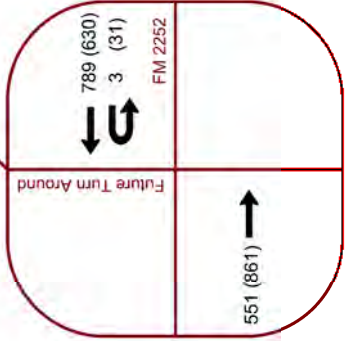
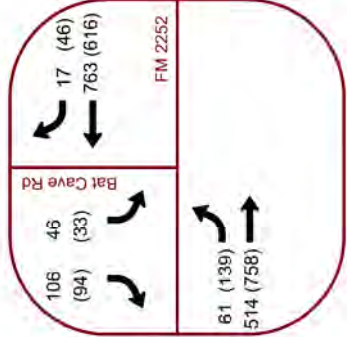
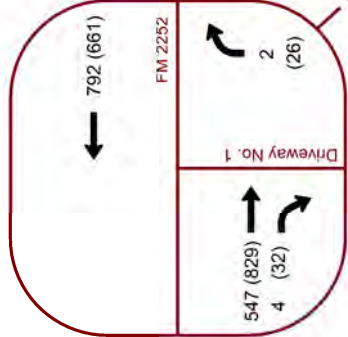
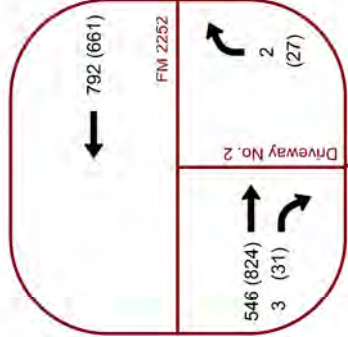
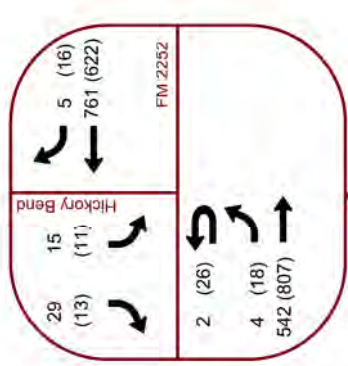
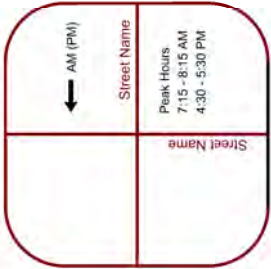


NO BUILD TRAFFIC VOLUMES (2025)

THE REVIVAL COMMERCIAL DEVELOPMENT

EXHIBIT F

LEGEND



BAT CAVE RD

HICKORY BEND

NACOGDOCHES LOOP

NACOGDOCHES RD (FM 2252)



FIRM TBPE No. F-11727

5828 Sebastian Place, Suite 108
San Antonio, Texas 78250

Office: (210) 256-2447
Fax: (210) 599-9680



BUILD OUT TRAFFIC VOLUMES (2025)

THE REVIVAL COMMERCIAL DEVELOPMENT

EXHIBIT G

TRAFFIC DATA SHEETS

APPENDIX D

Nacogdoches Road (FM 2252) and Hickory Bend

Intersection

North/South Street :
East/West Street :

Nacogdoches Road
Hickory Bend



City / State

Garden Ridge, Texas

Project No.

2024001100

Date Recorded:

Wednesday, February 14, 2024

Peak Period :

1

7:00 AM - 9:00 AM

Peak Hour:

7:15 AM

to

8:15 AM

Start Time	Intersection Approaches																Traffic Control	
	Nacogdoches Road				Nacogdoches Road				Hickory Bend				Hickory Bend					
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	90			161	2			2		6						262	1267
7:15 AM	0	106			204	0			6		8						324	
7:30 AM	1	138			170	0			4		11						324	
7:45 AM	1	157			192	2			2		3						357	
8:00 AM	2	116			159	3			2		6						288	1092
8:15 AM	1	86			181	3			3		2						276	
8:30 AM	0	105			171	0			0		9						285	
8:45 AM	0	87			152	1			0		3						243	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
7:00 AM																	0	0
7:15 AM																	0	
7:30 AM																	0	
7:45 AM																	0	
8:00 AM																	0	0
8:15 AM																	0	
8:30 AM																	0	
8:45 AM																	0	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	90			161	2			2		6						262	1267
7:15 AM	0	106			204	0			6		8						324	
7:30 AM	1	138			170	0			4		11						324	
7:45 AM	1	157			192	2			2		3						357	
8:00 AM	2	116			159	3			2		6						288	1092
8:15 AM	1	86			181	3			3		2						276	
8:30 AM	0	105			171	0			0		9						285	
8:45 AM	0	87			152	1			0		3						243	
Total	6	885	0	0	0	1390	11	0	19	0	48	0	0	0	0	0		
Peak Total	4	517	0	0	0	725	5	0	14	0	28	0	0	0	0	0		
Peak Turn Percent	1%	99%	0%	0%	0%	99%	1%	0%	33%	0%	67%	0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Peak Approach Total	521				730				42				0					
FORMULA	8	628	0		0	816	12		24	0	44		0	0	0			
PHF	0.5	0.8232	#DIV/0!		#DIV/0!	0.8885	0.4167		0.5833	#DIV/0!	0.6364		#DIV/0!	#DIV/0!	#DIV/0!			
Comments																		

Peak Hour Approach Traffic Volume and Percentage



Nacogdoches Road (FM 2252) and Hickory Bend

Intersection

North/South Street :
East/West Street :

Nacogdoches Road
Hickory Bend



City / State

Garden Ridge, Texas

Project No.

2024001100

Date Recorded:

Wednesday, February 14, 2024

Peak Period :

3

4:00 PM - 6:00 PM

Peak Hour:

4:30 PM

to

5:30 PM

Start Time	Intersection Approaches																Traffic Control	
	Nacogdoches Road				Nacogdoches Road				Hickory Bend				Hickory Bend					
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	191				126	5		2		2						326	1315
4:15 PM	6	175				131	4		0		3						319	
4:30 PM	6	164				150	3		4		2						329	
4:45 PM	5	187				136	5		4		4						341	
5:00 PM	5	220				138	4		1		4						372	
5:15 PM	1	175				142	3		2		2						325	1326
5:30 PM	1	176				114	3		3		0						297	
5:45 PM	3	208				113	4		0		4						332	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
4:00 PM																	0	0
4:15 PM																	0	
4:30 PM																	0	
4:45 PM																	0	
5:00 PM																	0	
5:15 PM																	0	0
5:30 PM																	0	
5:45 PM																	0	
 	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	191				126	5		2		2						326	1315
4:15 PM	6	175				131	4		0		3						319	
4:30 PM	6	164				150	3		4		2						329	
4:45 PM	5	187				136	5		4		4						341	
5:00 PM	5	220				138	4		1		4						372	
5:15 PM	1	175				142	3		2		2						325	1326
5:30 PM	1	176				114	3		3		0						297	
5:45 PM	3	208				113	4		0		4						332	
Total	27	1496	0	0	0	1050	31	0	16	0	21	0	0	0	0	0		
Peak Total	17	746	0	0	0	566	15	0	11	0	12	0	0	0	0	0		
Peak Turn Percent	2%	98%	0%	0%	0%	97%	3%	0%	48%	0%	52%	0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Peak Approach Total	763				581				23				0					
FORMULA	24	880	0		0	600	20		16	0	16		0	0	0			
PHF	0.7083	0.8477	#DIV/0!		#DIV/0!	0.9433	0.75		0.6875	#DIV/0!	0.75		#DIV/0!	#DIV/0!	#DIV/0!			
Comments																		

Peak Hour Approach Traffic Volume and Percentage



Nacogdoches Road (FM 2252) and Bat Cave

Intersection

North/South Street :
East/West Street :

Nacogdoches Road
Bat Cave



City / State

Garden Ridge, Texas

Project No.

2024001100

Date Recorded:

Wednesday, February 14, 2024

Peak Period :

1

7:00 AM - 9:00 AM

Peak Hour:

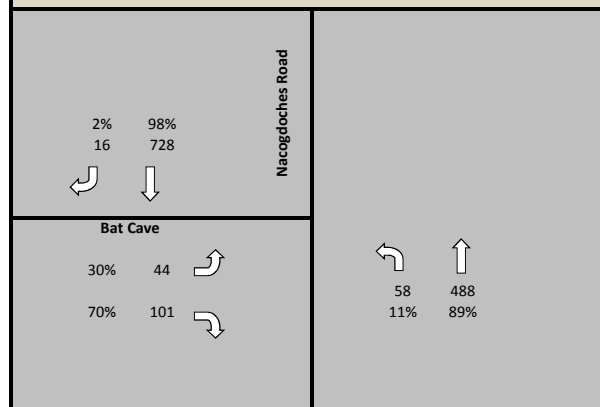
7:15 AM

to

8:15 AM

Start Time	Intersection Approaches																Traffic Control	
	Nacogdoches Road				Nacogdoches Road				Bat Cave				Bat Cave					
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	10	83	0		0	153	4		12	0	30						292	1388
7:15 AM	9	95	0		0	211	4		9	0	31						359	
7:30 AM	11	133	0		0	174	3		14	0	26						361	
7:45 AM	18	145	0		0	183	2		14	0	14						376	
8:00 AM	20	115	0		0	160	7		7	0	30						339	1243
8:15 AM	10	81	0		0	168	9		5	0	25						298	
8:30 AM	12	107	0		0	162	12		3	0	21						317	
8:45 AM	26	82	0		0	125	16		10	0	30						289	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
7:00 AM																	0	0
7:15 AM																	0	
7:30 AM																	0	
7:45 AM																	0	
8:00 AM																	0	0
8:15 AM																	0	
8:30 AM																	0	
8:45 AM																	0	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	10	83	0	0	0	153	4	0	12	0	30	0	0	0	0	0	292	1388
7:15 AM	9	95	0	0	0	211	4	0	9	0	31	0	0	0	0	0	359	
7:30 AM	11	133	0	0	0	174	3	0	14	0	26	0	0	0	0	0	361	
7:45 AM	18	145	0	0	0	183	2	0	14	0	14	0	0	0	0	0	376	
8:00 AM	20	115	0	0	0	160	7	0	7	0	30	0	0	0	0	0	339	1243
8:15 AM	10	81	0	0	0	168	9	0	5	0	25	0	0	0	0	0	298	
8:30 AM	12	107	0	0	0	162	12	0	3	0	21	0	0	0	0	0	317	
8:45 AM	26	82	0	0	0	125	16	0	10	0	30	0	0	0	0	0	289	
Total	116	841	0	0	0	1336	57	0	74	0	207	0	0	0	0	0		
Peak Total	58	488	0	0	0	728	16	0	44	0	101	0	0	0	0	0		
Peak Turn Percent	11%	89%	0%	0%	0%	98%	2%	0%	30%	0%	70%	0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Peak Approach Total	546				744				145				0					
FORMULA	80	580	0		0	844	28		56	0	124		0	0	0			
PHF	0.725	0.8414	#DIV/0!		#DIV/0!	0.8626	0.5714		0.7857	#DIV/0!	0.8145		#DIV/0!	#DIV/0!	#DIV/0!			
Comments																		

Peak Hour Approach Traffic Volume and Percentage



Nacogdoches Road (FM 2252) and Bat Cave

Intersection

North/South Street :
East/West Street :

Nacogdoches Road
Bat Cave



City / State

Garden Ridge, Texas

Project No.

2024001100

Date Recorded:

Wednesday, February 14, 2024

Peak Period :

3

4:00 PM - 6:00 PM

Peak Hour:

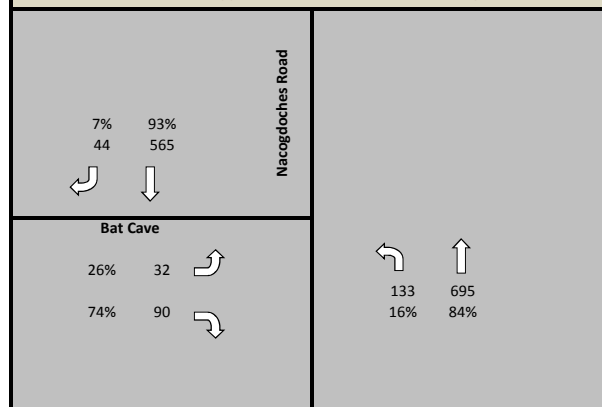
4:30 PM

to

5:30 PM

Start Time	Intersection Approaches																Traffic Control	
	Nacogdoches Road				Nacogdoches Road				Bat Cave				Bat Cave					
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	30	186	0		0	118	18		6	0	19						377	1491
4:15 PM	35	172	0		0	115	13		4	0	12						351	
4:30 PM	33	159	0		0	157	7		5	0	15						376	
4:45 PM	42	180	0		0	127	13		7	0	18						387	
5:00 PM	31	204	0		0	137	10		12	0	25						419	1505
5:15 PM	27	152	0		0	144	14		8	0	32						377	
5:30 PM	31	179	0		0	110	8		3	0	22						353	
5:45 PM	28	197	0		0	101	10		6	0	14						356	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right		Left	Thru	Right		Left	Thru	Right		Left	Thru	Right			
4:00 PM																	0	0
4:15 PM																	0	
4:30 PM																	0	
4:45 PM																	0	
5:00 PM																	0	0
5:15 PM																	0	
5:30 PM																	0	
5:45 PM																	0	
	Northbound				Southbound				Eastbound				Westbound				Total	Hourly Total
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	30	186	0	0	0	118	18	0	6	0	19	0	0	0	0	0	377	1491
4:15 PM	35	172	0	0	0	115	13	0	4	0	12	0	0	0	0	0	351	
4:30 PM	33	159	0	0	0	157	7	0	5	0	15	0	0	0	0	0	376	
4:45 PM	42	180	0	0	0	127	13	0	7	0	18	0	0	0	0	0	387	
5:00 PM	31	204	0	0	0	137	10	0	12	0	25	0	0	0	0	0	419	1505
5:15 PM	27	152	0	0	0	144	14	0	8	0	32	0	0	0	0	0	377	
5:30 PM	31	179	0	0	0	110	8	0	3	0	22	0	0	0	0	0	353	
5:45 PM	28	197	0	0	0	101	10	0	6	0	14	0	0	0	0	0	356	
Total	257	1429	0	0	0	1009	93	0	51	0	157	0	0	0	0	0		
Peak Total	133	695	0	0	0	565	44	0	32	0	90	0	0	0	0	0		
Peak Turn Percent	16%	84%	0%	0%	0%	93%	7%	0%	26%	0%	74%	0%	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!		
Peak Approach Total	828				609				122				0					
FORMULA	168	816	0		0	628	56		48	0	128		0	0	0			
PHF	0.7917	0.8517	#DIV/0!		#DIV/0!	0.8997	0.7857		0.6667	#DIV/0!	0.7031		#DIV/0!	#DIV/0!	#DIV/0!			
Comments																		

Peak Hour Approach Traffic Volume and Percentage



SYNCHRO OUTPUT REPORTS

APPENDIX E

HCM 6th TWSC
3: FM 2252 & Bat Cave Rd

02/23/2024

Intersection

Int Delay, s/veh 3.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑	↑↑		↑↑	
Traffic Vol, veh/h	58	488	728	16	44	101
Future Vol, veh/h	58	488	728	16	44	101
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	63	530	791	17	48	110

