



CALL TO ORDER

MINUTES

A. Minutes of July 12, 2022

OLD BUSINESS

NEW BUSINESS

A. Variance

- 1) Request from **Brad Abernathy** to vary the rear yard setback requirement on a 0.76± acre tract located on the north side of East Lake Drive, west of Lakes End Drive (a/k/a **608 East Lake Drive, NW**), having a zoning of Residential-I-A (R-I-A).
Ward Number: One
Tax Parcel Number(s): 01-107-002-001
Request: Single-family home
- 2) Request from **Greg Loyd** to vary the front yard setback requirement on a 0.12± acre tract located on the south side of Banks Street, between Main Street and Maple Street (a/k/a **658 Main Street, SW**), having a zoning of Light Industrial (L-I).
Ward Number: Three
Tax Parcel Number(s): 01-015-002-009A
Request: Collector vehicle storage and loft dwellings

B. Annexation

- 1) Request from **Elizabeth Evans** to annex a 2.70± acres tract located on the east side of Crescent Drive, north of the intersection of Jesse Jewell Parkway and Crescent Drive, having frontage on I-985 (a/k/a **410 Crescent Drive**) and to establish a zoning of General Business (G-B).
Ward Number: Two
Tax Parcel Number(s): 15-033C-000-011
Request: Climate controlled & non-climate controlled storage

C. Zoning Amendment

- 1) Request from **CA Industrial Holdings, LLC** to amend a portion of an existing Planned Unit Development (P-U-D) zoning totaling 17.28± acres located west of the intersection of Old Oakwood Road and Mountain View Road, having road frontage on the north side of Old Oakwood Road and the south side of Mountain View Road (a/k/a **0 Old Oakwood Road, SW**).
Ward Number: Four
Tax Parcel Number(s): 08-024-005-363
Request: Industrial warehouse / distribution

D. Special Use

- 1) Request from **Kaiz Isani** for a special use on a 3.74± acres tract located at the southeast corner of Candler Road and Calvary Church Road (a/k/a **1311 Calvary Church Road, SW**), having a zoning of Light Industrial (L-I).

Ward Number:	Three
Tax Parcel Number(s):	15-035-000-024
Request:	Retail sales of alternative nicotine products

MISCELLANEOUS

ADJOURNMENT



CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022
Date Submitted: July 22, 2022
Final Approval Date: July 22, 2022
Presenter: Matt Tate, Community & Economic Development Dept Deputy Director
Item of Business: Minutes of July 12, 2022
Meeting Date: August 9, 2022

Purpose of Request:

Facts & Issues / History & Background:

The draft minutes were reviewed by the Office & Records Coordinator and the Community Development Deputy Director.

Department Recommendation:

Approval of the minutes as presented.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

Administrative Comments:

Attachments:

1. 2022-07-12 PAB DRAFT minutes

GAINESVILLE PLANNING AND APPEALS BOARD
DRAFT MINUTES OF MEETING
JULY 12, 2022

CALL TO ORDER Chairman Carter at 5:30 p.m.

Members Present: Chairman Doug Carter, Vice-Chair Jane Fleming and Board Members Rich White, Eddie Martin, Kelvin Simmons and Ryan Thompson

Members Absent: Board Member Carmen Delgado

Staff Present: Community & Economic Director Rusty Ligon, Community & Economic Deputy Director Matt Tate and Recording Secretary Judy Foster

Others Present: Council Member George Wangemann

MINUTES OF JUNE 14, 2022

There was a motion to approve the minutes as presented.

Motion made by Board Member Thompson

Motion seconded by Board Member White

Vote – 6 favor, 1 absent (Delgado)

NEW BUSINESS

A. Annexation Request

- 1) Request from the **City of Gainesville** to annex all of Victory Street right-of-way consisting of 0.66± acre, located between Jesse Jewell Parkway and Spring Street and to establish zoning as Planned Unit Development (P-U-D).

Ward Number: Two

Tax Parcel Number(s): N/A

Request: Right-of-way

Staff Presentation: Deputy Director Matt Tate gave the following staff presentation:

The City of Gainesville is proposing to annex Victory Street which is zoned (R-II) in the county and is located within the Limestone Parkway Overlay Zone. Victory Street is a narrow road about 20± feet wide with no sidewalks. The surrounding uses include single-family, duplex and triplex homes within the New Holland Mill Community, Limestone Greenway mixed-use development under development, Brenau softball field and a self-storage facility under development.

Specifically, the west side of Victory Street is lined with mostly duplex rental homes which are located only a few feet from the right-of-way. The east side of Victory Street consists of a grass strip of which some of the neighboring residents use to park their vehicles. Upon annexation, the intent is to widen and improve Victory Street to City standards to help facilitate the addition of a proposed secondary driveway off of Victory Street that will provide access to the adjacent Limestone Greenway grocery retail center.

It is anticipated that approximately 80% of the vehicle trips generated from the adjacent retail center will utilize the existing traffic signal at Limestone Parkway with the remaining 20%

utilizing Victory Street. The improvements will be constructed and paid for by the developer of the adjacent grocery retail center which will include upgrading the intersection of Victory Street and Jesse Jewell Parkway as well as the installation of curb, gutter, ornamental street lights, street trees, on-street parallel parking and a 5-foot wide sidewalk on the west side adjacent to the residential homes. Hall County was notified of the proposed annexation of Victory Street and there were no comments regarding the request.

The west side of Victory Street is located within the *Single-Family Residential* future land use category and the east side is within the *General Mixed-Use* future land use category of the Comprehensive Plan. Allowable uses include detached or semi-detached housing, office, restaurants and specialty retail. Victory Street is located within the *Historic Mill Villages* Character Area which identifies as a priority the need to improve the street environment to enhance walkability and connectivity.

The Planning Division staff is recommending conditional approval of this annexation request with a zoning of Planned Unit Development (P-U-D) based on the Comprehensive Plan and the adjacent mixture of uses with two conditions.

FAVOR: None

OPPOSE: None

PLANNING AND APPEALS BOARD COMMENTS: None

There was a motion to recommend conditional approval of the annexation request for all of Victory Street right-of-way and establish zoning as Planned Unit Development (P-U-D) with the following conditions:

Conditions

- 1. Prior to a Certificate of Occupancy being issued for the adjacent grocery retail shopping center, Victory Street shall be improved to meet City of Gainesville standards as depicted on Exhibit "A" entitled "Victory Street Roadway Section", per the approval of the Gainesville Public Works Director.**
- 2. No commercial delivery trucks with 10 wheels or more shall be allowed to access Victory Street. Signage restricting thru truck traffic shall be installed near the intersection of Victory Street and Jesse Jewell Parkway and near the entrance of the future commercial access driveway, per the approval of the Gainesville Public Works Director.**

Motion made by Board Member Martin
Motion seconded by Board Member White
Vote – 6 favor, 1 absent (Delgado)

ADJOURNMENT

There was a motion to adjourn the meeting at 5:40 p.m.

Motion made by Board Member Martin
Motion seconded by Board Member White
Vote – 6 favor, 1 absent (Delgado)

Respectfully submitted,

Doug Carter, Chairman

Judy Foster, Recording Secretary



CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022
Date Submitted: July 22, 2022
Final Approval Date: July 26, 2022
Presenter: Matt Tate, Community & Economic Development Dept Deputy Director
Item of Business: Request from **Brad Abernathy** to vary the rear yard setback requirement on a 0.76± acre tract located on the north side of East Lake Drive, west of Lakes End Drive (a/k/a **608 East Lake Drive, NW**), having a zoning of Residential-I-A (R-I-A).
Meeting Date: August 9, 2022

Purpose of Request:

The applicant is proposing to vary the rear yard setback requirement from 25-feet to 15-feet for a two-story, 5,300± square foot single-family residence. The property is wooded and backs up to the Chattahoochee golf course. The applicant's hardship is based on the steep topography. By locating the home closer to the rear property line the home will have a better view of the golf course and the height of the retaining walls will be reduced. The adjacent uses include single-family homes and golf course within the Chattahoochee Country Club.

Facts & Issues / History & Background:

Department Recommendation:

Planning staff recommended approval with one condition. See the Staff Recommendation report for details.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

Administrative Comments:

Attachments:

1. Brad Abernathy var staff rep
2. Location Maps
3. Narrative
4. Site plan
5. Floor plan
6. Elevations

**GAINESVILLE PLANNING AND APPEALS BOARD
STAFF RECOMMENDATION**

Applicant.....Brad Abernathy
Property Owner.....Peter Angood and Ida Covi
Location.....608 East Lake Drive, NW
Request.....Vary the rear yard setback
Size.....0.76± acre
Zoning.....Residential-I-A (R-I-A)
Ward.....One
Proposed Use.....Single-family home
Planning Division Staff Recommendation.....**Approval, with condition**
Date.....August 9, 2022

▪ **Request**

The applicant is requesting to vary the rear yard setback requirement from 25-feet to 15-feet. The applicant intends to construct a two-story, 5,300± square foot single-family home adjacent to the Chattahoochee Golf Course. Access is proposed from East Lake Drive and a sanitary sewer easement touches the northwest rear corner of the lot.

▪ **Background Information and Existing Conditions**

The property is one of 13 new lots created along the Chattahoochee Golf Course that was created out of the former reconfigured 7th fairway. The property is heavily wooded and steeply slopes upward from East Lake Drive to the golf course.

▪ **Significant Factors**

The Ordinance requires that the applicant's claim for hardship must be based on the size or shape of the lot, its topography, or other physical characteristics inherent in the lot itself and not on the desired aesthetics. Further, the Code states that a variance shall not be granted as a convenience to the applicant or as a way to gain any advantage or interest over similarly zoned properties.

The applicant's hardship is based on the steep topography and states that by locating the home closer to the rear property line the home will reduce the height of the retaining walls and will provide a better view of the golf course. Approximately two-thirds of the lot is steep leaving a smaller flat area towards the rear of the property to build the home.

On November 10, 2020, the Planning and Appeals Board approved a front yard setback variance from 40-feet to 20-feet for 799 and 825 East Lake Drive for two single-family homes.

▪ **Other Departmental Comments**

There are no other departmental comments for this request.

▪ **Supporting Documents**

▪ **Analysis**

(1) Are there extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape or topography?

The property is normal in size and shape but slopes as much as 40 to 50 feet upward from East Lake Drive to the golf course. The width of the property meets R-I-A zoning standards, but most of the established lots nearby are wider.

(2) Would the application of the Unified Land Development Code to this particular piece of property create an unnecessary hardship?

The purpose of the building setback requirement is to provide for uniformity of building placement, sufficient access, as well as to provide for adequate separation from neighboring properties for fire safety. The reduction of the rear yard setback to 15-feet would place the home closer to the rear setback than most of the existing homes located along the golf course. However, sufficient access and adequate separation do not appear to be an issue if the variance were granted.

(3) Are there conditions that are peculiar to the property which adversely affect its reasonable uses or usability as currently zoned?

The property is zoned Residential-I-A (R-I-A) which allows for single-family residential uses. The property would retain its right to be used for single-family purposes regardless of the setback variance. The size of the property is large enough to build a single-family home and adhere to the required setbacks. In order to adhere to the current rear yard setback requirement, the proposed home would need to be redesigned or shifted closer to East Lake Drive.

(4) Would relief, if granted, cause substantial detriment to the public good or impair the purposes and intent of this ordinance?

The applicant desires to build the home on the flattest portion of the lot which is where a portion of the 7th fairway was located prior to being redesigned. If the variance were to be approved, the proposed home will be closer to the golf course than the nearby homes along East Lake Drive and the home will start at a higher ground floor elevation. Overall, the variance request would not appear to cause detriment to the public good.

(5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.

The sloping topography impacts the location in which to build the home. The proposed 10-foot reduction on the rear yard setback would appear to have less of visual impact compared to the additional height needed for the retaining walls.

(6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.

The property owner did not create the lot and became aware of the setback requirement upon purchasing it. The proposed home location plan allows the property owner to have a better view of the golf course while reducing the number and size of the retaining walls.

- **Staff Recommendation**

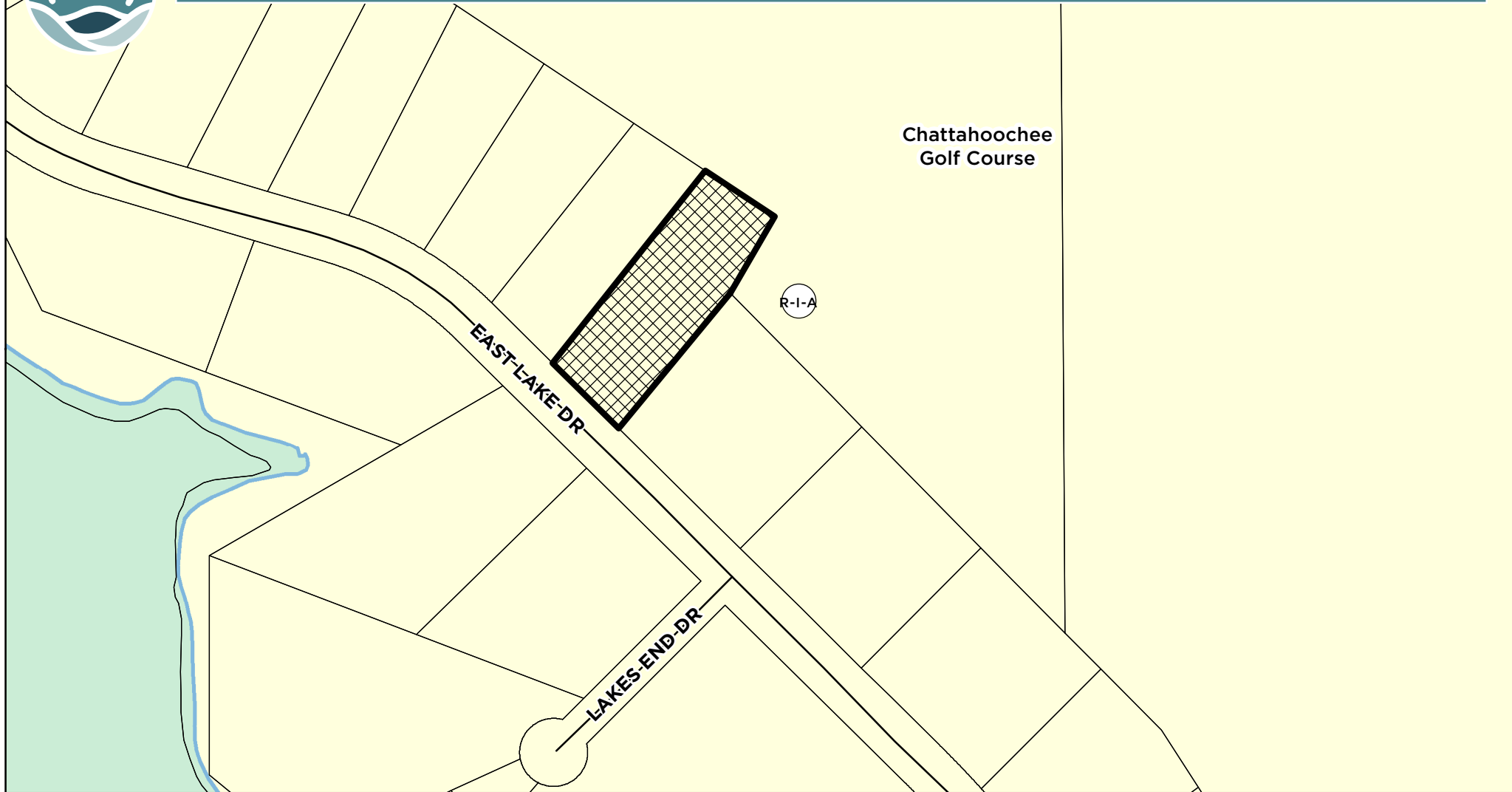
The Planning Division staff is recommending **conditional approval** of this variance request based on the steep topography.

Condition

The proposed single-family home shall be generally consistent with the standards depicted on the site plan and architectural rendering provided with the variance application.



GAINESVILLE



Applicant:

BRAD ABERNATHY

Request:

Vary the rear yard setback requirement on a 0.76+/- acre tract for a single-family home within Residential-I-A (R-I-A) zoning district

VARIANCE REQUEST

Subject Property Address:
608 East Lake Drive, NW

Tax Parcel:
01-107-002-001



Subject Property



Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

0 90 180 270 360 Feet

SCALE: 1" = 167'



GAINESVILLE



Applicant: **BRAD ABERNATHY**

VARIANCE REQUEST

Subject Property Address:
608 East Lake Drive, NW

Tax Parcel:
01-107-002-001

Request:

Vary the rear yard setback requirement on a 0.76+/- acre tract for a single-family home within Residential-I-A (R-I-A) zoning district



Subject Property

Aerial from 2021



Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

0 240 480 720 960 Feet

SCALE: 1" = 417'

Variance Request

STATEMENT OF HARDSHIP

The Gainesville Planning and Appeals Board has the authority, in specific cases, to grant variances from the terms of the Unified Land Development Code of the City of Gainesville, Georgia, when the variance will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the Unified Land Development Code will, in specific cases, result in unnecessary hardship and so that the resolution shall be observed, public safety and welfare secured, and substantial justice done. The authority to grant such variances shall be limited to those instances where a hardship is clearly established as required by the Unified Land Development Code. Variances may be granted only upon a finding by the Gainesville Planning and Appeals Board that:

Describe how each situation listed below relates to your application.

1) There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography. (The hardship must relate to the physical character of the lot and not to a personal or economic hardship.)

see attached answer ppg.

2) The application of the requirements of this resolution to this particular property would create an unnecessary hardship.

3) There are conditions that are peculiar to the property which adversely affect its reasonable use or usability as currently zoned.

4) Relief, if granted, would not cause substantial detriment to the public good or impair the purposes and intent of this Ordinance. For example, granting the variance would not confer any special privilege that is denied by this regulation to other property in the same zoning district. Such conditions are not the result of any actions of the property owner.

5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.

6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.

I hereby certify that the above information and all attached information is true and correct.

Signature of Applicant:



Date:

6/22/2022

Variance Request
Statement of Hardship

(Answers)

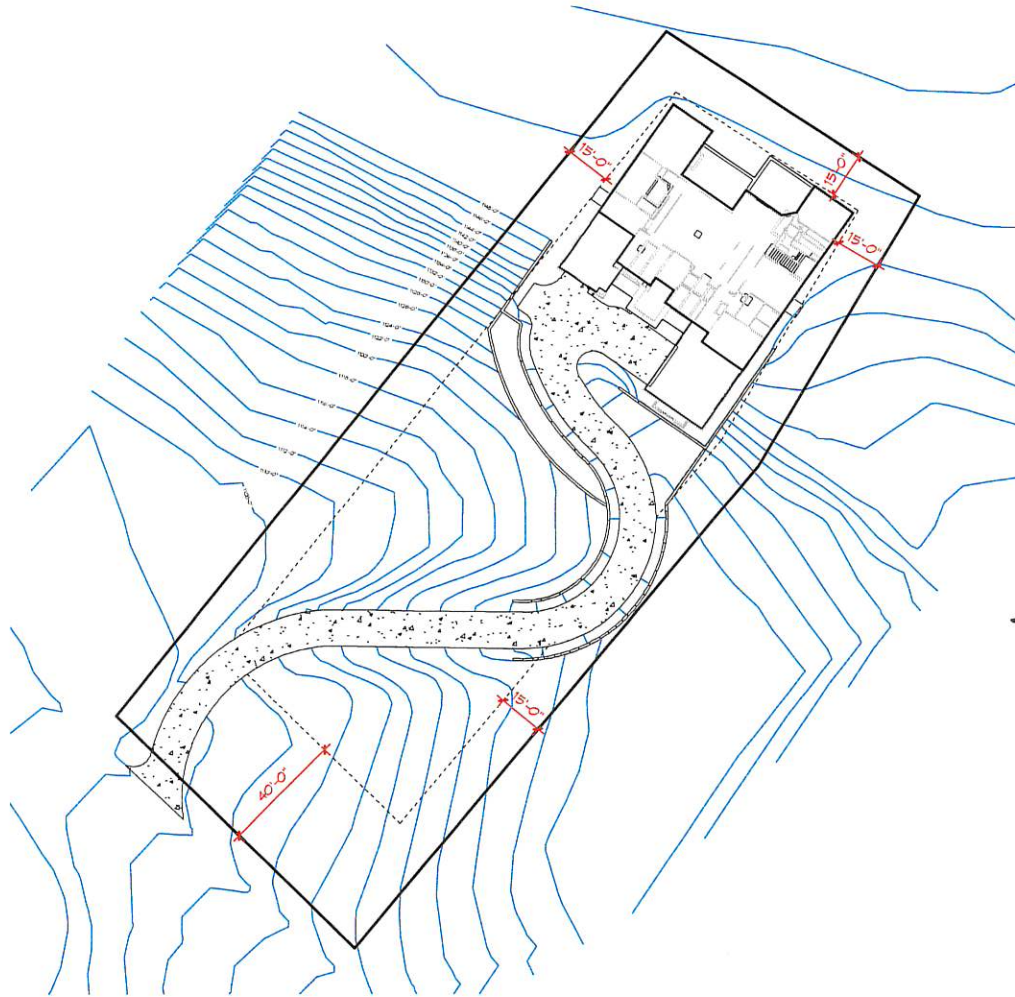
1. This is one of the thirteen brand new lots along East Lake Drive and on the Chattahoochee Golf Course. This lot is one of seven lots that make up the former number 7 fairway of the golf course. This lot has the smallest flat area of the former golf course. The lot is very steep 2/3rds of the way back making building a house on this lot very challenging.
2. The 25-foot rear setback pushes the building area of this lot very close to the steep drop off we are desperately hoping to avoid. Large, unattractive retaining walls will be needed if we must use the current setback of 25 feet. One part of the wall would be as much as 18 feet tall creating a potential eyesore from the front along East Lake Drive.
3. The owners want to have their home on the rear of the lot like everyone else will to have a wonderful view and presence along the golf course.
4. We believe that if this relief of 10 feet is granted, it will not harm the purposes of this ordinance. There are no other houses and never will be to the rear of this property or to the right of this property. Much of the rear setback for these lots has been taken up with ½ of a 30-foot sewer easement. The sewer easement does not begin until Lot 2, so our variance will have no effect on this utility at all.
5. If the zoning ordinance were applied literally, a home could still be built here but it would require the builder to cram the house together and possibly have more stories than the owner would want to make up for the lost space.
6. Everyone knew of the setbacks. The hardship was not created by the owner. For aesthetic reasons the owners would rather have more space to place the perfect house on the old fairway like the other homeowners will be able to do and would rather build less and fewer retaining walls.

Sides are 15' Standard on side
25' in the back
We need 10' distance in the back.

CUSTOM DESIGN FOR

The Angood-Covi Residence

BC 118 RLW CUSTOM HOMES
File # PLAN 1654F-2M1F-01-"B"
608 East Lake Drive Gainesville GA,
30506



Topography Schedule
Net cut/fill

1183 CY
166 CY
1175 CY
-32 CY
7 CY
163 CY
-33 CY
2629 CY

★ We are working to lower these walls.



SITE PLAN - PFP

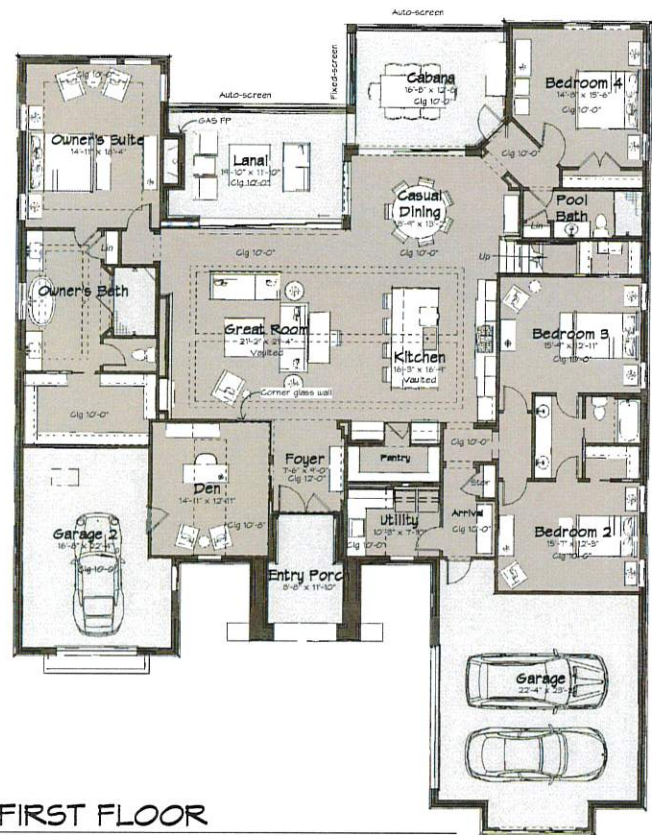
1" = 40'-0"

AR HOMES
BY ARTHUR RUTENBERG

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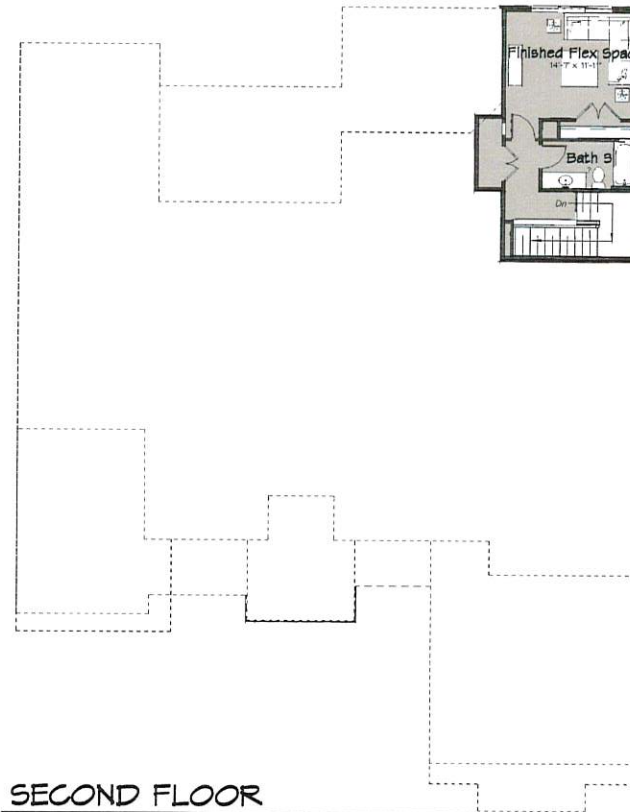
CUSTOM DESIGN FOR The Angood-Covi Residence

BC 118 RLW CUSTOM HOMES
File # PLAN 1654F-2M1F-01-"B"
608 East Lake Drive Gainesville GA,
30506



FIRST FLOOR

1 : 162
MEASUREMENT IN FEET



SECOND FLOOR

1 : 162

SQUARE FOOTAGES	
1ST FLOOR LIVING	3233
2ND FLOOR LIVING	461
LANAI/CABANA	527
ENTRY	145
GARAGE 1	601
GARAGE 2	355
TOTAL	5322

CUSTOM DESIGN FOR

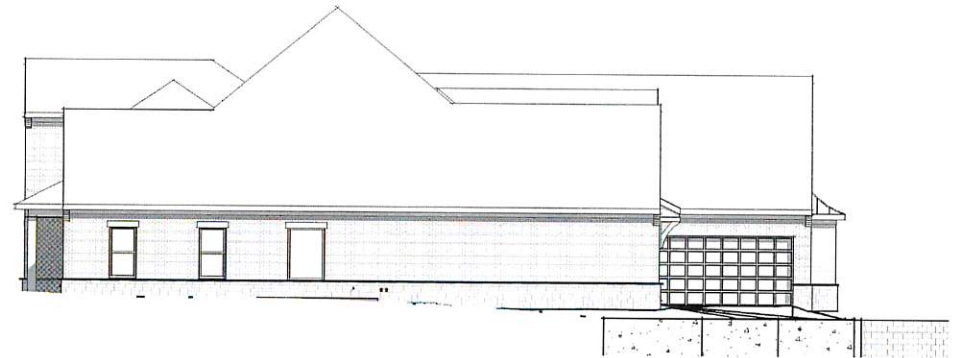
The Angood-Covi Residence

BC 118 RLW CUSTOM HOMES
File # PLAN 1654F-2M1F-01-"B"
608 East Lake Drive Gainesville CA,
30506



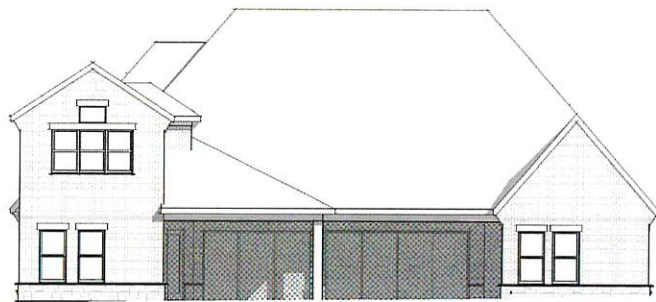
PFP - FRONT ELEVATION

1 : 162



PFP - LEFT ELEVATION

1 : 162



PFP - REAR ELEVATION

1 : 162



PFP - RIGHT ELEVATION

1 : 162

ARHOMES
BY ARTHUR RUTENBERG

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CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022

Date Submitted: July 25, 2022

Final Approval Date: July 26, 2022

Presenter: Matt Tate, Community & Economic Development Dept Deputy Director

Item of Business: Request from **Greg Loyd** to vary the front yard setback requirement on a 0.12± acre tract located on the south side of Banks Street, between Main Street and Maple Street (a/k/a **658 Main Street, SW**), having a zoning of Light Industrial (L-I).

Meeting Date: August 9, 2022

Purpose of Request:

The applicant is proposing to vary the front yard setback requirement along Banks Street from 15-feet to 0-feet for a two-story, 7,300± square foot mixed-use building. The first floor of the building will consist of storage space for approximately 10 collector vehicles. The second floor will consist of two loft dwellings. The property is currently vacant of structures and has road frontage along Banks Street, Main Street and Maple Street. The applicant is basing their hardship on the narrow width of the lot and the three front yard setbacks. The adjacent uses include Gainesville Paint, attorney's office, parking lot, the Solis Phase 2 mixed-use development (old jail lot) that will begin construction soon.

Facts & Issues / History & Background:

Department Recommendation:

Applicant requested the item to be tabled until the September 13, 2022 PAB meeting.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

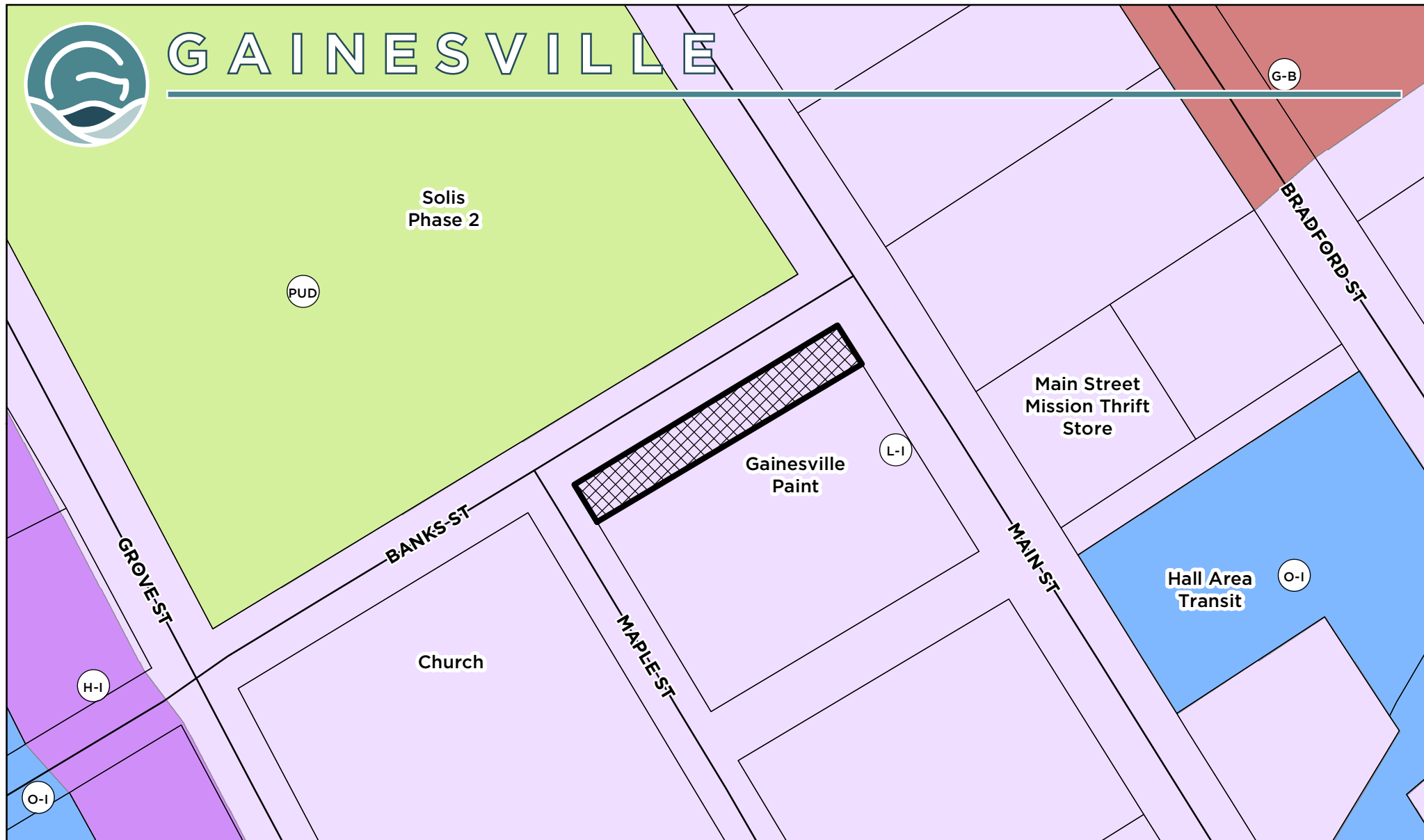
Administrative Comments:

Attachments:

1. Location Maps
2. Hardship statement
3. Architectural Rendering
4. Plat
5. Site plan



GAINESVILLE



Applicant: **GREG LOYD**

VARIANCE REQUEST

Subject Property Address:
658 Main Street, SW

Tax Parcel:
01-015-002-009A

Request:

Vary the front yard setback requirement on a 0.12+/- acre tract for collector vehicle storage and loft dwellings within Light Industrial (L-I) zoning district



Subject Property



Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

0 40 80 120 160 Feet

SCALE: 1" = 83'



GAINESVILLE



Applicant:

GREG LOYD

Request:

Vary the front yard setback requirement on a 0.12+/- acre tract for collector vehicle storage and loft dwellings within Light Industrial (L-I) zoning district

VARIANCE REQUEST

Subject Property Address:
658 Main Street, SW

Tax Parcel:
01-015-002-009A



Subject Property

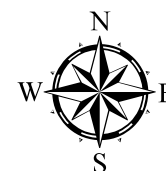
Aerial from 2021

Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

0 90 180 270 360 Feet

SCALE: 1" = 167'



Variance Request

STATEMENT OF HARDSHIP

The Gainesville Planning and Appeals Board has the authority, in specific cases, to grant variances from the terms of the Unified Land Development Code of the City of Gainesville, Georgia, when the variance will not be contrary to the public interest where, owing to special conditions, a literal enforcement of the Unified Land Development Code will, in specific cases, result in unnecessary hardship and so that the resolution shall be observed, public safety and welfare secured, and substantial justice done. The authority to grant such variances shall be limited to those instances where a hardship is clearly established as required by the Unified Land Development Code. Variances may be granted only upon a finding by the Gainesville Planning and Appeals Board that:

Describe how each situation listed below relates to your application.

- 1) There are extraordinary and exceptional conditions pertaining to the particular piece of property in question because of its size, shape, or topography. (The hardship must relate to the physical character of the lot and not to a personal or economic hardship.)

THIS PROPERTY IS VERY LONG AND NARROW AND WOULD NOT BE FEASIBLE TO BUILD ON AND MEET CURRENT SETBACKS

- 2) The application of the requirements of this resolution to this particular property would create an unnecessary hardship.

THIS PROPERTY WOULD BE PRACTICALLY UNBUILDABLE BECAUSE ITS NARROW WITH AND THEREBY UNUSABLE.

- 3) There are conditions that are peculiar to the property which adversely affect its reasonable use or usability as currently zoned.

THE PROPERTY IS ONLY ABOUT 24' WIDE AND WOULD ONLY ALLOW A BUILDING ABOUT 5' WIDE TO BE CONSTRUCTED.

- 4) Relief, if granted, would not cause substantial detriment to the public good or impair the purposes and intent of this Ordinance. For example, granting the variance would not confer any special privilege that is denied by this regulation to other property in the same zoning district. Such conditions are not the result of any actions of the property owner.

THERE ARE OTHER BUILDINGS IN THE AREA THAT ARE BUILT WITH A 0' SETBACK FROM THE STREET, SO THIS WOULD NOT BE UNCOMMON.

- 5) There must be a proved hardship by showing beyond a doubt the inability to make a reasonable use of the land if the zoning ordinance were applied literally.

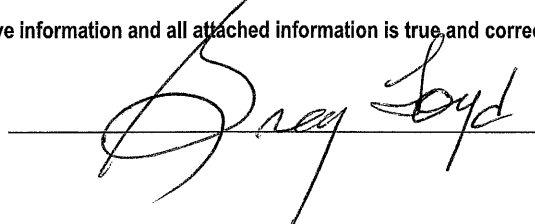
BY STRICTLY ADHERING TO THE CURRENT SET BACK, THE LOT WOULD BE UNBUILDABLE.

- 6) The hardship cannot be self-created; e.g., as in a case where the lot was purchased with the knowledge of an existing restriction.

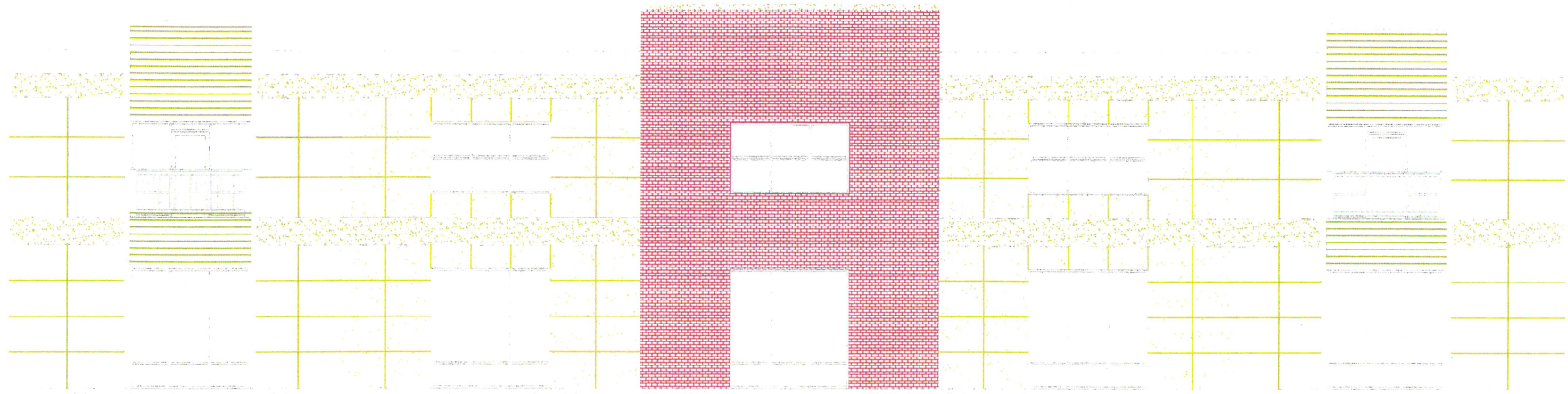
WHEN THIS LOT WAS CREATED IT WAS COMMON TO HAVE A 0' SET BACK IN THIS AREA.

I hereby certify that the above information and all attached information is true and correct.

Signature of Applicant:



Date: 6-22-22



NOTES:

THIS PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA AS PER FIRM FLOOD INSURANCE RATE MAP OF HALL COUNTY, GA. COMMUNITY PANEL NO. 130263 0187 E EFFECTIVE DATE: MARCH 21, 2000.

EQUIPMENT USED FOR MEASUREMENT: TOPCON G.T.S. 303.

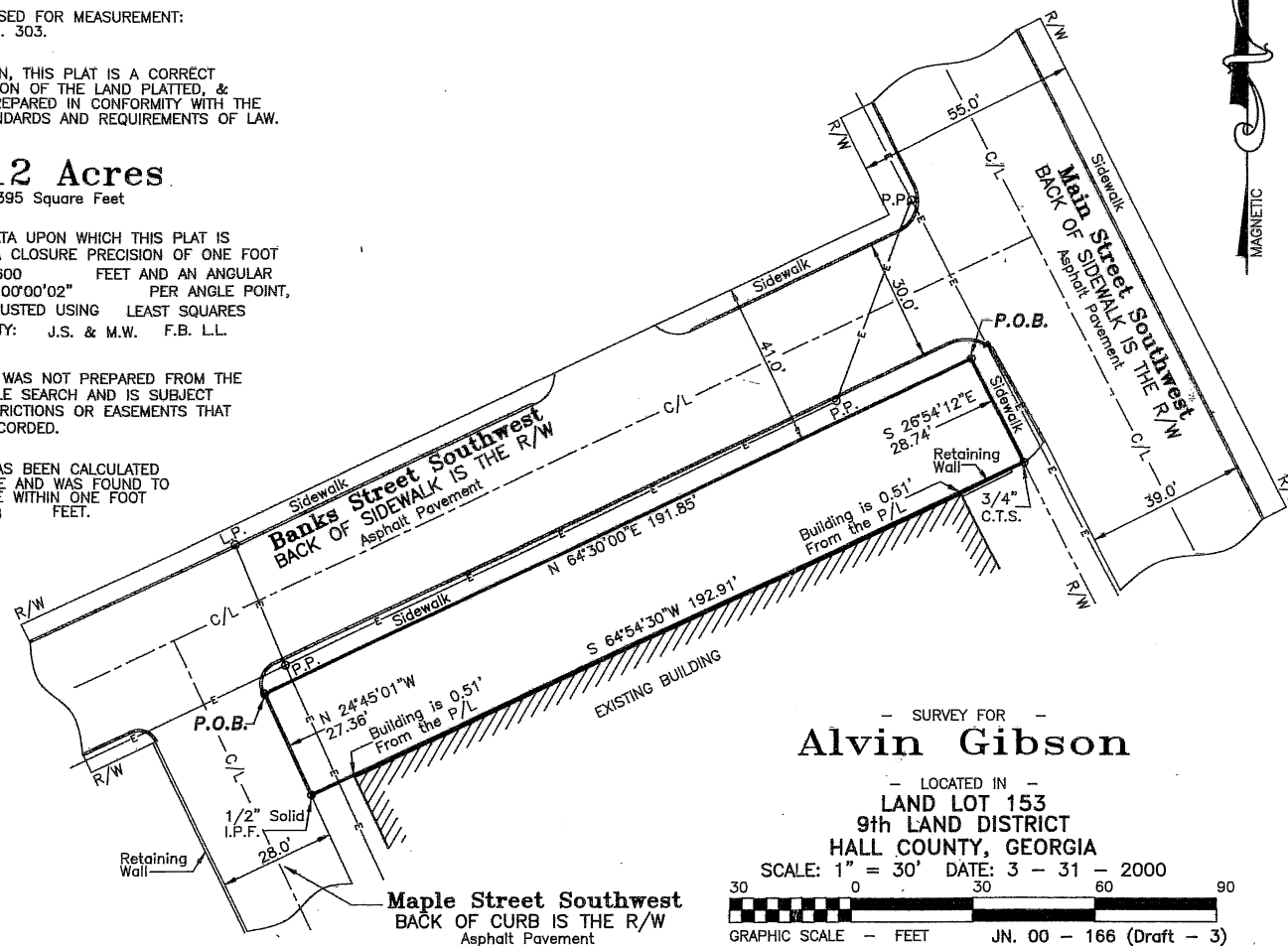
IN MY OPINION, THIS PLAT IS A CORRECT REPRESENTATION OF THE LAND PLATTED, & HAS BEEN PREPARED IN CONFORMITY WITH THE MINIMUM STANDARDS AND REQUIREMENTS OF LAW.

AREA: **0.12 Acres**
5,395 Square Feet

THE FIELD DATA UPON WHICH THIS PLAT IS BASED HAS A CLOSURE PRECISION OF ONE FOOT IN +10,600 FEET AND AN ANGULAR ERROR OF 00°00'02" PER ANGLE POINT, AND WAS ADJUSTED USING LEAST SQUARES RULE. PARTY: J.S. & M.W. F.B. L.L.

THIS SURVEY WAS NOT PREPARED FROM THE AID OF A TITLE SEARCH AND IS SUBJECT TO ANY RESTRICTIONS OR EASEMENTS THAT MIGHT BE RECORDED.

THIS PLAT HAS BEEN CALCULATED FOR CLOSURE AND WAS FOUND TO BE ACCURATE WITHIN ONE FOOT IN 64,478 FEET.



LEGEND:

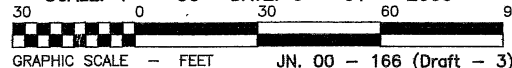
I.P.F.	—	IRON PIN FOUND
C.T.F.	—	CRIMPED TOP PIN FOUND
R.B.F.	—	REBAR FOUND
O.T.F.	—	OPEN TOP FOUND
A.I.F.	—	ANGLE IRON FOUND
C.M.F.	—	CONCRETE MONUMENT FOUND
C.T.S.	—	CRIMPED TOP PIN SET
P/L	—	PROPERTY LINE
R/W	—	RIGHT OF WAY
N/F	—	NOW OR FORMERLY
C/L	—	CENTER LINE
S/B	—	SETBACK
L.L.L.	—	LAND LOT LINE
C.M.P.	—	CORRUGATED METAL PIPE
R.C.P.	—	REINFORCED CONCRETE PIPE
C.R.	—	CABLE RISER
T.R.	—	TELEPHONE RISER
C.B.	—	CATCH BASIN
P.B.	—	POWER BOX
W.M.	—	WATER METER
P.P.	—	POWER POLE
S.P.	—	SERVICE POLE
W.V.	—	WATER VALVE
-X-	—	FENCE
-O-	—	CHAIN LINK FENCE
-E-	—	ELECTRICAL LINE
-W-	—	WATER LINE
S.S.E.	—	SANITARY SEWER EASEMENT
M.H.	—	MANHOLE
-SS-	—	SANITARY SEWER LINE
P.O.B.	—	POINT OF BEGINNING



— SURVEY FOR —
Alvin Gibson

— LOCATED IN —
**LAND LOT 153
9th LAND DISTRICT
HALL COUNTY, GEORGIA**

SCALE: 1" = 30' DATE: 3 - 31 - 2000



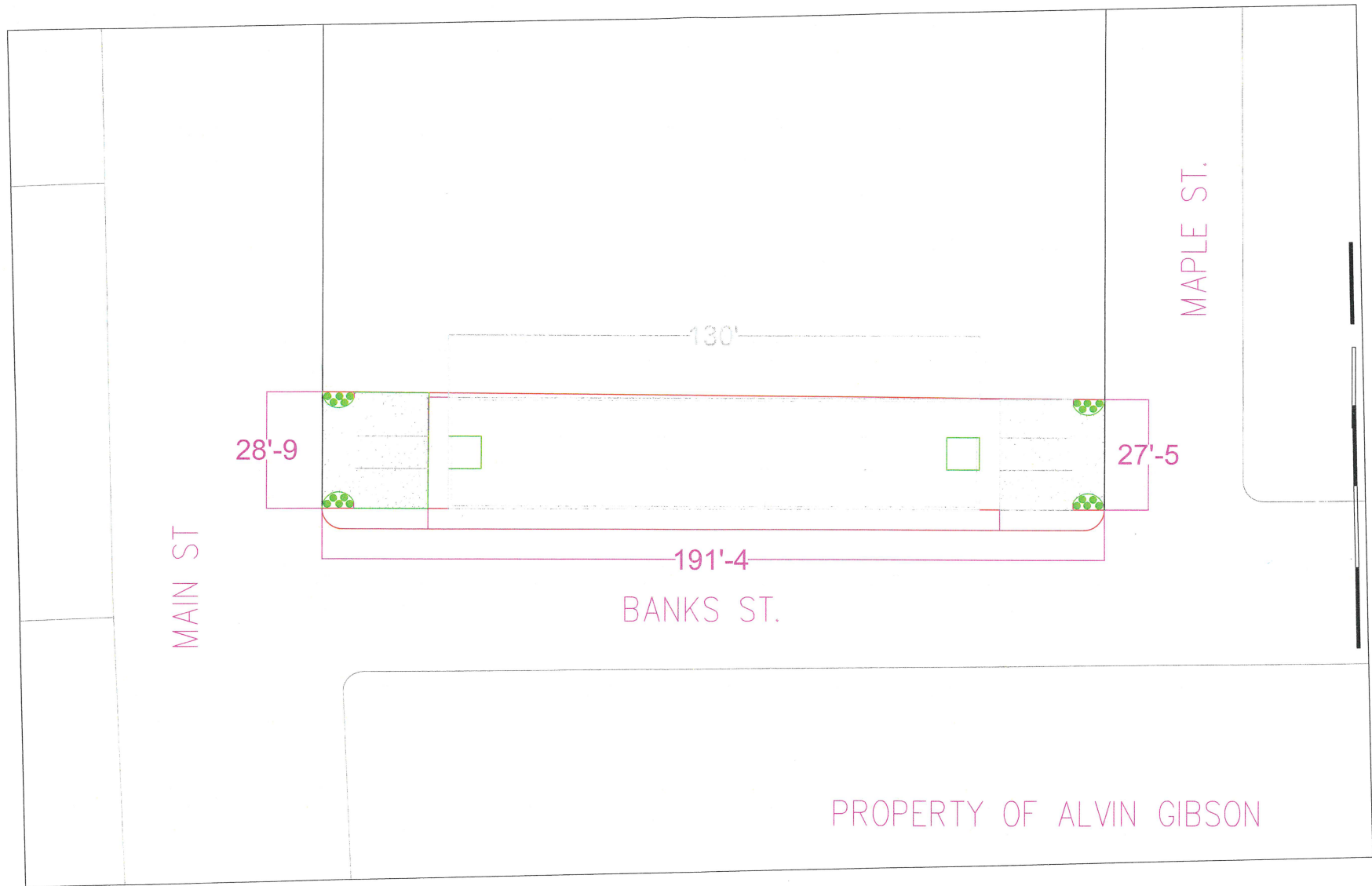
PREPARED BY:

PATTON — BOYER, INC.
REGISTERED GEORGIA LAND SURVEYORS/ENGINEERS

**957 Enota Avenue
Gainesville, GA. 30501**

Phone: (770) 532 — 6492

DRAWN BY: E.P.S.





CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022
Date Submitted: July 22, 2022
Final Approval Date: July 26, 2022
Presenter: Matt Tate, Community & Economic Development Dept Deputy Director
Item of Business: Request from **Elizabeth Evans** to annex a 2.70± acres tract located on the east side of Crescent Drive, north of the intersection of Jesse Jewell Parkway and Crescent Drive, having frontage on I-985 (a/k/a **410 Crescent Drive**) and to establish a zoning of General Business (G-B).
Meeting Date: August 9, 2022

Purpose of Request:

The applicant is proposing to annex 2.7± acres with a zoning of General Business (G-B) for sewer for a self-storage facility. The property is currently zoned Highway Business (H-B) within Hall County which allows for mini-warehouse units. The facility will consist of 200 self-storage units, office space and a parking area for truck rentals. Half of the storage units will be climate controlled and half will be standard units. One access driveway is proposed from Crescent Drive. The property is located within the Limestone Corridor Overlay Zone and contains a sanitary sewer easement and Georgia Power line easement. The adjacent uses include the Juvenile Justice Department, New Holland Crossing retail center and planned retail and hotel development.

Facts & Issues / History & Background:

Department Recommendation:

Planning staff recommended approval with five conditions. See the Staff Recommendation report for details.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

Administrative Comments:

Attachments:

1. Elizabeth Evans anx staff rep
2. Location Maps
3. Narrative
4. Site plan
5. Architectural Rendering

**GAINESVILLE PLANNING and APPEALS BOARD
STAFF RECOMMENDATION**

ApplicantElizabeth Evans
Property OwnerCarolyn Ray
Location410 Crescent Drive
RequestAnnex with a zoning of General Business (G-B)
Total Acres2.7± acres
WardTwo
Proposed UseClimate controlled & non-climate controlled storage
Planning Division Staff Recommendation**Approval, with conditions**
DateAugust 9, 2022

▪ **Applicant's Proposal and Background Information**

The applicant is proposing to annex the subject 2.7± acres property with a zoning of General Business (G-B) for a climate controlled and non-climate controlled storage facility. The property is contiguous to the city limits to the north, south and to the east across I-985 and is currently zoned Highway Business (H-B) within unincorporated Hall County. As well, the property is located within the Limestone Parkway Overlay Zone. The facility will consist of 200 self-storage units, office space and a parking area for truck rentals. Half of the storage units will be climate controlled and half will be standard units. One access driveway is proposed from Crescent Drive which is a two-lane county road with no curb/gutter or sidewalks. The property contains a sanitary sewer easement and Georgia Power line easement.

▪ **Adjacent Land Use and Zoning**

Location	Use	Zoning
North	Juvenile Justice Department	Residential-I-A (R-I-A)
South	Future retail strip center and hotel site	General Business (G-B)
East	Exit 24/ I-985; Undeveloped land Mini-warehouses; Assisted Living Facility; Apartments	Planned Unit Development (P-U-D)
West	Single-family homes New Holland Crossing, carwash, retail strip center	Agricultural Residential-IV (AR-IV) - County General Business (G-B)

Other uses within the surrounding area include the New Holland Market shopping center to the west and the New Horizons Lanier Park to the north.

▪ **Other Departmental Comments**

There were no other departmental comments for this request.

▪ **Zoning History**

The following zoning actions have taken place in the immediate area during the last ten years:

2022 – A request by Brand Properties to rezone 69.18± acres located at 515 Lakeview Drive, NE; 2065 Limestone Parkway and 1881 Jesse Jewell Parkway from Planned Unit Development (P-U-D) and Residential-II (R-II) to Planned Unit Development (P-U-D) for a mixed-use development was approved with conditions.

2022 – A request by Moez Hasni to annex a 5.503± acres tract with a zoning of General Business (G-B) located at 374 and 400 Crescent Drive for a retail shopping center was conditionally approved.

2022 – A request by Caballero Holdings, LLC to annex a 140.77± acres tract with a zoning of Planned Unit Development (P-U-D) located at 0 Eberhart Cemetery Road; 2465 Floyd Road, SE; 2166, 2170 and 2210 Old Cornelia Highway was conditionally approved for a master planned mixed-use development.

2022 – A request by Caballero Holdings, LLC to amend a 14.43± acres tract zoned Planned Unit Development (P-U-D) located at 0, 2490 and 2544 Floyd Road, SE; 0 Lenox Drive, SE; 0 Old Cornelia Highway, SE was conditionally approved for a master planned mixed-use development.

2021 – A request by Optum Development to annex a 7.77± acres tract with a zoning of Planned Unit Development (P-U-D) located at 1744 Cleveland Highway was conditionally approved for residential townhomes.

2020 – A request by Frank Norton, Jr. to annex a 2.16± acres tract with a zoning of Planned Unit Development (P-U-D) located at 39, 44, 48 and 49 Quarry Street; 4 Highland Street was conditionally approved for residential cottages and townhomes.

2020 – A request by Frank Norton, Jr. to amend a 14.75± acres tract zoned Planned Unit Development (P-U-D) located at 0 Lakeview Drive NE; 52, 54 and 56 Quarry Street NE was conditionally approved for residential cottages and townhomes.

2020 – A request by Capstone Acquisitions, LLC to annex a 6.148± acres tract with a zoning of Light Industrial (L-I) located at 0 Jesse Jewell Parkway was conditionally approved for a climate-controlled self-storage and office/warehouse.

2018 – A request by Limestone Greenway, LLC to annex a 75.12± acres tract with a zoning of Planned Unit Development (P-U-D) located at 0 and 2065 Limestone Parkway was conditionally approved for a mixed-use development.

2017 – A request by Keel Property Management, LLC to annex a 6.32± acres tract with a zoning of General Business (G-B) located at 0 White Sulphur Road Drive was conditionally approved for restaurant, retail and a carwash.

2017 – A request by the City of Gainesville to rezone 53.177± acres located at 1514, 1515, 1545, 1560 and 1581 Community Way from Residential-II (R-II) to Office and Institutional (O-I) zoning was approved for existing uses and for future professional office purposes.

2016 – A request by Timothy Bullard to annex a 20.417± acres tract located at 1582 and 1586 Pine Valley Road was denied for a 240-unit apartment complex with Residential-II (R-II) zoning.

2012 – A request by Pacolet Milliken Enterprises, Inc. to annex a 68.223± acres tract located at 601 White Sulphur Road was approved with conditional Planned Unit Development (P-U-D) zoning for a mixed-use development.

▪ **Staff Analysis**

(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?

The proposed use appears suitable given the surrounding uses and adjacent zoning. Nearby properties include a mixture of residential, institutional, office and commercial uses. The adjacent and nearby properties are zoned General Business (G-B) and Planned Unit Development (P-U-D) in the city and Agricultural Residential-IV (AR-IV) in the county. The subject property is located near a commercial corridor that has had substantial growth within the past 10 years due to its proximity to Exit 24/I-985 and nearby medical facilities.

(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?

Given the property is undeveloped, the proposed use will minimally increase traffic and turning movements on Crescent Drive. Traditionally, storage facilities do not generate much traffic compared to most commercial uses. Coordination with the City of Gainesville and Hall County Transportation will be necessary to address the access requirements.

(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?

It is staff's opinion that the proposed retail building is supported by the Comprehensive Plan. The Future Development Map for the City of Gainesville places the subject property within the *Commercial* land use category which includes areas focused on retail, office, or other commercial service areas such as grocery stores, banks, restaurants, theaters, hotels and automotive-related businesses which may be located as a single use in one building or grouped together in a shopping center.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Economic Development Gateways* Character Area. The primary vision for the area is to continue to support economic development, while preserving and strengthening important natural and cultural resources. Other goals include creating gateways for visitors entering the city from I-985. Land uses allowed within this area include public / institutional, parks and recreation, general mixed-use, commercial (retail and office), industrial; and public and institutional.

(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?

The proposed zoning of General Business (G-B) is similar to the property's existing county zoning of Highway Business (H-B). The proposed use is currently permitted within Hall County. The applicant desires to utilize sewer services which requires the property to be annexed given it is adjacent to the city limits.

(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?

Nearby developments currently utilize City water and sewer services and there is sufficient capacity to serve the development. The applicant will be required to coordinate with Gainesville and Hall County regarding any access and driveway improvements. According to the "9th Edition Trip Generation Manual" as published by the Institute of Transportation Engineers, the estimated trips for the proposed 200 unit storage facility are 50± two-way trips per weekday and 6 A.M. / 6 P.M. two-way peak hour trips. Existing public safety services respond to the adjacent and nearby properties. Gainesville Fire Station #2 off of Cleveland Highway is located approximately 2.5 miles away. As well, Hall County Fire Station #7 off of East Crescent Drive is located approximately 0.24 miles away. Given the proposal is for non-residential purposes, there should be no impacts to the Gainesville City School System.

(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?

As previously stated, the surrounding area has experienced significant residential, office and commercial growth along Jesse Jewell Parkway due to its proximity to Exit 24/I-985, Northeast Georgia Medical Center and downtown Gainesville. The proposed storage units will support nearby existing and proposed residential developments such as The Mill at New Holland, Limestone Greenway and Gainesville Township.

(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?

Due to the subject property's proximity to existing residential and commercial land uses, the proposal, *with the recommended conditions of zoning* appears to promote a reasonable balance between the interests of the City, the property owner, and neighboring residents and property owners.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of the proposed annexation request with **General Business (G-B) zoning**, based on the Comprehensive Plan and the adjacent residential and non-residential land uses.

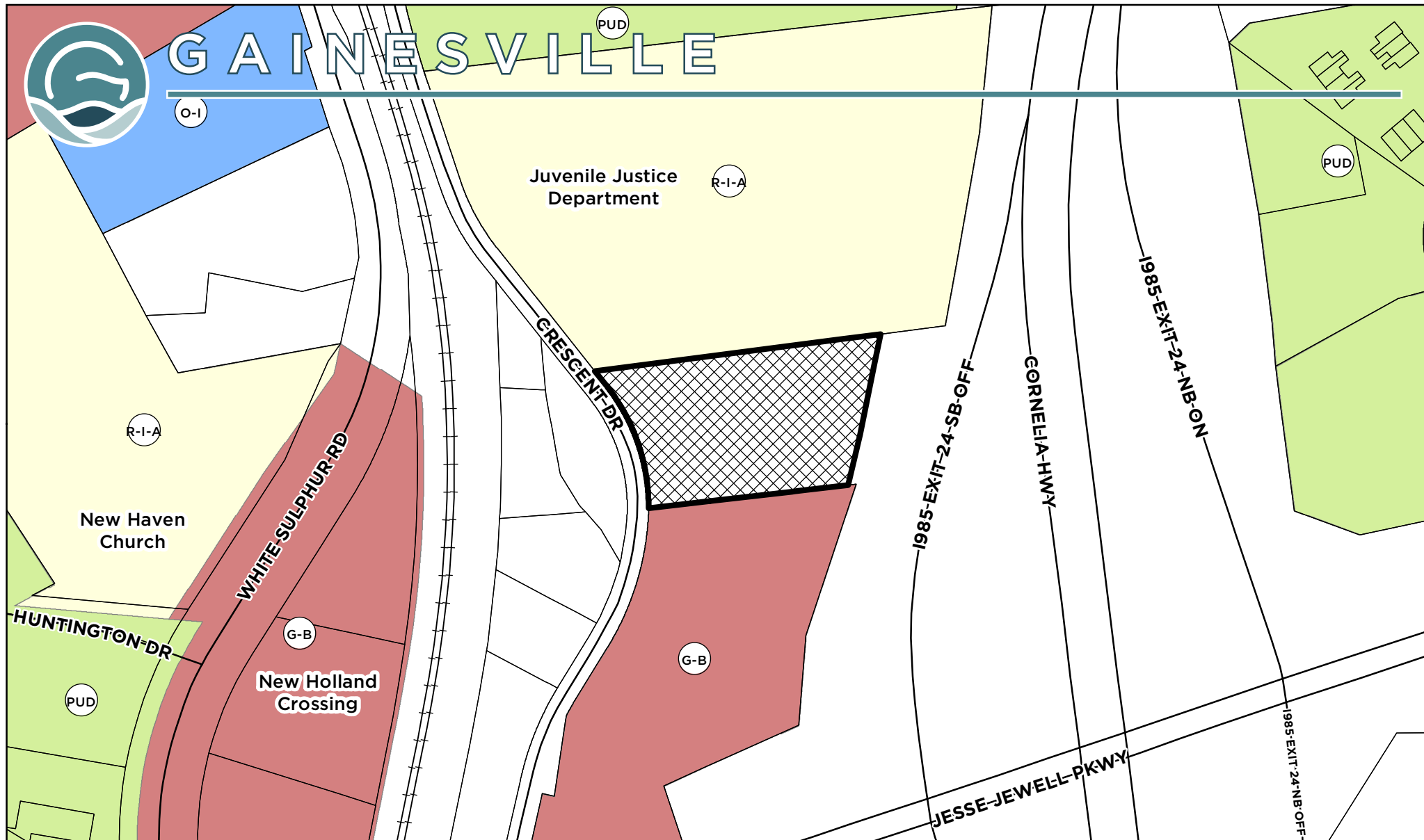
Conditions

1. The proposed development shall be generally consistent with the concept plan and architectural renderings provided with this application. The exterior wall materials shall include a mixture of brick or stone and EFIS per the approval of the Community & Economic Development Director.
2. Prohibited uses for the subject property shall include adult novelty stores, group homes, crisis centers, adult entertainment centers, pawn shops, dollar-type stores, massage parlors, hookah lounge, tobacco or vaping stores, gas station/convenience stores, tire stores, auto parts stores, auto body shops, automobile sales establishments, marine sales or repair stores, automated or non-automated car washes, truck stops, coin-laundry facilities, tattoo parlors, psychics, fortune tellers, clairvoyants and the like.

3. The frontage landscape areas shall be sodded with grass and contain minimum 3-inch caliper size hardwood trees subject to the Community & Economic Development Director approval.
4. The subject property shall be limited to one (1) monument sign not to exceed 10-feet in height, 80 square feet of sign face area, 120 square feet of total sign structure area with internal or external lighting. Building signage shall be permitted as regulated within the Gainesville Unified Land Development Code. An electronic message board sign or electronic changeable copy sign shall not be permitted for the subject property.
5. All access point design for the subject property shall be submitted for review by the Gainesville Public Works Director in coordination with Hall County. The approval of said design shall be required prior to issuance of a building permit. All required access / traffic / sidewalk improvements associated with the proposed development shall be at the full expense of the owner/developer.



GAINESVILLE



Applicant: **ELIZABETH EVANS**

ANNEXATION REQUEST

Subject Property Address:
410 Crescent Drive

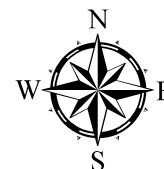
Tax Parcel:
15-033C-000-011

Request:

Annex 2.70+/- acres tract and establish zoning as General Business (G-B) for climate controlled & non-climate controlled mini storage warehouses



Subject Property



Meeting Date: 08/09/2022

Map Prepared: 06/30/2022

0 140 280 420 560 Feet

SCALE: 1" = 250'



GAINESVILLE



Applicant:

ELIZABETH EVANS

Request:

Annex 2.70+/- acres tract and establish zoning as General Business (G-B) for climate controlled & non-climate controlled mini storage warehouses

ANNEXATION REQUEST

Subject Property Address:

410 Crescent Drive

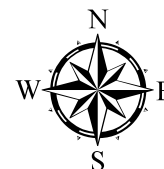
Tax Parcel:

15-033C-000-011



Subject Property

Aerial from 2021



Meeting Date: 08/09/2022

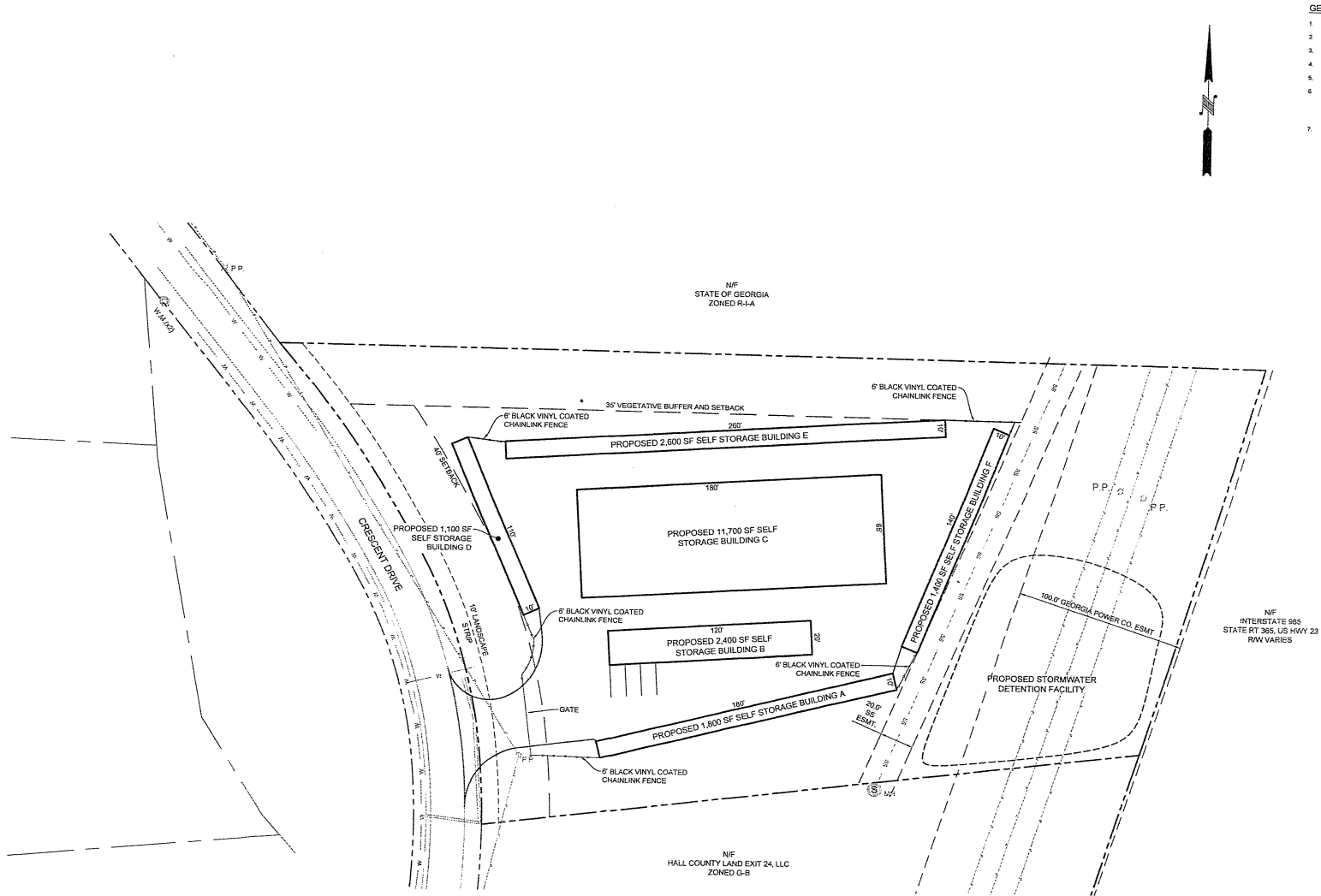
Map Prepared: 06/30/2022

0 140 280 420 560 Feet

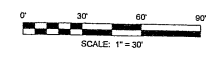
SCALE: 1" = 250'

410 Crescent Drive Annexation Request

I am proposing to annex 2.7± acres with a zoning of General Business (G-B) for a self-storage facility. The facility will consist of 200 self-storage units of which half will be climate controlled and half will be standard units. The topography of this land is flat with a gentle slope in the back. The land is located in between the detention center and a future hotel and retail development. It is conveniently located within minutes of apartments, multifamily as well as current development of additional future multifamily and apartment development. I plan to have an office at the front, to the right of the drive, while the signage and truck rental will be at the left of the drive. The plan will include non-spill lighting, security, entrance slide gate, kiosk, sign, website, water for sewage and locks. The property is currently zoned Highway Business (H-B) within Hall County which allows for mini-warehouse units. However, my desire is to annex into the city limits in order to utilized Gainesville water and sewer which currently run through and is adjacent to my property.