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	808	0	0 1191 404
Stage 1	-	-	- 800 -
Stage 2	-	-	- 391 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	813	-	- 180 596
Stage 1	-	-	- 403 -
Stage 2	-	-	- 653 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	813	-	- 160 596
Mov Cap-2 Maneuver	-	-	- 160 -
Stage 1	-	-	- 359 -
Stage 2	-	-	- 653 -

Approach	EB	WB	SB
HCM Control Delay, s	1.4	0	26
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	813	-	-	-	326
HCM Lane V/C Ratio	0.078	-	-	-	0.483
HCM Control Delay (s)	9.8	0.4	-	-	26
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	2.5

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	517	725	5	14	28
Future Vol, veh/h	4	517	725	5	14	28
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	562	788	5	15	30

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	793	0	0 1080 397
Stage 1	-	-	- 791 -
Stage 2	-	-	- 289 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	824	-	- 213 602
Stage 1	-	-	- 407 -
Stage 2	-	-	- 735 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	824	-	- 212 602
Mov Cap-2 Maneuver	-	-	- 212 -
Stage 1	-	-	- 405 -
Stage 2	-	-	- 735 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	824	-	-	-	373
HCM Lane V/C Ratio	0.005	-	-	-	0.122
HCM Control Delay (s)	9.4	-	-	-	16
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

HCM 6th TWSC
3: FM 2252 & Bat Cave Rd

02/23/2024

Intersection

Int Delay, s/veh 3.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	133	695	565	44	32	90
Future Vol, veh/h	133	695	565	44	32	90
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	145	755	614	48	35	98

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	662	0	0 1306 331
Stage 1	-	-	- 638 -
Stage 2	-	-	- 668 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	922	-	- 151 665
Stage 1	-	-	- 488 -
Stage 2	-	-	- 471 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	922	-	- 110 665
Mov Cap-2 Maneuver	-	-	- 110 -
Stage 1	-	-	- 356 -
Stage 2	-	-	- 471 -

Approach	EB	WB	SB
HCM Control Delay, s	2.3	0	28
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	922	-	-	-	286
HCM Lane V/C Ratio	0.157	-	-	-	0.464
HCM Control Delay (s)	9.6	0.9	-	-	28
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.6	-	-	-	2.3

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	17	746	566	15	11	12
Future Vol, veh/h	17	746	566	15	11	12
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	18	811	615	16	12	13

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	631	0	0 1065 316
Stage 1	-	-	- - 623 -
Stage 2	-	-	- - 442 -
Critical Hdwy	4.14	-	- - 6.84 6.94
Critical Hdwy Stg 1	-	-	- - 5.84 -
Critical Hdwy Stg 2	-	-	- - 5.84 -
Follow-up Hdwy	2.22	-	- - 3.52 3.32
Pot Cap-1 Maneuver	947	-	- - 218 680
Stage 1	-	-	- - 497 -
Stage 2	-	-	- - 615 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	947	-	- - 214 680
Mov Cap-2 Maneuver	-	-	- - 214 -
Stage 1	-	-	- - 488 -
Stage 2	-	-	- - 615 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	16.7
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	947	-	-	-	333
HCM Lane V/C Ratio	0.02	-	-	-	0.075
HCM Control Delay (s)	8.9	-	-	-	16.7
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.2

HCM 6th TWSC
3: FM 2252 & Bat Cave Rd

02/23/2024

Intersection

Int Delay, s/veh 3.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	61	510	761	17	46	106
Future Vol, veh/h	61	510	761	17	46	106
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	66	554	827	18	50	115

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	845	0	0 1245 423
Stage 1	-	-	- 836 -
Stage 2	-	-	- 409 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	787	-	- 166 579
Stage 1	-	-	- 386 -
Stage 2	-	-	- 639 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	787	-	- 146 579
Mov Cap-2 Maneuver	-	-	- 146 -
Stage 1	-	-	- 339 -
Stage 2	-	-	- 639 -

Approach	EB	WB	SB
HCM Control Delay, s	1.5	0	29.9
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	787	-	-	-	305
HCM Lane V/C Ratio	0.084	-	-	-	0.542
HCM Control Delay (s)	10	0.5	-	-	29.9
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.3	-	-	-	3

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	540	758	5	15	29
Future Vol, veh/h	4	540	758	5	15	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	587	824	5	16	32

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	829	0	0 1129 415
Stage 1	-	-	- 827 -
Stage 2	-	-	- 302 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	798	-	- 198 586
Stage 1	-	-	- 390 -
Stage 2	-	-	- 724 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	798	-	- 197 586
Mov Cap-2 Maneuver	-	-	- 197 -
Stage 1	-	-	- 388 -
Stage 2	-	-	- 724 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	798	-	-	-	350
HCM Lane V/C Ratio	0.005	-	-	-	0.137
HCM Control Delay (s)	9.5	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

HCM 6th TWSC
3: FM 2252 & Bat Cave Rd

02/23/2024

Intersection

Int Delay, s/veh 3.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	139	726	590	46	33	94
Future Vol, veh/h	139	726	590	46	33	94
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	151	789	641	50	36	102

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	691	0	0 1363 346
Stage 1	-	-	- - 666 -
Stage 2	-	-	- - 697 -
Critical Hdwy	4.14	-	- - 6.84 6.94
Critical Hdwy Stg 1	-	-	- - 5.84 -
Critical Hdwy Stg 2	-	-	- - 5.84 -
Follow-up Hdwy	2.22	-	- - 3.52 3.32
Pot Cap-1 Maneuver	900	-	- - 139 650
Stage 1	-	-	- - 472 -
Stage 2	-	-	- - 455 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	900	-	- - 97 650
Mov Cap-2 Maneuver	-	-	- - 97 -
Stage 1	-	-	- - 331 -
Stage 2	-	-	- - 455 -

Approach	EB	WB	SB
HCM Control Delay, s	2.5	0	33.1
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	900	-	-	-	262
HCM Lane V/C Ratio	0.168	-	-	-	0.527
HCM Control Delay (s)	9.8	1.1	-	-	33.1
HCM Lane LOS	A	A	-	-	D
HCM 95th %tile Q(veh)	0.6	-	-	-	2.8

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	780	591	16	11	13
Future Vol, veh/h	18	780	591	16	11	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	848	642	17	12	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	659	0	0 1115 330
Stage 1	-	-	- 651 -
Stage 2	-	-	- 464 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	925	-	- 202 666
Stage 1	-	-	- 481 -
Stage 2	-	-	- 599 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	925	-	- 198 666
Mov Cap-2 Maneuver	-	-	- 198 -
Stage 1	-	-	- 470 -
Stage 2	-	-	- 599 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	17.2
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	925	-	-	-	320
HCM Lane V/C Ratio	0.021	-	-	-	0.082
HCM Control Delay (s)	9	-	-	-	17.2
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

HCM 6th Signalized Intersection Summary

3: FM 2252 & Bat Cave Rd

03/11/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	61	514	0	0	763	17	0	0	0	46	0	106
Future Volume (veh/h)	61	514	0	0	763	17	0	0	0	46	0	106
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	66	559	0	0	829	18	0	0	0	50	0	115
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	376	1783	0	131	1164	25	0	626	0	203	41	364
Arrive On Green	0.09	0.50	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.33	0.00	0.33
Sat Flow, veh/h	1781	3647	0	850	3556	77	0	1870	0	352	121	1089
Grp Volume(v), veh/h	66	559	0	0	414	433	0	0	0	165	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	850	1777	1856	0	1870	0	1562	0	0
Q Serve(g_s), s	1.2	5.1	0.0	0.0	11.2	11.2	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	1.2	5.1	0.0	0.0	11.2	11.2	0.0	0.0	0.0	4.0	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.04	0.00		0.00	0.30		0.70
Lane Grp Cap(c), veh/h	376	1783	0	131	582	608	0	626	0	608	0	0
V/C Ratio(X)	0.18	0.31	0.00	0.00	0.71	0.71	0.00	0.00	0.00	0.27	0.00	0.00
Avail Cap(c_a), veh/h	376	1783	0	131	582	608	0	626	0	608	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.2	8.1	0.0	0.0	16.2	16.2	0.0	0.0	0.0	13.5	0.0	0.0
Incr Delay (d2), s/veh	1.0	0.5	0.0	0.0	7.3	7.0	0.0	0.0	0.0	1.1	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	1.7	0.0	0.0	5.2	5.3	0.0	0.0	0.0	1.5	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	8.6	0.0	0.0	23.5	23.2	0.0	0.0	0.0	14.6	0.0	0.0
LnGrp LOS	B	A	A	A	C	C	A	A	A	B	A	A
Approach Vol, veh/h	625			847			0			165		
Approach Delay, s/veh	8.8			23.3			0.0			14.6		
Approach LOS	A			C						B		
Timer - Assigned Phs	2			4			6			7		
Phs Duration (G+Y+Rc), s	22.9			32.1			22.9			9.6		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	18.4			27.6			18.4			5.1		
Max Q Clear Time (g_c+I1), s	0.0			7.1			6.0			3.2		
Green Ext Time (p_c), s	0.0			3.7			0.7			2.2		
Intersection Summary												
HCM 6th Ctrl Delay	16.9											
HCM 6th LOS	B											

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	542	761	5	15	29
Future Vol, veh/h	4	542	761	5	15	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	589	827	5	16	32

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	832	0	0 1133 416
Stage 1	-	-	- 830 -
Stage 2	-	-	- 303 -
Critical Hdwy	4.14	-	- 6.84 6.94
Critical Hdwy Stg 1	-	-	- 5.84 -
Critical Hdwy Stg 2	-	-	- 5.84 -
Follow-up Hdwy	2.22	-	- 3.52 3.32
Pot Cap-1 Maneuver	796	-	- 197 585
Stage 1	-	-	- 388 -
Stage 2	-	-	- 723 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	796	-	- 196 585
Mov Cap-2 Maneuver	-	-	- 196 -
Stage 1	-	-	- 386 -
Stage 2	-	-	- 723 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.9
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	796	-	-	-	349
HCM Lane V/C Ratio	0.005	-	-	-	0.137
HCM Control Delay (s)	9.5	-	-	-	16.9
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.5

Intersection						
Int Delay, s/veh	0					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑↱			↑↑		↱
Traffic Vol, veh/h	547	4	0	792	0	2
Future Vol, veh/h	547	4	0	792	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	595	4	0	861	0	2
Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	-	-	-	300
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	-	0	696
Stage 1	-	-	0	-	0	-
Stage 2	-	-	0	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	-	-	-	696
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		WB		NB	
HCM Control Delay, s	0		0		10.2	
HCM LOS					B	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT		
Capacity (veh/h)	696	-	-	-		
HCM Lane V/C Ratio	0.003	-	-	-		
HCM Control Delay (s)	10.2	-	-	-		
HCM Lane LOS	B	-	-	-		
HCM 95th %tile O(veh)	0	-	-	-		

Intersection

Int Delay, s/veh 0

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	546	3	0	792	0	2
Future Vol, veh/h	546	3	0	792	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	593	3	0	861	0	2

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 298
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 698
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 698
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	698	-	-	-
HCM Lane V/C Ratio	0.003	-	-	-
HCM Control Delay (s)	10.2	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0	-	-	-

HCM 6th Signalized Intersection Summary

3: FM 2252 & Bat Cave Rd

03/11/2024

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	139	758	0	0	616	46	0	0	0	33	0	94
Future Volume (veh/h)	139	758	0	0	616	46	0	0	0	33	0	94
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach	No			No			No			No		
Adj Sat Flow, veh/h/ln	1870	1870	0	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	151	824	0	0	670	50	0	0	0	36	0	102
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Percent Heavy Veh, %	2	2	0	2	2	2	2	2	2	2	2	2
Cap, veh/h	426	1809	0	131	1097	82	0	612	0	175	41	380
Arrive On Green	0.10	0.51	0.00	0.00	0.33	0.33	0.00	0.00	0.00	0.33	0.00	0.33
Sat Flow, veh/h	1781	3647	0	665	3352	250	0	1870	0	283	127	1161
Grp Volume(v), veh/h	151	824	0	0	355	365	0	0	0	138	0	0
Grp Sat Flow(s),veh/h/ln	1781	1777	0	665	1777	1825	0	1870	0	1571	0	0
Q Serve(g_s), s	2.7	8.2	0.0	0.0	9.2	9.3	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	2.7	8.2	0.0	0.0	9.2	9.3	0.0	0.0	0.0	3.4	0.0	0.0
Prop In Lane	1.00		0.00	1.00		0.14	0.00		0.00	0.26		0.74
Lane Grp Cap(c), veh/h	426	1809	0	131	582	597	0	612	0	597	0	0
V/C Ratio(X)	0.35	0.46	0.00	0.00	0.61	0.61	0.00	0.00	0.00	0.23	0.00	0.00
Avail Cap(c_a), veh/h	426	1809	0	131	582	597	0	612	0	597	0	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	0.00	1.00	1.00	0.00	0.00	0.00	1.00	0.00	0.00
Uniform Delay (d), s/veh	10.1	8.6	0.0	0.0	15.6	15.6	0.0	0.0	0.0	13.6	0.0	0.0
Incr Delay (d2), s/veh	2.3	0.8	0.0	0.0	4.7	4.6	0.0	0.0	0.0	0.9	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	2.7	0.0	0.0	4.0	4.1	0.0	0.0	0.0	1.3	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	12.4	9.5	0.0	0.0	20.3	20.2	0.0	0.0	0.0	14.5	0.0	0.0
LnGrp LOS	B	A	A	A	C	C	A	A	A	B	A	A
Approach Vol, veh/h	975			720			0			138		
Approach Delay, s/veh	9.9			20.2			0.0			14.5		
Approach LOS	A			C						B		
Timer - Assigned Phs	2			4			6			7		
Phs Duration (G+Y+Rc), s	22.5			32.5			22.5			10.0		
Change Period (Y+Rc), s	4.5			4.5			4.5			4.5		
Max Green Setting (Gmax), s	18.0			28.0			18.0			5.5		
Max Q Clear Time (g_c+I1), s	0.0			10.2			5.4			4.7		
Green Ext Time (p_c), s	0.0			5.5			0.5			0.0		
Intersection Summary												
HCM 6th Ctrl Delay	14.3											
HCM 6th LOS	B											

HCM 6th TWSC
7: FM 2252 & Hickory Bend

02/23/2024

Intersection

Int Delay, s/veh 0.4

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	18	807	622	16	11	13
Future Vol, veh/h	18	807	622	16	11	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	877	676	17	12	14

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	693	0	0 1164 347
Stage 1	-	-	- - 685 -
Stage 2	-	-	- - 479 -
Critical Hdwy	4.14	-	- - 6.84 6.94
Critical Hdwy Stg 1	-	-	- - 5.84 -
Critical Hdwy Stg 2	-	-	- - 5.84 -
Follow-up Hdwy	2.22	-	- - 3.52 3.32
Pot Cap-1 Maneuver	898	-	- - 188 649
Stage 1	-	-	- - 462 -
Stage 2	-	-	- - 589 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	898	-	- - 184 649
Mov Cap-2 Maneuver	-	-	- - 184 -
Stage 1	-	-	- - 452 -
Stage 2	-	-	- - 589 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	18.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	898	-	-	-	301
HCM Lane V/C Ratio	0.022	-	-	-	0.087
HCM Control Delay (s)	9.1	-	-	-	18.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0.1	-	-	-	0.3