- GENERAL NOTES:**
1. EXISTING ZONING: H-8 (COUNTY)
 2. PROPOSED ZONING: G-B (CITY)
 3. 24 HOUR CONTACT: ELIZABETH EVANS @ 404-925-4545
 4. ENGINEERING CONTACT: JAMES RYAN @ (706) 778-0087
 5. SITE AREA: 2.10 ACRES
 6. SETBACKS:
FRONT: 42'
SIDE: 5'
REAR: 0'
 7. THIS SITE FALLS WITHIN THE LIMESTONE OVERLAY DISTRICT



footfalls and design

164 PROFESSIONAL DRIVE
SUITE 200
GAINESVILLE, GA 30607
PHONE: (770) 778-0087
WWW.FOOTFALLS.COM

OWNER/DEVELOPER:
ELIZABETH EVANS
430 GREEN ST. NW
GAINESVILLE, GA 30601

**410 CRESCENT DRIVE
SELF STORAGE**
GMD 411
CITY OF GAINESVILLE
HALL COUNTY, GA

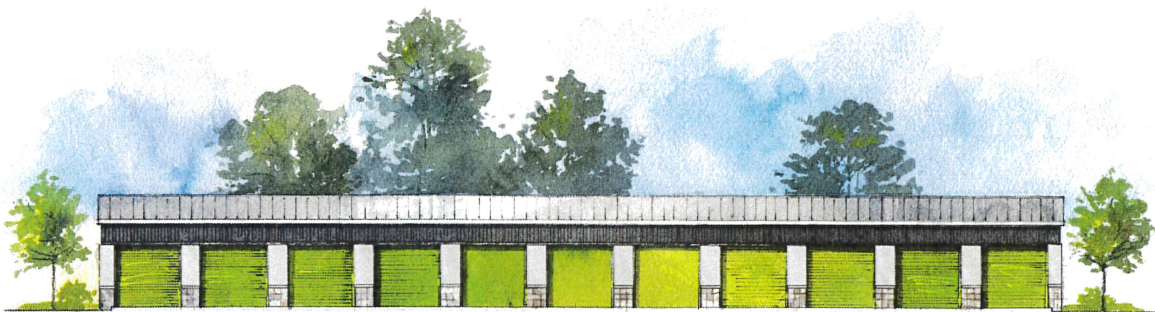
REVISIONS	NO.	DESCRIPTION	DATE

DATE: JUNE 24, 2022

SCALE: 1" = 30'

SHEET:
1

JOB #22075





CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022

Date Submitted: July 22, 2022

Final Approval Date: July 26, 2022

Presenter: Matt Tate, Community & Economic Development Dept Deputy Director

Item of Business: Request from **CA Industrial Holdings, LLC** to amend a portion of an existing Planned Unit Development (P-U-D) zoning totaling 17.28± acres located west of the intersection of Old Oakwood Road and Mountain View Road, having road frontage on the north side of Old Oakwood Road and the south side of Mountain View Road (a/k/a **0 Old Oakwood Road, SW**).

Meeting Date: August 9, 2022

Purpose of Request:

The proposed zoning amendment is part of the 604.0± acres Mundy Mill mixed-use development that was originally approved in 2004. At this time, there are multiple phases of single-family homes, apartments and townhomes built or under construction as well as the existing Mundy Mill Learning Academy elementary school.

The subject property is currently zoned for up to 170,000 square feet of industrial/office/warehouse space as part of PUD amendment in 2021. The proposal now includes a total of 260,000 square feet of warehouse/distribution space. A total of 210,000 square feet of the building will be located within the city limits of Gainesville and 50,000 square feet will be located within the city limits of Oakwood. The proposed project will require an Intergovernmental agreement defining the permitting authority and services to develop across the two jurisdictions. Access for employees and truck deliveries is proposed on Old Oakwood Road and Mountain View Road. The adjacent uses include a Family Dollar Store, Hydro Extrusion USA, RWH Trucking, Maple Park Mundy Mill subdivision and single-family homes on Mountain View Road within the county.

Facts & Issues / History & Background:

Department Recommendation:

Planning staff recommended approval with thirty-two conditions. See the Staff Recommendation report for details.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

Administrative Comments:

Attachments:

1. CA Industrial Holdings LLC zon amend staff rep
2. Location Maps
3. Plat
4. Site plan
5. Architectural Rendering
6. Traffic Study

**GAINESVILLE PLANNING and APPEALS BOARD
STAFF RECOMMENDATION**

Applicant.....CA Industrial Holdings, LLC
Property OwnerButler Property, LLC
Location0 Old Oakwood Road, SW;
Request.....Amend P-U-D zoning
Size.....17.28± acres
WardFour
Proposed Use.....Industrial warehouse / distribution
Planning Division Staff Recommendation.....**Approval, with conditions**
DateAugust 9, 2022

▪ **Applicant's Proposal and Background Information**

The proposed zoning amendment involves a 17.28± acres portion of the 604.0± acres Mundy Mill mixed-use development originally annexed and rezoned in 2004. The entire development includes multiple phases of single-family homes, apartments and townhomes that are currently built or under construction as well as the existing Mundy Mill Learning Academy elementary school.

The subject property is known as “Pod E” and was zoned for up to 170,000 square feet of industrial/office/warehouse space as part of a P-U-D amendment in 2021. The amended proposal includes a total of 260,000± square feet of warehouse/distribution space of which 210,000 square feet of the building will be located within the city limits of Gainesville and 50,000 square feet of the building will located within the city limits of Oakwood. The proposed project will require an intergovernmental agreement defining the permitting authority and services to develop across the two jurisdictions. The development will utilize two full access driveways, one along Mountain View Road and one along Old Oakwood Road. Parking for trucks, trailers and employees will surround the building. The project has a projected build-out date of 2024.

▪ **Adjacent Land Use and Zoning**

Location	Use	Zoning
North / Northwest	Maple Park (Mundy Mill Subdivision) Single-family homes	Planned Unit Development (P-U-D) - City Residential-I (R-I) – County
South / Southeast	Undeveloped Land; Single-family home	Light Industrial (L-I) – City Residential-I (R-I) – County
East	Hydro Extrusion USA; Family Dollar Store; Vacant Land	Light Industrial (L-I) – City Highway Business (H-B) – County Agricultural Residential-III (AR-III) - County
West	RWH Trucking Maple Park (Mundy Mill Subdivision)	Light Industrial (M-1) – Oakwood Planned Unit Development (P-U-D) - City

▪ **Other Departmental Comments**

The Gainesville Public Works Department Transportation Engineering Division states that the Traffic Impact Study and plans will need to be submitted to Hall County for review/approval. Hall County requires a minimum of a left turn lane and a right turn lane (decel) on Mountain View

Road. Old Oakwood Road is recommended to have a left turn lane provided. In addition, verification of sight distance at both driveway locations will be required and both driveways will need to meet City standards including but not limited to pedestrian sidewalks, curb & gutter and driveway requirements.

There were no other departmental comments regarding this request.

▪ **Traffic Impact Study Summary**

A Traffic Impact Study (TIS) was completed for the proposed development on June 28, 2022, by NV5 Engineers and Consultants, Inc. The study includes analysis of the existing, no-build and build conditions at the following intersections.

- Mountain View Road and Pearhaven Lane / Private Driveway (unsignalized)
- Mountain View Road and Old Oakwood Road (unsignalized)
- Millside Parkway and Silver Oak Drive / Fiddlers Green Trace (unsignalized)
- Old Oakwood Road and Millside Parkway / Tumbling Creek Road (signalized)
- Mountain View Road and Buice Lane / Site Driveway 2 (unsignalized)
- Old Oakwood Road and Site Driveway 2 (unsignalized)

The personal vehicle trips are expected to be distributed as follows:

- 30% to/from east along Mountain View Road
- 30% to/from southeast on Tumbling Creek Road
- 20% to/from west on Mountain View Road
- 15% to/from south on Old Oakwood Road
- 5% to/from the southwest on Millside Parkway

The truck trips are expected to be distributed as follows:

- 100% to/from the southeast on Tumbling Creek Road towards Interstate 985.

The estimated trips for the development are provided below.

Land Use	Personal Trips	Truck Trips	Total Trips	AM Peak Hour	PM Peak Hour
Warehousing	292	144	436	54	57
Trailer Parking Lot	12	48	60	7	4
Totals	304	192	496	61	61

According to the TIS, the new trips generated by the development is expected to have minimal impact on the Levels of Service (LOS) and delays at the studied intersections and no improvements are required. The proposed driveways are expected to have minimal impact on traffic operations along Mountain View Road and Old Oakwood Road and turn lanes are not warranted at either driveway.

▪ **Zoning History**

The following zoning actions have taken place in the immediate area during the last ten years:

2021 – A request by Scott Stringer to amend a 57.29± acres tract located within the Mundy Mill development at 0 Mundy Mill Road, SW and 0 Old Oakwood Road, SW zoned Planned Unit Development (P-U-D) was conditionally approved to change the location of multi-family apartments and industrial/ office/ warehouse uses.

2020 – A request by Smith, Gambrell & Russell, LLP to annex a 4.01± acres tract with a zoning of Light Industrial (L-I) located at 2500 West Park Drive was conditionally approved for an existing industrial warehouse use.

2018 – A request by Hydro Extruder, LLC to annex a 10.98± acres tract and a 11.29± acres tract with a zoning of Light Industrial (L-I) located at 2829 Mountain View Road and 2949 Old Oakwood Road was conditionally approved to expand the existing industrial use.

2016 – A request by Butler Property, LLC to amend a 92.06± acres tract located within the Mundy Mill development at 3035 Old Oakwood Road SW and 3523 Mountain View Road SW zoned Planned Unit Development (P-U-D) was approved to change the location of some of the single-family homes, multi-family apartments, commercial and industrial uses.

2011 – A request by Butler Property, LLC to amend the zoning conditions for a 65.425± acres tract located within the Mundy Mill development at 2975 Mountain View Road SW; and 3755 Meeks Drive SW zoned Planned Unit Development (P-U-D) was approved to amend conditions 17 and 18 to reduce the minimum square footage for apartments.

2011 – A request by ACR Property Services, LLC to amend the zoning conditions for a 105.51± acres tract located within the Mundy Mill development at 0 Mundy Mill Road; 2975 Mountain View Road SW; and 3755 Meeks Drive SW zoned Planned Unit Development (P-U-D) was approved to amend conditions 17 and 18 to reduce the minimum square footage for apartments.

▪ **Staff Analysis**

(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?

The surrounding uses include a mixture of single-family, commercial and industrial uses. The adjacent zoning districts are Agricultural Residential-III (AR-III), Residential-I (R-I) and Highway Business (H-B) in Hall County, Light Industrial (M-1) in Oakwood and Planned Unit Development (P-U-D) and Light Industrial (L-I) in Gainesville. The subject property was chosen for the proposed light industrial use due to its proximity to the Tumbling Creek Road connector and other industrial uses such as Hydro Extrusion, USA and RWH trucking.

(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?

The proposal will increase traffic movements on Old Oakwood Road and Mountain View Road which are two lane roads that already experience a mixture of commercial, light industrial and residential traffic. According to the traffic impact study, the estimated additional trips generated will not require any road improvements. However, improvements are recommended by the Gainesville Transportation Engineering Division as detailed in their above departmental comments. The proposed use is for warehousing and distribution purposes which should create no issues with smells, dust or vibration. Lighting and noise will be for the most part screened by a 100' to 170' wide natural wetland buffer which is located between the subject property and the adjacent single-family homes within the Maple Park subdivision. In addition, to buffer the proposed use from the adjacent residential uses, the PUD development standards require a minimum 25-foot wide perimeter buffer.

(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?

It is staff's opinion that the proposal is consistent with the Comprehensive Plan given the property is located within a mixed-use development which was previous planned for the proposed industrial warehouse and distribution use. The Gainesville Future Development Map

places the subject property within the *Industrial* land use category which includes a wide range of office, business, light industrial, manufacturing, research, and development uses; and commercial uses that directly support or are otherwise linked to the dominant business use.

According to the Character Area map for the City of Gainesville, the subject property is located within the *Suburban Neighborhoods* Character Area which places a priority in access to parks and greenspace, environmental sustainability, housing choices, connectivity, safety and security. Appropriate land uses and development types normally found in this area include parkway and recreation, single-family residential, limited multi-family residential, limited general mixed-use, limited commercial (retail and office and public and institutional).

(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?

The property is zoned Planned Unit Development (P-U-D) and is currently approved for 170,000 square feet of industrial warehouse / distribution space. The applicant desires to increase the warehouse distribution space which requires the P-U-D zoning to be amended. The total space includes 260,000± square feet of which approximately 210,000 square feet will be located within Gainesville and 50,000 square feet in Oakwood. The property could be developed for a smaller warehouse/ distribution facility.

(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?

The proposed zoning amendment request should not cause an excessive or burdensome use of public facilities or services above what is currently approved for the property.

City water, sewer, and public safety services are currently provided to the property and have the capacity to serve the proposed warehouse and distribution use. Gainesville Fire Station #4 is located approximately 1.3± miles away off of Memorial Park Drive.

According to the Traffic Study for the proposal, the estimated trips for the proposed use are 496± trips per weekday, 61 A.M. and 61 P.M. peak hour trips.

The proposal is for nonresidential purposes which will have no impact on the school system.

(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?

The subject property is part of a planned mixed-use development originally approved in 2004. The proposed zoning amendment appears to still support the original scope planned for the mixed-use development. As well, the surrounding development located within the jurisdictions of Gainesville, Oakwood and Hall County are consistent with the mixture of uses planned within the Mundy Mill development including the subject property.

(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?

Based on the Comprehensive Plan and the surrounding land uses, the proposed zoning amendment request appears to reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property.

▪ **Staff Recommendation**

The Planning Division staff is recommending **conditional approval** of this zoning amendment request based on the Comprehensive Plan and the surrounding mixture of uses. The existing zoning conditions from Ordinance 2021-09 are recommended with highlighted amendments to zoning conditions 20, 25, 31 and 32.

Conditions

Transportation/Traffic

1. All road improvements associated within the scope of the proposed development shall be at the full expense of the developer(s). The scope of the development shall be defined as those roads/intersections directly within, adjacent to, and within 1,500 feet of the subject property as studied within the Traffic Impact Study (TIS) submitted with this application. These road improvements are to include additional signalization, turn lanes, widening of roads, striping, and signage as stated in the TIS. This may include all or portions of Mundy Mill Road, Meeks Road, Fairbanks Drive, Old Oakwood Road, Old Flowery Branch Road, and Mountain View Road. The cost of the required road improvements shall be prorated based on developed property values of the residential, commercial, retail, office and industrial properties.
2. The developer(s) shall work with the Georgia Department of Transportation, Hall County Traffic Engineering, the City of Oakwood, and the City of Gainesville Public Works Department to ensure that these improvements are performed in a timely manner so as to not conflict with any of the existing or planned road projects that are scheduled to take place outside the scope of the proposed development.
3. All sign locations, access point (new and existing) designations for *new* roads, sight distances, and sight triangles shall be reviewed and clarified, in the beginning stages of plans and submittals with GDOT and the Public Works Director so as to limit the number of access points in that area.
4. A signal warrant study will be required for the major intersections of internal streets within the development. If a signal light is warranted at a specific intersection, such installation shall be completed at the expense of the developer(s) and shall meet all specifications as determined by the Public Works Department. A signal light shall not be installed until traffic volumes actually meet the levels as determined by the warrant study.
5. The developer(s) shall meet with Public Works prior to initiating the final civil design to discuss a traffic calming plan. A traffic calming plan consisting of tools such as landscaped traffic circles at intersections, raised crosswalks, landscaped center medians, chicanes, or other measures that aid in keeping the average speed on residential streets approximately 25 mph or below shall be prepared and approved by Public Works. Specific measures in the approved plan shall be constructed at the same time the streets are constructed.
6. All roads dedicated to the City of Gainesville shall meet City specifications, and all private roads shall be constructed with materials that meet City specifications.
7. All interpretations relating to transportation and/or traffic improvement conditions shall be subject to approval of the Gainesville Public Works Director.
8. The new four lane parkway as reflected on the site plan shall be constructed and designed so as to allow a connection to the Tumbling Creek Connector across Old Oakwood Road.

Development Standards

9. Sidewalks shall be required along both sides of the streets within the development and shall be a minimum of four feet (4') wide along streets classified as residential streets and six feet (6') wide along collector streets and streets in the commercial zones. Alternatively, sidewalks shall be permitted along one side of the street in

parkway areas at a minimum width of eight feet (8') and a minimum of five feet (5') along roads classified as residential streets.

10. All proposed single-family lots within the development shall only be allowed to access new interior roads within the subdivision. Direct access shall not be allowed onto roads that existed prior to this development.
11. Access to all service areas adjacent to single-family detached homes, including dumpster pads, shall be limited to the hours of between 9:00 a.m. and 6:00 p.m., unless an emergency situation warrants access to these areas.
12. Upon completion of the development, no outside storage of any materials shall be allowed. No storage of hazardous chemicals, as listed in the Standard Fire Code, shall be permitted.
13. Outdoor lighting used in this development; be it for recreational, security or general purposes, shall be of non-spill design and placed in a manner so as to minimize direct visibility by adjoining or adjacent properties.
14. The proposed residential, office, commercial, and accessory structures shall be similar in scale and architecture to the elevation drawings and pictures as submitted with the application.
15. The subject property shall be developed substantially in accordance with the site plan with minor engineering deviations excepted. All site plan, architectural renderings, pedestrian/trail access plan, and traffic impact studies shall become a part of the annexation, zoning and rezoning ordinances.
16. The number of *single-family detached homes* shall not exceed 1208 units and shall contain a minimum of 1,500 square feet of heated space. Front facades shall consist of masonry, stacked stone, cedar shake or stucco, architectural accents excluded. The remaining three facades shall consist of these materials or cementeous siding such as hardiplank. Single-family lots shall be no less than 6,000 square feet in size, with 60 feet of lot width at the building setback line and minimum lot width at right-of-way line of 20 feet, with the exception of Pod M of the concept plan which shall have a minimum lot width at the building setback line reduced to 50-feet.

Pod L of the concept plan dated 10/06/04 shall be the highest-end product proposed by the developer and shall contain a minimum of 1,800 square feet of heated space. Single-family lots shall be no less than 6,000 square feet in size, with 60 feet of lot width at the building setback line, and minimum lot width at right-of-way line of 20 feet. Front and side facades shall consist of masonry, stacked stone, cedar shake or stucco, architectural accents excluded. The rear facade may consist of these materials or cementeous siding such as hardiplank.

Each home within all single-family residential detached pods will have an attached garage for at least two cars. The front yard of each lot shall be sodded and planted with at least one hardwood tree. Monument signage shall be used for the entrance to any detached single-family residential pod as per the attached site plan, and each entrance shall have plantings or other architectural accents.

17. The number of attached *single-family condominiums*, fee simple townhomes or apartments shall not exceed 1,235 total units to include a total of 775 units for Pod's C and I and 460 units for Pod's J and K. The minimum unit/lot width for each condominium or fee simple townhome unit shall be 16 feet, and each unit shall contain a minimum of 1,200 feet of heated space. Building separations shall be as reflected on the site plan, and private drives built to City specs will be used within these communities. Front, side and rear facades shall consist of masonry, stacked stone, cedar shake, stucco, cementeous siding or a mixture thereof. No vinyl siding shall be allowed excluding soffit areas. No fewer than three or more than ten condominium or fee simple townhome units shall exist within one continuous structure, and front facades will be staggered. All single-family condominiums shall

contain one car garages. Monument signage shall be used for the entrance to any attached single-family residential pod as per the sign plan.

18. The height of an apartment building shall not exceed three stories, although $\frac{3}{4}$ splits will be allowed. Each apartment unit will contain a minimum of 650 square feet for Pod's C, I, J and K. Each unit shall have at least 1.75 parking spaces. Front, side and rear facades shall consist of masonry, stacked stone, cedar shake, stucco, cementeous siding or a mixture thereof. No vinyl siding shall be allowed excluding soffit areas. Minimum building separations shall be as depicted on the site plan. Signage shall be as per the attached sign plan.
19. The subject property may be developed for up to 806,000 square feet of traditional office, mid-rise office, and office warehouse space. Within the 806,000 square foot maximum, commercial and retail uses may be allowed within Pods B and N. At no such time shall the maximum allowed square footage within those pods exceed what is specified on the approved concept plan. This space may be developed for these uses but sold in a condominium format. Height of such structures shall be limited to 3 stories from average finished grade. Parking spaces will be provided at a minimum ratio of 3.5 spaces per 1000 square feet of useable office space. Monument signage shall be required in any office pod as per Exhibit B, and lights shall be shielded and angled so as to minimize glare onto adjacent properties. Minimum setbacks shall be as per the site plan, but there shall be no minimum lot, lot width or lot frontage required.
20. The subject property may be developed for up to **210,000** square feet of industrial/office/warehouse space within Pod E and 580,000 square feet of commercial space within Pod I. The maximum height of any structure, excluding architectural accents; such as clocks, cupolas and bell towers; shall be 50 feet. Use of pitched roofs shall be encouraged. Minimum setbacks shall be as per the site plan, but there shall be no minimum lot, lot width or lot frontage required. Parking shall be provided at a minimum of four spaces per 1,000 square feet of space. Lights shall be shielded and angled so as to minimize glare onto adjacent properties, and dumpsters shall be screened. Under no circumstances shall the following uses be allowed: Pawn shops, adult entertainment, adult bookstores, extended-stay hotel, rooming house, or boarding house. Signage shall be as per the attached sign plan.
21. Architectural treatment shall be of consistent design throughout the community and as per the renderings.
22. A minimum of 100 acres shall be maintained as green space, with passive recreation and trails as per the plan. Sidewalks shall connect the residential and non-residential components of this community.
23. A Mandatory Property Owners Association will be created for the single-family detached community to insure that these conditions are observed during development and in terms of architectural consistency thereafter. Separate mandatory associations will be set up for the single-family detached and single-family attached products to own and manage open space, common areas, and architectural controls. Open space elsewhere in the project shall be maintained as common area by the overall Property Owner's Association, or by a separate Association within whose boundaries the common area is located. Maintenance of the amenities package set forth on the site plan shall be the responsibility of the owners of single-family detached homes. However, at the option of those residents, memberships may be extended to other Mundy Mill residents for a fee to cover maintenance. Amenities packages also may be established in the individual townhome or apartment pods, but shall be the responsibility of the owners of land therein.

Buffers

24. A 100 foot wide buffer shall be provided against Balus Creek and all other blue-line streams. The first 50 feet of the buffer shall be measured from the top of the creek

bank and shall be undisturbed. The remaining 50 feet of the buffer, if disturbed, shall be stabilized and replanted with vegetation subject to Planning Department approval.

25. A 25 foot minimum perimeter buffer will be created and infilled as necessary with plant material. However, this buffer will not be required along any Mundy Mill Road frontages. Landscaped buffers of at least 25 feet are also required along any road frontages. **A staggered row of evergreen trees consisting of a mixture of Cryptomeria, Thuja Green Giant Arborvitae, Eastern Red Cedar and/or Holly trees shall be required adjacent to the entire perimeter buffer of Pod E excluding the westerly boundary adjacent to the city limits of Oakwood. The location, size and type of buffer trees shall be subject to the approval of the Community and Economic Development Department Director.**
26. Landscaped buffers of at least 25 feet also shall separate any non-residential pod or existing non-residential use from a residential pod. The buffer shall be subject to Planning Department approval.
27. All proposed detention ponds shall be sufficiently fenced and buffered from view from all roads and adjacent properties. All buffer materials shall be approved by the Planning Department.

Gainesville City Board of Education

28. As agreed to by the owner/developer, the 17.0 acre tract of land identified on the plat/site plan attached as Exhibit A shall be reserved for use as an elementary school site. At that time (or earlier at the owner/developer's discretion), and presupposing the School Board still wants the property for an elementary school, the owner/developer shall promptly convey to it, without charge. In the event the School Board does not secure a building permit and begin construction of an elementary school before December 31, 2012, then the developer shall retain all rights to development of the entire 17.0 acres tract as per the original terms of zoning approval except for this condition, and the School Board shall promptly convey marketable title to the property back to the owner/developer at no charge. Additionally, if no elementary school is actually constructed on this site by December 31, 2013, then the School Board shall return marketable title to the property to the developer without charge. The conveyance documents executed by the owner/developer to the School Board will contain these terms and requirements. This agreement to reserve the 17.0 acres tract shall not prohibit the owner/developer from including it in any plat it may prepare for its development of a single-family residential pod and also will allow the owner/developer to put on it any necessary utility or other storm water easements which may be required for the development as a whole, provided such improvements do not materially affect the Board's ability to use the site for a school. This agreement also shall not prohibit the owner/developer from earlier transferring the 17.0 acres site to the City to be held for the School Board, subject to the requirements of this paragraph. Finally, but for utility/drainage easements or right-of-way dedicated as part of the road system in or along the frontages of the Mundy Mill development, the owner/developer shall not be required to dedicate or give to the City of Gainesville any additional property incidental to this development. However, if the School Board fails to acquire this property, then the owner/developer shall convey three acres of land to the City for a public safety use.

Notwithstanding any of the foregoing, if at such time as the School Board has acquired the 17.0 acres site and is ready to begin feasibility assessments, and if the State Board of Education should determine that the site is not then suitable for use as a school under the applicable state standards, then the Board of Education may sell the 17.0 acres tract and retain the proceeds for use in purchasing an alternative site. Provided, however, that once an arms length transaction for a fair market value purchase of the site has been secured by the School Board, the owner/developer shall have a right of first refusal to repurchase the tract at the exact same purchase price. Provided further, that the proceeds from such sale must be expended on a new

school site within 60 days of closing, otherwise it shall be remitted instantly to the owner/developer.

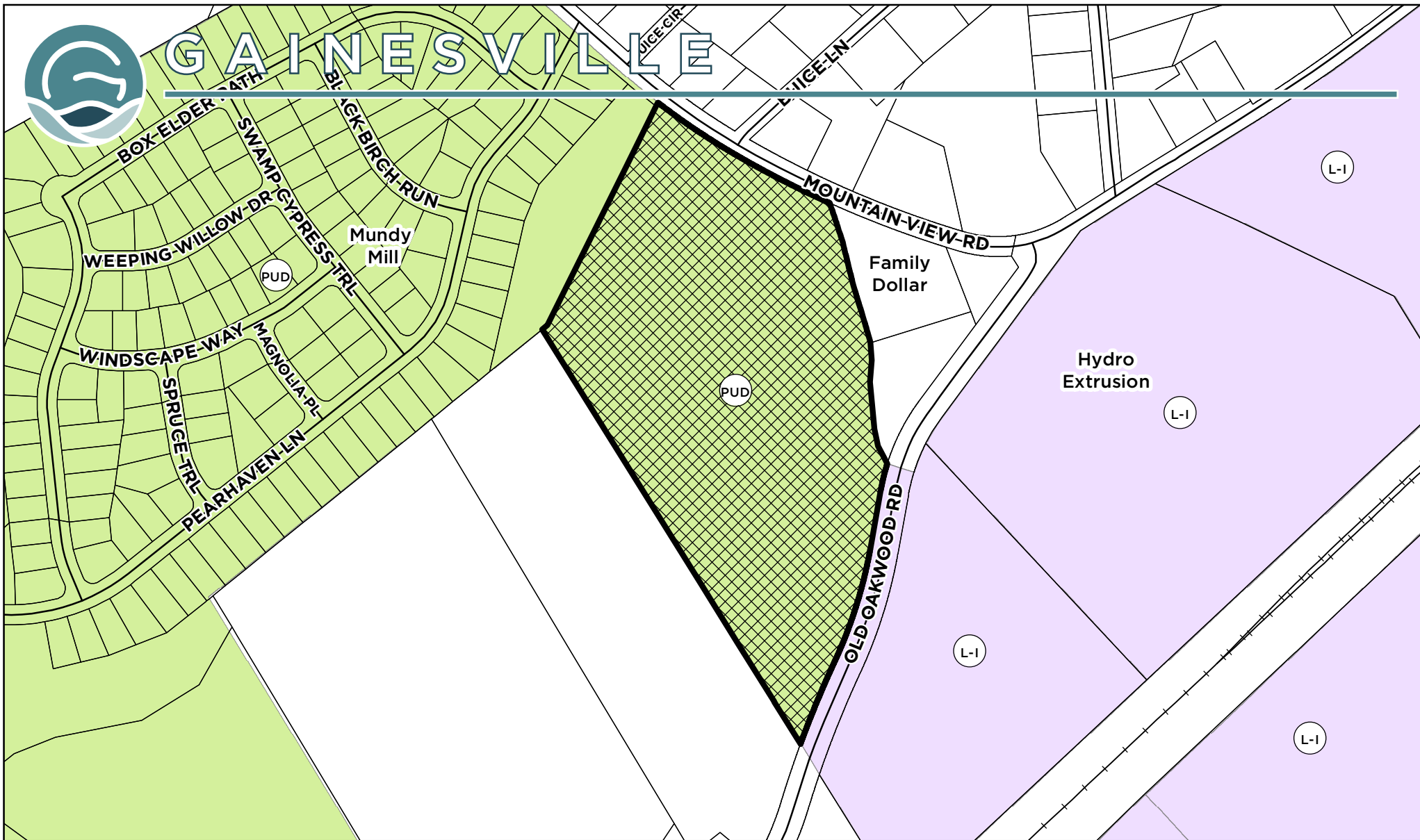
The City notes that this condition may be imposed only because the owner/developer has agreed to it.

Quality Enhancement

29. In order to further enhance and assure the quality of development, the City expects the developer shall perform/provide the following:
- Detailed landscape plan for parkway, subject to approval by the Department of Planning and Development.
 - Reconstruction of Mundy Mill as focal point for community, subject to approval of the Georgia Department of Transportation.
 - A minimum of two amenity locations shall be provided for the entire development of the detached single-family residential pods. At minimum the amenity sites shall include a pool house, swimming pool and playground.
 - Sidewalks and streetlights throughout community.
 - All products within the development shall contain exterior construction materials limitation; must use brick, masonry stucco, stacked stone, cedar shake, or hardiplank.
 - Open space - 18%.
 - Pedestrian trail plan (3.5± miles) connecting entire community.
 - Parkway plan sidewalk width sufficient to create a bicycle lane.
 - Every single-family home built on the subject property shall contain ceramic tiled bathroom floors.
 - Every single-family home shall be built to accommodate at least one fireplace.
 - No vinyl siding on any product within development excluding soffit areas.
 - Each pod of townhouses and apartments will have its own amenities package.
 - All underground utilities.
 - Uniform mailboxes will be provided for each detached single-family residential pod.
 - Uniform street signs will be provided throughout the development.
30. Along Balus Creek, the developer shall reserve for the City, by way of easement, a ten-foot strip of land for use as a bicycle path. At such time as the City or County constructs an element of its bike path system to which this easement might connect, the City and/or County, at its/their expense, may pave this strip. No development shall occur on the property which would interfere with the eventual construction of this path by the appropriate governmental entity, except for the boulevard which will cross the creek.
31. All access point design for the subject property shall require review and approval by the Gainesville Public Works Department Director and Hall County Traffic Engineering. All required access/traffic/sidewalk improvements associated with the proposal shall be at the full expense of the property owner.
32. The proposed truck bays, truck court and trailer storage shall be located in front of the building facing Old Oakwood Road. The rear of the proposed building adjacent to the Maple Park subdivision shall be limited to employee parking only.



GAINESVILLE



Applicant: **CA INDUSTRIAL HOLDINGS, LLC**

ZONING AMENDMENT REQUEST

Subject Property Address:
0 Old Oakwood Road, SW

Tax Parcel:
08-024-005-363

Request:

Amend a portion of an existing Planned Unit Development (P-U-D) totaling 17.28+/- acres for industrial warehouse / distribution



Subject Property



Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

0 190 380 570 760 Feet

SCALE: 1" = 333'



GAINESVILLE



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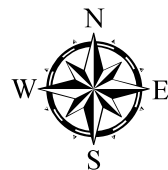


Subject Property

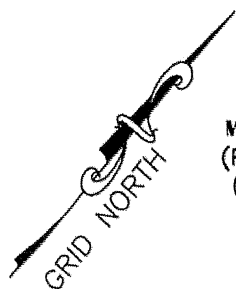
Aerial from 2021

0 340 680 1,020 1,360 Feet

SCALE: 1" = 583'



5



**FINAL PLAT OF
MUNDY MILL-POD E-PHASE 1**
(PLAT BOOK 853, PAGES 247-250)
(PLAT BOOK 854, PAGES 1 & 2)
OPEN SPACE TRACT

P/L

1/2" O.T.F.

N 26°22'17" E 618.67'

C.P.
(TYPICAL)

E MOUNTAIN VIEW ROAD
(50' R/W)

**SITE AREA:
17.25 Acres**

1" O.T.F. (BENT)
(0.9' SOUTH,
ON P/L)

- N/F -
BUTLER PROPERTY, LLC
(DEED BOOK 6749, PAGE 226-240)

- N/F -
TONY MCGUIRE
(DEED BOOK 5504, PAGE 648)
(PLAT SLIDE 486, PAGE 192A)

POINT OF COMMENCEMENT
N 42°09'32" E 1771.51'
(FROM THE SOUTHERLY MITERED
R/W CORNER AT THE NORTHEASTERLY
INTERSECTION OF MILLSIDE PARKWAY &
OLD OAKWOOD ROAD)
N:1544833.48
E:2388397.69

1/2" R.B.F.
(5.7' SOUTH,
ON P/L
EXTENDED)

NAIL FOUND
(2.8' NORTH,
ON P/L)

C.P.
(TYPICAL)

- N/F -
ARACELY SALINAS &
JOSE D. SALINAS
(DEED BOOK 5817, PAGES 189-191)

- N/F -
JAMES T. RIDINGS
(DEED BOOK 7311, PAGES 462 & 463)

0 200
GRAPHIC SCALE
1 INCH = 200 FEET

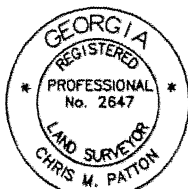
SHEET 1 OF 4



PATTON

LAND SURVEYING, LLC
REGISTERED PROFESSIONAL
LAND SURVEYORS

P.O. BOX 256
GAINESVILLE, GA. 30503
PHONE: (770) 532-6492
FAX: (770) 532-1995
www.pattonsurveying.com



HALL COUNTY SURVEYOR

SKETCH & DESCRIPTION FOR:

BUTLER PROPERTY, LLC

- LOCATED IN -

**LAND LOT 25
8TH LAND DISTRICT
CITY OF GAINESVILLE
HALL COUNTY, GEORGIA**

SCALE:
1" = 200'

DATE:
04/03/2018

Sketch-description-Multi-Family-Parcel-5.dwg

JN. 13-059Page 53 of 64



E&A
EBERLY & ASSOCIATES



TRAFFIC IMPACT STUDY FOR

OLD OAKWOOD ROAD INDUSTRIAL DEVELOPMENT

DATE:

June 28, 2022

LOCATION:

City of Gainesville, Hall County, Georgia

PREPARED FOR:

Eberly & Associates, Inc.