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	829	32	0	661	0	26
Future Vol, veh/h	829	32	0	661	0	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	901	35	0	718	0	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 468
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 542
Stage 1	-	-	0 - 0 -
Stage 2	-	-	0 - 0 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 542
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	542	-	-	-
HCM Lane V/C Ratio	0.052	-	-	-
HCM Control Delay (s)	12	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

Intersection

Int Delay, s/veh 0.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑			↑↑		↑
Traffic Vol, veh/h	824	31	0	661	0	27
Future Vol, veh/h	824	31	0	661	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	896	34	0	718	0	29

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	- - - 465
Stage 1	-	-	- - -
Stage 2	-	-	- - -
Critical Hdwy	-	-	- - - 6.94
Critical Hdwy Stg 1	-	-	- - -
Critical Hdwy Stg 2	-	-	- - -
Follow-up Hdwy	-	-	- - - 3.32
Pot Cap-1 Maneuver	-	-	0 - 0 544
Stage 1	-	-	0 - 0
Stage 2	-	-	0 - 0
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	-	- - - 544
Mov Cap-2 Maneuver	-	-	- - -
Stage 1	-	-	- - -
Stage 2	-	-	- - -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	12
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBT
Capacity (veh/h)	544	-	-	-
HCM Lane V/C Ratio	0.054	-	-	-
HCM Control Delay (s)	12	-	-	-
HCM Lane LOS	B	-	-	-
HCM 95th %tile Q(veh)	0.2	-	-	-

EXISTING AND PROPOSED ROADWAY PAVEMENT MARKINGS

APPENDIX F

REVISIONS			DATE
1			
2			
3			
4			
DESIGN BY: RA			
DRAWN BY: RA			
CHECKED BY: RA			

MATCHLINE "A"





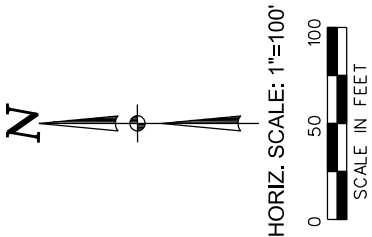
AC GROUP
LLC

TRAFFIC ENGINEERING AND DATA COLLECTION

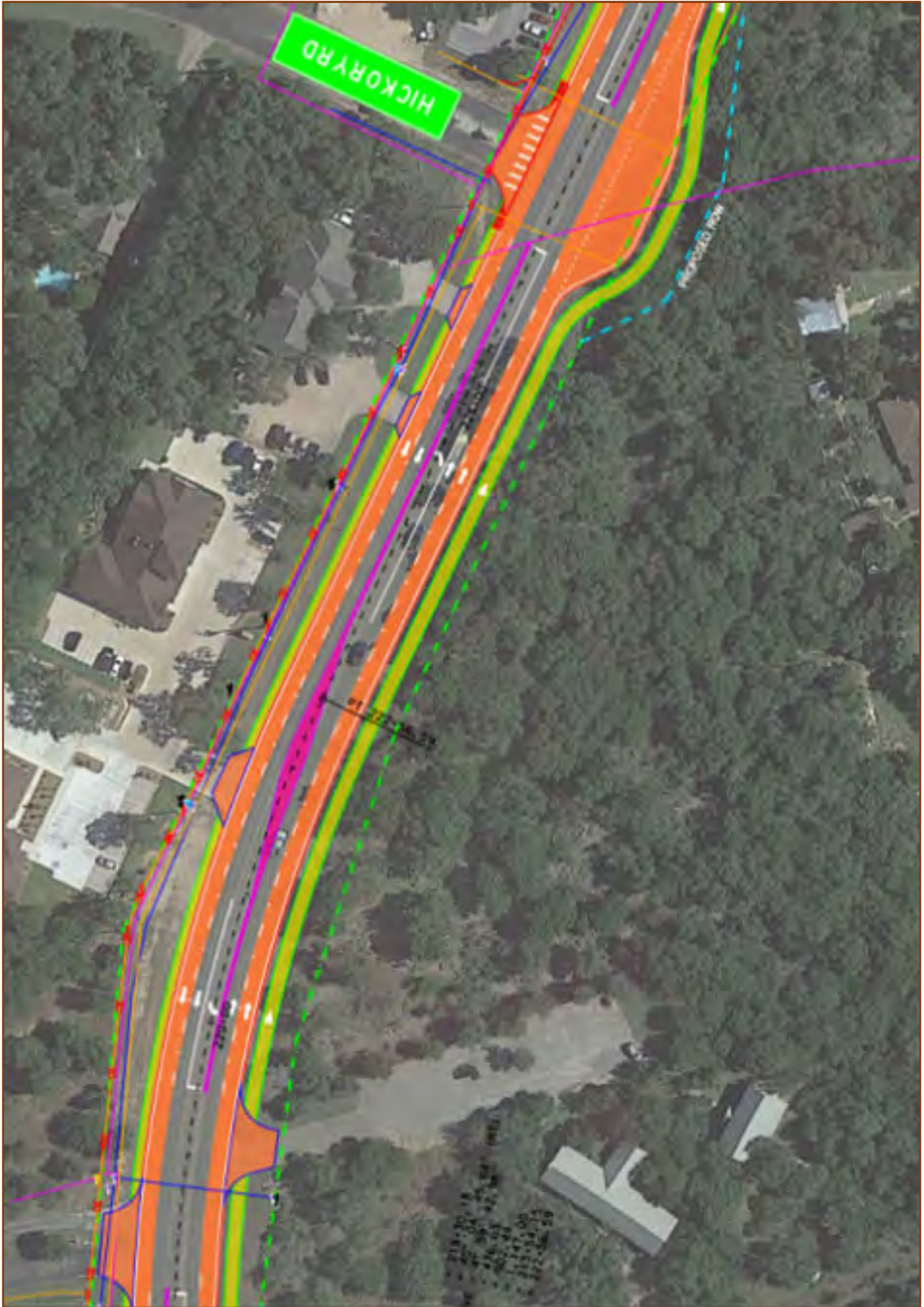
TYPE FIRM NO. F-11727

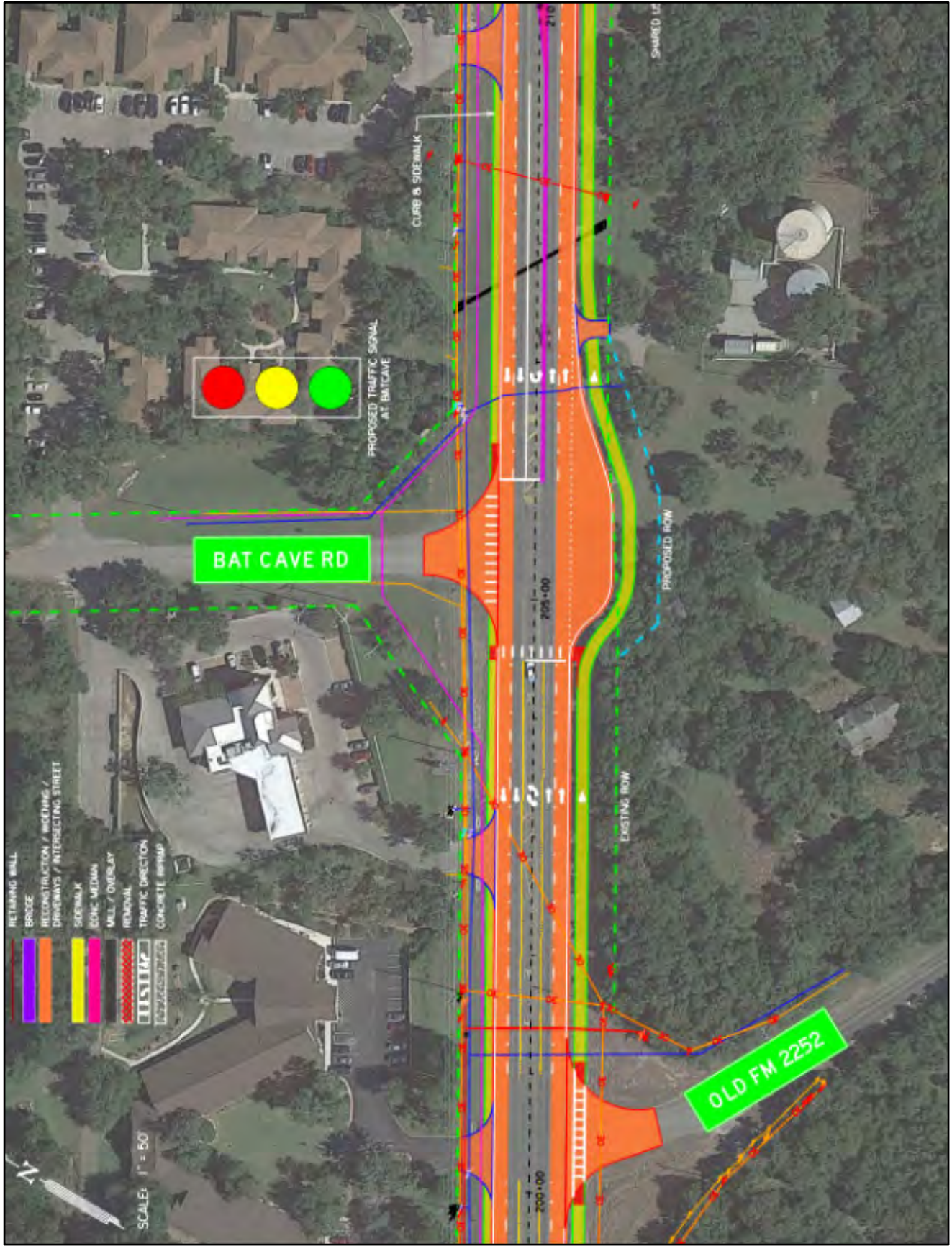
5828 SEBASTIAN PLACE, SUITE 108
SAN ANTONIO, TEXAS 78249

REVISIONS		DATE
1		
2		
3		
4		
DESIGN BY: RA		
DRAWN BY: RA		
CHECKED BY: RA		



MATCHLINE "A"





1.02.05. Summary of Approval Authorities

Table 1

Application Type	Reference	Zoning Administrator	Planning and Zoning Commission	Board of Adjustment	City Council
Zoning Upon Annexation	2.07.02.	Recommend	Recommend	N/A	Decide
Zoning Text and Map Amendments	2.07.03.	Recommend	Recommend	N/A	Decide
Certificate of Occupancy	2.07.06.	Decide	N/A	N/A	N/A
Specific Use Permit and Site Plan	2.07.07.	Recommend	Recommend	N/A	Decide
Planned Use Development (PUD) Establishment	2.07.08.	Recommend	Recommend	N/A	Decide
Minor PUD Amendment and Adjustment	2.07.08.	Decide	Recommend if deferred	N/A	Decide if deferred
Reinstatement of Nonconforming Use Rights	2.07.09.	Recommend	N/A	Decide	N/A
Appeal of a City Administrative or Interpretative Decision	2.08.01.	N/A	N/A	Decide	N/A
Zoning Variance	2.08.02.	Recommend	N/A	Decide	N/A
Zoning Special Exception	2.08.03.	Recommend	N/A	Decide	N/A
Removal of a Protected Tree	3.04.07.	Decide	N/A	N/A	N/A
Removal of a Heritage Tree	3.04.07.	Decide	N/A	N/A	N/A
Fee-in-Lieu of Tree Mitigation	3.04.07.	Decide	N/A	N/A	N/A

** Any party with standing may appeal a decision of the Zoning Administrator to the Board of Adjustment.

The purpose of the Planned Use Development (PUD) Overlay District is to provide land for uses and developments that promote development that is more sensitive to the natural environment, create a significantly enhanced natural setting or sense of place, or otherwise enhance the standard pattern of development in the City.

- B. Procedures and Standards are provided in 2.06.15. Development in the Natural Features Overlay (NFO) District and in 2.07.08. Planned Use Development (PUD) Regulations and Procedures.

Subsection 2.05. Use Regulations

2.05.01. Land Use Regulations

Land and buildings in each of the zoning districts may be used for any of the specified uses in this section. No land shall be used, and no building or structure shall be erected, altered, or converted for any use other than those specified as a permitted use in the district in which it is located, as shown in the Use Chart. In the event of a discrepancy between the written language of a section and the Use Chart, the chart will control.

P	Use is permitted by-right
P-*	Use is permitted by-right subject to the referenced conditions (see 2.05.06.)
S	Use is permitted upon approval of a Specific Use Permit
S-*	Use is permitted upon approval of a Specific Use Permit and subject to the referenced conditions (see 2.05.06.)
X	Use is prohibited

**lettered subsections of 2.05.06. as referenced in the Use Chart*

2.05.02. Classification of Similar Uses

The Zoning Administrator shall be responsible for determining whether a use should be classified as a similar use.

2.05.03. Classification of New and Unlisted Uses

It is recognized that new types of land use will develop, and forms of land use not presently anticipated may seek to locate in the City. If the Zoning Administrator is unable to classify the use under one of the existing listed uses, the Zoning Administrator shall make a determination based on their interpretation of the intent and spirit of this Ordinance and the Comprehensive Plan. The Zoning Administrator shall use the descriptions found in the Definitions to determine how an unlisted use should be treated.

2.05.04. Appeals of an Administrative Interpretation

Appeals of an administrative interpretation, as with any zoning-related interpretation, may be appealed to the Board of Adjustment, as outlined in 2.08.01. Zoning Regulation Appeal.

	Agriculture and Agricultural Homestead (AG) District	Residential Estate (RE) District	Residential Neighborhood (RN) District	Neighborhood Commercial (NC) District	Community Commercial (CC) District	Neighborhood Mixed-Use (NMU) Overlay District	Community Mixed-Use (CMU) Overlay District	Light Industrial (LI) District	Heavy Industrial (HI) District	Public and Institutional (P) District	Parking Requirements (Spaces : Increment)
Nonresidential Uses											
Adult Day Services Center	X	X	X	S	S	S	S	S	X	X	1 : 2 guests
Agricultural Use	P-C	X	X	X	X	X	X	P-C	P-C	X	1 : 1,000 s.f. of enclosed area
Ambulance Service	X	X	X	X	X	X	X	P	P	X	1 : 400 s.f.
Amusement, Commercial (Indoors)	X	X	X	X	S	X	S	S	X	X	1 : 300 s.f.
Amusement, Commercial (Outdoors)	X	X	X	X	S	X	S	S	X	X	1 : 3 patrons
Animal Shelter/Pet Boarding (with Outside Yard/Kennels)	P	X	X	X	X	X	X	P	X	X	1 : 400 s.f.
Animal Shelter/Pet Boarding (without Outside Yard/Kennels)	P	X	X	X	X	X	X	P	X	X	
Animal Veterinary Office or Grooming (with Outside Yard/Kennels)	P	X	X	X	X	X	X	P	X	X	1 : 400 s.f.
Animal Veterinary Office or Grooming (without Outside Yard/Kennels)	P	X	X	S	X	X	X	P	X	X	

	Agriculture and Agricultural Homestead (AG) District	Residential Estate (RE) District	Residential Neighborhood (RN) District	Neighborhood Commercial (NC) District	Community Commercial (CC) District	Neighborhood Mixed-Use (NMU) Overlay District	Community Mixed-Use (CMU) Overlay District	Light Industrial (LI) District	Heavy Industrial (HI) District	Public and Institutional (P) District	Parking Requirements (Spaces : Increment)
Distillery, Micro	X	X	X	X	S	S	S	P	P	X	Office 1 : 400 s.f. Distillery 1 : 1,000 s.f. Tasting Room 1 : 200 s.f.
Farmer's/Open Air Market	P	X	X	X	S	S	S	P	X	X	N/A
Feed Store	S	X	X	X	X	X	X	P	X	X	1 : 300 s.f.
Fix-It Shop, Bicycle Repair, Blade Sharpening or Small Engine Repair	X	X	X	X	P	X	P	P	X	X	1 : 400 s.f.
Food Truck and Mobile Retail Park	X	X	X	X	S	X	S	P	X	X	N/A
Furniture Repair and Upholstering Shop	X	X	X	S	P	P	P	P	P	X	1 : 400 s.f.
Grocery Store	X	X	X	X	P	S	P	P	X	X	1 : 300 s.f.
Gym or Health/Fitness Center	X	X	X	S	P	S	P	P	X	X	1 : 300 s.f.
Heavy Industrial or Manufacturing Operations	X	X	X	X	X	X	X	X	S	X	Office 1 : 400 s.f. Warehouse 1 : 1,000 s.f.
Home-Based Business	P-E	P-E	P-E	X	X	P-E	P-E	X	X	X	N/A

	Agriculture and Agricultural Homestead (AG) District	Residential Estate (RE) District	Residential Neighborhood (RN) District	Neighborhood Commercial (NC) District	Community Commercial (CC) District	Neighborhood Mixed-Use (NMU) Overlay District	Community Mixed-Use (CMU) Overlay District	Light Industrial (LI) District	Heavy Industrial (HI) District	Public and Institutional (P) District	Parking Requirements (Spaces : Increment)
Restaurant or Cafeteria, Bar/Tavern	X	X	X	X	S-I	S-I	S-I	S-I	X	X	1 : 200 s.f.
Retail Store, Big Box	X	X	X	X	S	X	S	P	X	X	1 : 300 s.f.
Retail Store, Shop	X	X	X	P	P	P	P	P	X	X	1 : 300 s.f.
School, Public or Private	P	P	P	P	P	P	P	P	P	P	Pre-K – Middle 2 : classroom High School 8 : classroom
Seamstress or Tailor Shop	X	X	X	P	P	P	P	P	X	X	1 : 400 s.f.
Sexually Oriented Business	X	X	X	X	X	X	X	X	P	X	
Shooting Range, Indoor	X	X	X	X	X	X	X	P	P	X	2 : shooting lane
Shooting Range, Outdoor	X	X	X	X	X	X	X	X	S	X	2 : shooting lane
Short Term Rental	X	P-K	P-K	P-K	P-K	P-K	P-K	X	X	X	2 : dwelling
Stable, Boarding	S	X	X	X	X	X	X	X	X	X	1 : 2 stalls
Stable, Commercial	S	X	X	X	X	X	X	X	X	X	1 : 2,000 s.f. of site area
Stadium or Play Field (with Lighting)	X	X	X	X	X	X	X	X	X	P	N/A
Stadium or Play Field (without Lighting)	X	X	X	X	X	X	X	X	X	P	N/A

5. In addition to the screening fence or wall surrounding Outside Storage, a second level of screening is required at the property line unless the screening required by above paragraph is located along the property line. A six (6) foot screening fence or wall shall be provided and maintained at the common property line or street adjacent to the area to be screened by one or a combination of the following methods:
 - a. Solid masonry consisting of rock, stone, or other material that is equivalent, visually and qualitatively.
 - b. Wrought iron in conjunction with solid landscape screening.
 - c. Wood or wood vinyl in conjunction with solid landscape screening.
 - d. An equivalent alternative screening method approved by the Zoning Administrator.
6. No Outside Storage may exceed the height of the screening wall or fence and must comply with maximum heights for the zoning district and any applicable overlay district.
7. In the case of a home improvement store that provides goods to the general public (e.g., Home Depot or Lowe's) with Outside Storage, such use would be classified as both Retail Store and Outside Storage; therefore, both use classifications must be permitted in the applicable district for the store to be allowed.
8. Plant nurseries are not considered outside storage for the purpose of these provisions.

I. Restaurant or Cafeteria, Bar or Tavern

1. No drive-through windows or curbside service shall be permitted within five hundred (500) feet of a residential zoning district. Drive-through windows are measured from the window and curbside service is measured from the main entrance.
2. Drive-through windows or curbside service requires a Specific Use Permit in the Community Commercial (CC) District, Neighborhood Mixed-Use (NMU) Overlay District, Community Mixed-Use (CMU) Overlay District, and Light Industrial (LI).

J. Temporary Building

1. Temporary buildings may be permitted for six (6) months in accordance with a permit issued by the Zoning Administrator, and one (1) six (6) month extension may be approved by the Zoning Administrator.

2.07.05. Creation of a Building Site, Tract, or Lot

No permit for the construction of any building, fence, wall, or sign upon any tract or plot shall be issued until the lot or tract is part of a plat of record, approved by the City and filed in the Plat Records of Comal County, Texas, and compliant with all development regulations.

2.07.06. Certificate of Occupancy

A. Use

No building hereafter erected or structurally altered, shall be used, occupied, or changed in use until a Certificate of Occupancy has been issued by the Building Inspector, stating that the building or proposed use of the building or premises complies with the building code, electrical code, plumbing code, and the provisions of these and all other development regulations.

B. Change in Use

A change in use shall be construed to mean any change in the primary occupancy or type of business.

2.07.07. Specific Use Permit (SUP) Regulations and Procedures

A. General

The uses listed under the various districts within the Use Chart as “S” or Specific Use Permit (SUP) are so classified because they may have adverse effects or more intensely dominate the area in which they are located than do other uses permitted in the district.

B. Specific Use Permit (SUP) Application Process

1. Application Requirements.

Any request for a SUP shall be accompanied by an application prepared in accordance with the City’s requirements. Applications shall include a site plan drawn to scale and showing the general arrangement of essential elements and requirements of the project such as off-street parking facilities, locations of buildings and uses to be permitted, means of ingress and egress to public streets, and type of visual screening such as walls, plantings and fences, the location of adjacent residences and buildings, the location and area coverage of outdoor lighting, and any other information as required by the Zoning Administrator to clarify the SUP request. The Zoning Administrator may waive the requirement for a site plan when in his or her opinion a site plan is not needed for the consideration of the SUP request.

2. Procedures for Processing a SUP

- a. An application for a SUP shall be submitted to the Zoning Administrator.
- b. The Zoning Administrator shall initiate review of the SUP.
- c. The Planning and Zoning Commission shall review and recommend approval, approval with conditions, or denial of the SUP to the City Council.
- d. After receiving recommendation from the Planning and Zoning Commission, City Council shall approve, approve with conditions, or deny the SUP. Although the approval of the SUP does not change the zoning classification.
- e. Both the Planning and Zoning Commission and City Council shall provide the required public hearing and notice in accordance with this Ordinance.

C. Specific Use Permit (SUP) Regulations

1. In considering a SUP for the premises, the City Council shall determine that such uses are harmonious and adaptable to building structures and uses of abutting property and other property in the vicinity of the premises under consideration, and shall consider the following factors:
 - a. Safety of the motoring public and of pedestrians using the facility and the area immediately surrounding the site.
 - b. Adequate means of ingress and egress to public streets or approved access easements and appropriate paving widths of streets, alleys, and sidewalks to accommodate traffic generated by the proposed use.
 - c. Provisions for drainage.
 - d. Adequate off-street parking and loading.
 - e. Safety from fire hazard and measures for fire control.
 - f. Protection against negative effects of noise, glare, and lighting on the character of the neighborhood, protective screening, and open space.
 - g. Heights of structures.
 - h. Adverse effects of the concentration of the use.
 - i. Compatibility of buildings and such other measures as will secure and protect the public health, safety, and general welfare.
2. In granting a SUP, the City Council may impose conditions which shall be complied with by the owner or grantee before a Certificate of Occupancy may be issued by the Building Inspector for use of the building on such property pursuant to such SUP, and such conditions are precedent to granting of the Certificate of Occupancy.

D. Acceptance and Agreed Compliance by the Applicant, Owner, and Grantee

No SUP shall be granted unless the Applicant of the SUP shall be willing to accept and agree to be bound by and comply with the Ordinance adopting the SUP, as well as the attached Site Plan drawings approved by the City Council and shall comply with the minimum requirements provided in the zoning district in which the property is located.

E. Specific Use Permit Expiration and Extension

1. SUP Expiration

- a. A SUP shall automatically expire upon change in ownership.
- b. A SUP shall automatically expire if a building permit is not issued and construction begun within six (6) months of the granting of the SUP.

2. SUP Extension

The City Council may authorize an extension beyond the six (6) months upon recommendation by the Planning and Zoning Commission.

F. Amendments Required for Changes

No building, premise, or land used under a SUP may be enlarged, modified, structurally altered, or otherwise significantly changed, unless an amendment to the approved SUP is granted for such enlargement, modifications, structural alteration, or change.

G. Prohibition of Board of Adjustment Action

The Board of Adjustment shall not have jurisdiction to hear, review, reverse, or modify any decision, determination, or ruling with respect to the granting, extension, revocation, modification, or any other action taken relating to such SUP.

H. Three-Fourths City Council Vote Required for Planning and Zoning Commission Denial

If the Planning and Zoning Commission has recommended denial of a Specific Use Permit, a three-fourths (3/4) vote of City Council is required to approve the application.



Future Agenda Item: Garden Ridge Walkability Study conducted on June 27th by the Alamo Area Metropolitan Planning Organization (AAMPO). I ask that the P&Z have further discussion, consideration and ~~the~~ action on two recommendations of the AAMPO.

Agenda Item

Planning and Zoning (P&Z) Commission

December 13, 2023

The Alamo Area Metropolitan Planning Organization (AAMPO) conducted a Walkable Community Workshop for Garden Ridge on June 27, 2023.

The AAMPO reported the results of the workshop on August 9, 2023 to the Planning and Zoning Commission (P&Z). At the August 9th meeting, The P&Z recommended the City Council review the AAMPO workshop results and take action.

The City Council, at the October 6, 2023 meeting, moved to approve the Garden Ridge Walkable Community Workshop Report as an official document for use in future planning efforts within the City of Garden Ridge.

I recommend P&Z have further discussions and consideration to act on two the AAMPO's findings:

1. City Speed Limit: A reduction of the speed limit in Garden Ridge from 30 mph to 25 mph. The Federal Highway Administration shows a vehicle traveling at 30 mph has a 45% chance of killing or seriously injuring a pedestrian. Currently, Texas cities may not reduce speed limits below 25 mph without conducting a traffic study.

Note: This action requires partnership with state and county agencies.

2. Marked Crosswalks: AAMPO found city drivers cut corners at intersections within neighborhoods, increasing vehicular speeds and the possibility for a collision. Marked crosswalks can increase visibility of people walking and encourage yielding among people driving. Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help delineate where vehicles are to stop to not interfere with pedestrian crossing.

Note: This action requires the city to fund the labor and materials to paint white striped lines at our cities stop signs/crosswalks.



JULY 2023

Garden Ridge Walkable Community Workshop Report



825 South Saint Mary's Street
San Antonio, TX 78205



www.alamoareampo.org



(210) 227-8651

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INTRODUCTION

The Alamo Area Metropolitan Planning Organization (AAMPO) conducts Active Transportation Planning to support development of an equitable and sustainable transportation system for the Alamo Area. AAMPO recognizes the need to plan for people of all ages and abilities and for all transportation modes. A system designed to accommodate people walking and biking improves safety, not only for these users, but every user of the transportation system.

The Active Transportation Program supports the following AAMPO goals:

- Meet needs of a growing region while advancing alternative modes of transportation and increasing accessibility for all users;
- Facilitate the involvement and participation of communities, agencies, organizations and the general public in the transportation planning process; and
- Maintain a focus on safety.

The Walkable Community Workshop (WCW) component, of the Active Transportation Program, is designed to engage residents in the planning process for their neighborhoods. It is modeled after a national program that encourages communities to design a comprehensive and coordinated system that is safe and welcoming for people walking and biking. Community leaders and residents who identify a need within a specific geographic area may apply for a Walkable Community Workshop. Workshops are intended to:

- Educate participants about the benefits of active transportation;
- Assist communities in identifying policy and infrastructure improvements that support walking and bicycling; and
- Provide the community with an opportunity for two-way communication with local transportation agency staff.

Benefits of Walkability

Neighborhoods and streets that are safe and welcoming for people walking have many broader benefits for the community. They can:

- Increase safety for all users
- Provide transportation choices
- Increase quality of life
- Support economic development
- Improve health by providing greater opportunities for exercise
- Improve air quality by reducing the need to drive alone
- Conserve energy and natural resources
- Reduce automobile ownership costs
- Provide opportunities for community engagement

Walkable communities typically have sidewalks, trails, shared use paths, pedestrian amenities (such as benches), sufficient lighting, shade, and good access to destinations.

BACKGROUND

The City of Garden Ridge submitted an application to AAMPO to organize a Walkable Community Workshop for its residents in January 2023. This report details the process taken to gather public input on barriers to walkability within their community and outlines infrastructure improvements that can be implemented to mitigate for those barriers.

STUDY AREA

The City of Garden Ridge is located northeast of downtown San Antonio, TX in Comal County. The Study Area, which is smaller than the city limits, is bound by the cities of Selma and Schertz to the south, the local quarry to the northeast, unincorporated Comal County to the north, and the unincorporated community of Bracken to the southwest (see Figure 1).