PREPARED BY:

NV5 Engineers and Consultants, Inc.
10745 Westside Way, Suite 300
Roswell, GA 30075
678.795.3600



Executive Summary

A new industrial development is proposed for construction along Old Oakwood Road and Mountain View Road in the City of Gainesville, Hall County, Georgia. The proposed development will consist of 252,000 square feet of warehousing and approximately 1.6 acres of trailer storage. The development will utilize two (2) new full-access driveways, one along Mountain View Road and one along Old Oakwood Road. The driveway along Mountain View Road will form a 4-leg intersection opposite of Buice Lane. The development has a projected build-out date of 2024.

When complete, the development is expected to generate a total of 496 new daily trips, 61 trips during the AM peak hour (46 entering and 15 exiting), and 61 during the PM peak hour (17 entering and 44 exiting).

Overall traffic operations at the study intersections are satisfactory in the existing conditions. Traffic operations at the study intersections are expected to worsen slightly as evidenced in the No-Build conditions.

The addition of project traffic is expected to have minimal impact on the Levels of Service (LOS) and delays at the study intersections. The LOS at each intersection are expected to be fairly consistent with that observed in the No-Build conditions. The proposed driveways are expected to have minimal impact on traffic operations along Mountain View Road and Old Oakwood Road.

Turn lanes are not warranted at either driveway.

Based on the analysis prepared for the proposed development, improvements at the study intersections are not required to mitigate the impact of the proposed development.

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- Appendix D – Turn Lane Evaluations
- Appendix E – Trailer Parking Trip Generation

A. Introduction

A new industrial development is proposed for construction along Old Oakwood Road and Mountain View Road in the City of Gainesville, Hall County, Georgia. The proposed development will consist of 252,000 square feet of warehousing and approximately 1.6 acres of trailer storage. The development will utilize two (2) new full-access driveways, one along Mountain View Road and one along Old Oakwood Road. The driveway along Mountain View Road will form a 4-leg intersection opposite of Buice Lane.

The traffic analyses in this report are for a single phase of construction. The purpose of this report is to identify the traffic expected to be generated by new vehicular trips when the development is completed. This study includes analysis of the Existing, No-Build, and Build conditions at the following intersections for the year 2024:

1. Mountain View Road and Pearhaven Lane / Private Driveway
2. Mountain View Road and Old Oakwood Road
3. Millside Parkway and Silver Oak Drive / Fiddlers Green Trace
4. Old Oakwood Road & Millside Parkway / Tumbling Creek Road
5. Mountain View Road & Buice Lane / Site Driveway 1
6. Old Oakwood Road & Site Driveway 2

The report summarizes the analysis of existing, background and projected traffic at the study locations, analysis of traffic impacts including Levels of Service (LOS) and conclusions and recommendations from the analysis.

Figure 1 depicts the study area (vicinity map) in Hall County, Georgia. The study intersections listed above are depicted in Figure 2. A copy of the development concept plan is included in Appendix A.

Figure 1: Vicinity Map

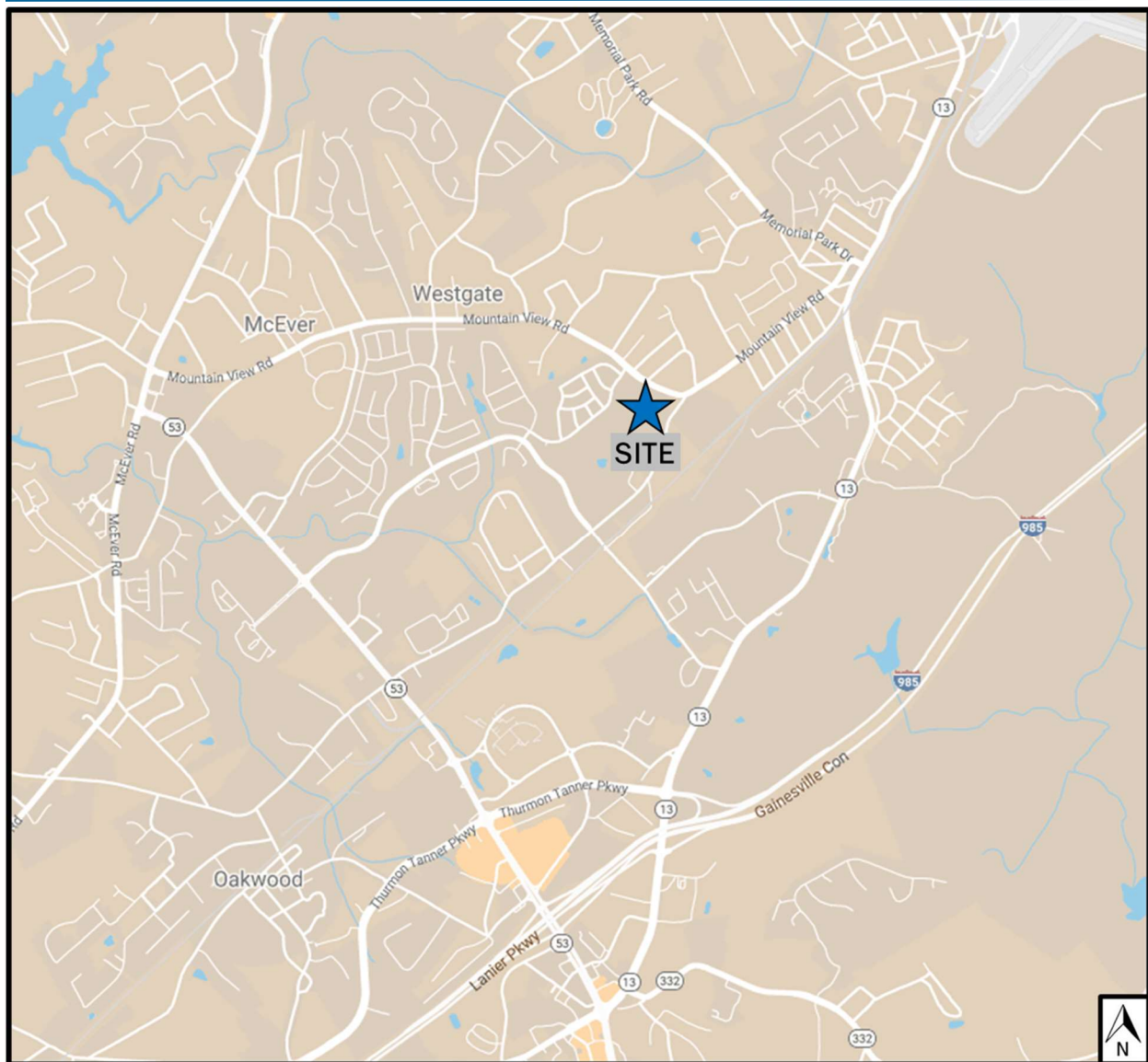
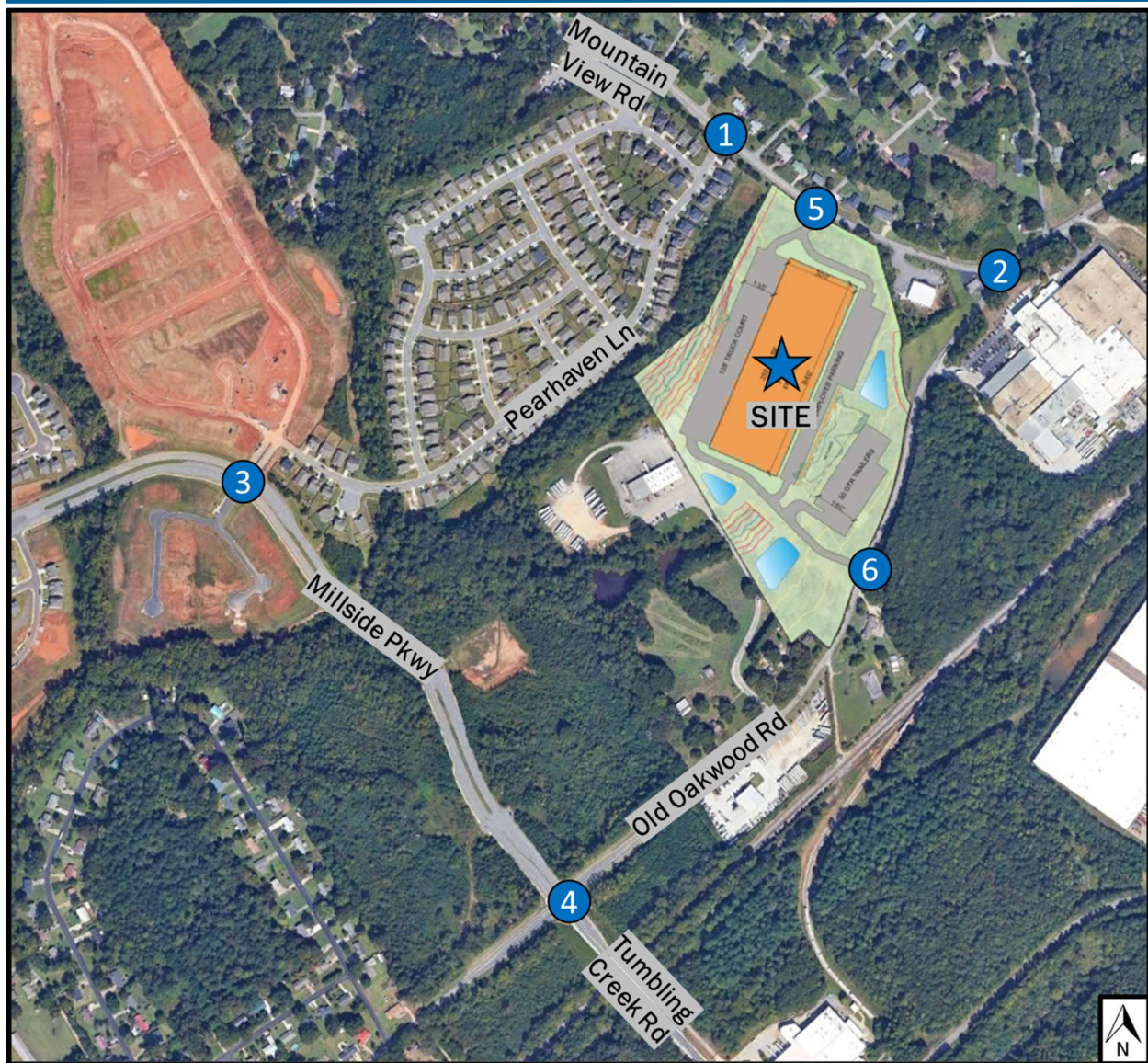


Figure 2: Site Location Aerial



1. Mountain View Road and Pearhaven Lane / Private Driveway
2. Mountain View Road and Old Oakwood Road
3. Millside Parkway and Silver Oak Drive / Fiddlers Green Trace
4. Old Oakwood Road & Millside Parkway / Tumbling Creek Road
5. Mountain View Road & Buice Lane / Site Driveway 1
6. Old Oakwood Road & Site Driveway 2

B. Existing Conditions

B.1. Transportation Facilities

Mountain View Road is a two-lane undivided roadway with a north/south orientation for the purposes of this study, that runs northwest towards McEver Road and southeast towards SR 13. Mountain View Road has a posted speed limit of 40 miles per hour and land uses are mostly residential around the project site with two commercial developments and one industrial development at its intersection with Old Oakwood Road.

Old Oakwood Road is a two-lane undivided roadway with an east/west orientation for the purposes of this study, that runs northeast towards Mountain View Road and southwest towards Oakwood, Georgia. Old Oakwood Road has a posted speed limit of 40 miles per hour in the study area and land uses are primarily industrial with some residential along its length.

Millside Parkway is a four-lane divided roadway with a north/south orientation, for the purposes of this study, that runs between Old Oakwood and SR 53. Millside Parkway has a posted speed limit of 35 miles per hour and land uses are primarily residential along its length and has access for Mundy Mill Academy.

Tumbling Creek Road is a two-lane undivided roadway with a north/south orientation, for the purposes of this study that runs northwest towards Old Oakwood Road and southeast towards SR 13. Tumbling Creek Road has a posted speed limit of 30 miles per hour in the study area and land uses include on residential development, two industrial developments, a school, and a nature trail.

Pearhaven Lane, Buice Lane, Silver Oak Drive, and Fiddlers Green Trace are driveways for residential developments with speed limits of 25 miles per hour. It is not expected that project traffic will travel on any of these roads.

B.2. Study Intersection Descriptions

Intersection #1: Mountain View Road and Pearhaven Lane / Private Driveway

This intersection is unsignalized with the eastbound approach of Pearhaven Lane being stop-controlled. Mountain View Road has a northbound left-turn lane and an southbound right-turn deceleration lane for traffic entering the Maple Park subdivision from Pearhaven Lane. The right-turn lane has approximately 190 feet of storage with a taper of approximately 120 feet. The left-turn lane has approximately 185 of storage with a taper of approximately 55 feet. Pearhaven lane has a single eastbound lane for both left and right turns. The westbound approach is a private driveway for a single-family home.

Intersection #2: Mountain View Road and Old Oakwood Road

This is an unsignalized intersection with the eastbound approach of Old Oakwood Road being stop-controlled. While there are no separate lanes for left or right turns at the intersection, the eastbound lane has a large channelization for traffic making a right turn onto Mountain View Road.

Intersection #3: Millside Parkway and Silver Oak Drive / Fiddlers Green Trace

This is an unsignalized intersection with Silver Oak Drive and Fiddlers Green Trace being stop-

controlled. Millside Parkway is a four-lane road with a wide median. Silver Oak Drive also has separate lanes for right and left turning traffic. Fiddlers Green Trace has a single lane for traffic exiting the subdivision. Millside Parkway has southbound and northbound left-turn lanes and right-turn lanes for traffic entering the two subdivisions. The southbound left-turn lane has approximately 165 feet of storage with a taper of approximately 80 feet. The southbound right-turn lane has approximately 200 feet of storage with a taper of approximately 100 feet. The northbound left-turn lane has approximately 185 feet of storage with a taper of approximately 75 feet. The northbound right-turn lane has approximately 185 feet of storage with a taper of approximately 80 feet.

Intersection #4: Old Oakwood Road and Millside Parkway / Tumbling Creek Road

This is a signalized intersection that has a cycle length of 104 seconds. The eastbound, westbound, and southbound approaches each have one left-turn lane, one through lane, and one right-turn lane. The northbound approach has a left-turn lane, a through lane, and a shared through/right lane since Millside Parkway has two receiving lanes. The left-turns are permissive with flashing yellow arrow signals. There are pedestrian crossings available at all four corners of the intersection, but there are only sidewalks on both sides of Tumbling Creek Road and the south side of Millside Parkway. The approximate turn lane dimensions are as follows:

- Southbound: Left – 135' storage & 75' taper
- Northbound: Left – 100' storage & 50' taper / Right – 150' storage & 100' taper
- Eastbound: Left – 250' storage & 50' taper / Right – 260' storage & 135' taper
- Westbound: Left – 230' storage & 50' taper / Right – 150' storage & 85' taper

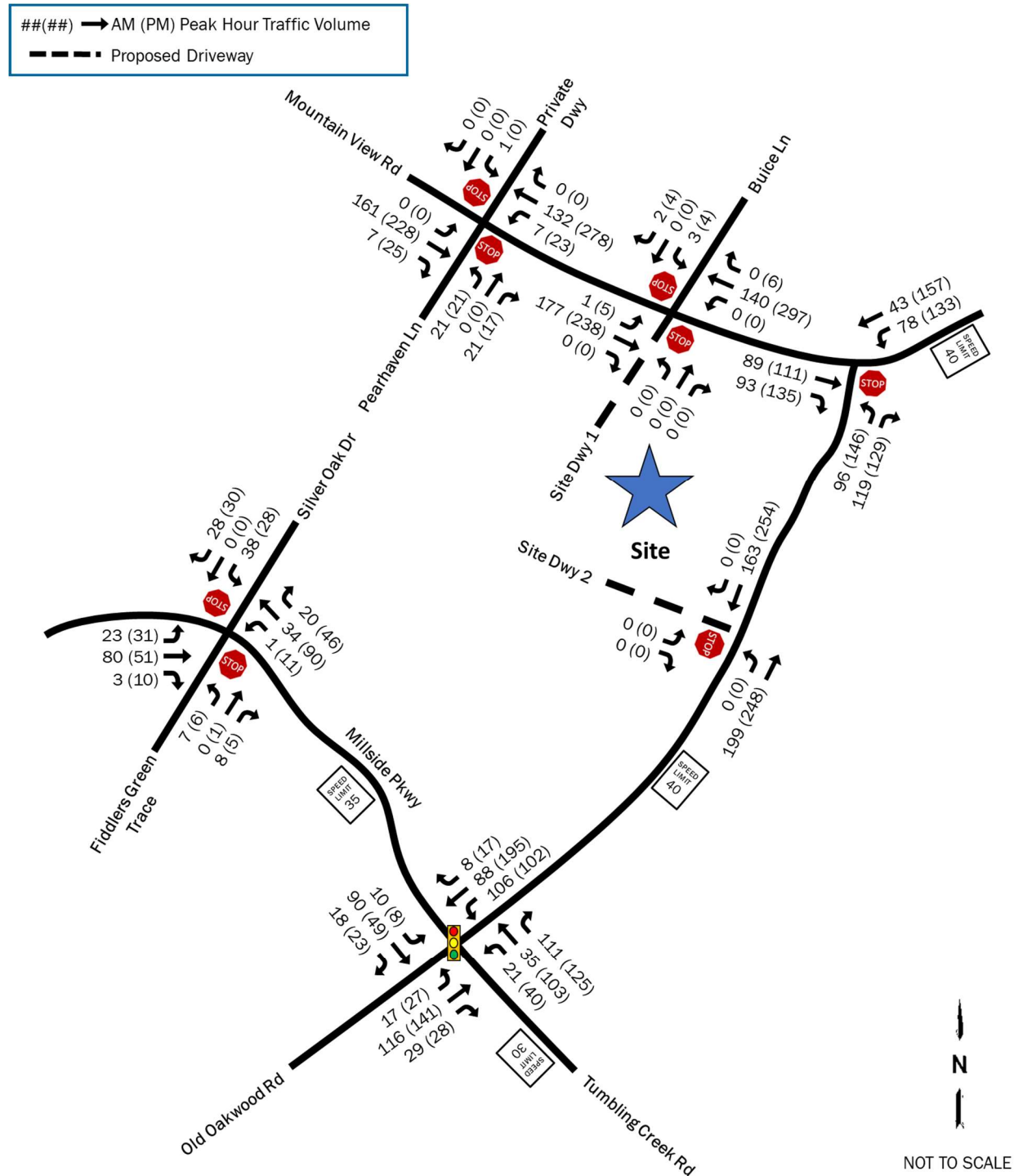
Intersection #5: Mountain View Road and Buice Lane

This is an unsignalized intersection with the westbound approach of Buice Lane being stop-controlled. There are no turn lanes at the intersection.

B.3. Traffic Counts

Weekday AM and PM peak period turning movement counts were collected at the study intersections on Tuesday, June 21, 2022. Average daily traffic counts were also taken on Mountain View Road and Old Oakwood Road near the proposed site driveways. The counts were then adjusted to account for schools being out of session. The AM counts were adjusted by a factor of 1.10 and the PM counts were adjusted by a factor of 1.12 based on comparison of GDOT ATPSM data available for June 21, 2022 and May 3, 2022 for the nearby intersection of SR 53 and Old Oakwood Road. The counts are included in Appendix B and are shown in Figure 3, 2022 Existing Traffic Volumes.

Figure 3: 2022 Existing Traffic Volumes



C. Future Conditions

C.1. Background Growth

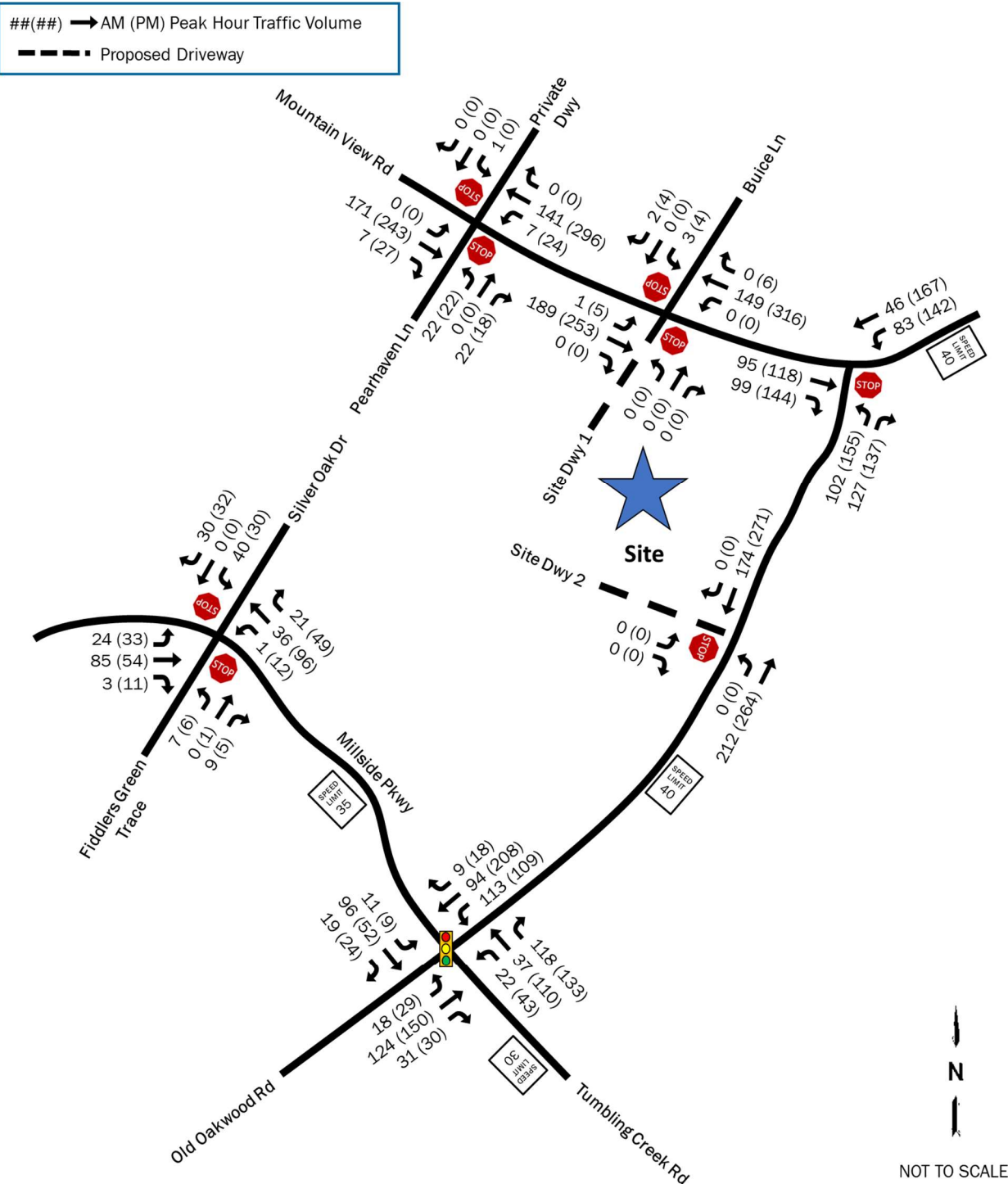
The growth rate in the study area is based upon an analysis of historical traffic counts collected by the Georgia Department of Transportation (GDOT). The project is expected to be built-out in 2024. To account for ambient growth and other future development in the area, the existing traffic counts for this study were grown by a conservative rate of 3.2% per year for two years. The expected volumes are depicted in Figure 4, 2024 No-Build Volumes. The growth rate development worksheet is included in Appendix B.

C.2. Concept Plan Analysis & Sight Distance

There are no pedestrian accommodations along the roadways adjacent to the project site. Since the proposed land use is industrial, it is not expected that many pedestrians will access the project site. The concept plan included in Appendix A show the proposed separation of personal vehicles and trucks, and it appears that on-site traffic will be able to move safely and efficiently.

The two proposed driveways appear to have adequate sight distance. The proposed driveway along Mountain View Road will be across from Buice Lane, which is approximately 340 feet southeast of Buice Circle and 470 southeast of Pearhaven Lane. The intersection is also approximately 375 feet northwest of a driveway for a Family Dollar Store. There are several private driveways for single-family residences along Mountain View Road that are not expected to interfere with the traffic at the proposed driveway. The proposed driveway along Old Oakwood Road will be approximately 1,350 feet southwest of Mountain View Road and approximately 1,900 feet northeast of Millside Parkway / Tumbling Creek Road.

Figure 4: 2024 No-Build Traffic Volumes



C.3. Project Trip Generation

Table 1 summarizes the project trip generation for the 252,000 square feet of warehousing calculated using the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021.

Table 1: Warehousing (LUC 150) Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Personal Vehicle Trips	Daily	292	146	146
	AM Peak Hour	49	39	10
	PM Peak Hour	49	12	37
Truck Trips	Daily	144	72	72
	AM Peak Hour	5	3	2
	PM Peak Hour	8	4	4
Total Trips (252,000 SF Warehouse)	Daily	436	218	218
	AM Peak Hour	54	42	12
	PM Peak Hour	57	16	41

The warehouse is expected to generate a total of 54 trips (42 entering and 12 exiting) during the AM peak hour, and a total of 57 trips (16 entering and 41 exiting) during the PM peak hour.

Trip generation data for the 1.6 acres of trailer storage were calculated from the average trip rate methodologies per parking space at three (3) similar trailer parking lot sites in the Savannah area. Traffic count data was collected at these locations on Wednesday, April 13th, 2022. Table 2 summarizes the project trip generation calculated for the approximately 1.6 acres of trailer storage. Data used to calculate average trip rates are provided in Appendix E.

Table 2: Trailor Parking Lot Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Personal Vehicle Trips	Daily	12	6	6
	AM Peak Hour	2	1	1
	PM Peak Hour	1	0	1
Truck Trips	Daily	48	24	24
	AM Peak Hour	5	3	2
	PM Peak Hour	3	1	2
Total Trips (1.6 Acres)	Daily	60	30	30
	AM Peak Hour	7	4	3
	PM Peak Hour	4	1	3

The additional trailer storage is expected to generate a total of 7 trips (4 entering and 3 exiting) during the AM peak hour, and a total of 4 trips (1 entering and 3 exiting) during the PM peak hour.

Table 3 summarizes the total trips for the site combining the projected trips for the warehouse and the additional trailer parking spaces.

Table 3: Total Project Trip Generation

LAND USE	PERIOD	TOTAL	IN	OUT
Personal Vehicle Trips	Daily	304	152	152
	AM Peak Hour	51	40	11
	PM Peak Hour	50	12	38
Truck Trips	Daily	192	96	96
	AM Peak Hour	10	6	4
	PM Peak Hour	11	5	6
Total Trips (252,000 SF Warehouse + 1.6 Acres Trailer Storage)	Daily	496	248	248
	AM Peak Hour	61	46	15
	PM Peak Hour	61	17	44

The development is expected to generate a total of 61 trips (46 entering and 15 exiting) during the AM peak hour, and a total of 61 trips (17 entering and 44 exiting) during the PM peak hour.

C.4. Trip Distribution and Assignment

The assignment and directional distribution of new project trips was based on the traffic patterns evidenced in the overall study area. It is expected that approximately 20% of the personal vehicles will travel to/from the west along Mountain View Road, approximately 30% will travel to/from the east along Mountain View Road, approximately 5% will travel to/from the southwest along Millside Parkway, approximately 15% will travel to/from the south along Old Oakwood Road, and approximately 30% will travel to/from the southeast along Tumbling Creek Road. It is expected that 100% of the trucks will travel to/from the southeast along Tumbling Creek Road towards Interstate 85. The trip distribution for the personal vehicles and trucks are shown in Figures 5 and 7, respectively. The separated project trips generated from the development utilizing the trip distributions are depicted in Figures 6 and 8. The total project trips generated from the development are depicted in Figure 9. The No-Build plus project trips (Build Volumes) are depicted in Figure 10.