LAND USE AND CIVIC AMENITIES

The study area is primarily zoned as Residential Estates (RE) with minimum lot areas of 3/4 acre. The community is served by a public water supply, private sewerage facilities, and is located over the Edwards Aquifer Recharge Zone. Municipal and civic facilities including the community and events center, elementary school, and city hall can be found on the northeast side of FM 3009. Paul Davis Park, 20685 Grass Creek Road, is embedded in a residential area and only accessible from the main entrance, limiting its accessibility and connectivity. Davenport High School is located on the southwest side of FM 3009, and is inaccessible from the rest of the city due to the development of a gated community. FM 3009, FM 2252, Bat Cave Road, and Schoenthal Road act as barriers for pedestrians and cyclists coming from the neighborhoods to parks, civic amenities, schools, and shopping. Further planned residential development just northwest of Garden Ridge city limits along Bat

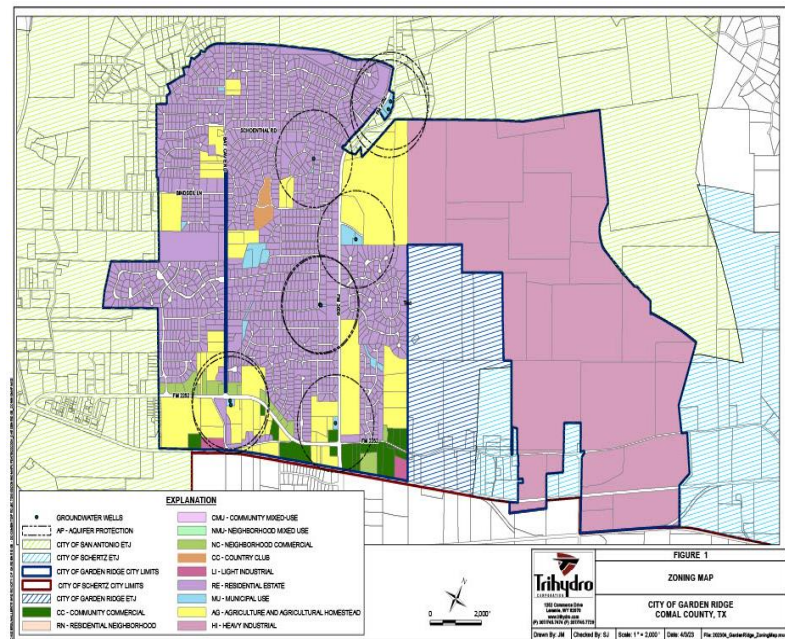


Figure 1: City of Garden Ridge Zoning Map

Cave Road will increase vehicular traffic along the corridor, with potential impacts to Schoenthal Road.

CURRENT BICYCLE AND PEDESTRIAN FACILITIES

Throughout the city of Garden Ridge, there is a general lack of sidewalks and other pedestrian facilities. Cyclists and pedestrians traverse neighborhood streets and wide shoulders along major thoroughfares with no protection or separation from automobiles. The Federal Highway Administration recommends sidewalks or side paths. Although, wide shoulders along rural highways are acceptable with a 6-foot wide minimum, entire neighborhoods with no sidewalks or paths are not good practice, according to FHWA.¹

TRAFFIC COUNTS

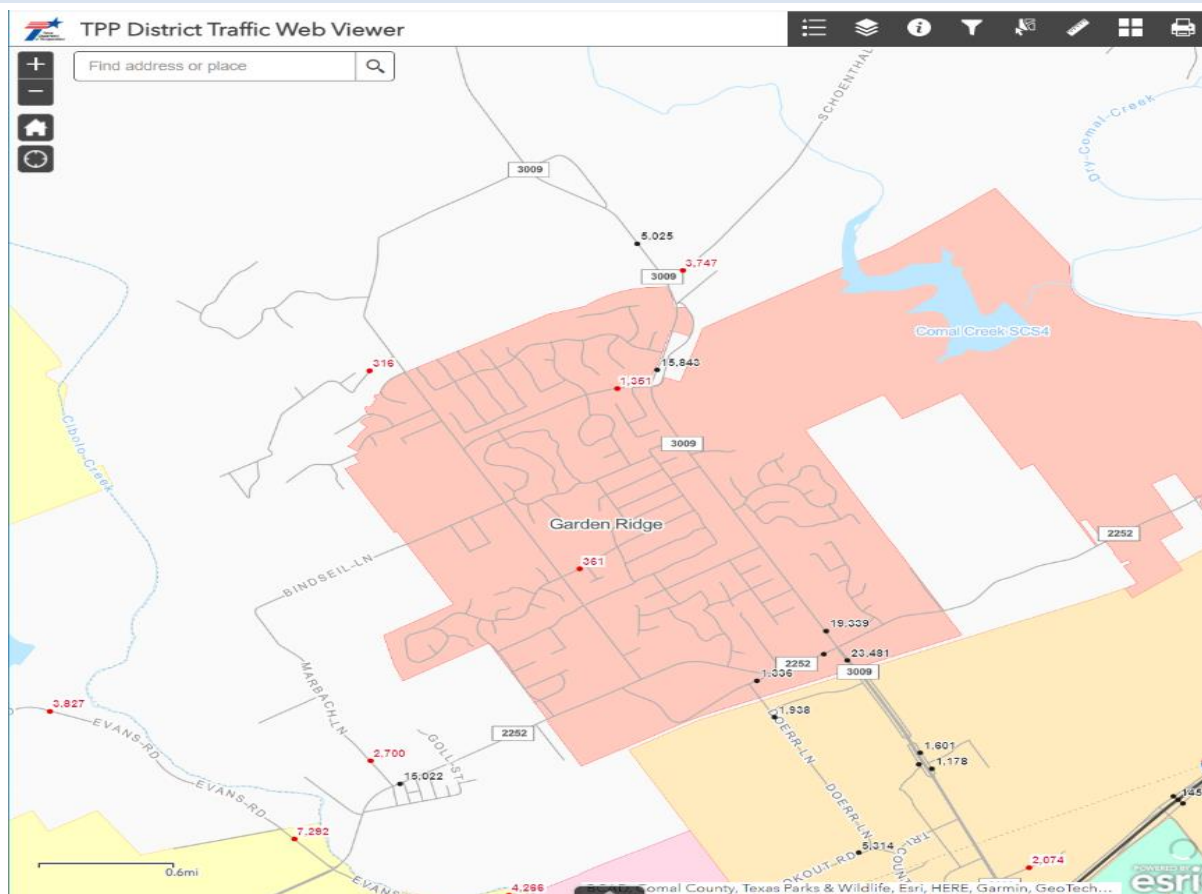


Figure 2: TxDOT Average Daily Traffic (2021)

¹ Pedestrian Safety Guide and Countermeasure Selection System (2013). Retrieved May 2023, from http://www.pedbikesafe.org/pedsafe/resources_guidelines_sidewalkwalkways.cfm.

Traffic counts within Garden Ridge neighborhoods are low, with higher numbers along streets that connect to FM 3009. Neighborhood streets may be comfortable to walk on without sidewalks as a result of the low amount of traffic, but vehicle speeds and the lack of traffic-calming (speed reducing) measures play a more significant role in terms of pedestrian safety and comfort. FM 3009 and FM 2252 have the highest traffic counts within the city, particularly at their intersection. Automobile traffic is primarily using these corridors as through-streets, with high traffic counts along FM 3009 going towards Davenport High School and truck traffic to the adjacent quarry along FM 2252. As a result of the traffic counts along these thoroughfares, and speed limits of 45 miles per hour or more along these corridors, suggested treatments for pedestrian and cyclist infrastructure will mostly be off-street. These infrastructure improvements will require a physical barrier for the upmost safety, with street crossings and intersections requiring a greater significance of infrastructure to separate transportation modes. Areas within the neighborhoods with lower traffic counts and speed limits will require less physical infrastructure (e.g., restriping, buffers, etc.) as the context allows for greater transportation mode cooperation.

COMMUNITY OUTREACH AND EARLY ENGAGEMENT

FLYERS AND NOTICES

Leading up to the workshop, AAMPO and City of Garden Ridge staff shared materials to encourage participation in the initiative. AAMPO created a webpage, e-mail notices for distribution by local schools, water bill inserts, and flyers (see Appendix B) advertising the



Figure 3: Outreach Materials

Walkable Community Workshop. AAMPO also participated in the Garden Ridge Market Days, mapping community concerns on the crowdsourcing map, showing others how to map their input on their own, and advertised the upcoming workshop. While the crowdsourcing tool could be accessed on one's own time, the Market Days and Walkable Community Workshop at the Garden Ridge Community and Event Center heightens awareness of the effort and allows the City to gain a diverse perspective from area residents as well as visitors.

NEWS ARTICLES

The City of Garden Ridge notified local news media of the walkability events and the workshop. The article, shown in Figure 4, advertised the online crowdsourcing map as well as participation at the Garden Ridge Market Days and the Walkable Community Workshop.

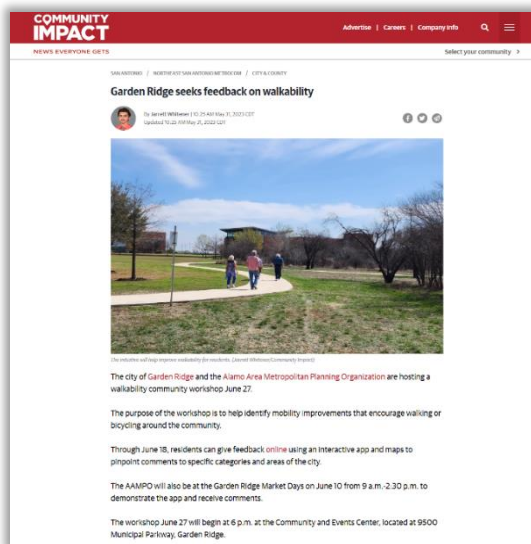


Figure 4: Local News Article

WEBPAGE



Figure 5: AAMPO-Hosted Webpage

A landing page for the City of Garden Ridge Walkable Community Workshop was created by AAMPO to help the community understand how to provide input, advertise the schedule, provide information about Complete Streets, and showcase access to the Walkable Community Workshop Crowdsourcing Tool. The crowdsourcing tool was listed under “Provide Your Input Online”.

CROWDSOURCING TOOL

The crowdsourcing tool was featured on AAMPO’s website alongside information about engagement opportunities. The digital map was split into five sections: Aesthetics and Geography, Bicycle Facilities, Intersection Safety, Pedestrian Facilities, and Recommended Mobility Improvements. In total, over fifty online entries were received including requests for

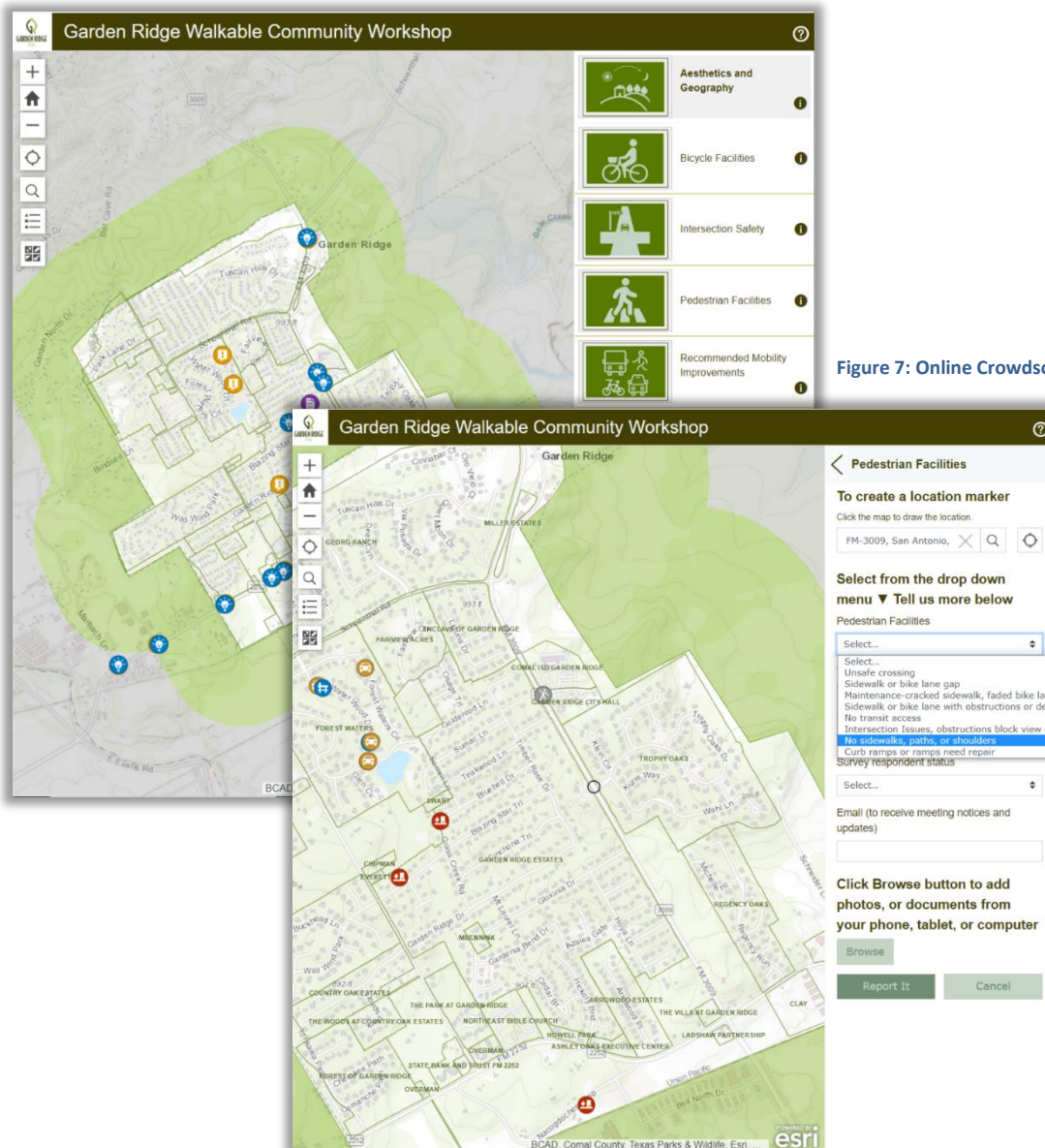


Figure 7: Online Crowdsourcing Tool

improvements with lighting, connectivity, and more. All entries and comments have been taken into account within the table below.

City of Garden Ridge Walkability/Bikeability Concerns <i>AAMPO Garden Ridge Walkable Community Workshop Crowdsourcing Tool Results</i>	
Area of Interest	Concern
Pedestrian Facilities	Lack of comfortable pedestrian facilities, reducing connectivity along: • FM 2252 • FM 3009 • Bat Cave Road • Schoenthal Rd • Municipal Parkway
	Disjointed street network reduces connectivity around Paul Davis Park, potential off-street facilities at these locations could make walking more comfortable: • Adjacent to Bat Cave Rd • Adjacent to FM 3009 • Along high-voltage electric right-of-way • Along creek beds throughout the city
	Lack of off-street walking and biking infrastructure. One resident noted that these facilities should be paved and smooth. Most residents that suggested building pedestrian facilities wanted off-street infrastructure as opposed to sidewalks or wide shoulders.
Driver Behavior	Drivers cut corners at intersections within the neighborhoods, increasing vehicular speeds and the possibility for a collision.
	Aggressive drivers were reported, particularly along FM 3009, FM 2252, Schoenthal Rd, and Bat Cave Rd.
	Development north of Garden Ridge may increase vehicular traffic along: • Bat Cave Rd • Schoenthal Rd • FM 3009
	Speed limits of 30mph within the neighborhoods are too high.
	Speed limit of 45mph on FM 2252 near the quarry is too high.
	Traffic calming requested on neighborhood entrance streets.
Crossing and Intersection Safety	Wide, high-speed roadways with limited safe crossing points pose risks to pedestrians. Safe crossings are needed at: • FM 3009 and Municipal Parkway • FM 3009 and Schoenthal Rd

City of Garden Ridge Walkability/Bikeability Concerns AAMPO Garden Ridge Walkable Community Workshop Crowdsourcing Tool Results	
	• FM 3009 and Davenport High School • FM 3009 and Trophy Oaks Dr • FM 2252 and Hickory Bend • FM 2252 and Regency Run • Bat Cave Rd and Garden Arbor • Bat Cave Rd and Bindseil Ln • Bat Cave Rd and Blazing Star Trail • Bat Cave Rd and Garden Ridge Dr • Schoenthal Rd and Deer Canyon Many residents requested a pedestrian bridge connecting Garden Ridge Elementary and city amenities across FM 3009. Additional pedestrian safety measures could be taken at FM 3009 and FM 2252 neighborhood entrances. Traffic lights at: • Major intersections along FM 3009 • Bat Cave Rd and FM 2252
Bicycle Facilities	Bicycle facilities requested on: • FM 2252 • FM 3009 • Bat Cave Rd • Schoenthal Rd • Tonkawa Pass • Numerous potential off-street trailways
Micromobility Facilities	Interest on the possibility of providing infrastructure, such as off-street trailways that accommodate for golf carts.
Lighting	No street lighting reduces visibility, particularly along: • FM 2252 • FM 3009 • Bat Cave Rd • Schoenthal Rd
Comfort	Trees lining roadways could help reduce speeds, create a physical barrier, and provide shade for pedestrian facilities. Traffic calming throughout neighborhoods would dramatically improve pedestrian safety and comfort.

City of Garden Ridge Walkability/Bikeability Concerns AAMPO Garden Ridge Walkable Community Workshop Crowdsourcing Tool Results	
	Resident noted a lack of dog waste facilities.
Parks & Recreation	Lack of connections to Paul Davis Park
	No trails or connections to regional trailways
	No wayfinding signage to Paul Davis Park
	New recreational area desired at Bat Cave Rd and Bindseil Ln to reduce distances to parks
	New public open space between Garden Ridge Estates Neighborhood and Arrowhead Estates Neighborhood
	New recreational area desired near Tonkawa Pass and FM 2252
Connectivity	Desired connections to Garden Ridge Elementary School from: • Regency Run • Trophy Oaks Dr • Schneider Ln • Sumac Cir
	Desired connections to Davenport High School from: • Cinnabar Ct • Schoenthal Rd • Neighborhoods along Bat Cave Rd
	Desired connections to Paul Davis Park from: • Wild Wind Park • Glen Cove • Creekview Oaks • Georg Ranch Neighborhood • The Woods of Garden Ridge Neighborhood

WALK AUDIT

A walk audit was conducted in which AAMPO and City of Garden Ridge staff traveled segments of the area as a pedestrian and noted barriers within the experience. The walk audit routes were chosen based on the stated goals of the City of Garden Ridge councilmembers and staff and within existing transportation corridors. Routes surrounding the park and other green

space were given priority as existing neighborhood features. Another area considered was the intersection of FM 3009 and Municipal Parkway to explore potential solutions for connecting the neighborhood to the west to Garden Ridge Elementary and municipal facilities on the eastside of the highway. The intersection of FM 3009 and Davenport High School's entrance was also considered. These areas were eliminated from consideration for the walk audit exercise due to the lack of sidewalks or other pedestrian facilities along FM 3009.

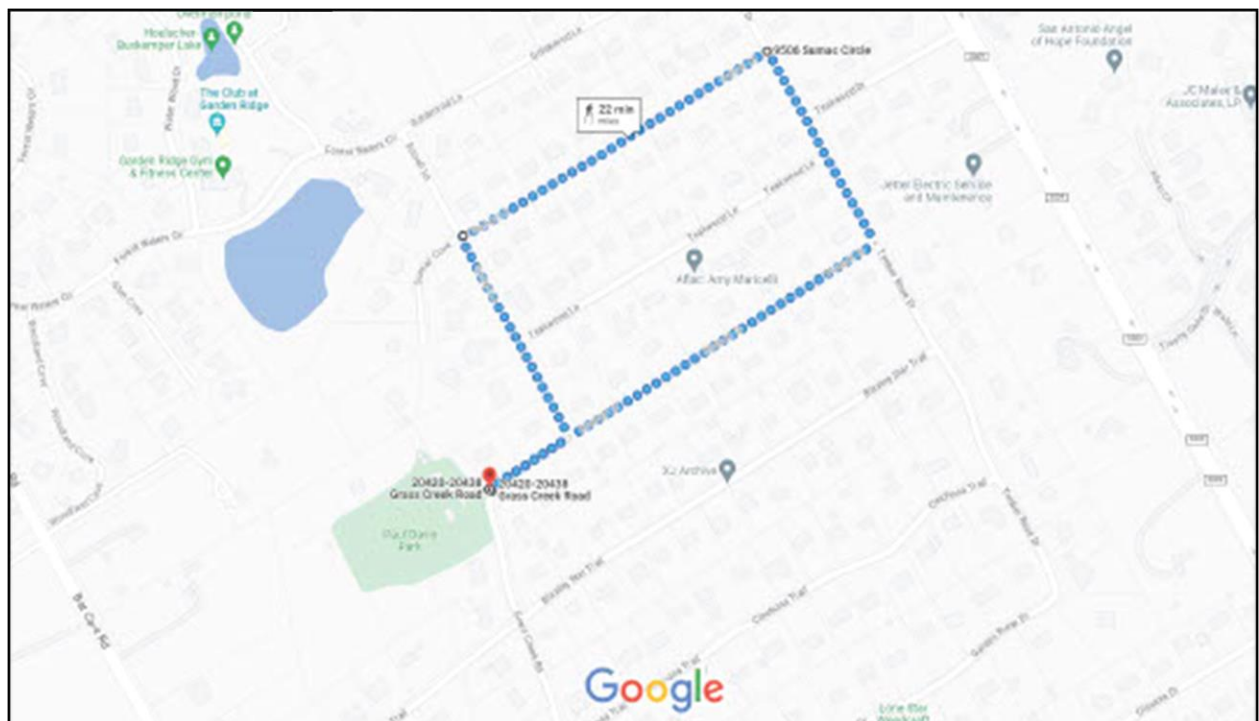


Figure 8: Walk Audit Route 1 - Paul Davis Park

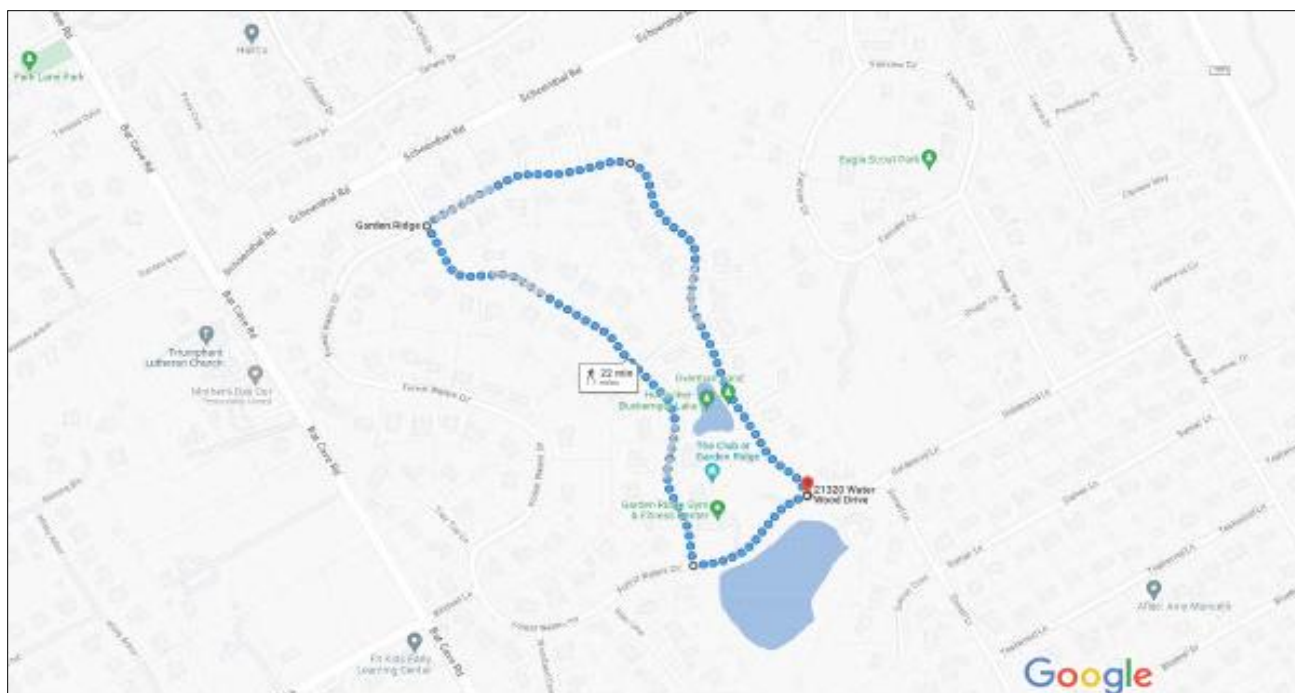


Figure 9: Walk Audit Route 2 - Country Club

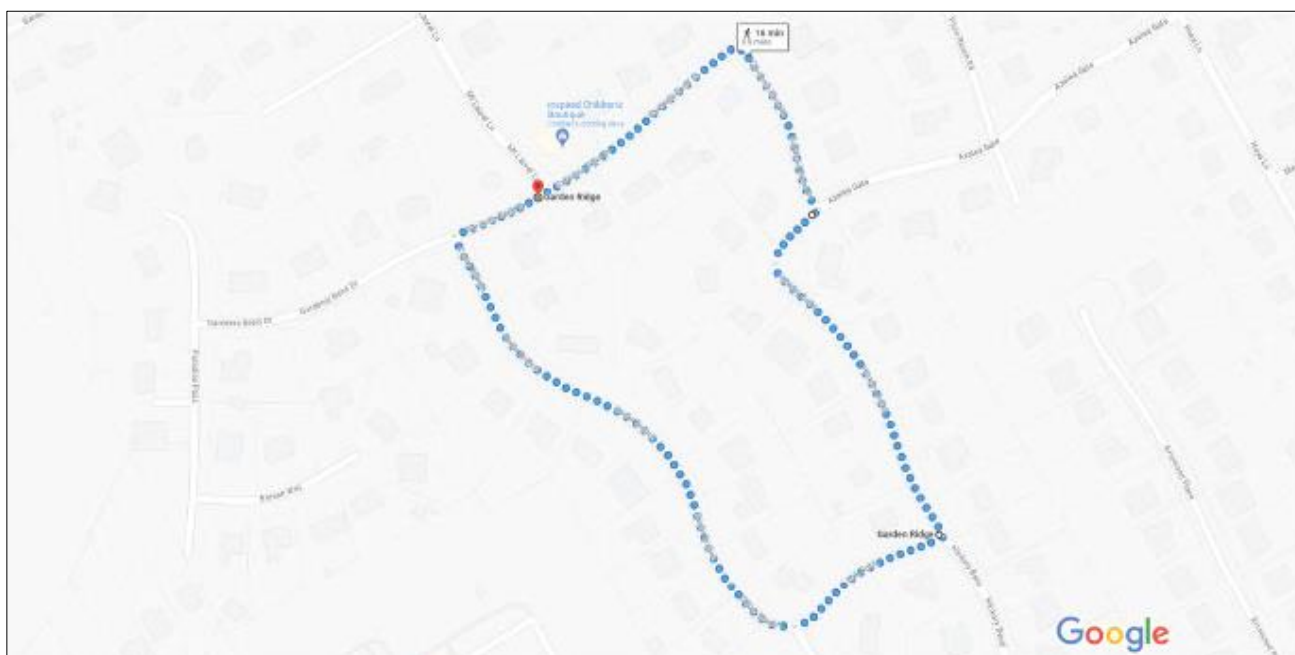


Figure 10: Walk Audit 3 - Neighborhood

GARDEN RIDGE MARKET DAYS

A walk-up “workshop” was held at Garden Ridge Market Days at Northeast Bible Church on Saturday June 10, 2023 from 9:30 a.m. – 2:30 p.m. Participants were given the opportunity to talk with AAMPO staff about the benefits of a walkable and bikeable community, along with recording their areas of concerns/needed improvement via the online crowdsourcing map. Overall, the Market Day effort yielded over a dozen in-person comments, which have been included within the crowdsourcing tool results table.



Source: <https://gardenridgemarketdays.com/>

WALKABLE COMMUNITY WORKSHOP

The workshop was held at the Jay F. Feibelman Garden Ridge Community and Event Center located at 9400 Municipal Pkwy, Garden Ridge, TX 78266 on June 27, 2023 at 6 p.m. The workshop agenda consisted of summary background information and goals for the workshop, a presentation on walkability and AAMPO’s Walkable Community Program with highlights from the crowdsourcing tool, followed by the workshop session with facilitated table groups and report outs of priority concerns, and closed with next steps. For more information, see Appendix A. Approximately 25 participants attended the event, in addition to AAMPO and Great Springs Project staff and City of Garden Ridge elected officials and other personnel.



The workshop session had attendees split into three groups – one to cover half of the WCW study area, another to cover the other half of the area, and a third to review and comment on Great Springs Project plans. The two groups covering the Garden Ridge WCW study areas provided table facilitators with input on areas that need improvement, desired connectivity, and overall topics of comfort and safety as it relates to the community. In addition to identifying issues in the neighborhood, workshop attendees were asked to work in groups and prioritize their most pressing concerns. A list of priority concerns is shown in the table below.



Table 1: City of Garden Ridge Priority Concerns	
Priority Rank	Issue
1	Lack of walk and bike connections to Garden Ridge Elementary
2	Lack of walk and bike facilities along and across Bat Cave Rd and Schoenthal Rd
3	Lack of walk and bike connections to Paul Davis Park
4	Lack of walk and bike connections to Davenport High School
5	Safe crossings across FM 3009 and FM 2252

IMPROVING WALKABILITY AND BIKEABILITY

Based on the desire to improve pedestrian access and safety within neighborhoods and throughout the community, the following infrastructure improvements may be appropriate.

INFRASTRUCTURE

Off-Street Multi-Use Paths/Trails

Multi-use paths and trails would provide people with space to travel completely separated from motor vehicles. These trails have the potential to connect disjointed street networks with pedestrian and bicycle access while decreasing travel distance. Trails often serve active transportation modes most effectively in areas with low population density and/or high automobile traffic. Multi-use paths should be well connected to neighborhood amenities and be fully accessible to all users, including those in wheelchairs.

Paths can be easily aligned in a developed area by way of utility and stormwater easements. Paths adjacent to a high-traffic or high-speed roadway should include trees, street lighting, a curb, or guard-rails, and a physical element separating the path from automobile traffic. Small-scale lighting may be considered for trails intended for commuting, such as trails connecting to schools and area destinations. Trails crossing streets should be well marked and may require traffic calming elements and street lighting. Trails would increase pedestrian and bicyclist access, safety, and comfort to local destinations while maintaining a small town feel in the City of Garden Ridge.



Trails provide an off-street option for pedestrians and cyclists to travel without conflicts with automobiles.