Figure 5: Personal Vehicle Trip Distribution

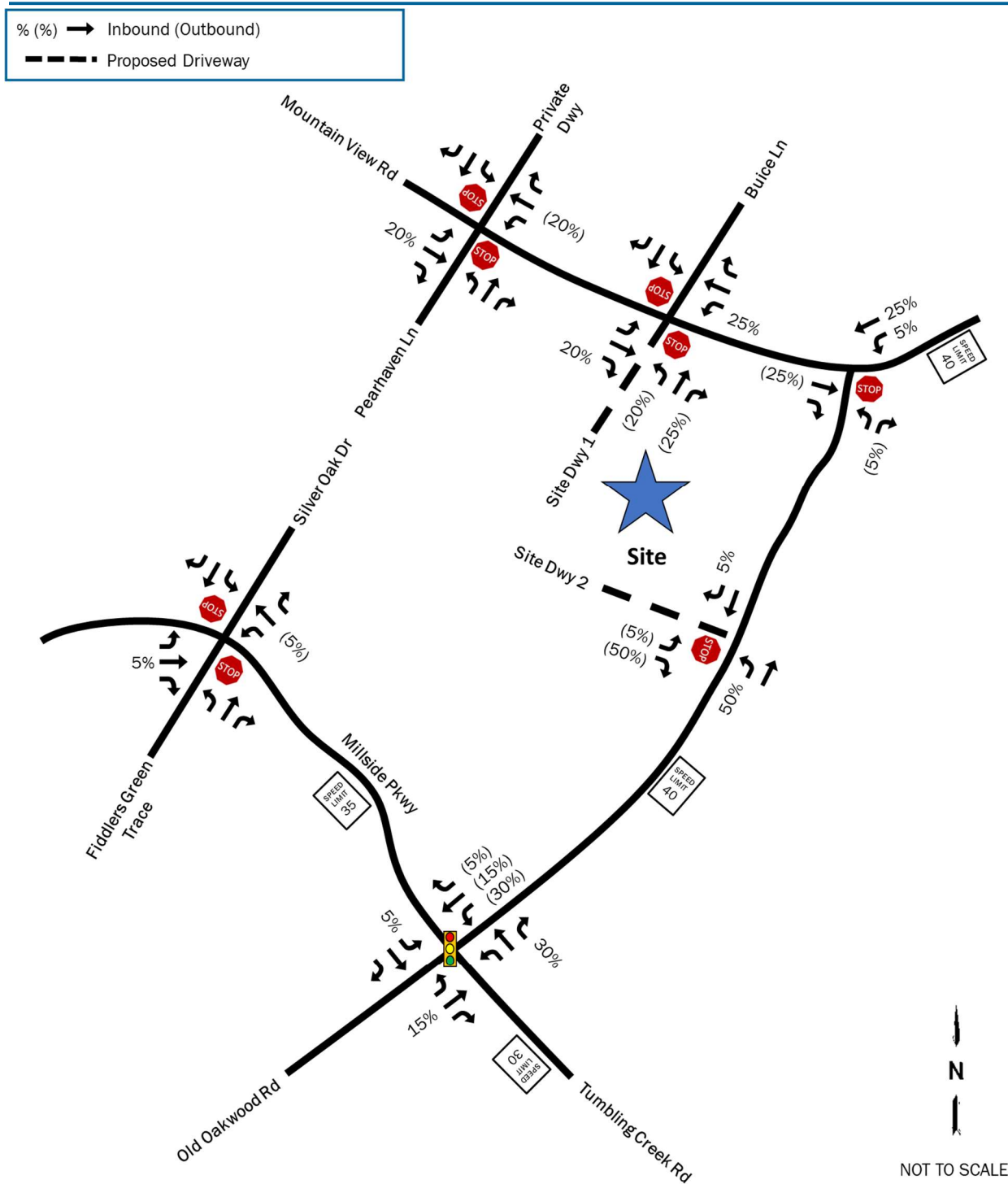


Figure 6: Personal Vehicle Development Trips

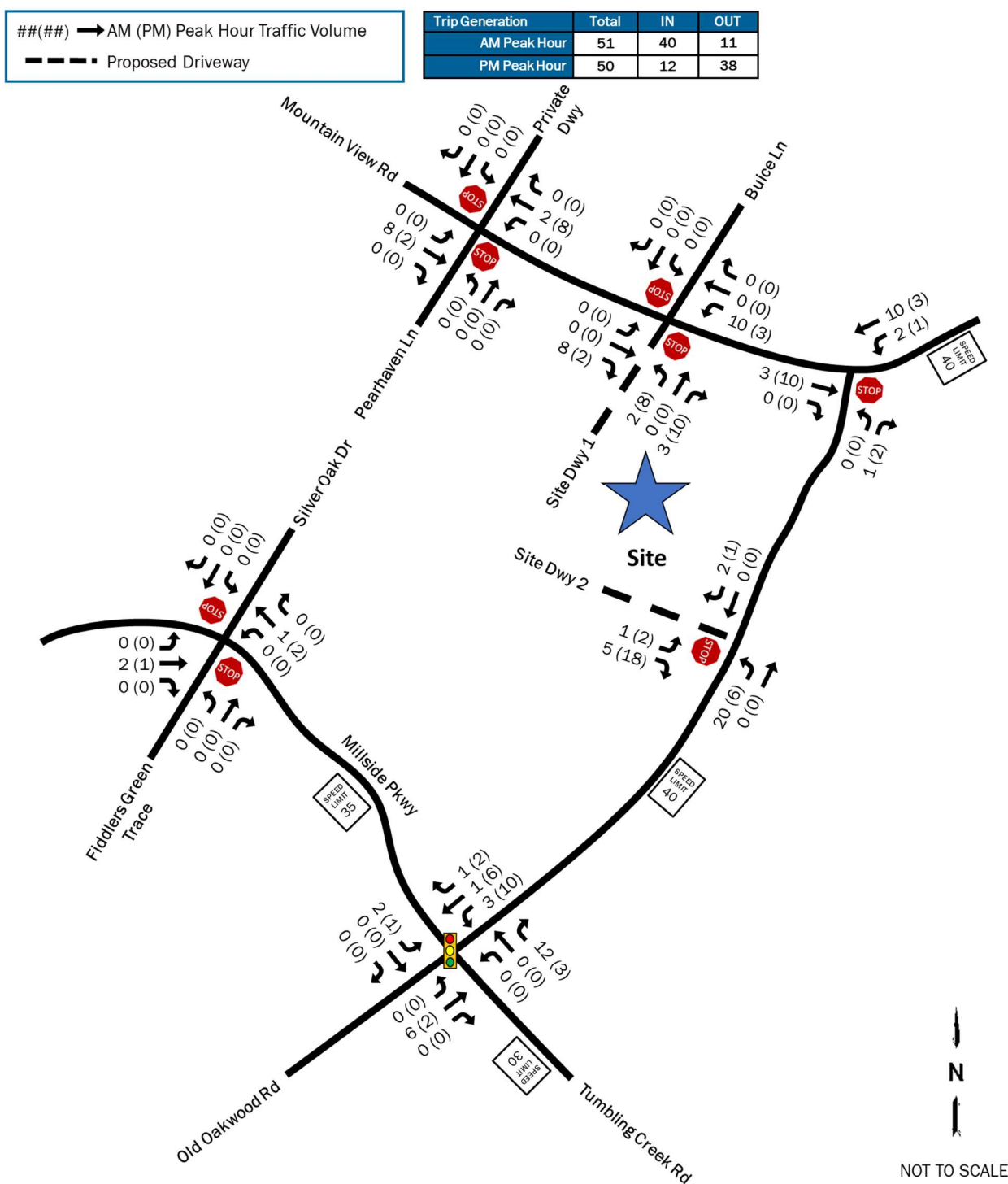


Figure 7: Truck Trip Distribution

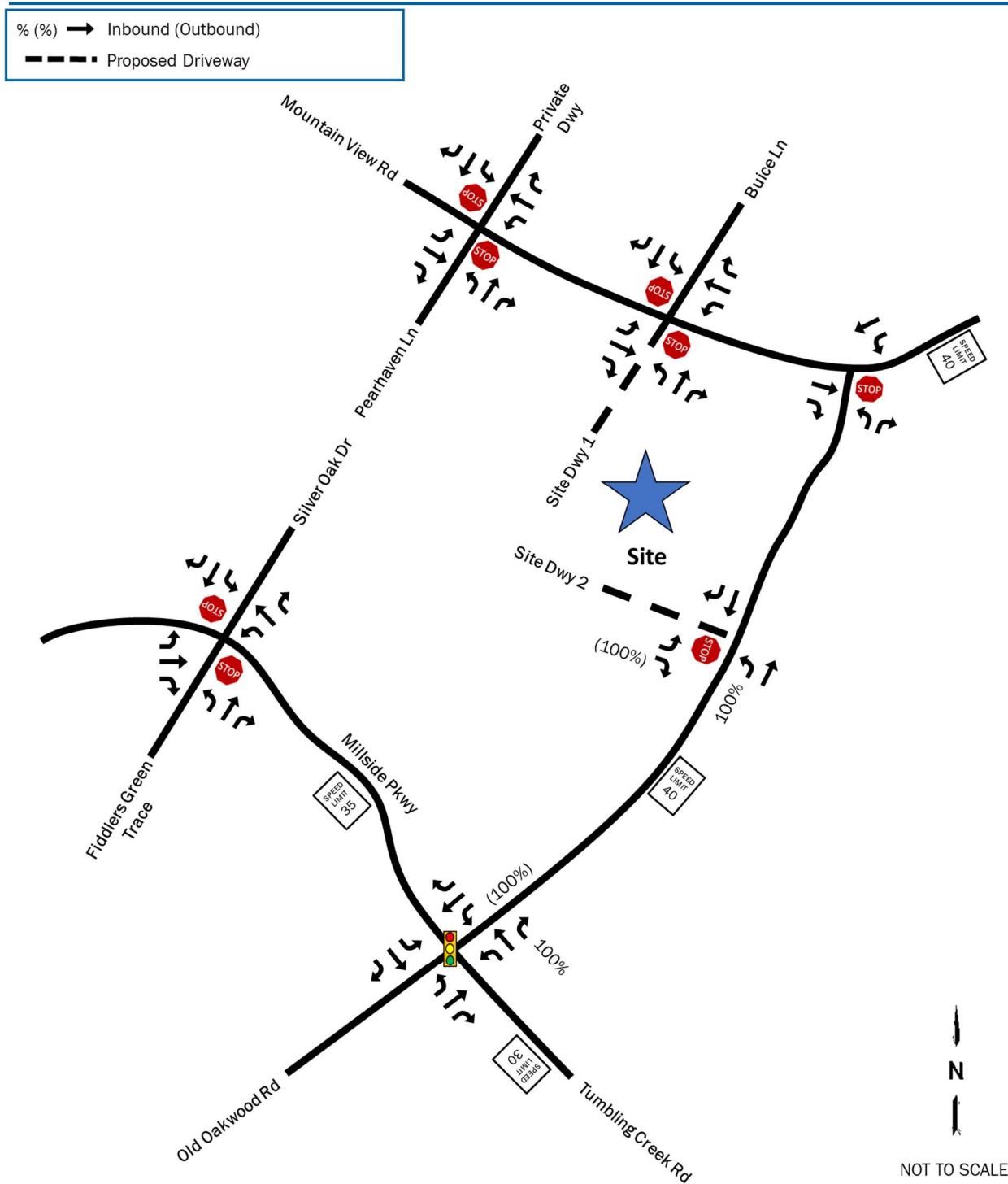


Figure 9: Total Project Development Trips

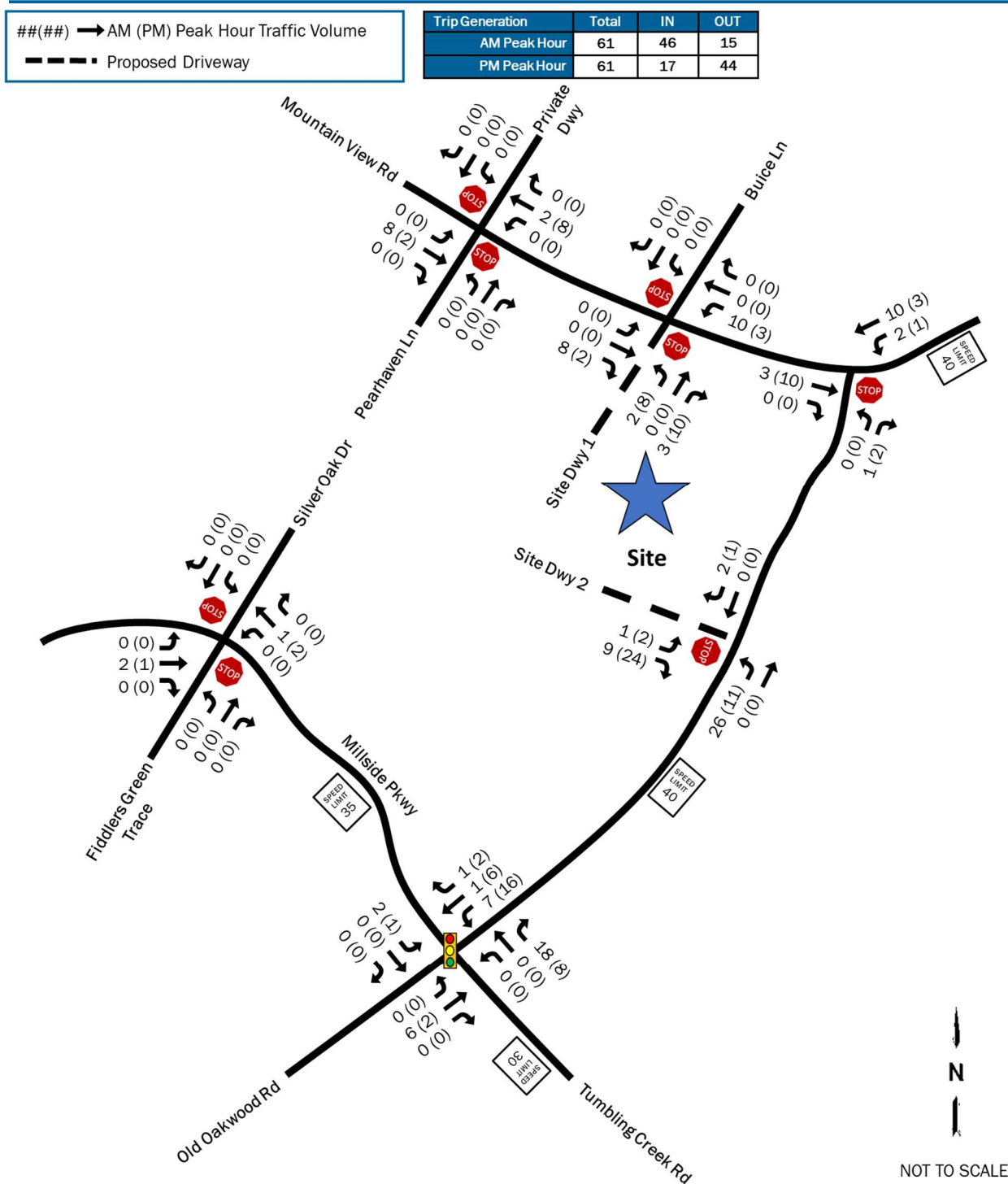
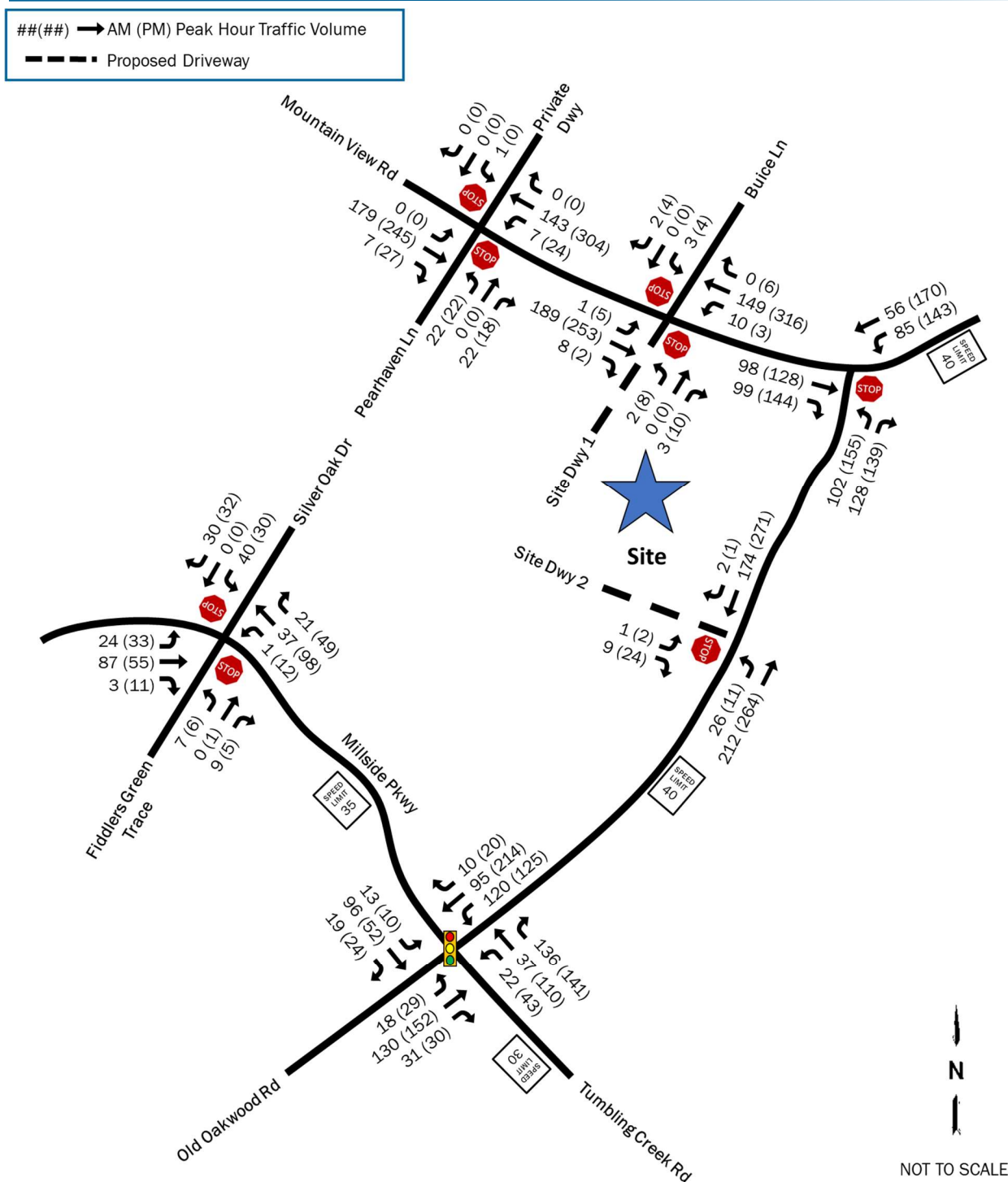


Figure 10: 2024 Build Traffic Volumes



D. Traffic Impact Analyses

The analysis in each of the scenarios for the study was performed using the traffic analysis software Synchro® 11. Average vehicular delays are calculated and reported as Levels of Service (LOS) as defined by the Highway Capacity Manual (HCM 6th Edition). HCM uses a grading system A through F, where A is the best (little to no delay), and F is the worst (very heavy delay). HCM Levels of Service (LOS) standards and Synchro® output reports are included in Appendix C.

D.1. 2022 Existing Conditions Analysis

The results of the 2022 existing conditions capacity analysis are shown in Table 2 and include analysis of the traffic volumes presented in Figure 3.

Table 4: 2022 Existing Conditions Capacity Analysis

ID	Intersection	Control	Movement	AM			PM		
				LOS	Delay	V/C	LOS	Delay	V/C
1	Mountain View Rd & Pearhaven Ln	Stop-Control	EB	B	10.4	0.07	B	12.5	0.08
			WB	B	11.2	0.00	-	-	-
			NBL	A	7.6	0.01	A	7.8	0.02
			SBL	-	-	-	-	-	-
2	Mountain View Rd & Old	Stop-Control	EB	B	11.9	0.30	C	20.9	0.57
			NBL	A	7.9	0.06	A	8.1	0.11
3	Millside Pkwy & Fiddlers Green Trace / Silver Oak Dr	Stop-Control	EB	A	9.4	0.02	A	9.8	0.02
			WB	A	9.3	0.06	A	9.8	0.06
			NBL	A	7.4	0.00	A	7.4	0.01
			SBL	A	7.5	0.02	A	7.7	0.03
4	Old Oakwood Rd & Millside Pkwy / Tumbling Creek Rd	Signal	Overall	A	9.4	0.23	A	9.6	0.27
			EB	A	7.6	0.19	A	8.2	0.24
			WB	A	8.3	0.19	A	8.9	0.33
			NB	B	11.3	0.35	B	11.3	0.38
			SB	B	10.9	0.23	B	10.5	0.13
5	Mountain View Rd & Buice Ln	Stop-Control	WB	B	10.0	0.01	B	11.4	0.02
			SBL	A	7.5	0.00	A	7.9	0.00

As shown in Table 2, the study intersections operate with acceptable Levels of Service during the AM and PM peak hours.

D.2. 2024 No-Build Conditions Capacity Analysis

The results of the 2024 No-Build conditions capacity analysis are shown in Table 3 for the operation of the study intersections with the traffic volumes presented in Figure 4.

Table 5: 2024 No-Build Capacity Analysis

ID	Intersection	Control	Movement	AM			PM		
				LOS	Delay	V/C	LOS	Delay	V/C
1	Mountain View Rd & Pearhaven Ln	Stop-Control	EB	B	10.6	0.07	B	12.9	0.09
			WB	B	11.4	0.00	-	-	-
			NBL	A	7.6	0.01	A	7.9	0.02
			SBL	-	-	-	-	-	-
2	Mountain View Rd & Old	Stop-Control	EB	B	12.4	0.33	C	24.6	0.64
			NBL	A	7.9	0.07	A	8.2	0.12
3	Millside Pkwy & Fiddlers Green Trace / Silver Oak Dr	Stop-Control	EB	A	9.5	0.03	A	9.9	0.02
			WB	A	9.4	0.07	A	9.9	0.06
			NBL	A	7.4	0.00	A	7.4	0.01
			SBL	A	7.5	0.02	A	7.7	0.03
4	Old Oakwood Rd & Millside Pkwy / Tumbling Creek Rd	Signal	Overall	A	9.5	0.25	A	9.7	0.29
			EB	A	7.7	0.20	A	8.3	0.26
			WB	A	8.5	0.21	A	9.1	0.35
			NB	B	11.4	0.37	B	11.4	0.40
			SB	B	10.9	0.24	B	10.6	0.13
5	Mountain View Rd & Buice Ln	Stop-Control	WB	B	10.1	0.01	B	11.7	0.02
			SBL	A	7.5	0.00	A	8.0	0.00

As shown in Table 3, traffic operations at the study intersections are expected to experience a nominal increase in delay due to the applied growth rate. The delays at the intersections increase slightly, however, the overall Levels of Service (LOS) remain acceptable.

D.3. 2024 Build Conditions Capacity Analysis

The results of the 2024 Build conditions intersection capacity analysis are shown in Table 4 for No-Build plus project volumes as presented in Figure 10.

Table 6: 2024 Build Capacity Analysis

ID	Intersection	Control	Movement	AM			PM		
				LOS	Delay	V/C	LOS	Delay	V/C
1	Mountain View Rd & Pearhaven Ln	Stop-Control	EB	B	10.7	0.07	B	13.0	0.09
			WB	B	11.6	0.00	-	-	-
			NBL	A	7.6	0.01	A	7.9	0.02
			SBL	-	-	-	-	-	-
2	Mountain View Rd & Old Oakwood Rd	Stop-Control	EB	B	12.6	0.34	D	25.7	0.65
			NBL	A	7.9	0.07	A	8.2	0.12
3	Millside Pkwy & Fiddlers Green Trace / Silver Oak Dr	Stop-Control	EB	A	9.5	0.03	A	9.9	0.02
			WB	A	9.5	0.07	A	9.9	0.06
			NBL	A	7.4	0.00	A	7.4	0.01
			SBL	A	7.5	0.02	A	7.7	0.03
4	Old Oakwood Rd & Millside Pkwy / Tumbling Creek Rd	Signal	Overall	A	9.6	0.27	A	9.8	0.30
			EB	A	7.8	0.21	A	8.3	0.26
			WB	A	8.6	0.22	A	9.2	0.36
			NB	B	11.6	0.42	B	11.5	0.42
			SB	B	11.0	0.24	B	10.6	0.13
5	Mountain View Rd & Buice Ln / Site Dwy 1	Stop-Control	EB	B	10.3	0.01	B	12.0	0.04
			WB	B	10.6	0.01	B	12.4	0.02
			NBL	A	7.7	0.01	A	7.8	0.00
			SBL	A	7.5	0.00	A	8.0	0.00
6	Old Oakwood Rd & Site Dwy 2	Stop-Control	SB	A	9.5	0.01	B	10.3	0.04
			EBL	A	7.7	0.02	A	7.9	0.01

As shown in Table 4, the addition of project traffic to the study intersections is expected to have minimal impact on the operation of the study intersections. The delays increase slightly with the addition of the project trips; however, the overall Levels of Service (LOS) remain fairly consistent with the No-Build conditions. The addition of the full access driveways along Mountain View Road and Old Oakwood Road do not impact the functionality of traffic operations along the roadways.

E. Turn Lane Evaluations

The need for turn lanes was evaluated for the two proposed site driveways along Mountain View Road and Old Oakwood Road using methodologies from the Georgia Department of Transportation (GDOT) Access Manual. The results of the evaluation are summarized in Table 5. It is noted that neither Mountain View Road nor Old Oakwood Road is a state route.

Table 7: GDOT Turn Lane Evaluations

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
5	Mountain View Rd & Buice Ln / Site Dwy 1	EBR	30 RT/Day	150 RT/Day	NO
		WBL	38 LT/Day	250 LT/Day	NO
6	Old Oakwood Rd & Site Dwy 2	SBR	8 RT/Day	150 RT/Day	NO
		NBL	172 LT/Day	250 LT/Day	NO

The ADT data collected along Mountain View Road in June 2022 shows the average weekday traffic to be approximately 5,600 vehicles per day. To account for schools being out of session the weekday traffic was grown by a factor of 1.10 in the AM and 1.12 in the PM, resulting in the average weekday traffic to be approximately 6,230 vehicles per day. The speed limit on Mountain View Road is 40 miles per hour in the vicinity of the project site. The right-turning traffic into the site driveway along Mountain View Road (site driveway 1) is estimated to be 30 vehicles per day and the left-turning traffic into the driveway is estimated to be 38 vehicles per day.

The ADT data collected along Old Oakwood Road in June 2022 shows the average weekday traffic to be approximately 6,090 vehicles per day. To account for schools being out of session the weekday traffic was grown by a factor of 1.10 in the AM and 1.12 in the PM, resulting in the average weekday traffic to be approximately 6,770 vehicles per day. The speed limit on Old Oakwood is 40 miles per hour in the vicinity of the project site. The right-turning traffic into the site driveway along Old Oakwood Road (site driveway 2) is estimated to be 8 vehicles per day and the left-turning traffic into the driveway is estimated to be 172 vehicles per day.

Based on the analysis, turn lanes are not warranted at either site driveway.

F. Conclusions

A new industrial development is proposed for construction along Old Oakwood Road and Mountain View Road in the City of Gainesville, Hall County, Georgia. The proposed development will consist of 252,000 square feet of warehousing and approximately 1.6 acres of trailer storage. The development will utilize two (2) new full-access driveways, one along Mountain View Road and one along Old Oakwood Road. The driveway along Mountain View Road will form a 4-leg intersection opposite of Buice Lane. The development has a projected build-out date of 2024.

When complete, the development is expected to generate a total of 496 new daily trips, 61 trips during the AM peak hour (46 entering and 15 exiting), and 61 during the PM peak hour (17 entering and 44 exiting).

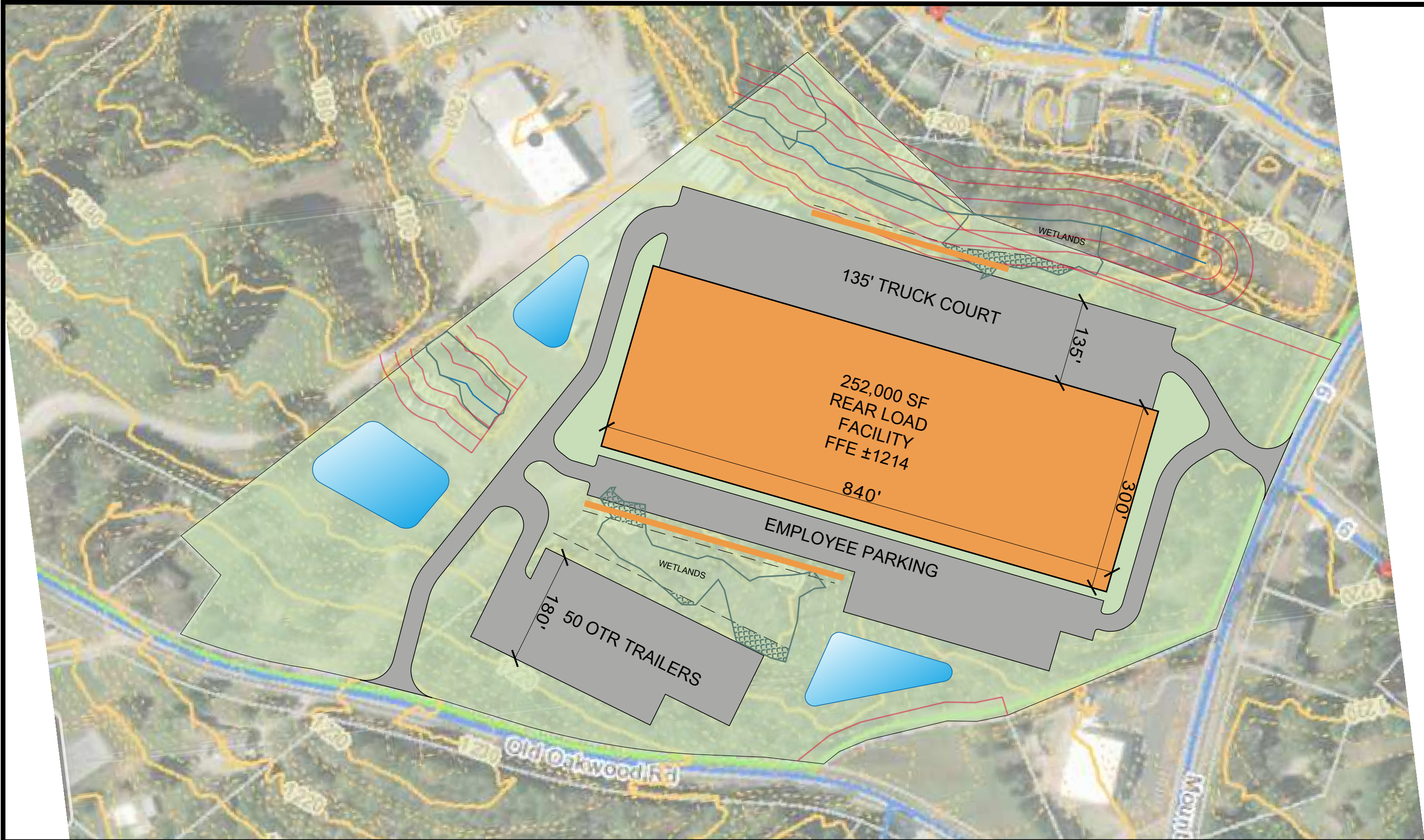
Overall traffic operations at the study intersections are satisfactory in the existing conditions. Traffic operations at the study intersections are expected to worsen slightly as evidenced in the No-Build conditions.

The addition of project traffic is expected to have minimal impact on the Levels of Service (LOS) and delays at the study intersections. The LOS at each intersection are expected to be fairly consistent with that observed in the No-Build conditions. The proposed driveways are expected to have minimal impact on traffic operations along Mountain View Road and Old Oakwood Road.

Turn lanes are not warranted at either driveway.

Based on the analysis prepared for the proposed development, improvements at the study intersections are not required to mitigate the impact of the proposed development.

APPENDIX A: DEVELOPMENT CONCEPT PLAN



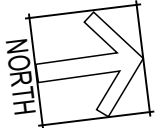
GRAPHIC SCALE



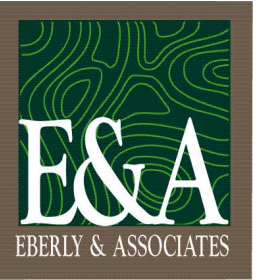
(IN FEET)
1 inch = 150 ft.

OLD OAKWOOD ROAD
OAKWOOD, GA

4/15/22



TEL 770.452.7849
2951 FLOWERS ROAD SOUTH, SUITE 119
ATLANTA, GEORGIA 30341
WWW.EBERLY.NET
▼
LAND PLANNING
▼
CIVIL ENGINEERING
▼
LANDSCAPE ARCHITECTURE



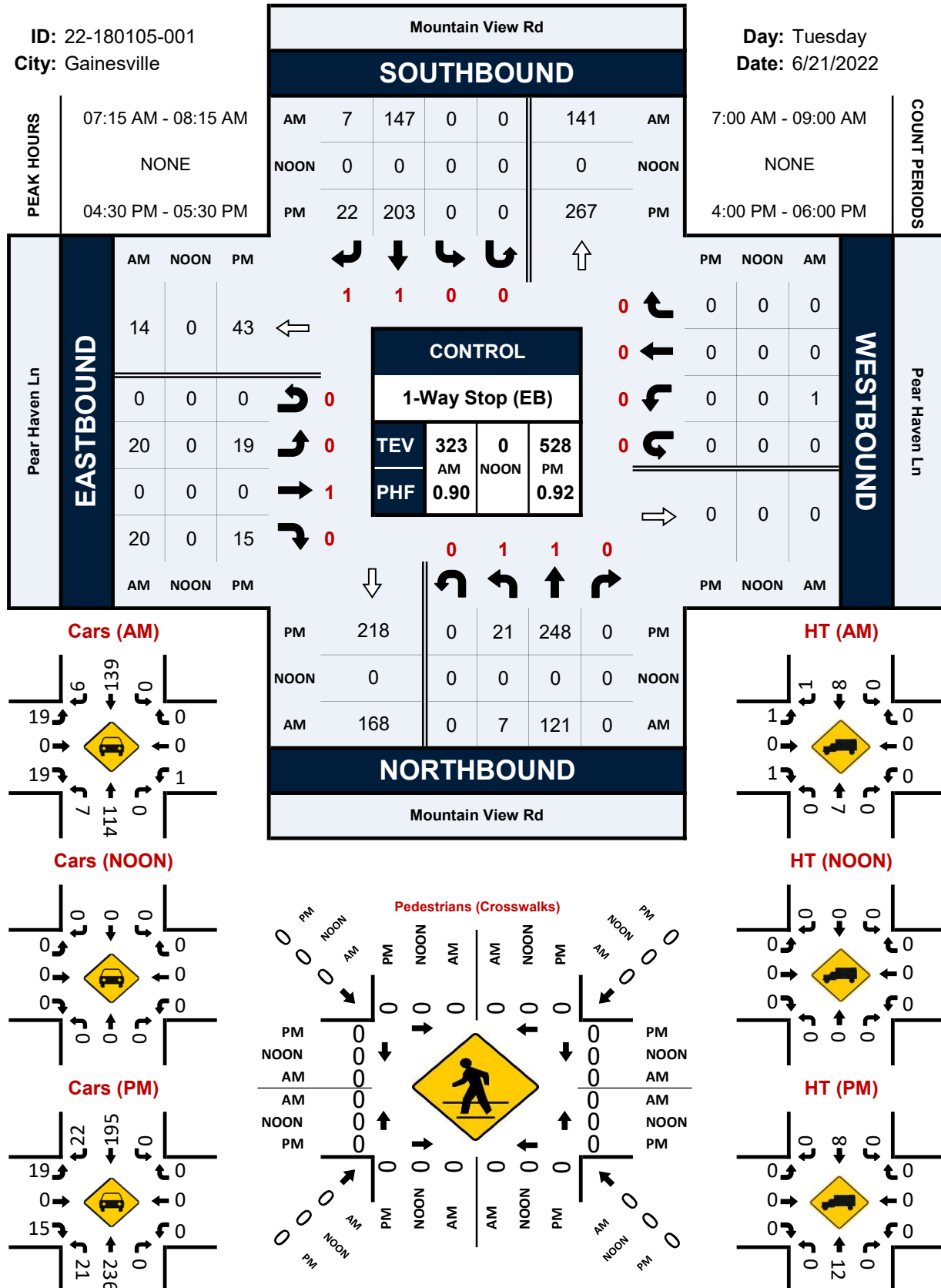
APPENDIX B:
TRAFFIC COUNTS
& GROWTH RATE
DEVELOPMENT WORKSHEET

Mountain View Rd & Pear Haven Ln

Peak Hour Turning Movement Count

ID: 22-180105-001
City: Gainesville

Day: Tuesday
Date: 6/21/2022

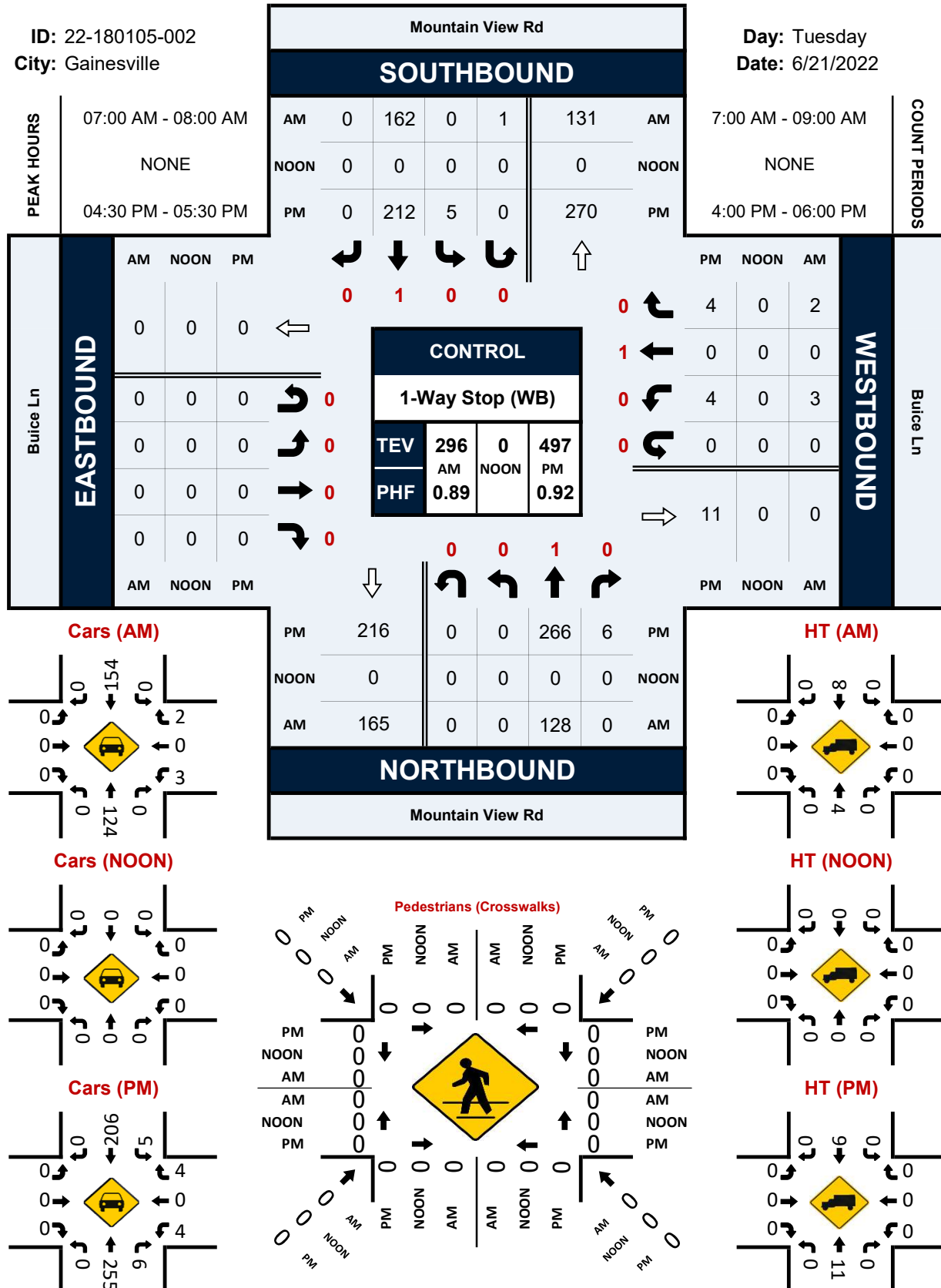


Mountain View Rd & Buice Ln

Peak Hour Turning Movement Count

ID: 22-180105-002
City: Gainesville

Day: Tuesday
Date: 6/21/2022

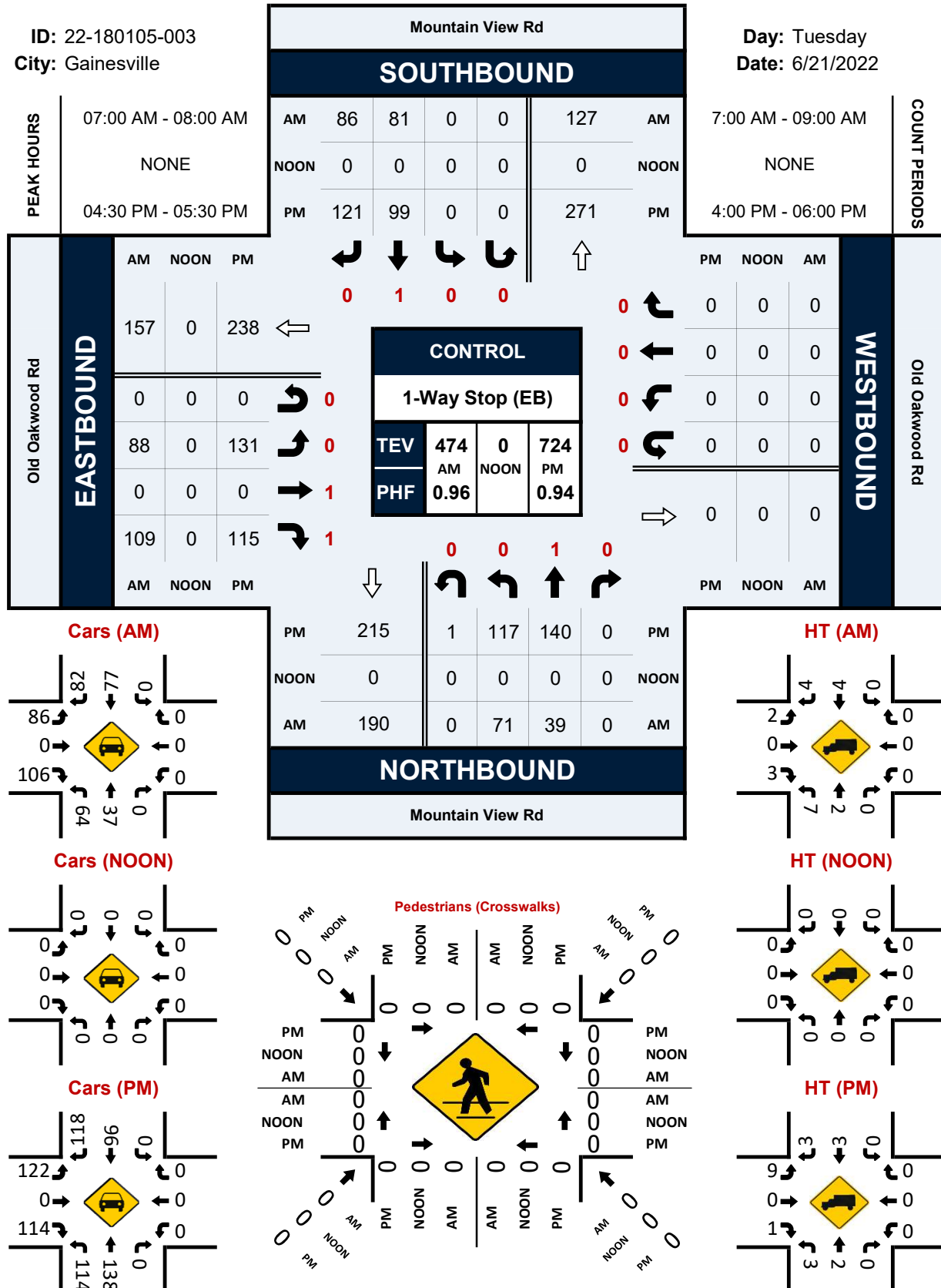


Mountain View Rd & Old Oakwood Rd

Peak Hour Turning Movement Count

ID: 22-180105-003
City: Gainesville

Day: Tuesday
Date: 6/21/2022

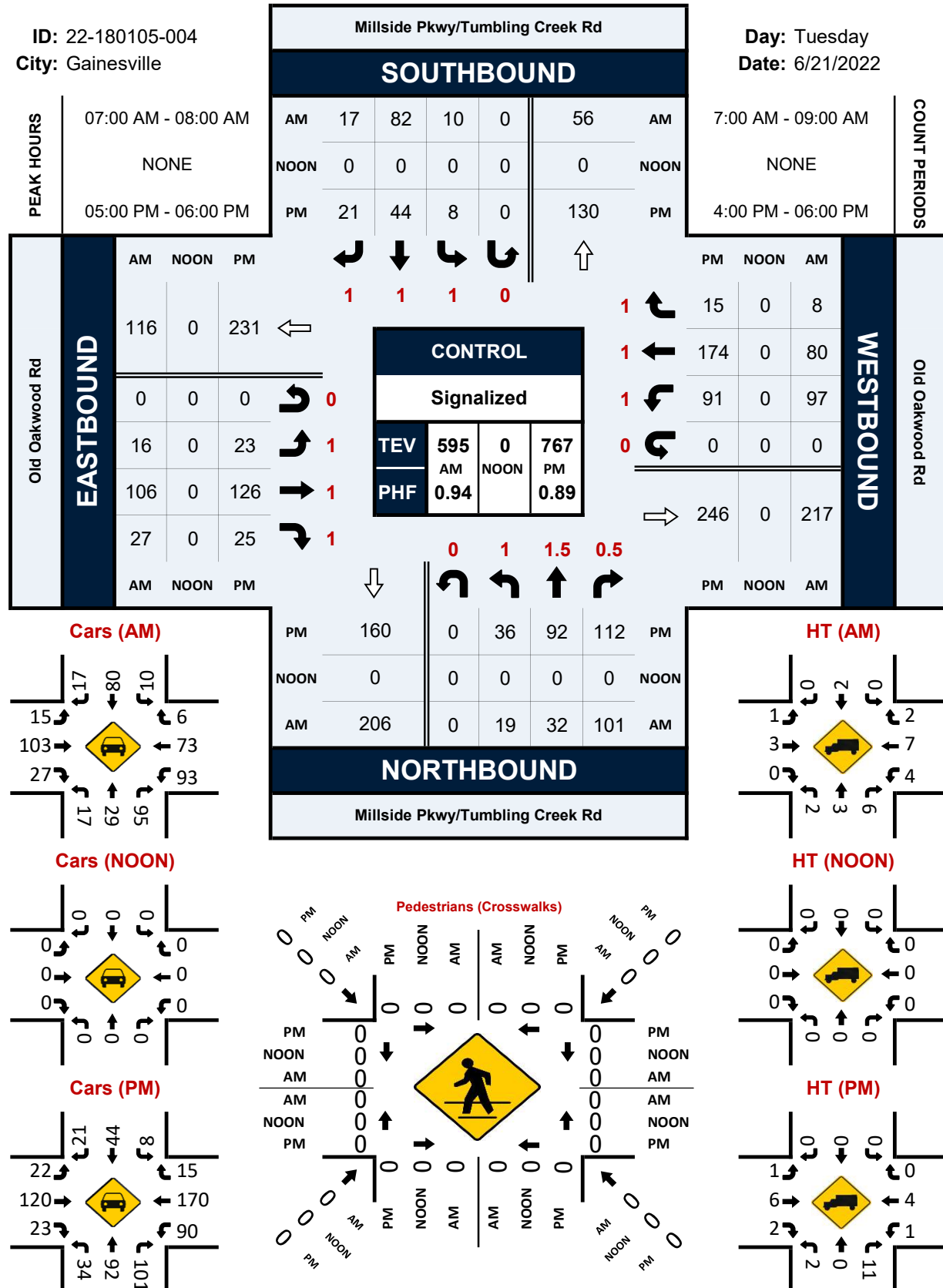


Millside Pkwy/Tumbling Creek Rd & Old Oakwood Rd

Peak Hour Turning Movement Count

ID: 22-180105-004
City: Gainesville

Day: Tuesday
Date: 6/21/2022

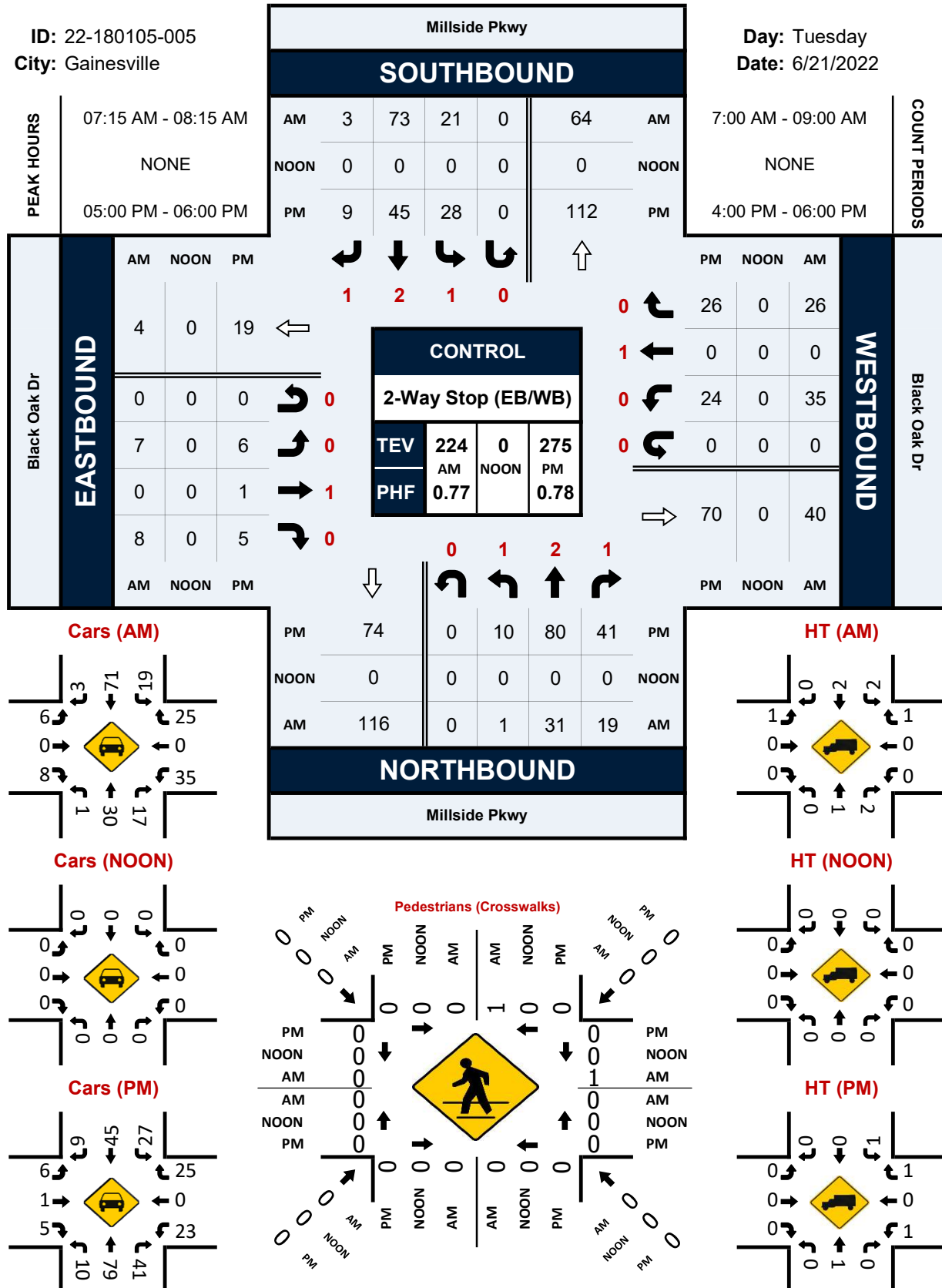


Millside Pkwy & Black Oak Dr

Peak Hour Turning Movement Count

ID: 22-180105-005
City: Gainesville

Day: Tuesday
Date: 6/21/2022



VOLUME
Mountain View Rd S/O Buice Ln

Day: Tuesday
Date: 6/21/2022

City: Gainesville
Project #: GA22_180106_001

DAILY TOTALS						NB	SB					Total
						2,720	2,883					5,603
								EB	WB			
								0	0			
AM Period	NB	SB	EB	WB	TOTAL	PM Period	NB	SB	EB	WB	TOTAL	
0:00	10	7	0	0	17	12:00	32	36	0	0	68	
0:15	3	7	0	0	10	12:15	27	27	0	0	54	
0:30	9	4	0	0	13	12:30	31	32	0	0	63	
0:45	8	30	6	24	14	12:45	28	118	45	140	73	258
1:00	7	5	0	0	12	13:00	33	37	0	0	70	
1:15	6	3	0	0	9	13:15	28	37	0	0	65	
1:30	8	4	0	0	12	13:30	19	36	0	0	55	
1:45	7	28	2	14	9	13:45	51	131	36	146	87	277
2:00	8	2	0	0	10	14:00	39	46	0	0	85	
2:15	14	7	0	0	21	14:15	28	34	0	0	62	
2:30	8	2	0	0	10	14:30	32	46	0	0	78	
2:45	6	36	2	13	8	14:45	44	143	39	165	83	308
3:00	6	4	0	0	10	15:00	41	50	0	0	91	
3:15	8	3	0	0	11	15:15	52	41	0	0	93	
3:30	8	3	0	0	11	15:30	59	50	0	0	109	
3:45	7	29	6	16	13	15:45	61	213	53	194	114	407
4:00	9	8	0	0	17	16:00	60	52	0	0	112	
4:15	5	17	0	0	22	16:15	53	45	0	0	98	
4:30	2	13	0	0	15	16:30	62	45	0	0	107	
4:45	7	23	23	61	30	16:45	68	243	61	203	129	446
5:00	13	23	0	0	36	17:00	61	63	0	0	124	
5:15	7	23	0	0	30	17:15	81	44	0	0	125	
5:30	13	37	0	0	50	17:30	53	44	0	0	97	
5:45	9	42	43	126	52	17:45	45	240	52	203	97	443
6:00	14	36	0	0	50	18:00	54	40	0	0	94	
6:15	27	39	0	0	66	18:15	62	59	0	0	121	
6:30	26	42	0	0	68	18:30	40	39	0	0	79	
6:45	26	93	35	152	61	18:45	42	198	45	183	87	381
7:00	32	34	0	0	66	19:00	50	40	0	0	90	
7:15	32	49	0	0	81	19:15	39	41	0	0	80	
7:30	33	37	0	0	70	19:30	60	35	0	0	95	
7:45	30	127	46	166	76	19:45	43	192	27	143	70	335
8:00	25	36	0	0	61	20:00	53	41	0	0	94	
8:15	30	38	0	0	68	20:15	45	37	0	0	82	
8:30	38	23	0	0	61	20:30	43	41	0	0	84	
8:45	34	127	33	130	67	20:45	25	166	32	151	57	317
9:00	21	32	0	0	53	21:00	23	29	0	0	52	
9:15	20	35	0	0	55	21:15	24	32	0	0	56	
9:30	15	46	0	0	61	21:30	29	42	0	0	71	
9:45	23	79	38	151	61	21:45	29	105	25	128	54	233
10:00	19	28	0	0	47	22:00	29	31	0	0	60	
10:15	29	29	0	0	58	22:15	23	25	0	0	48	
10:30	25	34	0	0	59	22:30	15	15	0	0	30	
10:45	20	93	25	116	45	22:45	19	86	19	90	38	176
11:00	32	28	0	0	60	23:00	19	13	0	0	32	
11:15	33	35	0	0	68	23:15	7	10	0	0	17	
11:30	36	27	0	0	63	23:30	15	10	0	0	25	
11:45	27	128	37	127	64	23:45	9	50	8	41	17	91
TOTALS	835	1096			1931	TOTALS	1885	1787			3672	
SPLIT %	43.2%	56.8%			34.5%	SPLIT %	51.3%	48.7%			65.5%	

DAILY TOTALS						NB	SB					Total
						2,720	2,883					5,603
								EB	WB			
								0	0			
AM Peak Hour	11:00	7:15			7:00	PM Peak Hour	16:30	16:15			16:30	
AM Pk Volume	128	168			293	PM Pk Volume	272	214			485	
Pk Hr Factor	0.889	0.857			0.904	Pk Hr Factor	0.840	0.849			0.940	
7 - 9 Volume	254	296	0	0	550	4 - 6 Volume	483	406	0	0	889	
7 - 9 Peak Hour	7:00	7:15			7:00	4 - 6 Peak Hour	16:30	16:15			16:30	
7 - 9 Pk Volume	127	168	0	0	293	4 - 6 Pk Volume	272	214	0	0	485	
Pk Hr Factor	0.962	0.857	0.000	0.000	0.904	Pk Hr Factor	0.840	0.849	0.000	0.000	0.940	

VOLUME

Old Oakwood Rd W/O Mountain View Rd

Day: Tuesday
Date: 6/21/2022

City: Gainesville
Project #: GA22_180106_002

DAILY TOTALS					NB	SB						EB	WB	Total
					0	0						3,141	2,952	6,093
AM Period	NB	SB	EB	WB	TOTAL		PM Period	NB	SB	EB	WB	TOTAL		
0:00	0	0	7	8	15		12:00	0	0	42	44	86		
0:15	0	0	5	11	16		12:15	0	0	41	48	89		
0:30	0	0	7	2	9		12:30	0	0	36	38	74		
0:45	0	0	1	20	3	24	12:45	0	0	29	148	54	184	83 332
1:00	0	0	8	5	13		13:00	0	0	43	42	85		
1:15	0	0	6	2	8		13:15	0	0	28	29	57		
1:30	0	0	4	6	10		13:30	0	0	41	36	77		
1:45	0	0	6	24	2	15	13:45	0	0	51	163	45	152	96 315
2:00	0	0	6	5	11		14:00	0	0	35	45	80		
2:15	0	0	17	7	24		14:15	0	0	39	39	78		
2:30	0	0	11	2	13		14:30	0	0	48	50	98		
2:45	0	0	3	37	6	20	14:45	0	0	51	173	41	175	92 348
3:00	0	0	9	4	13		15:00	0	0	48	56	104		
3:15	0	0	6	3	9		15:15	0	0	54	39	93		
3:30	0	0	19	4	23		15:30	0	0	87	53	140		
3:45	0	0	6	40	4	15	15:45	0	0	56	245	61	209	117 454
4:00	0	0	16	10	26		16:00	0	0	52	58	110		
4:15	0	0	4	15	19		16:15	0	0	63	44	107		
4:30	0	0	7	11	18		16:30	0	0	49	56	105		
4:45	0	0	10	37	22	58	16:45	0	0	54	218	57	215	111 433
5:00	0	0	20	20	40		17:00	0	0	66	63	129		
5:15	0	0	16	26	42		17:15	0	0	63	64	127		
5:30	0	0	25	24	49		17:30	0	0	70	56	126		
5:45	0	0	23	84	29	99	17:45	0	0	49	248	71	254	120 502
6:00	0	0	23	39	62		18:00	0	0	57	43	100		
6:15	0	0	47	30	77		18:15	0	0	47	45	92		
6:30	0	0	48	34	82		18:30	0	0	45	33	78		
6:45	0	0	47	165	26	129	18:45	0	0	52	201	59	180	111 381
7:00	0	0	52	39	91		19:00	0	0	46	70	116		
7:15	0	0	55	39	94		19:15	0	0	46	45	91		
7:30	0	0	42	45	87		19:30	0	0	45	42	87		
7:45	0	0	50	199	40	163	19:45	0	0	42	179	33	190	75 369
8:00	0	0	41	27	68		20:00	0	0	50	20	70		
8:15	0	0	42	36	78		20:15	0	0	30	25	55		
8:30	0	0	57	32	89		20:30	0	0	44	21	65		
8:45	0	0	33	173	34	129	20:45	0	0	18	142	23	89	41 231
9:00	0	0	38	28	66		21:00	0	0	26	23	49		
9:15	0	0	21	34	55		21:15	0	0	29	23	52		
9:30	0	0	25	48	73		21:30	0	0	16	27	43		
9:45	0	0	30	114	33	143	21:45	0	0	24	95	30	103	54 198
10:00	0	0	28	28	56		22:00	0	0	27	19	46		
10:15	0	0	39	32	71		22:15	0	0	17	28	45		
10:30	0	0	22	37	59		22:30	0	0	21	15	36		
10:45	0	0	34	123	31	128	22:45	0	0	21	86	19	81	40 167
11:00	0	0	49	36	85		23:00	0	0	27	14	41		
11:15	0	0	37	40	77		23:15	0	0	11	14	25		
11:30	0	0	41	37	78		23:30	0	0	14	13	27		
11:45	0	0	35	162	34	147	23:45	0	0	13	65	9	50	22 115
TOTALS	1178 1070				2248		TOTALS	1963 1882				3845		
SPLIT %	52.4% 47.6%				36.9%		SPLIT %	51.1% 48.9%				63.1%		

DAILY TOTALS					NB	SB						EB	WB	Total
					0	0						3,141	2,952	6,093
AM Peak Hour			6:30	11:45	7:00		PM Peak Hour			15:30	17:00	17:00		
AM Pk Volume			202	164	362		PM Pk Volume			258	254	502		
Pk Hr Factor			0.918	0.854	0.963		Pk Hr Factor			0.741	0.894	0.973		
7 - 9 Volume	0	0	372	292	664		4 - 6 Volume	0	0	466	469	935		
7 - 9 Peak Hour			7:00	7:00	7:00		4 - 6 Peak Hour			16:45	17:00	17:00		
7 - 9 Pk Volume	0	0	199	163	362		4 - 6 Pk Volume	0	0	253	254	502		
Pk Hr Factor	0.000	0.000	0.905	0.906	0.963		Pk Hr Factor	0.000	0.000	0.904	0.894	0.973		

Old Oakwood Road Industrial - Growth Rate Calculation Worksheet

Percentage Growth									
Roadway	County	Traffic Count Station	2017 Traffic Volumes	2018 Traffic Volumes	2019 Traffic Volumes	2020 Traffic Volumes	2022 Traffic Volumes by Linear Regress.	2024 Traffic Volumes by Linear Regress.	Annual Growth 2022 to 2024
Mountain View Rd	Hall	139-0503	4,820	4,780	4,820	5,410	5,591	5,953	3.2%
Weighted Average			4,820	4,780	4,820	5,410	5,591	5,953	3.2%

APPENDIX C:

SYNCHRO REPORTS

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	21	0	21	1	0	0	7	132	0	0	161	7
Future Vol, veh/h	21	0	21	1	0	0	7	132	0	0	161	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	92	90	92	92	92	90	90	92	92	90	90
Heavy Vehicles, %	5	2	5	2	2	2	0	6	2	2	5	14
Mvmt Flow	23	0	23	1	0	0	8	147	0	0	179	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	342	342	179	358	350	147	187	0	0	147	0	0
Stage 1	179	179	-	163	163	-	-	-	-	-	-	-
Stage 2	163	163	-	195	187	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.52	6.25	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.018	3.345	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	606	580	856	597	574	900	1399	-	-	1435	-	-
Stage 1	816	751	-	839	763	-	-	-	-	-	-	-
Stage 2	832	763	-	807	745	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	604	577	856	578	571	900	1399	-	-	1435	-	-
Mov Cap-2 Maneuver	604	577	-	578	571	-	-	-	-	-	-	-
Stage 1	811	751	-	834	758	-	-	-	-	-	-	-
Stage 2	827	758	-	785	745	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.4		11.2		0.4		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1399	-	-	708	578	1435	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.066	0.002	-	-	-				
HCM Control Delay (s)	7.6	-	-	10.4	11.2	0	-	-				
HCM Lane LOS	A	-	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-				

Intersection						
Int Delay, s/veh	6.1					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	96	119	78	43	89	93
Future Vol, veh/h	96	119	78	43	89	93
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	3	10	5	5	5
Mvmt Flow	100	124	81	45	93	97

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	349	142	190
Stage 1	142	-	-
Stage 2	207	-	-
Critical Hdwy	6.42	6.23	4.2
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.327	2.29
Pot Cap-1 Maneuver	648	903	1337
Stage 1	885	-	-
Stage 2	828	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	608	903	1337
Mov Cap-2 Maneuver	608	-	-
Stage 1	830	-	-
Stage 2	828	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	5.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1337	-	742	-	-
HCM Lane V/C Ratio	0.061	-	0.302	-	-
HCM Control Delay (s)	7.9	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.3	-	-

Intersection												
Int Delay, s/veh	3.8											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	7	0	8	38	0	28	1	34	20	23	80	3
Future Vol, veh/h	7	0	8	38	0	28	1	34	20	23	80	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	14	0	0	0	0	4	0	3	10	10	3	0
Mvmt Flow	9	0	10	49	0	36	1	44	26	30	104	4
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	188	236	52	158	214	22	108	0	0	70	0	0
Stage 1	164	164	-	46	46	-	-	-	-	-	-	-
Stage 2	24	72	-	112	168	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.9	7.5	6.5	6.98	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.3	3.5	4	3.34	2.2	-	-	2.3	-	-
Pot Cap-1 Maneuver	723	668	1011	798	687	1043	1495	-	-	1472	-	-
Stage 1	788	766	-	968	861	-	-	-	-	-	-	-
Stage 2	957	839	-	887	763	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	687	654	1011	777	673	1043	1495	-	-	1472	-	-
Mov Cap-2 Maneuver	687	654	-	777	673	-	-	-	-	-	-	-
Stage 1	787	751	-	967	860	-	-	-	-	-	-	-
Stage 2	923	838	-	860	748	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.4		9.3		0.1		1.6					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1495	-	-	829	777	1043	1472	-	-			
HCM Lane V/C Ratio	0.001	-	-	0.023	0.064	0.035	0.02	-	-			
HCM Control Delay (s)	7.4	-	-	9.4	9.9	8.6	7.5	-	-			
HCM Lane LOS	A	-	-	A	A	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	0.1	-	-			

HCM 6th Signalized Intersection Summary 4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS
Existing AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	17	116	29	106	88	8	21	35	111	10	90	18
Future Volume (veh/h)	17	116	29	106	88	8	21	35	111	10	90	18
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	1811	1856	1900	1841	1767	1530	1752	1767	1811	1900	1870	1900
Adj Flow Rate, veh/h	18	123	31	113	94	9	22	37	118	11	96	19
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	3	0	4	9	25	10	9	6	0	2	0
Cap, veh/h	617	664	576	594	632	464	433	377	336	413	420	361
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1250	1856	1610	1213	1767	1296	1196	1678	1497	1251	1870	1610
Grp Volume(v), veh/h	18	123	31	113	94	9	22	37	118	11	96	19
Grp Sat Flow(s),veh/h/ln	1250	1856	1610	1213	1767	1296	1196	1678	1497	1251	1870	1610
Q Serve(g_s), s	0.3	1.5	0.4	2.4	1.2	0.2	0.5	0.6	2.2	0.3	1.4	0.3
Cycle Q Clear(g_c), s	1.5	1.5	0.4	3.9	1.2	0.2	1.9	0.6	2.2	2.5	1.4	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	617	664	576	594	632	464	433	377	336	413	420	361
V/C Ratio(X)	0.03	0.19	0.05	0.19	0.15	0.02	0.05	0.10	0.35	0.03	0.23	0.05
Avail Cap(c_a), veh/h	2221	3044	2642	2150	2898	2127	1414	1752	1563	1438	1953	1681
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.8	7.4	7.0	8.7	7.3	7.0	11.4	10.3	10.9	12.0	10.6	10.2
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.3	0.2	0.0	0.0	0.1	0.6	0.0	0.3	0.1
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	0.1	0.4	0.1	0.4	0.3	0.0	0.1	0.2	0.6	0.1	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	7.9	7.7	7.1	9.1	7.5	7.0	11.5	10.4	11.6	12.0	10.9	10.3
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h	172			216			177			126		
Approach Delay, s/veh	7.6			8.3			11.3			10.9		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.4			19.1			14.4		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+I1), s	3.5			4.2			5.9			4.5		
Green Ext Time (p_c), s	1.8			1.0			2.1			0.6		
Intersection Summary												
HCM 6th Ctrl Delay	9.4											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	140	0	1	177
Future Vol, veh/h	3	2	140	0	1	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	3	0	0	5
Mvmt Flow	3	2	157	0	1	199

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	358	157	0	0	157
Stage 1	157	-	-	-	-
Stage 2	201	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1
Critical Hdwy Stg 1	5.4	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2
Pot Cap-1 Maneuver	644	894	-	-	1435
Stage 1	876	-	-	-	-
Stage 2	838	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	643	894	-	-	1435
Mov Cap-2 Maneuver	643	-	-	-	-
Stage 1	876	-	-	-	-
Stage 2	837	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	724	1435
HCM Lane V/C Ratio	-	-	0.008	0.001
HCM Control Delay (s)	-	-	10	7.5
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↖			↗	↖
Traffic Vol, veh/h	21	0	17	0	0	0	23	278	0	0	228	25
Future Vol, veh/h	21	0	17	0	0	0	23	278	0	0	228	25
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	2	2	2	0	5	2	2	4	0
Mvmt Flow	23	0	18	0	0	0	25	302	0	0	248	27

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	600	600	248	623	627	302	275	0	0	302	0	0
Stage 1	248	248	-	352	352	-	-	-	-	-	-	-
Stage 2	352	352	-	271	275	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	416	415	796	398	400	738	1300	-	-	1259	-	-
Stage 1	760	701	-	665	632	-	-	-	-	-	-	-
Stage 2	669	632	-	735	683	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	410	407	796	383	392	738	1300	-	-	1259	-	-
Mov Cap-2 Maneuver	410	407	-	383	392	-	-	-	-	-	-	-
Stage 1	746	701	-	652	620	-	-	-	-	-	-	-
Stage 2	656	620	-	718	683	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.5		0		0.6		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1300	-	-	524	-	1259	-
HCM Lane V/C Ratio	0.019	-	-	0.079	-	-	-
HCM Control Delay (s)	7.8	-	-	12.5	0	0	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0	-

Intersection						
Int Delay, s/veh	8.4					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	146	129	133	157	111	135
Future Vol, veh/h	146	129	133	157	111	135
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	1	3	1	3	2
Mvmt Flow	155	137	141	167	118	144

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	639	190	262
Stage 1	190	-	-
Stage 2	449	-	-
Critical Hdwy	6.47	6.21	4.13
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.309	2.227
Pot Cap-1 Maneuver	432	854	1296
Stage 1	830	-	-
Stage 2	633	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	380	854	1296
Mov Cap-2 Maneuver	380	-	-
Stage 1	730	-	-
Stage 2	633	-	-

Approach	EB	NB	SB
HCM Control Delay, s	20.9	3.7	0
HCM LOS	C		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1296	-	514	-	-
HCM Lane V/C Ratio	0.109	-	0.569	-	-
HCM Control Delay (s)	8.1	0	20.9	-	-
HCM Lane LOS	A	A	C	-	-
HCM 95th %tile Q(veh)	0.4	-	3.5	-	-

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	6	1	5	28	0	30	11	90	46	31	51	10
Future Vol, veh/h	6	1	5	28	0	30	11	90	46	31	51	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	4	0	4	0	1	0	4	0	0
Mvmt Flow	8	1	6	36	0	38	14	115	59	40	65	13

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	231	347	33	256	301	58	78	0	0	174	0	0
Stage 1	145	145	-	143	143	-	-	-	-	-	-	-
Stage 2	86	202	-	113	158	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.58	6.5	6.98	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.54	4	3.34	2.2	-	-	2.24	-	-
Pot Cap-1 Maneuver	710	580	1040	671	615	989	1533	-	-	1386	-	-
Stage 1	849	781	-	839	782	-	-	-	-	-	-	-
Stage 2	918	738	-	874	771	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	662	558	1040	647	592	989	1533	-	-	1386	-	-
Mov Cap-2 Maneuver	662	558	-	647	592	-	-	-	-	-	-	-
Stage 1	841	758	-	831	775	-	-	-	-	-	-	-
Stage 2	874	731	-	842	749	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB				
HCM Control Delay, s	9.8		9.8		0.6			2.6				
HCM LOS	A		A									

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	766 647 989	1386	-	-
HCM Lane V/C Ratio	0.009	-	-	0.02 0.055 0.039	0.029	-	-
HCM Control Delay (s)	7.4	-	-	9.8 10.9 8.8	7.7	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2 0.1	0.1	-	-

HCM 6th Signalized Intersection Summary 4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS
Existing PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	141	28	102	195	17	40	103	125	8	49	23
Future Volume (veh/h)	27	141	28	102	195	17	40	103	125	8	49	23
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	1841	1826	1781	1885	1870	1900	1811	1900	1752	1900	1900	1900
Adj Flow Rate, veh/h	30	158	31	115	219	19	45	116	140	9	55	26
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	5	8	1	2	0	6	0	10	0	0	0
Cap, veh/h	516	648	536	567	664	572	478	416	371	393	438	371
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1124	1826	1510	1204	1870	1610	1276	1805	1610	1141	1900	1610
Grp Volume(v), veh/h	30	158	31	115	219	19	45	116	140	9	55	26
Grp Sat Flow(s),veh/h/ln	1124	1826	1510	1204	1870	1610	1276	1805	1610	1141	1900	1610
Q Serve(g_s), s	0.7	2.1	0.5	2.5	2.9	0.3	1.0	1.8	2.5	0.2	0.8	0.4
Cycle Q Clear(g_c), s	3.6	2.1	0.5	4.6	2.9	0.3	1.8	1.8	2.5	2.7	0.8	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	516	648	536	567	664	572	478	416	371	393	438	371
V/C Ratio(X)	0.06	0.24	0.06	0.20	0.33	0.03	0.09	0.28	0.38	0.02	0.13	0.07
Avail Cap(c_a), veh/h	1946	2971	2457	2099	3044	2620	1505	1869	1668	1311	1968	1668
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.3	7.7	7.2	9.3	8.0	7.1	11.0	10.7	11.0	12.1	10.3	10.2
Incr Delay (d2), s/veh	0.1	0.4	0.1	0.4	0.6	0.1	0.1	0.4	0.6	0.0	0.1	0.1
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	0.1	0.5	0.1	0.5	0.8	0.1	0.2	0.6	0.7	0.0	0.2	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.4	8.1	7.3	9.7	8.6	7.2	11.1	11.0	11.6	12.1	10.4	10.2
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h	219			353			301			90		
Approach Delay, s/veh	8.2			8.9			11.3			10.5		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.7			19.1			14.7		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+l1), s	5.6			4.7			6.6			4.5		
Green Ext Time (p_c), s	2.4			0.4			3.8			1.8		
Intersection Summary												
HCM 6th Ctrl Delay	9.6											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.3					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	4	297	6	5	238
Future Vol, veh/h	4	4	297	6	5	238
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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, %	0	0	4	0	0	3
Mvmt Flow	4	4	323	7	5	259
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	596	327	0	0	330	0
Stage 1	327	-	-	-	-	-
Stage 2	269	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	470	719	-	-	1241	-
Stage 1	735	-	-	-	-	-
Stage 2	781	-	-	-	-	-
Platoon blocked, %			-	-	-	-
Mov Cap-1 Maneuver	468	719	-	-	1241	-
Mov Cap-2 Maneuver	468	-	-	-	-	-
Stage 1	735	-	-	-	-	-
Stage 2	777	-	-	-	-	-
Approach	WB	NB	SB			
HCM Control Delay, s	11.4	0	0.2			
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT		
Capacity (veh/h)	-	-	567	1241	-	
HCM Lane V/C Ratio	-	-	0.015	0.004	-	
HCM Control Delay (s)	-	-	11.4	7.9	0	
HCM Lane LOS	-	-	B	A	A	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↘			↗	↘
Traffic Vol, veh/h	22	0	22	1	0	0	7	141	0	0	171	7
Future Vol, veh/h	22	0	22	1	0	0	7	141	0	0	171	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	92	90	92	92	92	90	90	92	92	90	90
Heavy Vehicles, %	5	2	5	2	2	2	0	6	2	2	5	14
Mvmt Flow	24	0	24	1	0	0	8	157	0	0	190	8

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	363	363	190	379	371	157	198	0	0	157	0	0
Stage 1	190	190	-	173	173	-	-	-	-	-	-	-
Stage 2	173	173	-	206	198	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.52	6.25	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.018	3.345	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	587	565	844	579	559	889	1387	-	-	1423	-	-
Stage 1	805	743	-	829	756	-	-	-	-	-	-	-
Stage 2	822	756	-	796	737	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	585	562	844	560	556	889	1387	-	-	1423	-	-
Mov Cap-2 Maneuver	585	562	-	560	556	-	-	-	-	-	-	-
Stage 1	800	743	-	824	751	-	-	-	-	-	-	-
Stage 2	817	751	-	773	737	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.6		11.4		0.4		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1387	-	-	691 560	1423	-	-
HCM Lane V/C Ratio	0.006	-	-	0.071 0.002	-	-	-
HCM Control Delay (s)	7.6	-	-	10.6 11.4	0	-	-
HCM Lane LOS	A	-	-	B B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.2 0	0	-	-