Sidewalks and Walkways

Sidewalks and walkways provide people with space to travel within the public right-of-way that is separated from motor vehicles by a vertical curb. Wider sidewalks should be installed near schools, parks, civic amenities, or anywhere high concentrations of pedestrians exist. Sidewalks should be continuous along both sides of a street and sidewalks should be fully accessible to all pedestrians, including those in wheelchairs. Sidewalks along high traffic roads should be set back from the curb and may include trees and lighting to increase comfort



Sidewalks provide a safe space to travel on foot.

and safety. Sidewalks or walkways would increase pedestrian comfort in the City of Garden Ridge, particularly on Municipal Parkway or to connect cul-de-sacs to the larger area within a neighborhood.

Marked Crosswalks

Marked crosswalks indicate optimal or preferred locations for pedestrians to cross and help delineate where vehicles are to stop so as not to interfere with the pedestrian crossing. Marked crosswalks can increase visibility of people walking and encourage yielding among people driving. Marked crosswalks can be especially useful at transit stops or other pedestrian generators located on long blocks, where the distance between existing marked crosswalks is greater than 1,000 feet. This treatment would be useful along residential streets to nearby parks, at trail crossings, and other civic destinations.



Marked crosswalks indicate a preferred crossing location and increase pedestrian visibility.

Crossing Islands/Pedestrian Refuge Islands

Crossing islands (also known as pedestrian refuge islands) are raised islands placed in the center of the street at intersections or mid-block. Crossing islands allow pedestrians to deal with only one direction of traffic at a time by enabling them to stop halfway across the street and wait for an adequate gap in traffic before crossing the second half of the street. They are especially effective at reducing crashes at uncontrolled locations on busy roadways where gaps are difficult to find, particularly for slower pedestrians, such as pedestrians with disabilities, older pedestrians, and children. Roads with high-speed or multi-lane traffic should include a pedestrian hybrid beacon (see below), in addition to a pedestrian refuge island, to increase vehicular awareness. Crossing islands would increase pedestrian comfort when crossing wide roadways such as FM 2252 or FM 3009.



Crossing islands provide refuge for people crossing the street and enable them to cross a single direction of traffic at a time.

Pedestrian Hybrid Beacons

Pedestrian hybrid beacons allow for additional safety when crossing a street mid-block, particularly on roads with high-speed or multi-lane traffic. This overhead stoplight activates only when a pedestrian is present and pushes the cross button. Pedestrian signal indicators tell

the pedestrian when the stop-lights are activated for automobile traffic and the amount of time in seconds that is available to safely cross, in addition to the “DO NOT WALK” phase. As vehicles approach shortly after the cross button is pushed, the lights will turn yellow, similar to a standard traffic light. A solid red signal is the same as a standard red-light, in which the walk-sign will enable for the pedestrian to cross. Shortly thereafter, the solid red signal transition into a flashing red sign, indicating that the crosswalk should be treated by vehicular traffic as a stop sign and wait for pedestrians to finish crossing before continuing through the intersection, one-vehicle per lane at a time. After the flashing-red phase is complete, the light will simply turn off, allowing automobile traffic to continue through the crosswalk uninterrupted. Pedestrian hybrid beacons would increase pedestrian comfort and safety when crossing roads such as FM 3009 and FM 2252.



Pedestrian hybrid beacons offer clear guidance on when pedestrians may cross the street at a mid-block crosswalk and raise awareness to automobile traffic

Pedestrian Signal Indicators

Pedestrian signal indicators ensure pedestrians will know when the signal phasing allows them to cross and when they should not be crossing. Countdown pedestrian signals inform pedestrians of the amount of time in seconds that is available to safely cross during the flashing “DO NOT WALK” phase. This device is particularly useful at crosswalks with long crossing distances. The walk phase should allocate enough time for pedestrians of all abilities to safely cross the roadway. In cases with a high number of pedestrians crossing or along roads with a long crossing distance, a leading pedestrian interval (allowing pedestrians a three-second walk phase head start prior to the automobile lane lights turning green) may help increase pedestrian safety and driver awareness. Additional pedestrian signals along FM 3009 and FM 2252 would facilitate safer crossing of major streets.



Pedestrian crossing signals provide clear guidance on when people walking may cross the street.

Chicanes

Chicanes are a traffic calming measure that divert the path of travel along a roadway, causing vehicles to slow in order to make lateral shifts and/or pass through a narrowed section of roadway. Chicanes can take the form of curb extensions, center islands, or staggered on-street

parking. On low-speed and low-volume residential streets, chicanes are often mid-block curb extensions used to slow traffic by introducing lateral shifts to both sides of the roadway, at times resulting in one-lane of travel. They are most effective on long, straight neighborhood streets with little to no truck traffic.

Mini-Traffic Circles

Mini-traffic circles are circular islands installed in the center of appropriate residential street intersections to reduce traffic speeds and collisions. Traffic circles require people driving to slow down while allowing continuous traffic flow. They can be installed in lieu of signals or stop signs, especially in residential areas where streets make sudden directional changes (also known as modified T-intersections). Mini-traffic circles can be an effective traffic calming measure where cut-through or speeding traffic is common. This treatment could be a useful tool for reducing speeding within residential areas. Traffic circles, compared to signalized intersections, require less maintenance and because they do not rely on electricity or overhead structures to be effective, they are considered resilient in the face of extreme conditions (wind, power failure, etc.).

Choker/Pinch Point

Chokers, or pinch points, can be an effective traffic calming measure where speeding traffic is common. They are curb extensions that reduce the width of the road to a narrow two-lane channel or to one lane. They are installed mid-block of an appropriate residential street to reduce traffic speeds. Pinch points require people driving to slow down as the travel lane's width decreases, some larger vehicles may even need to yield the right-of-way to ensure their vehicle has adequate space to continue. They can be installed in conjunction with marked crosswalks to reduce vehicular speeds and decrease the crossing distance for



Chicanes compel people driving to slow down on neighborhood streets.



Mini traffic circles help slow vehicular traffic on residential streets.



Chokers serve to reduce the width of travel lanes, slowing down vehicular traffic. They can be used in conjunction with marked crosswalks to reduce the crossing distance for pedestrians.

pedestrians. This treatment could be a useful tool for traffic calming in the City of Garden Ridge.

Raised Crosswalks

Raised crosswalks are highly effective at reducing vehicle speeds and increasing driver awareness. The pedestrian crossing is generally flat and at the same height as the sidewalk, whereas a raised crosswalk ramps up. In that way, the raised crosswalk acts as a speed table, ensuring pedestrians are given priority on the crossing. This treatment is especially effective in areas of low to medium car traffic or on right-turn slip-lanes, connecting the main sidewalk to the pedestrian island. When used on a right-turn slip lane, it increases attention by drivers, who may be looking to their left when merging into traffic, inadvertently ignoring the pedestrian crossing. Raised crosswalks may be most effective along the FM 3009 and FM 2252 corridors.



Raised crosswalks raise awareness and lower vehicular speeds on the approach to a crosswalk, particularly in areas like slip lanes.

Curb Radius Reduction

In areas with high curb radii, vehicles are allowed to turn at higher speeds, similar in function to a slip-lane. This gives less time for vehicles to react to the surrounding environment, encourages higher-speed travel, and increases the crossing distance for pedestrians. Reducing the curb radius is highly effective in residential areas or corridors where greater pedestrian traffic is expected. It forces drivers to take extra caution on turns, giving more time for driver attention and decreases crossing distances for pedestrians. It is important to understand the type of traffic that frequents the intersection as high-volume truck traffic may require greater turning radii. Curb radius reductions would be beneficial to much of the residential areas throughout Garden Ridge.



Reducing the curb radius, even in places without sidewalks, reduces the crossing distance for pedestrians and requires vehicles take the turn at slower speeds.

POLICY

Mixed-Use Zoning

Mixed-use zoning is a type of zoning that, in smaller town contexts, can be used to develop a town center or along major corridors to encourage denser development conducive to walking, cycling, and a high density of businesses and amenities. When used over a larger area, mixed-use development is highly effective at reducing car dependency and creating a wider range of viable transportation options. Overall, increasing the population density of an area will increase the economic viability for commercial development, decreasing the distance between areas of interest. Generally, mixed-use districts are between 2-5 stories, but single-story developments can also be effective in town centers. Larger lot sizes, setbacks, and Euclidean zoning (separation of land uses by type—residential, commercial, retail, industrial, etc.), as currently seen within the City of Garden Ridge, increase the distance between destinations and results in an area being less walkable.² This policy change is overseen by the City of Garden Ridge Planning and Zoning Commission and may require City Council involvement.



Mixed use developments are conducive to a “town center” built environment and increases population density around amenities, decreasing walking distances.

Reducing Speed Limits

Vehicular speed is one of the most significant factors in relation to the safety of pedestrians and bicyclists. As vehicle speed increases, its momentum increases exponentially, especially along roadways with a large volume of truck traffic. Reducing speed limits are most effective in areas near amenities such as schools, parks, libraries, or around areas with pedestrian crosswalks. According to the Federal Highway Administration, a vehicle traveling at 30 mph has a 45% chance of killing or seriously injuring a pedestrian, while at



Reducing speed limits around areas of interest allows pedestrians and bicyclists to traverse the areas more safely.

² Guide to Community Preventive Services. *Physical Activity: Built Environment Approaches Combining Transportation System Interventions with Land Use and Environmental Design*. (2017) <https://www.thecommunityguide.org/findings/physical-activity-built-environment-approaches.html#print>.

20 mph this change drops to 5%³. Reducing speed limits may be most successful in areas with high pedestrian activity, but roads with a wide right-of-way may see non-compliant drivers as the built environment is conducive to higher speeds. This policy change may require City Council involvement, partnership with state and county agencies, and a number of Homeowner's Associations to ensure consistency throughout the city. Currently, cities within Texas may not reduce speed limits below 25 mph without conducting a traffic study. However, current legislation is aiming to reduce the traffic study threshold to 20 mph.

IMPLEMENTATION

Arguably the most difficult part of a plan is implementation. Variables outside of the municipality's control can make projects difficult to implement. Developing a coalition of local and regional organizations may help convince agencies to support and sponsor Garden Ridge's efforts. If the priorities of a road outside of Garden Ridge's jurisdiction do not align with the City's priorities, it may be best to look into off-street infrastructure options. In addition, the creation of implementation committees has generally resulted in greater efforts to complete plans in a timely manner. On top of an implementation committee, Garden Ridge may wish to identify pedestrian corridors, prioritizing infrastructure improvements to these areas first. In finding priority areas, the City would be giving safer pedestrian access in a timelier manner to corridors where the greatest number of people would benefit. Overall, implementing changes to the transportation system will require support from the Texas Department of Transportation, local officials, community organizations, businesses, property owners, residents, and the public.

³ Pilkington P. (2000). Reducing the speed limit to 20 mph in urban areas. Child deaths and injuries would be decreased. *BMJ (Clinical research ed.)*, 320(7243), 1160.
<https://doi.org/10.1136/bmj.320.7243.1160>

REMINDERS



A combination of infrastructure improvements may serve to increase safety and comfort for pedestrians (and cyclists). The image above is a raised, mid-block crosswalk with protected bicycle intersection and pinch point for vehicular traffic.

A combination of infrastructure and policy improvements can serve to further the goals of Garden Ridge's effort to increase walkability, specifically when connecting residents to amenities and trail crossings. It is pertinent that all tools are considered and that improvements are based on a **priority of safety** when looking to increase walkability in an area. On through-streets, particularly on roads not owned by the City of Garden Ridge, it is important to work with the governing entity to express the interests of the area.

FUNDING SOURCES

Funding is not guaranteed for projects identified through the Walkable Community Workshop Program. Rather, the workshop is intended to bring together community members, transportation agency representatives, and other stakeholders to identify and prioritize transportation needs. This report is a way for the community to speak with one voice to assist decision makers in identifying transportation solutions specific to the local community.

Leveraging various funding sources can be helpful in getting desired projects implemented. Some examples of various funding sources are listed below. This is not an exhaustive list, and some funding sources may only be relevant for certain types of projects. Local government

representatives and staff are encouraged to work with community members and other stakeholders to identify funding opportunities for projects that address the needs listed in this report.

The funding sources listed below involve a competitive process for funding awards, either through a project call or notice of funding opportunity for grants. It is important to note that AAMPO, and others, may allow for additional points to be earned during the competitive process, as a result of planning for improvements listed in this report. The City is encouraged to reach out to these entities and request being added to their information distribution database.

Potential Project Funding Sources		
Source	Program	Description
Alamo Area Metropolitan Planning Organization	Congestion Mitigation and Air Quality Program (CMAQ)	CMAQ is a reimbursable federal funding program for construction costs focused on reducing congestion and improving air quality to help meet the requirements of the Clean Air Act. Examples of eligible projects include bicycle and pedestrian facilities, transit improvements, congestion reduction, traffic flow improvements, and freight. All applicable federal rules apply. For more information, contact aampo@alamoareampo.org .
	Surface Transportation Block Grant Program (STBG)	The STBG is AAMPO's broadest federal funding program. Projects are selected on a competitive basis. Eligible projects include, but are not limited to, improvements to major roads, bicycle and pedestrian facilities, and public transportation projects. STBG is a reimbursable program for construction costs and all applicable federal rules apply. For more information, contact aampo@alamoareampo.org .
	Transportation Alternatives	Transportation Alternatives is a federal funding program that is specifically for bicycle, pedestrian, and transit projects. This is a reimbursable program for construction costs and all applicable federal rules apply. For more information, contact aampo@alamoareampo.org .
Texas Department of Transportation	District Discretionary Funds	These funds address miscellaneous projects selected at the TxDOT San Antonio District's discretion. Projects must be on the state highway system. For more information, visit http://www.txdot.gov/inside-txdot/district/san-antonio.html .

	Transportation Alternatives	Transportation Alternatives is a federal funding program that is specifically for bicycle and pedestrian projects. This is a reimbursable program for construction costs and all applicable federal rules apply. TxDOT administers TA funds to projects independently from AAMPO. More information available at: https://www.txdot.gov/business/grants-and-funding/bicycle-pedestrian-local-federal-funding-programs.html .
Texas Parks and Wildlife	Local Parks Grants	The Local Park Grant Program consists of 5 individual programs that assist local units of government with the acquisition and/or development of public recreation areas. The program provides 50% matching grants on a reimbursement basis to sites that are dedicated as parkland. More information available at: https://tpwd.texas.gov/business/grants/recreation-grants/about-local-parks-grants .
	Recreational Trails Grants	Administered under the approval of Federal Highway Administration, this federally funded program reimburses cities up to 80% of project cost. Awards are limited to \$300,000 for non-motorized trails or \$600,000 for motorized trail grants. More information available at: https://tpwd.texas.gov/business/grants/recreation-grants/recreational-trails-grants .
United States Department of Transportation	Safe Streets and Roads for All Grant Program (SS4A)	These funds support initiatives to prevent roadway deaths and serious injuries. Counties, cities, transit agencies, MPOs, and Tribal governments are eligible to apply. More information available at: https://www.transportation.gov/grants/SS4A
	Rebuilding American Infrastructure with Sustainability and Equity Grant (RAISE)	A competitive grant process for numerous transportation projects, including highway, bridge, or other road projects. The federal cost share may not exceed 80% of total project cost. Minimum rural awards for capital projects are \$1 million; minimum urban awards for capital projects are \$5 million. More information available at: https://www.transportation.gov/RAISEgrants .