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	127	83	46	95	99
Future Vol, veh/h	102	127	83	46	95	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	3	10	5	5	5
Mvmt Flow	106	132	86	48	99	103

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	371	151	202	0	-	0
Stage 1	151	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	6.42	6.23	4.2	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.327	2.29	-	-	-
Pot Cap-1 Maneuver	630	893	1323	-	-	-
Stage 1	877	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	588	893	1323	-	-	-
Mov Cap-2 Maneuver	588	-	-	-	-	-
Stage 1	818	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.4	5.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1323	-	725	-	-
HCM Lane V/C Ratio	0.065	-	0.329	-	-
HCM Control Delay (s)	7.9	0	12.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.4	-	-

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕	↕	↕	↕	↕	↕	↕	↕
Traffic Vol, veh/h	7	0	9	40	0	30	1	36	21	24	85	3
Future Vol, veh/h	7	0	9	40	0	30	1	36	21	24	85	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	14	0	0	0	0	4	0	3	10	10	3	0
Mvmt Flow	9	0	12	52	0	39	1	47	27	31	110	4

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	198	248	55	166	225	24	114	0	0	74	0	0
Stage 1	172	172	-	49	49	-	-	-	-	-	-	-
Stage 2	26	76	-	117	176	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.9	7.5	6.5	6.98	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.3	3.5	4	3.34	2.2	-	-	2.3	-	-
Pot Cap-1 Maneuver	711	658	1007	788	678	1040	1488	-	-	1467	-	-
Stage 1	779	760	-	964	858	-	-	-	-	-	-	-
Stage 2	954	836	-	881	757	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	673	644	1007	766	663	1040	1488	-	-	1467	-	-
Mov Cap-2 Maneuver	673	644	-	766	663	-	-	-	-	-	-	-
Stage 1	778	744	-	963	857	-	-	-	-	-	-	-
Stage 2	918	835	-	852	741	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.5		9.4		0.1		1.6	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1488	-	-	827 766 1040	1467	-	-
HCM Lane V/C Ratio	0.001	-	-	0.025 0.068 0.037	0.021	-	-
HCM Control Delay (s)	7.4	-	-	9.5 10 8.6	7.5	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2 0.1	0.1	-	-

HCM 6th Signalized Intersection Summary 4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS
No-Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	124	31	113	94	9	22	37	118	11	96	19
Future Volume (veh/h)	18	124	31	113	94	9	22	37	118	11	96	19
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	1811	1856	1900	1841	1767	1530	1752	1767	1811	1900	1870	1900
Adj Flow Rate, veh/h	19	132	33	120	100	10	23	39	126	12	102	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	3	0	4	9	25	10	9	6	0	2	0
Cap, veh/h	610	663	575	584	631	463	430	380	339	407	423	364
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1243	1856	1610	1201	1767	1296	1189	1678	1497	1240	1870	1610
Grp Volume(v), veh/h	19	132	33	120	100	10	23	39	126	12	102	20
Grp Sat Flow(s),veh/h/ln	1243	1856	1610	1201	1767	1296	1189	1678	1497	1240	1870	1610
Q Serve(g_s), s	0.4	1.7	0.5	2.6	1.3	0.2	0.5	0.6	2.4	0.3	1.5	0.3
Cycle Q Clear(g_c), s	1.7	1.7	0.5	4.2	1.3	0.2	2.0	0.6	2.4	2.7	1.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	610	663	575	584	631	463	430	380	339	407	423	364
V/C Ratio(X)	0.03	0.20	0.06	0.21	0.16	0.02	0.05	0.10	0.37	0.03	0.24	0.05
Avail Cap(c_a), veh/h	2200	3037	2635	2121	2891	2121	1399	1748	1559	1418	1948	1677
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	7.9	7.5	7.1	8.9	7.4	7.0	11.5	10.3	11.0	12.1	10.6	10.2
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.4	0.2	0.0	0.1	0.1	0.7	0.0	0.3	0.1
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	0.1	0.4	0.1	0.5	0.3	0.0	0.1	0.2	0.7	0.1	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	7.8	7.2	9.3	7.6	7.0	11.5	10.4	11.7	12.1	10.9	10.2
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h	184			230			188			134		
Approach Delay, s/veh	7.7			8.5			11.4			10.9		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.5			19.1			14.5		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+I1), s	3.7			4.4			6.2			4.7		
Green Ext Time (p_c), s	1.9			1.1			2.3			0.6		
Intersection Summary												
HCM 6th Ctrl Delay	9.5											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.1					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	149	0	1	189
Future Vol, veh/h	3	2	149	0	1	189
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	89	89	89	89	89	89
Heavy Vehicles, %	0	0	3	0	0	5
Mvmt Flow	3	2	167	0	1	212
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	381	167	0	0	167	0
Stage 1	167	-	-	-	-	-
Stage 2	214	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	625	882	-	-	1423	-
Stage 1	867	-	-	-	-	-
Stage 2	826	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	624	882	-	-	1423	-
Mov Cap-2 Maneuver	624	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	10.1	0		0		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 707		1423	-	
HCM Lane V/C Ratio	-	- 0.008		0.001	-	
HCM Control Delay (s)	-	- 10.1		7.5	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0		0	-	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕			↕	↕
Traffic Vol, veh/h	22	0	18	0	0	0	24	296	0	0	243	27
Future Vol, veh/h	22	0	18	0	0	0	24	296	0	0	243	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	2	2	2	0	5	2	2	4	0
Mvmt Flow	24	0	20	0	0	0	26	322	0	0	264	29

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	638	638	264	663	667	322	293	0	0	322	0	0
Stage 1	264	264	-	374	374	-	-	-	-	-	-	-
Stage 2	374	374	-	289	293	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	392	394	780	375	380	719	1280	-	-	1238	-	-
Stage 1	746	690	-	647	618	-	-	-	-	-	-	-
Stage 2	651	618	-	719	670	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	386	386	780	360	372	719	1280	-	-	1238	-	-
Mov Cap-2 Maneuver	386	386	-	360	372	-	-	-	-	-	-	-
Stage 1	731	690	-	634	606	-	-	-	-	-	-	-
Stage 2	638	606	-	701	670	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.9		0		0.6		0	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1280	-	-	500	-	-	-
HCM Lane V/C Ratio	0.02	-	-	0.087	-	-	-
HCM Control Delay (s)	7.9	-	-	12.9	0	0	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0	-

Intersection						
Int Delay, s/veh	9.7					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	155	137	142	167	118	144
Future Vol, veh/h	155	137	142	167	118	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	1	3	1	3	2
Mvmt Flow	165	146	151	178	126	153
Major/Minor	Minor2	Major1		Major2		
Conflicting Flow All	683	203	279	0	-	0
Stage 1	203	-	-	-	-	-
Stage 2	480	-	-	-	-	-
Critical Hdwy	6.47	6.21	4.13	-	-	-
Critical Hdwy Stg 1	5.47	-	-	-	-	-
Critical Hdwy Stg 2	5.47	-	-	-	-	-
Follow-up Hdwy	3.563	3.309	2.227	-	-	-
Pot Cap-1 Maneuver	407	840	1278	-	-	-
Stage 1	819	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	354	840	1278	-	-	-
Mov Cap-2 Maneuver	354	-	-	-	-	-
Stage 1	712	-	-	-	-	-
Stage 2	612	-	-	-	-	-
Approach	EB	NB		SB		
HCM Control Delay, s	24.6	3.8		0		
HCM LOS	C					
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR	
Capacity (veh/h)	1278	-	486	-	-	
HCM Lane V/C Ratio	0.118	-	0.639	-	-	
HCM Control Delay (s)	8.2	0	24.6	-	-	
HCM Lane LOS	A	A	C	-	-	
HCM 95th %tile Q(veh)	0.4	-	4.4	-	-	

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	6	1	5	30	0	32	12	96	49	33	54	11
Future Vol, veh/h	6	1	5	30	0	32	12	96	49	33	54	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	4	0	4	0	1	0	4	0	0
Mvmt Flow	8	1	6	38	0	41	15	123	63	42	69	14

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	245	369	35	272	320	62	83	0	0	186	0	0
Stage 1	153	153	-	153	153	-	-	-	-	-	-	-
Stage 2	92	216	-	119	167	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.58	6.5	6.98	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.54	4	3.34	2.2	-	-	2.24	-	-
Pot Cap-1 Maneuver	694	563	1037	654	600	984	1527	-	-	1371	-	-
Stage 1	840	775	-	828	775	-	-	-	-	-	-	-
Stage 2	911	728	-	867	764	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	645	540	1037	629	575	984	1527	-	-	1371	-	-
Mov Cap-2 Maneuver	645	540	-	629	575	-	-	-	-	-	-	-
Stage 1	832	751	-	820	767	-	-	-	-	-	-	-
Stage 2	864	721	-	834	740	-	-	-	-	-	-	-

Approach	EB		WB		NB			SB				
HCM Control Delay, s	9.9		9.9		0.6			2.6				
HCM LOS	A		A									

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1527	-	-	751 629 984	1371	-	-
HCM Lane V/C Ratio	0.01	-	-	0.02 0.061 0.042	0.031	-	-
HCM Control Delay (s)	7.4	-	-	9.9 11.1 8.8	7.7	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2 0.1	0.1	-	-

HCM 6th Signalized Intersection Summary

4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS
No-Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	150	30	109	208	18	43	110	133	9	52	24
Future Volume (veh/h)	29	150	30	109	208	18	43	110	133	9	52	24
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	1841	1826	1781	1885	1870	1900	1811	1900	1752	1900	1900	1900
Adj Flow Rate, veh/h	33	169	34	122	234	20	48	124	149	10	58	27
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	5	8	1	2	0	6	0	10	0	0	0
Cap, veh/h	503	647	535	556	663	571	476	418	373	385	440	373
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1108	1826	1510	1189	1870	1610	1271	1805	1610	1124	1900	1610
Grp Volume(v), veh/h	33	169	34	122	234	20	48	124	149	10	58	27
Grp Sat Flow(s),veh/h/ln	1108	1826	1510	1189	1870	1610	1271	1805	1610	1124	1900	1610
Q Serve(g_s), s	0.8	2.2	0.5	2.8	3.1	0.3	1.1	1.9	2.7	0.3	0.8	0.4
Cycle Q Clear(g_c), s	3.9	2.2	0.5	5.0	3.1	0.3	1.9	1.9	2.7	2.9	0.8	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	647	535	556	663	571	476	418	373	385	440	373
V/C Ratio(X)	0.07	0.26	0.06	0.22	0.35	0.04	0.10	0.30	0.40	0.03	0.13	0.07
Avail Cap(c_a), veh/h	1911	2968	2454	2066	3040	2617	1497	1867	1665	1287	1965	1665
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.5	7.8	7.2	9.5	8.1	7.1	11.0	10.7	11.0	12.2	10.3	10.2
Incr Delay (d2), s/veh	0.1	0.5	0.1	0.4	0.7	0.1	0.1	0.4	0.7	0.0	0.1	0.1
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	0.1	0.6	0.1	0.5	0.9	0.1	0.2	0.6	0.8	0.1	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.6	8.2	7.3	10.0	8.7	7.2	11.1	11.1	11.7	12.3	10.4	10.2
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h	236			376			321			95		
Approach Delay, s/veh	8.3			9.1			11.4			10.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.7			19.1			14.7		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+I1), s	5.9			4.9			7.0			4.7		
Green Ext Time (p_c), s	2.6			0.4			4.1			1.9		
Intersection Summary												
HCM 6th Ctrl Delay	9.7											
HCM 6th LOS	A											

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	4	316	6	5	253
Future Vol, veh/h	4	4	316	6	5	253
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
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, %	0	0	4	0	0	3
Mvmt Flow	4	4	343	7	5	275
Major/Minor	Minor1	Major1		Major2		
Conflicting Flow All	632	347	0	0	350	0
Stage 1	347	-	-	-	-	-
Stage 2	285	-	-	-	-	-
Critical Hdwy	6.4	6.2	-	-	4.1	-
Critical Hdwy Stg 1	5.4	-	-	-	-	-
Critical Hdwy Stg 2	5.4	-	-	-	-	-
Follow-up Hdwy	3.5	3.3	-	-	2.2	-
Pot Cap-1 Maneuver	448	701	-	-	1220	-
Stage 1	720	-	-	-	-	-
Stage 2	768	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	446	701	-	-	1220	-
Mov Cap-2 Maneuver	446	-	-	-	-	-
Stage 1	720	-	-	-	-	-
Stage 2	764	-	-	-	-	-
Approach	WB	NB		SB		
HCM Control Delay, s	11.7	0		0.2		
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBRWBLn1		SBL	SBT	
Capacity (veh/h)	-	- 545		1220	-	
HCM Lane V/C Ratio	-	- 0.016		0.004	-	
HCM Control Delay (s)	-	- 11.7		8	0	
HCM Lane LOS	-	- B		A	A	
HCM 95th %tile Q(veh)	-	- 0		0	-	

Intersection												
Int Delay, s/veh	1.4											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	22	1	0	0	7	143	0	0	179	7
Future Vol, veh/h	22	0	22	1	0	0	7	143	0	0	179	7
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	92	90	92	92	92	90	90	92	92	90	90
Heavy Vehicles, %	5	2	5	2	2	2	0	6	2	2	5	14
Mvmt Flow	24	0	24	1	0	0	8	159	0	0	199	8
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	374	374	199	390	382	159	207	0	0	159	0	0
Stage 1	199	199	-	175	175	-	-	-	-	-	-	-
Stage 2	175	175	-	215	207	-	-	-	-	-	-	-
Critical Hdwy	7.15	6.52	6.25	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.15	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.545	4.018	3.345	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	578	557	834	569	551	886	1376	-	-	1420	-	-
Stage 1	796	736	-	827	754	-	-	-	-	-	-	-
Stage 2	820	754	-	787	731	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	576	554	834	550	548	886	1376	-	-	1420	-	-
Mov Cap-2 Maneuver	576	554	-	550	548	-	-	-	-	-	-	-
Stage 1	791	736	-	822	749	-	-	-	-	-	-	-
Stage 2	815	749	-	764	731	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.7		11.6		0.4		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1376	-	-	681	550	1420	-	-				
HCM Lane V/C Ratio	0.006	-	-	0.072	0.002	-	-	-				
HCM Control Delay (s)	7.6	-	-	10.7	11.6	0	-	-				
HCM Lane LOS	A	-	-	B	B	A	-	-				
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-	-				

Intersection						
Int Delay, s/veh	6.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	102	128	85	56	98	99
Future Vol, veh/h	102	128	85	56	98	99
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	3	10	5	5	5
Mvmt Flow	106	133	89	58	102	103

Major/Minor	Minor2	Major1	Major2			
Conflicting Flow All	390	154	205	0	-	0
Stage 1	154	-	-	-	-	-
Stage 2	236	-	-	-	-	-
Critical Hdwy	6.42	6.23	4.2	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.327	2.29	-	-	-
Pot Cap-1 Maneuver	614	889	1320	-	-	-
Stage 1	874	-	-	-	-	-
Stage 2	803	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	571	889	1320	-	-	-
Mov Cap-2 Maneuver	571	-	-	-	-	-
Stage 1	813	-	-	-	-	-
Stage 2	803	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.6	4.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1320	-	713	-	-
HCM Lane V/C Ratio	0.067	-	0.336	-	-
HCM Control Delay (s)	7.9	0	12.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	1.5	-	-

Intersection												
Int Delay, s/veh	3.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔			↔	↔	↔	↔	↔	↔	↔	↔
Traffic Vol, veh/h	7	0	9	40	0	30	1	37	21	24	87	3
Future Vol, veh/h	7	0	9	40	0	30	1	37	21	24	87	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	14	0	0	0	0	4	0	3	10	10	3	0
Mvmt Flow	9	0	12	52	0	39	1	48	27	31	113	4

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	201	252	57	169	229	24	117	0	0	75	0	0
Stage 1	175	175	-	50	50	-	-	-	-	-	-	-
Stage 2	26	77	-	119	179	-	-	-	-	-	-	-
Critical Hdwy	7.78	6.5	6.9	7.5	6.5	6.98	4.1	-	-	4.3	-	-
Critical Hdwy Stg 1	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.78	5.5	-	6.5	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.64	4	3.3	3.5	4	3.34	2.2	-	-	2.3	-	-
Pot Cap-1 Maneuver	708	655	1004	784	674	1040	1484	-	-	1466	-	-
Stage 1	776	758	-	963	857	-	-	-	-	-	-	-
Stage 2	954	835	-	879	755	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	670	641	1004	762	659	1040	1484	-	-	1466	-	-
Mov Cap-2 Maneuver	670	641	-	762	659	-	-	-	-	-	-	-
Stage 1	775	742	-	962	856	-	-	-	-	-	-	-
Stage 2	918	834	-	850	739	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.5		9.5		0.1		1.6	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR
Capacity (veh/h)	1484	-	-	824 762 1040	1466	-	-
HCM Lane V/C Ratio	0.001	-	-	0.025 0.068 0.037	0.021	-	-
HCM Control Delay (s)	7.4	-	-	9.5 10.1 8.6	7.5	-	-
HCM Lane LOS	A	-	-	A B A	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.1 0.2 0.1	0.1	-	-

HCM 6th Signalized Intersection Summary

4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS

Build AM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	18	130	31	120	95	10	22	37	136	13	96	19
Future Volume (veh/h)	18	130	31	120	95	10	22	37	136	13	96	19
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	1811	1856	1900	1841	1767	1530	1752	1767	1811	1900	1870	1900
Adj Flow Rate, veh/h	19	138	33	128	101	11	23	39	145	14	102	20
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	6	3	0	4	9	25	10	9	6	0	2	0
Cap, veh/h	607	661	574	578	629	462	432	383	341	391	426	367
Arrive On Green	0.36	0.36	0.36	0.36	0.36	0.36	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1240	1856	1610	1195	1767	1296	1189	1678	1497	1219	1870	1610
Grp Volume(v), veh/h	19	138	33	128	101	11	23	39	145	14	102	20
Grp Sat Flow(s),veh/h/ln	1240	1856	1610	1195	1767	1296	1189	1678	1497	1219	1870	1610
Q Serve(g_s), s	0.4	1.7	0.5	2.8	1.3	0.2	0.5	0.6	2.8	0.3	1.5	0.3
Cycle Q Clear(g_c), s	1.7	1.7	0.5	4.6	1.3	0.2	2.0	0.6	2.8	3.1	1.5	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	607	661	574	578	629	462	432	383	341	391	426	367
V/C Ratio(X)	0.03	0.21	0.06	0.22	0.16	0.02	0.05	0.10	0.42	0.04	0.24	0.05
Avail Cap(c_a), veh/h	2191	3030	2630	2103	2885	2117	1396	1744	1556	1380	1944	1673
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.0	7.5	7.1	9.1	7.4	7.0	11.4	10.3	11.1	12.4	10.6	10.2
Incr Delay (d2), s/veh	0.0	0.3	0.1	0.4	0.3	0.0	0.1	0.1	0.8	0.0	0.3	0.1
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	0.1	0.5	0.1	0.5	0.3	0.0	0.1	0.2	0.8	0.1	0.5	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	8.0	7.9	7.2	9.5	7.7	7.1	11.5	10.4	12.0	12.5	10.9	10.2
LnGrp LOS	A	A	A	A	A	A	B	B	B	B	B	B
Approach Vol, veh/h	190				240				207			
Approach Delay, s/veh	7.8				8.6				11.6			
Approach LOS	A				A				B			
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.6			19.1			14.6		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+I1), s	3.7			4.8			6.6			5.1		
Green Ext Time (p_c), s	2.0			1.3			2.4			0.6		
Intersection Summary												
HCM 6th Ctrl Delay	9.6											
HCM 6th LOS	A											

Intersection												
Int Delay, s/veh	0.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	2	0	3	3	0	2	10	149	0	1	189	8
Future Vol, veh/h	2	0	3	3	0	2	10	149	0	1	189	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	0	0	0	2	0	0	3	0	0	5	0
Mvmt Flow	2	0	3	3	0	2	11	167	0	1	212	9
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	409	408	217	409	412	167	221	0	0	167	0	0
Stage 1	219	219	-	189	189	-	-	-	-	-	-	-
Stage 2	190	189	-	220	223	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.52	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.018	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	556	536	828	556	530	882	1360	-	-	1423	-	-
Stage 1	788	726	-	817	744	-	-	-	-	-	-	-
Stage 2	816	748	-	787	719	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	550	531	828	549	525	882	1360	-	-	1423	-	-
Mov Cap-2 Maneuver	550	531	-	549	525	-	-	-	-	-	-	-
Stage 1	781	725	-	810	737	-	-	-	-	-	-	-
Stage 2	807	741	-	783	718	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	10.3		10.6		0.5		0					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1360	-	-	689	647	1423	-	-				
HCM Lane V/C Ratio	0.008	-	-	0.008	0.009	0.001	-	-				
HCM Control Delay (s)	7.7	0	-	10.3	10.6	7.5	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-	-				

Intersection						
Int Delay, s/veh	0.7					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	26	212	174	2	1	9
Future Vol, veh/h	26	212	174	2	1	9
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	28	230	189	2	1	10
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	191	0	-	0	476	190
Stage 1	-	-	-	-	190	-
Stage 2	-	-	-	-	286	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1383	-	-	-	548	852
Stage 1	-	-	-	-	842	-
Stage 2	-	-	-	-	763	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1383	-	-	-	535	852
Mov Cap-2 Maneuver	-	-	-	-	535	-
Stage 1	-	-	-	-	823	-
Stage 2	-	-	-	-	763	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.8	0		9.5		
HCM LOS				A		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1383	-	-	-	804	
HCM Lane V/C Ratio	0.02	-	-	-	0.014	
HCM Control Delay (s)	7.7	0	-	-	9.5	
HCM Lane LOS	A	A	-	-	A	
HCM 95th %tile Q(veh)	0.1	-	-	-	0	

Intersection												
Int Delay, s/veh	1.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	22	0	18	0	0	0	24	304	0	0	245	27
Future Vol, veh/h	22	0	18	0	0	0	24	304	0	0	245	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	190	-	-	-	-	190
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	2	0	2	2	2	0	5	2	2	4	0
Mvmt Flow	24	0	20	0	0	0	26	330	0	0	266	29
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	648	648	266	673	677	330	295	0	0	330	0	0
Stage 1	266	266	-	382	382	-	-	-	-	-	-	-
Stage 2	382	382	-	291	295	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.52	6.2	7.12	6.52	6.22	4.1	-	-	4.12	-	-
Critical Hdwy Stg 1	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4.018	3.3	3.518	4.018	3.318	2.2	-	-	2.218	-	-
Pot Cap-1 Maneuver	386	389	778	369	375	712	1278	-	-	1229	-	-
Stage 1	744	689	-	640	613	-	-	-	-	-	-	-
Stage 2	645	613	-	717	669	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	380	381	778	354	368	712	1278	-	-	1229	-	-
Mov Cap-2 Maneuver	380	381	-	354	368	-	-	-	-	-	-	-
Stage 1	729	689	-	627	601	-	-	-	-	-	-	-
Stage 2	632	601	-	699	669	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	13		0		0.6		0					
HCM LOS	B		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1278	-	-	494	-	1229	-	-				
HCM Lane V/C Ratio	0.02	-	-	0.088	-	-	-	-				
HCM Control Delay (s)	7.9	-	-	13	0	0	-	-				
HCM Lane LOS	A	-	-	B	A	A	-	-				
HCM 95th %tile Q(veh)	0.1	-	-	0.3	-	0	-	-				

Intersection						
Int Delay, s/veh	9.9					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	155	139	143	170	128	144
Future Vol, veh/h	155	139	143	170	128	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	7	1	3	1	3	2
Mvmt Flow	165	148	152	181	136	153

Major/Minor	Minor2	Major1	Major2
Conflicting Flow All	698	213	289
Stage 1	213	-	-
Stage 2	485	-	-
Critical Hdwy	6.47	6.21	4.13
Critical Hdwy Stg 1	5.47	-	-
Critical Hdwy Stg 2	5.47	-	-
Follow-up Hdwy	3.563	3.309	2.227
Pot Cap-1 Maneuver	399	830	1267
Stage 1	811	-	-
Stage 2	609	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	346	830	1267
Mov Cap-2 Maneuver	346	-	-
Stage 1	703	-	-
Stage 2	609	-	-

Approach	EB	NB	SB
HCM Control Delay, s	25.7	3.8	0
HCM LOS	D		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1267	-	478	-	-
HCM Lane V/C Ratio	0.12	-	0.654	-	-
HCM Control Delay (s)	8.2	0	25.7	-	-
HCM Lane LOS	A	A	D	-	-
HCM 95th %tile Q(veh)	0.4	-	4.6	-	-

Intersection												
Int Delay, s/veh	3.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	6	1	5	30	0	32	12	98	49	33	55	11
Future Vol, veh/h	6	1	5	30	0	32	12	98	49	33	55	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	0	185	-	185	165	-	200
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	78	78	78	78	78	78	78	78	78	78	78	78
Heavy Vehicles, %	0	0	0	4	0	4	0	1	0	4	0	0
Mvmt Flow	8	1	6	38	0	41	15	126	63	42	71	14
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	248	374	36	276	325	63	85	0	0	189	0	0
Stage 1	155	155	-	156	156	-	-	-	-	-	-	-
Stage 2	93	219	-	120	169	-	-	-	-	-	-	-
Critical Hdwy	7.5	6.5	6.9	7.58	6.5	6.98	4.1	-	-	4.18	-	-
Critical Hdwy Stg 1	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.5	5.5	-	6.58	5.5	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.54	4	3.34	2.2	-	-	2.24	-	-
Pot Cap-1 Maneuver	690	560	1035	649	596	982	1524	-	-	1368	-	-
Stage 1	838	773	-	825	772	-	-	-	-	-	-	-
Stage 2	909	726	-	866	763	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	641	537	1035	624	572	982	1524	-	-	1368	-	-
Mov Cap-2 Maneuver	641	537	-	624	572	-	-	-	-	-	-	-
Stage 1	830	749	-	817	764	-	-	-	-	-	-	-
Stage 2	862	719	-	833	739	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	9.9		9.9		0.6		2.6					
HCM LOS	A		A									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1WBLn2	SBL	SBT	SBR					
Capacity (veh/h)	1524	-	-	748	624	982	1368	-	-			
HCM Lane V/C Ratio	0.01	-	-	0.021	0.062	0.042	0.031	-	-			
HCM Control Delay (s)	7.4	-	-	9.9	11.1	8.8	7.7	-	-			
HCM Lane LOS	A	-	-	A	B	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	-	0.1	0.2	0.1	0.1	-	-			

HCM 6th Signalized Intersection Summary

4: Tumbling Creek Rd/Millside Pkwy & Old Oakwood Rd

Old Oakwood Rd Industrial TIS

Build PM

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	29	152	30	125	214	20	43	110	141	10	52	24
Future Volume (veh/h)	29	152	30	125	214	20	43	110	141	10	52	24
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	1841	1826	1781	1885	1870	1900	1811	1900	1752	1900	1900	1900
Adj Flow Rate, veh/h	33	171	34	140	240	22	48	124	158	11	58	27
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	4	5	8	1	2	0	6	0	10	0	0	0
Cap, veh/h	498	647	535	554	663	571	477	419	374	378	441	374
Arrive On Green	0.35	0.35	0.35	0.35	0.35	0.35	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	1100	1826	1510	1186	1870	1610	1271	1805	1610	1115	1900	1610
Grp Volume(v), veh/h	33	171	34	140	240	22	48	124	158	11	58	27
Grp Sat Flow(s),veh/h/ln	1100	1826	1510	1186	1870	1610	1271	1805	1610	1115	1900	1610
Q Serve(g_s), s	0.8	2.3	0.5	3.2	3.2	0.3	1.1	1.9	2.8	0.3	0.8	0.4
Cycle Q Clear(g_c), s	4.0	2.3	0.5	5.5	3.2	0.3	1.9	1.9	2.8	3.1	0.8	0.4
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	498	647	535	554	663	571	477	419	374	378	441	374
V/C Ratio(X)	0.07	0.26	0.06	0.25	0.36	0.04	0.10	0.30	0.42	0.03	0.13	0.07
Avail Cap(c_a), veh/h	1895	2966	2453	2061	3039	2616	1496	1866	1665	1272	1964	1665
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	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	7.8	7.2	9.7	8.1	7.2	11.0	10.7	11.1	12.4	10.3	10.2
Incr Delay (d2), s/veh	0.1	0.5	0.1	0.5	0.7	0.1	0.1	0.4	0.8	0.0	0.1	0.1
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	0.1	0.6	0.1	0.6	0.9	0.1	0.2	0.6	0.8	0.1	0.3	0.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.7	8.2	7.3	10.2	8.8	7.2	11.1	11.1	11.8	12.4	10.4	10.2
LnGrp LOS	A	A	A	B	A	A	B	B	B	B	B	B
Approach Vol, veh/h	238			402			330			96		
Approach Delay, s/veh	8.3			9.2			11.5			10.6		
Approach LOS	A			A			B			B		
Timer - Assigned Phs	2			4			6			8		
Phs Duration (G+Y+Rc), s	19.1			14.8			19.1			14.8		
Change Period (Y+Rc), s	7.1			6.9			7.1			6.9		
Max Green Setting (Gmax), s	55.0			35.0			55.0			35.0		
Max Q Clear Time (g_c+l1), s	6.0			5.1			7.5			4.8		
Green Ext Time (p_c), s	2.6			0.4			4.4			2.0		
Intersection Summary												
HCM 6th Ctrl Delay	9.8											
HCM 6th LOS	A											

Intersection												
Int Delay, s/veh	0.7											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	8	0	10	4	0	4	3	316	6	5	253	2
Future Vol, veh/h	8	0	10	4	0	4	3	316	6	5	253	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	0	0	0	0	2	0	0	4	0	0	3	0
Mvmt Flow	9	0	11	4	0	4	3	343	7	5	275	2
Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	641	642	276	645	640	347	277	0	0	350	0	0
Stage 1	286	286	-	353	353	-	-	-	-	-	-	-
Stage 2	355	356	-	292	287	-	-	-	-	-	-	-
Critical Hdwy	7.1	6.5	6.2	7.1	6.52	6.2	4.1	-	-	4.1	-	-
Critical Hdwy Stg 1	6.1	5.5	-	6.1	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.1	5.5	-	6.1	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.5	4	3.3	3.5	4.018	3.3	2.2	-	-	2.2	-	-
Pot Cap-1 Maneuver	390	395	768	388	393	701	1298	-	-	1220	-	-
Stage 1	726	679	-	668	631	-	-	-	-	-	-	-
Stage 2	666	633	-	720	674	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	385	392	768	380	390	701	1298	-	-	1220	-	-
Mov Cap-2 Maneuver	385	392	-	380	390	-	-	-	-	-	-	-
Stage 1	724	676	-	666	629	-	-	-	-	-	-	-
Stage 2	660	631	-	706	671	-	-	-	-	-	-	-
Approach	EB		WB		NB		SB					
HCM Control Delay, s	12		12.4		0.1		0.2					
HCM LOS	B		B									
Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR					
Capacity (veh/h)	1298	-	-	533	493	1220	-	-				
HCM Lane V/C Ratio	0.003	-	-	0.037	0.018	0.004	-	-				
HCM Control Delay (s)	7.8	0	-	12	12.4	8	0	-				
HCM Lane LOS	A	A	-	B	B	A	A	-				
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-				

Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	11	264	271	1	2	24
Future Vol, veh/h	11	264	271	1	2	24
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	12	287	295	1	2	26
Major/Minor	Major1	Major2		Minor2		
Conflicting Flow All	296	0	-	0	607	296
Stage 1	-	-	-	-	296	-
Stage 2	-	-	-	-	311	-
Critical Hdwy	4.12	-	-	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	2.218	-	-	-	3.518	3.318
Pot Cap-1 Maneuver	1265	-	-	-	460	743
Stage 1	-	-	-	-	755	-
Stage 2	-	-	-	-	743	-
Platoon blocked, %		-	-	-		
Mov Cap-1 Maneuver	1265	-	-	-	455	743
Mov Cap-2 Maneuver	-	-	-	-	455	-
Stage 1	-	-	-	-	747	-
Stage 2	-	-	-	-	743	-
Approach	EB	WB		SB		
HCM Control Delay, s	0.3	0		10.3		
HCM LOS				B		
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1	
Capacity (veh/h)	1265	-	-	-	709	
HCM Lane V/C Ratio	0.009	-	-	-	0.04	
HCM Control Delay (s)	7.9	0	-	-	10.3	
HCM Lane LOS	A	A	-	-	B	
HCM 95th %tile Q(veh)	0	-	-	-	0.1	

APPENDIX D: TURN LANE EVALUATIONS

GDOT Turn Lane Evaluations

ID	Intersection	Movement/ Turn Lane	Turn Volume	GDOT Volume Criteria	GDOT Criteria met?
5	Mountain View Rd & Buice Ln / Site Dwy 1	EBR	30 RT/Day	75 RT/Day	NO
		WBL	38 LT/Day	175 LT/Day	NO
6	Old Oakwood Rd & Site Dwy 2	SBR	8 RT/Day	75 RT/Day	NO
		NBL	172 LT/Day	175 LT/Day	NO

Mountain View Rd: 40 MPH, AADT > 6000				
Old Oakwood Rd: 40 MPH, AADT > 6000				
	Personal Veh Distribution	Truck Distribution	Total Volume	Threshold
RTV	20%	0%	30	75
LTV	25%	0%	38	175
RTV	5%	0%	8	75
LTV	50%	100%	172	175

			IN	OUT
Personal Vehicles	Daily	304	152	152
	AM Peak Hour	51	40	11
	PM Peak Hour	50	12	38
Trucks	Daily	192	96	96
	AM Peak Hour	10	6	4
	PM Peak Hour	11	5	6

APPENDIX E: TRAILER PARKING TRIP GENERATION

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: WEDNESDAY APRIL 13TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #1