NEXT STEPS

AAMPO will provide copies of this report to the elected officials and appropriate departments within the City of Garden Ridge, Comal County, Alamo Area Council of Governments, and Texas Department of Transportation. This report will also be available on AAMPO's website at <https://www.alamoareampo.org/ActiveTransportation/>.

Here are some steps community members can take after the Walkable Community Workshop to build momentum and get desired results:

- Share the report. Talk to neighbors, community leaders, and other stakeholders who could not attend the workshop.
- Identify community and individual actions that can help move ideas toward implementation.
- Use this report as a resource. It includes contact information for agencies and individuals who can answer questions and provide guidance.
- Partner with local groups on events that promote safety and accessibility for non-motorized transportation.
- Advocate for policy changes that support safe and walkable communities.
- Work with the City to include provisions for non-motorized facilities in future plans and projects.
- Attend government meetings to express interest in improving walking and biking infrastructure.
- Contact your local elected representatives and officials to voice specific concerns in your area.

Improving a neighborhood takes time, funding, and dedication, and planning for the future is an ever-changing process. Planning for a safe walking and biking environment contributes to a healthy and vibrant community. AAMPO supports the City of Garden Ridge in its efforts to improve walkability, safety, and quality of life for its residents.

For more information on the Walkable Community Workshop Program, contact Matthew Moreno at (210) 230-6931 or moreno@alamoareampo.org.

APPENDIX A

GARDEN RIDGE WALKABLE COMMUNITY WORKSHOP, WORKSHOP AGENDA JUNE 27, 2023



City of Garden Ridge
Walkable Community Workshop
Garden Ridge Community and Event Center
9400 Municipal Pkwy, San Antonio, TX 78266
Tuesday, June 27, 2023
6:00 PM – 8:00 PM



Background

This workshop seeks to identify transportation and land-use concerns in the area that pose a barrier to the community being pedestrian and cyclist friendly. It is intended to help prepare the City of Garden Ridge for future pedestrian and bicycle infrastructure improvements by identifying and prioritizing the areas of need and explore potential solutions. Any potential solutions will require further study and engineering and will be based on need and feasibility.

Goals for Today's Workshop

- Inform the public on what walkability is, how it is beneficial, and why Garden Ridge is participating in this workshop.
- Map walkability and bikeability concerns using AAMPO's online crowdsourcing tool findings and physical maps.
- Identify community priority areas for improvements and explore potential solutions.

Agenda

- 6:00 p.m.** Welcome and Introductions – City of Garden Ridge and Alamo Area MPO
- City of Garden Ridge Master Land Use Plan and Goals for Walkability – City of Garden Ridge
- What is AAMPO, Walkability, and the Walkable Community Program? – Matthew Moreno, AAMPO
- Mapping Concerns and Ideas Within the Workshop – Matthew Moreno, AAMPO
- 6:30 p.m.** Facilitated Group Discussion and Mapping
- 7:30 p.m.** Group Reports
- 7:50 p.m.** Next Steps and Closing Remarks

For more information, please visit <https://alamoareampo.org/yourmove/gardenridge/>, use the QR code, or contact Matthew Moreno at (210) 230-6931 or moreno@alamoareampo.org



APPENDIX B

GARDEN RIDGE WALKABLE COMMUNITY WORKSHOP, FLYER 2023

AAMPO

GARDEN RIDGE

WALKABLE COMMUNITY WORKSHOP



The City of Garden Ridge and the Alamo Area MPO (AAMPO) are hosting a Walkable Community Workshop to help identify mobility improvements that encourage walking or bicycling to schools, businesses, and recreation. This workshop brings the community and partner agencies together to discuss barriers to walking and biking and developing concepts to overcome these barriers.

Tuesday, June 27, 2023

6:00 P.M. - 8:00 P.M.

Community and Events Center

9500 Municipal Pkwy

Garden Ridge, TX 78266



AAMPO has developed an interactive online app to gather input for active transportation mobility improvements. **AAMPO will also be at Garden Ridge Market Days on June 10, 2023 from 9 AM – 2:30 PM** demonstrating the app and capturing comments related to walkability in the area.

We encourage you to visit www.alamoareampo.org/yourmove/gardenridge/. Input will be accepted online through Sunday, June 18, 2023 and at the workshop.

For more information, contact Sonia Jiménez at (210) 668-3614 or jimenez@alamoareampo.org.

APPENDIX C

GARDEN RIDGE WALKABLE COMMUNITY
WORKSHOP, ALAMO AREA MPO
PRESENTATION
JUNE 27, 2023



GARDEN RIDGE WALKABLE COMMUNITY WORKSHOP

JUNE 27, 2023

Matthew Moreno, Multimodal Transportation Planner

www.alamoareampo.org

AAMPO

OVERVIEW

What is the AAMPO?

What is Walkability?

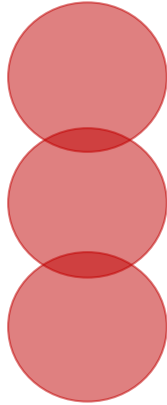
What is a Walkable Community Workshop?

What is Next?

www.alamoareampo.org

AAMPO

We Plan to Keep you Moving



Cooperative: No single agency has responsibility for the entire transportation system

Comprehensive: Encompassing all transportation modes, as well as local land use/economic development plans

Continuous: Ongoing planning to address short and long term transportation vision and needs

MPO PLANS AND DOCUMENTS



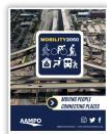
Unified Planning Work Program (UPWP)

AAMPO staff budget and smaller regional planning studies over a two year timeframe



Transportation Improvement Program (TIP)

Short-range planning document highlighting funded transportation projects/programs within a four-year timeframe



Metropolitan Transportation Plan (MTP)

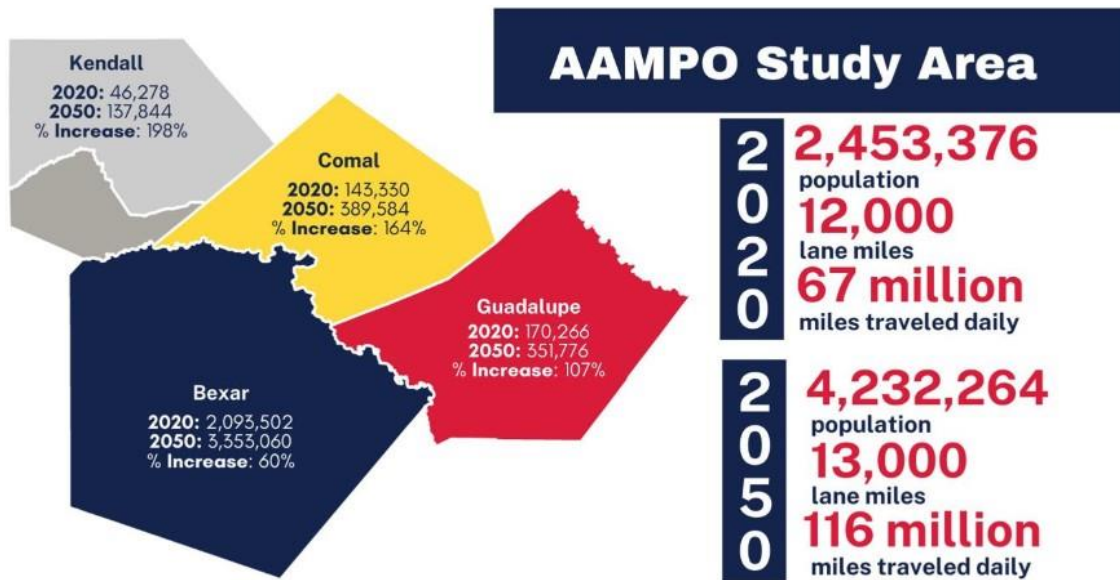
Long-range planning document outlining future goals, strategies, and transportation projects for 20-25 years



Transportation Conformity Document (TCD)

Evaluates future transportation projects to ensure they cause no further harm to air quality; approved through a significant interagency consultation process.

Study Area



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AAMPO

WHAT IS WALKABILITY?



Walkability is a measure of how friendly an area is to pedestrians.

Walkable communities are pedestrian-friendly and where local trips can be made without a car.

WHY IS WALKABILITY IMPORTANT?

- Exercise
- Cleaner air
- Cleaner water
- Reduced automobile costs
- Energy and natural resource conservation
- Social engagement
- Economic development
- Increased safety
- Transportation choices/equity
- Greater quality of life



THE DEMAND FOR WALKABILITY

56.9%

of respondents say **connectivity**

and **walkability**

are **needed**

CHARACTERISTICS OF WALKABLE COMMUNITIES

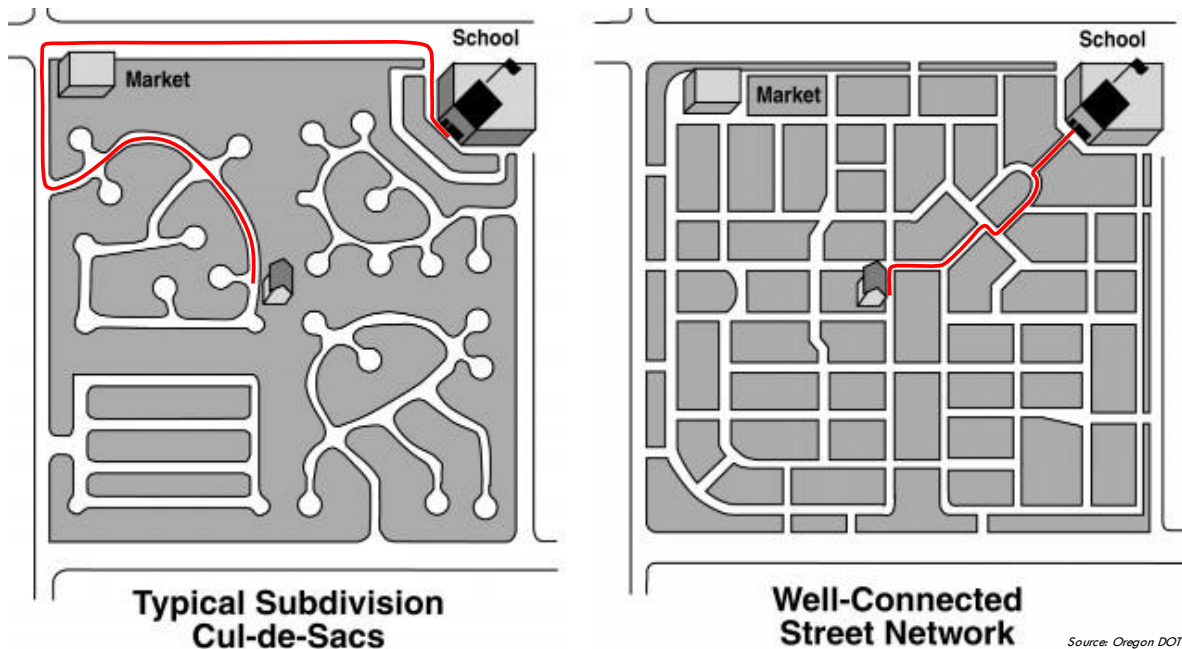
Multimodal transportation system

A variety of modes are available, and connections exist between modes.



CHARACTERISTICS OF WALKABLE COMMUNITIES

Street and sidewalk connectivity



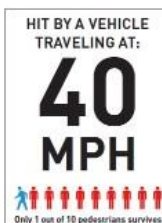
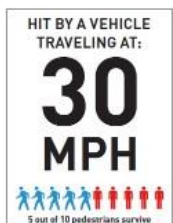
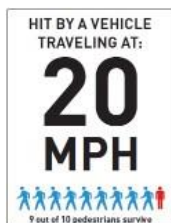
CHARACTERISTICS OF WALKABLE COMMUNITIES



Connectivity
Safety
Comfort

WALKABLE NEIGHBORHOODS - SAFETY

VEHICLE SPEED IS THE **GREATEST FACTOR** IN PEDESTRIAN SAFETY



SIGHTLINES AND REACTION
TIME DECREASE AS SPEED
INCREASES



CHECK YOUR LOCAL PLANS

City of Garden Ridge Master Land Use Plan 2018



<https://www.ci.gardenridge.tx.us/DocumentCenter/View/2471/GardenRidgeMasterLandUsePlan>



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AAMPO

WALKABLE COMMUNITY WORKSHOPS

Walkable Community Workshops help plan for active transportation modes (walking/biking/micromobility).

Discuss barriers to walking and biking in the area.

Documenting these issues in an AAMPO study raises awareness. It is not a guarantee that projects will be completed.

If a project from this workshop were to be submitted for AAMPO funding, it would receive extra points.

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AAMPO

GARDEN RIDGE WCW

AAMPO

GARDEN RIDGE WALKABLE COMMUNITY WORKSHOP

The City of Garden Ridge and the Alamo Area MPO (AAMPO) are hosting a Walkable Community Workshop to help identify mobility improvements that encourage walking or bicycling to schools, businesses, and recreation. This workshop brings the community and partner agencies together to discuss barriers to walking and biking and developing concepts to overcome these barriers.

Tuesday, June 27, 2023
6:00 P.M. - 8:00 P.M.
Community and Events Center
9500 Municipal Pkwy
Garden Ridge, TX 78266

 SCAN ME

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We encourage you to visit www.alamoareampo.org/yourmove/gardenridge/. Input will be accepted online through Sunday, June 18, 2023 and at the workshop.

For more information, contact Sonia Jimenez at (214) 658-2614 or sonia.jimenez@alamoareampo.org.



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AAMPO

MAPPING YOUR CONCERNS

Garden Ridge Walkable Community Workshop

Aesthetics and Geography

Bicycle Facilities

Intersection Safety

Pedestrian Facilities

Recommendations

Garden Ridge Walkable Community Workshop

Pedestrian Facilities

To create a location marker
 Click the map to select the location.
 111-0330, San Antonio, TX

Select from the drop down menu. Tell us more below

Pedestrian Facilities

Select...

Intersecting streets, dead-end streets, etc.

Click the map to select the location.

Submit...

Email (to receive meeting notices and updates)

Click Browse button to add photos, or documents from your phone, tablet, or computer

Browse...

Report it

Cancel

<http://alamoareampo.org/yourmove/gardenridge/>

www.alamoareampo.org

AAMPO

GARDEN RIDGE WCW



Goals

1. Inform the public on what walkability is, how it is beneficial, and why Garden Ridge is participating in this workshop.
2. Map walkability and bikeability concerns using AAMPO's online crowdsourcing tool findings and physical maps.
3. Identify community priority areas for improvements and explore potential solutions.

NEXT STEPS AFTER WORKSHOP

AAMPO staff will develop workshop report

AAMPO will present findings to Zoning Commission and City Council

AAMPO will submit report to TxDOT and partner agencies

Area leadership works with partner agencies to identify funding for projects

STAY CONNECTED



www.alamoareampo.org



aampo@alamoareampo.org



825 South Saint Mary's Street
San Antonio, Texas 78205



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www.twitter.com/AlamoAreaMPO



www.youtube.com/thealamoareampo



www.instagram.com/alamoareampo

www.alamoareampo.org

AAMPO



THANK YOU!

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AAMPO Multimodal Transportation Planner
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210-230-6931