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	0	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	0	0	0	0	0	0
0045-100	0	0	0	0	0	0	0	0	0	0
100-115	0	0	0	0	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	0
130-145	0	0	0	0	0	0	0	0	0	0
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	0	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	0	0	0	0	0	0	0
245-300	0	0	0	0	0	0	0	0	0	0
300-315	0	0	0	0	0	1	0	0	0	0
315-330	1	0	0	0	0	0	0	0	0	0
330-345	2	0	0	0	3	0	0	0	0	1
345-400	0	0	0	0	0	1	0	0	0	0
400-415	0	0	0	0	0	0	0	1	0	2
415-430	0	0	0	0	1	0	0	0	0	0
430-445	0	0	0	0	0	1	0	0	0	0
445-500	0	0	0	0	0	0	0	0	0	0
500-515	0	0	0	0	0	0	0	0	1	0
515-530	0	0	0	0	1	0	0	0	0	0
530-545	0	0	0	1	1	0	0	0	0	0
545-600	1	0	0	0	1	1	0	0	0	1
600-615	0	0	0	0	2	0	0	0	0	2
615-630	0	0	0	0	2	1	0	0	1	1
630-645	1	0	0	0	1	0	0	0	0	2
645-700	0	0	0	0	1	0	0	0	0	0
700-715	1	0	0	0	2	0	0	0	2	1
715-730	1	0	0	1	3	1	0	0	0	2
730-745	0	0	0	0	0	0	0	0	0	3
745-800	0	0	1	0	1	0	0	0	0	0
800-815	0	0	0	0	0	0	0	0	0	1
815-830	0	0	0	0	0	0	0	0	0	0
830-845	0	0	0	0	1	0	0	0	0	0
845-900	0	0	0	0	0	1	0	0	2	0
900-915	1	0	0	0	2	0	0	0	0	0
915-930	0	0	0	0	1	1	0	0	0	1
930-945	0	0	0	0	0	0	0	0	0	1
945-1000	0	0	0	0	0	0	0	0	0	0
1000-1015	1	0	0	0	0	0	0	0	1	0
1015-1030	0	0	0	0	0	0	0	0	0	0
1030-1045	0	0	0	0	0	0	0	0	0	1
1045-1100	0	0	0	0	1	0	0	0	0	0
1100-1115	1	0	0	0	0	1	0	0	0	2
1115-1130	0	0	0	0	0	0	0	0	0	0
1130-1145	0	0	0	0	0	0	0	0	0	0
1145-1200	0	0	0	0	0	1	0	0	1	0
1200-1215	0	0	0	0	0	0	0	0	0	1
1215-1230	1	0	0	0	1	0	0	0	0	1
1230-1245	0	0	0	0	0	0	0	0	0	0
1245-1300	0	0	0	0	2	0	0	0	0	1
1300-1315	0	0	0	0	0	0	0	0	1	1
1315-1330	1	0	0	0	2	0	0	0	0	2
1330-1345	0	0	0	0	0	1	0	0	0	0
1345-1400	0	0	0	0	1	0	0	0	0	1

1400-1415	0	0	0	1	0	0	0	0	0	0
1415-1430	0	0	0	0	1	0	0	0	0	1
1430-1445	0	0	0	0	2	2	0	0	0	0
1445-1500	0	0	0	0	0	0	0	0	0	3
1500-1515	0	0	0	0	0	0	0	0	0	1
1515-1530	0	0	0	0	1	0	0	0	0	1
1530-1545	0	0	0	0	0	0	0	0	0	0
1545-1600	0	0	0	1	0	0	0	0	0	2
1600-1615	0	0	0	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0	0	0	0
1900-1915	0	0	0	0	0	0	0	0	0	0
1915-1930	0	0	0	0	0	0	0	0	0	0
1930-1945	0	0	0	0	0	0	0	0	0	0
1945-2000	0	0	0	0	0	0	0	0	0	0
2000-2015	0	0	0	0	0	0	0	0	0	0
2015-2030	0	0	0	0	0	0	0	0	0	0
2030-2045	0	0	0	0	0	0	0	0	0	0
2045-2100	0	0	0	0	0	0	0	0	0	0
2100-2115	0	0	0	0	0	0	0	0	0	0
2115-2130	0	0	0	0	0	0	0	0	0	0
2130-2145	0	0	0	0	0	0	0	0	0	0
2145-2200	0	0	0	0	0	0	0	0	0	0
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	0	0	0	0	0	0
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	0	0	0	0	0	0
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	12	0	1	4	34	13	0	1	9	36

HOURL TOTALS	INBOUND					OUTBOUND				
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	0	0	0	0	0	0	0	0	0	0
1215-115	0	0	0	0	0	0	0	0	0	0
1230-130	0	0	0	0	0	0	0	0	0	0
1245-145	0	0	0	0	0	0	0	0	0	0
100-200	0	0	0	0	0	0	0	0	0	0
115-215	0	0	0	0	0	0	0	0	0	0
130-230	0	0	0	0	0	0	0	0	0	0
145-245	0	0	0	0	0	0	0	0	0	0
200-300	0	0	0	0	0	0	0	0	0	0
215-315	0	0	0	0	0	1	0	0	0	0
230-330	1	0	0	0	0	1	0	0	0	0
245-345	3	0	0	0	3	1	0	0	0	1
300-400	3	0	0	0	3	2	0	0	0	1
315-415	3	0	0	0	3	1	0	1	0	3
330-430	2	0	0	0	4	1	0	1	0	3
345-445	0	0	0	0	1	2	0	1	0	2
400-500	0	0	0	0	1	1	0	1	0	2
415-515	0	0	0	0	1	1	0	0	1	0
430-530	0	0	0	0	1	1	0	0	1	0
445-545	0	0	0	1	2	0	0	0	1	0
500-600	1	0	0	1	3	1	0	0	1	1
515-615	1	0	0	1	5	1	0	0	0	3
530-630	1	0	0	1	6	2	0	0	1	4
545-645	2	0	0	0	6	2	0	0	1	6
600-700	1	0	0	0	6	1	0	0	1	5
615-715	2	0	0	0	6	1	0	0	3	4
630-730	3	0	0	1	7	1	0	0	2	5
645-745	2	0	0	1	6	1	0	0	2	6
700-800	2	0	1	1	6	1	0	0	2	6
715-815	1	0	1	1	4	1	0	0	0	6
730-830	0	0	1	0	1	0	0	0	0	4
745-845	0	0	1	0	2	0	0	0	0	1
800-900	0	0	0	0	1	1	0	0	2	1
815-915	1	0	0	0	3	1	0	0	2	0
830-930	1	0	0	0	4	2	0	0	2	1
845-945	1	0	0	0	3	2	0	0	2	2
900-1000	1	0	0	0	3	1	0	0	0	2
915-1015	1	0	0	0	1	1	0	0	1	2
930-1030	1	0	0	0	0	0	0	0	1	1
945-1045	1	0	0	0	0	0	0	0	1	1
1000-1100	1	0	0	0	1	0	0	0	1	1
1015-1115	1	0	0	0	1	1	0	0	0	3
1030-1130	1	0	0	0	1	1	0	0	0	3
1045-1145	1	0	0	0	1	1	0	0	0	2
1100-1200	1	0	0	0	0	2	0	0	1	2
1115-1215	0	0	0	0	0	1	0	0	1	1
1130-1230	1	0	0	0	1	1	0	0	1	2
1145-1245	1	0	0	0	1	1	0	0	1	2
1200-100	1	0	0	0	3	0	0	0	0	3
1215-115	1	0	0	0	3	0	0	0	1	3
1230-130	1	0	0	0	4	0	0	0	1	4
1245-145	1	0	0	0	4	1	0	0	1	4
100-200	1	0	0	0	3	1	0	0	1	4
115-215	1	0	0	1	3	1	0	0	0	3
130-230	0	0	0	1	2	1	0	0	0	2
145-245	0	0	0	1	4	2	0	0	0	2
200-300	0	0	0	1	3	2	0	0	0	4
215-315	0	0	0	0	3	2	0	0	0	5
230-330	0	0	0	0	3	2	0	0	0	5
245-345	0	0	0	0	1	0	0	0	0	5
300-400	0	0	0	1	1	0	0	0	0	4
315-415	0	0	0	1	1	0	0	0	0	3
330-430	0	0	0	1	0	0	0	0	0	2
345-445	0	0	0	1	0	0	0	0	0	2
400-500	0	0	0	0	0	0	0	0	0	0
415-515	0	0	0	0	0	0	0	0	0	0
430-530	0	0	0	0	0	0	0	0	0	0
445-545	0	0	0	0	0	0	0	0	0	0

500-600	0	0	0	0	0	0	0	0	0	0
515-615	0	0	0	0	0	0	0	0	0	0
530-630	0	0	0	0	0	0	0	0	0	0
545-645	0	0	0	0	0	0	0	0	0	0
600-700	0	0	0	0	0	0	0	0	0	0
615-715	0	0	0	0	0	0	0	0	0	0
630-730	0	0	0	0	0	0	0	0	0	0
645-745	0	0	0	0	0	0	0	0	0	0
700-800	0	0	0	0	0	0	0	0	0	0
715-815	0	0	0	0	0	0	0	0	0	0
730-830	0	0	0	0	0	0	0	0	0	0
745-845	0	0	0	0	0	0	0	0	0	0
800-900	0	0	0	0	0	0	0	0	0	0
815-915	0	0	0	0	0	0	0	0	0	0
830-930	0	0	0	0	0	0	0	0	0	0
845-945	0	0	0	0	0	0	0	0	0	0
900-1000	0	0	0	0	0	0	0	0	0	0
915-1015	0	0	0	0	0	0	0	0	0	0
930-1030	0	0	0	0	0	0	0	0	0	0
945-1045	0	0	0	0	0	0	0	0	0	0
1000-1100	0	0	0	0	0	0	0	0	0	0
1015-1115	0	0	0	0	0	0	0	0	0	0
1030-1130	0	0	0	0	0	0	0	0	0	0
1045-1145	0	0	0	0	0	0	0	0	0	0
1100-1200	0	0	0	0	0	0	0	0	0	0

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: THURSDAY APRIL 14TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #1

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	0	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	0	0	0	0	0	0
0045-100	0	0	0	0	0	0	0	0	0	0
100-115	1	0	0	0	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	1
130-145	0	0	0	0	0	0	0	0	0	0
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	1	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	0	0	0	0	0	0	0
245-300	0	0	0	0	0	0	0	0	0	0
300-315	0	0	0	0	0	0	0	0	0	0
315-330	1	0	0	0	1	0	0	0	0	1
330-345	0	0	0	1	0	0	0	0	0	0
345-400	0	0	0	0	1	0	0	0	0	0
400-415	0	0	0	0	0	0	0	0	0	1
415-430	0	0	0	0	0	0	0	0	0	0
430-445	1	0	0	0	2	0	0	0	0	0
445-500	0	0	0	0	0	0	0	0	0	2
500-515	0	0	0	0	2	0	0	0	0	2
515-530	0	0	0	1	0	1	0	0	0	1
530-545	0	0	0	0	2	0	0	0	0	0
545-600	0	0	0	0	1	0	0	0	2	1
600-615	0	0	0	0	1	1	0	0	0	1
615-630	1	0	0	0	2	0	0	0	0	2
630-645	0	0	0	0	1	0	0	0	0	0
645-700	2	0	0	0	1	2	0	0	0	1
700-715	0	0	0	0	0	0	0	0	0	2
715-730	1	0	0	0	1	1	0	0	0	1
730-745	0	0	0	0	0	0	0	0	1	1
745-800	1	0	0	0	0	0	0	0	0	0
800-815	0	0	0	0	0	0	0	0	0	0
815-830	0	0	0	0	2	0	0	0	1	0
830-845	0	0	0	0	1	0	0	0	0	1
845-900	0	0	0	0	2	0	0	0	0	
900-915	0	0	0	1	0	0	0	0	0	2
915-930	0	0	0	0	0	0	0	0	2	1
930-945	0	0	0	0	0	0	0	0	0	0
945-1000	0	0	0	0	1	0	0	0	0	1
1000-1015	2	0	0	1	0	0	0	0	0	0
1015-1030	0	0	0	0	1	0	0	0	0	2
1030-1045	0	0	0	0	1	0	0	0	0	0
1045-1100	0	0	0	0	0	0	0	0	0	0
1100-1115	1	0	0	0	0	0	0	1	0	1
1115-1130	0	0	0	0	2	2	0	0	0	1
1130-1145	0	0	0	1	1	0	0	0	0	0
1145-1200	0	0	0	0	0	0	0	0	0	0
1200-1215	1	0	0	0	1	0	0	0	0	2
1215-1230	1	0	0	0	1	0	0	0	0	0
1230-1245	0	0	1	0	0	2	0	0	0	1
1245-1300	0	0	0	0	3	0	0	0	0	0
1300-1315	0	0	0	0	0	0	0	0	0	1
1315-1330	0	0	0	0	1	1	0	0	0	3
1330-1345	0	0	0	0	0	0	0	0	0	0
1345-1400	0	0	0	0	2	0	0	0	0	0

1400-1415	0	0	0	0	0	1	0	0	0	2
1415-1430	0	0	0	0	0	0	0	0	0	0
1430-1445	1	0	0	0	1	0	0	0	0	4
1445-1500	0	0	0	0	2	0	0	0	0	0
1500-1515	0	0	0	0	1	0	0	0	0	2
1515-1530	0	0	0	0	0	0	0	0	1	0
1530-1545	0	0	0	0	0	1	0	0	0	1
1545-1600	0	0	0	0	1	0	0	0	0	0
1600-1615	0	0	0	0	1	0	0	0	0	2
1615-1630	1	0	0	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0	0	0	1
1645-1700	0	0	0	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0	0	0	0
1715-1730	0	0	0	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0	0	1	0
1745-1800	0	0	0	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0	0	0	0
1845-1900	0	0	0	0	0	0	0	0	0	0
1900-1915	0	0	0	0	0	0	0	0	0	0
1915-1930	0	0	0	0	0	0	0	0	1	0
1930-1945	0	0	0	0	0	0	0	0	0	0
1945-2000	0	0	0	0	0	0	0	0	0	0
2000-2015	0	0	0	0	0	0	0	0	0	0
2015-2030	0	0	0	0	0	0	0	0	0	0
2030-2045	0	0	0	0	0	0	0	0	0	0
2045-2100	0	0	0	0	0	0	0	0	0	0
2100-2115	0	0	0	0	0	0	0	0	0	0
2115-2130	0	0	0	0	0	0	0	0	0	0
2130-2145	0	0	0	0	0	0	0	0	0	0
2145-2200	0	0	0	0	0	0	0	0	0	0
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	0	0	0	0	0	0
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	0	0	0	0	0	0
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	15	0	1	5	41	12	0	1	9	45

HOURL TOTALS	INBOUND					OUTBOUND				
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	0	0	0	0	0	0	0	0	0	0
1215-115	1	0	0	0	0	0	0	0	0	0
1230-130	1	0	0	0	0	0	0	0	0	1
1245-145	1	0	0	0	0	0	0	0	0	1
100-200	1	0	0	0	0	0	0	0	0	1
115-215	0	0	0	0	1	0	0	0	0	1
130-230	0	0	0	0	1	0	0	0	0	0
145-245	0	0	0	0	1	0	0	0	0	0
200-300	0	0	0	0	1	0	0	0	0	0
215-315	0	0	0	0	0	0	0	0	0	0
230-330	1	0	0	0	1	0	0	0	0	1
245-345	1	0	0	1	1	0	0	0	0	1
300-400	1	0	0	1	2	0	0	0	0	1
315-415	1	0	0	1	2	0	0	0	0	2
330-430	0	0	0	1	1	0	0	0	0	1
345-445	1	0	0	0	3	0	0	0	0	1
400-500	1	0	0	0	2	0	0	0	0	3
415-515	1	0	0	0	4	0	0	0	0	4
430-530	1	0	0	1	4	1	0	0	0	5
445-545	0	0	0	1	4	1	0	0	0	5
500-600	0	0	0	1	5	1	0	0	2	4
515-615	0	0	0	1	4	2	0	0	2	3
530-630	1	0	0	0	6	1	0	0	2	4
545-645	1	0	0	0	5	1	0	0	2	4
600-700	3	0	0	0	5	3	0	0	0	4
615-715	3	0	0	0	4	2	0	0	0	5
630-730	3	0	0	0	3	3	0	0	0	4
645-745	3	0	0	0	2	3	0	0	1	5
700-800	2	0	0	0	1	1	0	0	1	4
715-815	2	0	0	0	1	1	0	0	1	2
730-830	1	0	0	0	2	0	0	0	2	1
745-845	1	0	0	0	3	0	0	0	1	1
800-900	0	0	0	0	5	0	0	0	1	1
815-915	0	0	0	1	5	0	0	0	1	3
830-930	0	0	0	1	3	0	0	0	2	4
845-945	0	0	0	1	2	0	0	0	2	3
900-1000	0	0	0	1	1	0	0	0	2	4
915-1015	2	0	0	1	1	0	0	0	2	2
930-1030	2	0	0	1	2	0	0	0	0	3
945-1045	2	0	0	1	3	0	0	0	0	3
1000-1100	2	0	0	1	2	0	0	0	0	2
1015-1115	1	0	0	0	2	0	0	1	0	3
1030-1130	1	0	0	0	3	2	0	1	0	2
1045-1145	1	0	0	1	3	2	0	1	0	2
1100-1200	1	0	0	1	3	2	0	1	0	2
1115-1215	1	0	0	1	4	2	0	0	0	3
1130-1230	2	0	0	1	3	0	0	0	0	2
1145-1245	2	0	1	0	2	2	0	0	0	3
1200-100	2	0	1	0	5	2	0	0	0	3
1215-115	1	0	1	0	4	2	0	0	0	2
1230-130	0	0	1	0	4	3	0	0	0	5
1245-145	0	0	0	0	4	1	0	0	0	4
100-200	0	0	0	0	3	1	0	0	0	4
115-215	0	0	0	0	3	2	0	0	0	5
130-230	0	0	0	0	2	1	0	0	0	2
145-245	1	0	0	0	3	1	0	0	0	6
200-300	1	0	0	0	3	1	0	0	0	6
215-315	1	0	0	0	4	0	0	0	0	6
230-330	1	0	0	0	4	0	0	0	1	6
245-345	0	0	0	0	3	1	0	0	1	3
300-400	0	0	0	0	2	1	0	0	1	3
315-415	0	0	0	0	2	1	0	0	1	3
330-430	1	0	0	0	2	1	0	0	0	3
345-445	1	0	0	0	2	0	0	0	0	3
400-500	1	0	0	0	1	0	0	0	0	3
415-515	1	0	0	0	0	0	0	0	0	1
430-530	0	0	0	0	0	0	0	0	0	1
445-545	0	0	0	0	0	0	0	0	1	0

500-600	0	0	0	0	0	0	0	0	1	0
515-615	0	0	0	0	0	0	0	0	1	0
530-630	0	0	0	0	0	0	0	0	1	0
545-645	0	0	0	0	0	0	0	0	0	0
600-700	0	0	0	0	0	0	0	0	0	0
615-715	0	0	0	0	0	0	0	0	0	0
630-730	0	0	0	0	0	0	0	0	1	0
645-745	0	0	0	0	0	0	0	0	1	0
700-800	0	0	0	0	0	0	0	0	1	0
715-815	0	0	0	0	0	0	0	0	1	0
730-830	0	0	0	0	0	0	0	0	0	0
745-845	0	0	0	0	0	0	0	0	0	0
800-900	0	0	0	0	0	0	0	0	0	0
815-915	0	0	0	0	0	0	0	0	0	0
830-930	0	0	0	0	0	0	0	0	0	0
845-945	0	0	0	0	0	0	0	0	0	0
900-1000	0	0	0	0	0	0	0	0	0	0
915-1015	0	0	0	0	0	0	0	0	0	0
930-1030	0	0	0	0	0	0	0	0	0	0
945-1045	0	0	0	0	0	0	0	0	0	0
1000-1100	0	0	0	0	0	0	0	0	0	0
1015-1115	0	0	0	0	0	0	0	0	0	0
1030-1130	0	0	0	0	0	0	0	0	0	0
1045-1145	0	0	0	0	0	0	0	0	0	0
1100-1200	0	0	0	0	0	0	0	0	0	0

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: WEDNESDAY APRIL 13TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #2

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	0	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	0	0	0	0	0	0
0045-100	0	0	0	0	1	0	0	0	0	0
100-115	0	0	0	0	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	0
130-145	0	0	0	0	0	0	0	0	0	0
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	0	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	0	0	0	0	0	0	0
245-300	0	0	0	0	0	0	0	0	0	0
300-315	0	0	0	0	0	0	0	0	0	0
315-330	0	0	0	0	0	0	0	0	0	0
330-345	0	0	0	0	0	0	0	0	0	0
345-400	0	0	0	0	0	0	0	0	0	0
400-415	0	0	0	0	0	0	0	0	0	0
415-430	1	0	0	0	0	0	0	0	0	0
430-445	0	0	0	0	0	0	0	0	0	0
445-500	0	0	0	0	0	0	0	0	0	0
500-515	2	0	0	0	0	0	0	0	0	0
515-530	0	0	0	0	0	1	0	0	0	0
530-545	1	0	0	0	0	0	0	0	0	0
545-600	0	0	0	0	1	1	0	0	0	0
600-615	0	0	0	0	0	0	0	0	0	0
615-630	1	0	0	1	1	0	0	0	0	1
630-645	0	0	0	0	1	0	0	0	0	0
645-700	1	0	0	0	0	0	0	0	0	2
700-715	0	0	0	0	2	1	0	0	0	1
715-730	0	0	0	0	1	1	0	0	1	1
730-745	0	0	0	0	2	0	0	0	0	0
745-800	0	0	0	1	1	0	0	0	0	1
800-815	0	0	1	0	0	0	0	0	0	0
815-830	0	0	0	0	1	0	0	0	0	0
830-845	1	0	0	0	2	2	0	0	0	1
845-900	0	0	0	0	0	0	0	0	0	0
900-915	0	0	0	0	0	0	0	0	0	0
915-930	0	0	0	0	1	0	0	0	0	0
930-945	0	0	0	0	0	0	0	0	0	1
945-1000	2	0	0	1	0	0	0	0	0	0
1000-1015	0	0	0	0	1	0	0	0	0	0
1015-1030	0	0	0	0	0	1	0	0	0	2
1030-1045	0	0	0	0	0	0	0	0	0	0
1045-1100	0	0	0	1	0	1	0	0	0	0
1100-1115	1	0	0	1	0	0	0	0	0	0
1115-1130	0	0	0	0	0	0	0	0	0	0
1130-1145	0	0	0	0	1	0	0	0	0	0
1145-1200	0	0	0	0	0	0	0	0	0	1
1200-1215	1	0	0	0	2	1	0	0	0	3
1215-1230	0	0	0	0	0	0	0	0	0	0
1230-1245	0	0	0	2	2	0	0	0	0	2
1245-1300	0	0	0	0	0	0	0	0	0	0
1300-1315	0	0	0	0	0	0	0	0	0	0
1315-1330	0	0	1	0	2	0	0	0	0	2
1330-1345	1	0	0	0	1	0	0	0	1	1
1345-1400	0	0	0	1	1	0	0	0	0	0

1400-1415	0	0	0	0	0	0	0	0	0	1
1415-1430	0	0	0	0	1	0	0	0	0	0
1430-1445	0	0	0	0	1	0	0	0	0	1
1445-1500	0	0	0	1	1	0	0	0	0	1
1500-1515	0	0	1	0	1	0	0	0	0	0
1515-1530	0	0	0	0	1	0	0	0	0	2
1530-1545	0	0	0	0	1	1	0	0	0	0
1545-1600	0	0	0	0	1	0	0	0	1	1
1600-1615	2	0	0	0	2	1	0	0	0	3
1615-1630	0	0	0	0	1	1	0	0	0	1
1630-1645	0	0	0	0	0	0	0	0	0	1
1645-1700	0	0	0	0	1	0	0	0	1	0
1700-1715	0	0	0	0	2	0	0	0	0	3
1715-1730	0	0	0	0	2	0	0	0	0	2
1730-1745	0	0	0	0	1	0	0	0	2	0
1745-1800	1	0	0	0	1	0	0	0	0	2
1800-1815	0	0	0	0	0	0	0	0	0	1
1815-1830	0	0	0	0	0	0	0	0	1	0
1830-1845	1	0	0	0	0	0	0	0	1	0
1845-1900	0	0	0	0	0	0	0	0	0	0
1900-1915	0	0	0	0	1	0	0	0	0	0
1915-1930	0	0	0	0	0	0	0	0	0	0
1930-1945	0	0	0	0	0	0	0	0	0	0
1945-2000	0	0	0	0	0	0	0	0	2	0
2000-2015	0	0	0	0	0	0	0	0	0	0
2015-2030	0	0	0	0	0	0	0	0	0	0
2030-2045	0	0	0	0	0	0	0	0	0	0
2045-2100	0	0	0	0	0	0	0	0	0	0
2100-2115	0	0	0	0	0	0	0	0	0	0
2115-2130	0	0	0	0	0	0	0	0	0	0
2130-2145	0	0	0	0	0	0	0	0	1	0
2145-2200	0	0	0	0	0	0	0	0	0	0
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	0	0	0	0	0	0
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	0	0	0	0	0	0
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	16	0	3	9	42	12	0	0	11	38

HOUR TOTALS										
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	0	0	0	0	1	0	0	0	0	0
1215-115	0	0	0	0	1	0	0	0	0	0
1230-130	0	0	0	0	1	0	0	0	0	0
1245-145	0	0	0	0	1	0	0	0	0	0
100-200	0	0	0	0	0	0	0	0	0	0
115-215	0	0	0	0	0	0	0	0	0	0
130-230	0	0	0	0	0	0	0	0	0	0
145-245	0	0	0	0	0	0	0	0	0	0
200-300	0	0	0	0	0	0	0	0	0	0
215-315	0	0	0	0	0	0	0	0	0	0
230-330	0	0	0	0	0	0	0	0	0	0
245-345	0	0	0	0	0	0	0	0	0	0
300-400	0	0	0	0	0	0	0	0	0	0
315-415	0	0	0	0	0	0	0	0	0	0
330-430	1	0	0	0	0	0	0	0	0	0
345-445	1	0	0	0	0	0	0	0	0	0
400-500	1	0	0	0	0	0	0	0	0	0
415-515	3	0	0	0	0	0	0	0	0	0
430-530	2	0	0	0	0	1	0	0	0	0
445-545	3	0	0	0	0	1	0	0	0	0
500-600	3	0	0	0	1	2	0	0	0	0
515-615	1	0	0	0	1	2	0	0	0	0
530-630	2	0	0	1	2	1	0	0	0	1
545-645	1	0	0	1	3	1	0	0	0	1
600-700	2	0	0	1	2	0	0	0	0	3
615-715	2	0	0	1	4	1	0	0	0	4
630-730	1	0	0	0	4	2	0	0	1	4
645-745	1	0	0	0	5	2	0	0	1	4
700-800	0	0	0	1	6	2	0	0	1	3
715-815	0	0	1	1	4	1	0	0	1	2
730-830	0	0	1	1	4	0	0	0	0	1
745-845	1	0	1	1	4	2	0	0	0	2
800-900	1	0	1	0	3	2	0	0	0	1
815-915	1	0	0	0	3	2	0	0	0	1
830-930	1	0	0	0	3	2	0	0	0	1
845-945	0	0	0	0	1	0	0	0	0	1
900-1000	2	0	0	1	1	0	0	0	0	1
915-1015	2	0	0	1	2	0	0	0	0	1
930-1030	2	0	0	1	1	1	0	0	0	3
945-1045	2	0	0	1	1	1	0	0	0	2
1000-1100	0	0	0	1	1	2	0	0	0	2
1015-1115	1	0	0	2	0	2	0	0	0	2
1030-1130	1	0	0	2	0	1	0	0	0	0
1045-1145	1	0	0	2	1	1	0	0	0	0
1100-1200	1	0	0	1	1	0	0	0	0	1
1115-1215	1	0	0	0	3	1	0	0	0	4
1130-1230	1	0	0	0	3	1	0	0	0	4
1145-1245	1	0	0	2	4	1	0	0	0	6
1200-100	1	0	0	2	4	1	0	0	0	5
1215-115	0	0	0	2	2	0	0	0	0	2
1230-130	0	0	1	2	4	0	0	0	0	4
1245-145	1	0	1	0	3	0	0	0	1	3
100-200	1	0	1	1	4	0	0	0	1	3
115-215	1	0	1	1	4	0	0	0	1	4
130-230	1	0	0	1	3	0	0	0	1	2
145-245	0	0	0	1	3	0	0	0	0	2
200-300	0	0	0	1	3	0	0	0	0	3
215-315	0	0	1	1	4	0	0	0	0	2
230-330	0	0	1	1	4	0	0	0	0	4
245-345	0	0	1	1	4	1	0	0	0	3
300-400	0	0	1	0	4	1	0	0	1	3
315-415	2	0	0	0	5	2	0	0	1	6
330-430	2	0	0	0	5	3	0	0	1	5
345-445	2	0	0	0	4	2	0	0	1	6
400-500	2	0	0	0	4	2	0	0	1	5
415-515	0	0	0	0	4	1	0	0	1	5
430-530	0	0	0	0	5	0	0	0	1	6
445-545	0	0	0	0	6	0	0	0	3	5

500-600	1	0	0	0	6	0	0	0	2	7
515-615	1	0	0	0	4	0	0	0	2	5
530-630	1	0	0	0	2	0	0	0	3	3
545-645	2	0	0	0	1	0	0	0	2	3
600-700	1	0	0	0	0	0	0	0	2	1
615-715	1	0	0	0	1	0	0	0	2	0
630-730	1	0	0	0	1	0	0	0	1	0
645-745	0	0	0	0	1	0	0	0	0	0
700-800	0	0	0	0	1	0	0	0	2	0
715-815	0	0	0	0	0	0	0	0	2	0
730-830	0	0	0	0	0	0	0	0	2	0
745-845	0	0	0	0	0	0	0	0	2	0
800-900	0	0	0	0	0	0	0	0	0	0
815-915	0	0	0	0	0	0	0	0	0	0
830-930	0	0	0	0	0	0	0	0	0	0
845-945	0	0	0	0	0	0	0	0	1	0
900-1000	0	0	0	0	0	0	0	0	1	0
915-1015	0	0	0	0	0	0	0	0	1	0
930-1030	0	0	0	0	0	0	0	0	1	0
945-1045	0	0	0	0	0	0	0	0	0	0
1000-1100	0	0	0	0	0	0	0	0	0	0
1015-1115	0	0	0	0	0	0	0	0	0	0
1030-1130	0	0	0	0	0	0	0	0	0	0
1045-1145	0	0	0	0	0	0	0	0	0	0
1100-1200	0	0	0	0	0	0	0	0	0	0

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: THURSDAY APRIL 14TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #2

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	0	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	0	0	0	0	0	0
0045-100	0	0	0	0	0	0	0	0	0	0
100-115	0	0	0	0	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	0
130-145	0	0	0	0	0	0	0	0	0	0
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	0	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	0	0	0	0	0	0	0
245-300	0	0	0	0	0	1	0	0	0	0
300-315	0	0	0	0	0	0	0	0	0	0
315-330	0	0	0	0	0	0	0	0	0	0
330-345	0	0	0	0	0	0	0	0	0	0
345-400	0	0	0	0	0	0	0	0	0	0
400-415	0	0	0	0	0	1	0	0	1	0
415-430	0	0	0	0	0	0	0	0	0	0
430-445	0	0	0	0	0	0	0	0	0	0
445-500	1	0	0	0	0	0	0	0	0	0
500-515	0	0	0	0	0	0	0	0	0	0
515-530	0	0	0	0	0	0	0	0	0	0
530-545	0	0	0	0	0	0	0	0	0	0
545-600	0	0	0	0	0	1	0	0	0	0
600-615	0	0	0	0	0	0	0	0	0	0
615-630	0	0	0	0	0	0	0	0	1	0
630-645	0	0	0	0	1	0	0	0	0	0
645-700	1	0	0	0	1	0	0	0	0	0
700-715	0	0	0	0	2	0	0	0	0	1
715-730	0	0	0	0	2	0	0	0	0	1
730-745	0	0	0	0	0	0	0	0	0	2
745-800	0	0	0	0	0	0	0	0	0	1
800-815	2	0	0	0	1	0	0	0	0	0
815-830	0	0	0	0	1	0	0	0	0	0
830-845	0	0	0	0	1	0	0	0	0	1
845-900	0	0	0	0	2	0	0	0	0	1
900-915	0	0	0	0	1	0	0	0	0	1
915-930	1	0	0	1	0	0	0	0	1	1
930-945	0	0	0	0	0	0	0	0	1	0
945-1000	0	0	0	0	1	1	0	0	0	0
1000-1015	0	0	0	0	0	0	0	0	0	2
1015-1030	0	0	1	0	0	0	0	0	0	1
1030-1045	1	0	0	0	2	0	0	0	0	0
1045-1100	0	0	0	0	2	0	0	0	0	0
1100-1115	0	0	0	0	0	1	0	0	0	3
1115-1130	0	0	0	0	1	1	0	0	0	0
1130-1145	0	0	0	0	0	0	0	0	0	1
1145-1200	1	0	0	0	3	0	0	0	0	0
1200-1215	0	0	1	0	1	0	0	0	0	0
1215-1230	0	0	0	1	0	0	0	0	2	0
1230-1245	0	0	0	0	0	0	0	0	0	1
1245-1300	0	0	0	0	1	0	0	0	0	0
1300-1315	1	0	0	0	0	0	0	0	0	1
1315-1330	0	0	0	0	1	0	0	0	0	0
1330-1345	0	0	0	0	0	0	0	0	1	0
1345-1400	1	0	0	0	0	0	0	0	0	1

1400-1415	0	0	0	1	1	0	0	0	0	0
1415-1430	0	0	0	0	0	0	0	0	0	0
1430-1445	0	0	0	0	0	0	0	0	0	0
1445-1500	0	0	0	0	0	0	0	0	0	0
1500-1515	0	0	0	0	2	1	0	0	0	0
1515-1530	0	0	0	1	0	0	0	0	0	1
1530-1545	0	0	0	0	1	0	0	0	0	2
1545-1600	0	0	0	0	2	0	0	0	0	0
1600-1615	0	0	0	0	0	0	0	0	0	0
1615-1630	0	0	0	2	0	0	0	0	0	1
1630-1645	0	0	0	0	1	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0	0	0	1
1700-1715	0	0	0	0	1	0	0	0	0	4
1715-1730	0	0	0	1	1	0	0	0	0	1
1730-1745	0	0	0	0	2	0	0	0	0	2
1745-1800	0	0	0	0	0	0	0	0	0	0
1800-1815	0	0	0	0	1	0	0	0	1	1
1815-1830	0	0	0	0	1	0	0	0	0	0
1830-1845	0	0	0	1	0	0	0	0	0	1
1845-1900	0	0	0	0	7	0	0	0	0	2
1900-1915	0	0	0	0	0	0	0	0	0	1
1915-1930	0	0	0	0	0	0	0	0	0	0
1930-1945	0	0	0	0	0	0	0	0	0	0
1945-2000	0	0	0	0	0	0	0	0	0	1
2000-2015	0	0	1	0	1	0	0	0	0	0
2015-2030	0	0	0	0	0	0	0	0	0	1
2030-2045	0	0	0	0	0	0	0	0	0	0
2045-2100	0	0	0	0	0	0	0	0	0	0
2100-2115	0	0	0	0	1	0	0	0	0	0
2115-2130	0	0	0	0	0	0	0	0	0	0
2130-2145	0	0	0	0	0	0	0	0	0	0
2145-2200	0	0	0	0	0	0	0	0	0	0
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	0	0	0	0	0	0
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	0	0	0	0	0	0
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	9	0	3	8	46	7	0	0	8	38

HOURL TOTALS	INBOUND					OUTBOUND				
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	0	0	0	0	0	0	0	0	0	0
1215-115	0	0	0	0	0	0	0	0	0	0
1230-130	0	0	0	0	0	0	0	0	0	0
1245-145	0	0	0	0	0	0	0	0	0	0
100-200	0	0	0	0	0	0	0	0	0	0
115-215	0	0	0	0	0	0	0	0	0	0
130-230	0	0	0	0	0	0	0	0	0	0
145-245	0	0	0	0	0	0	0	0	0	0
200-300	0	0	0	0	0	1	0	0	0	0
215-315	0	0	0	0	0	1	0	0	0	0
230-330	0	0	0	0	0	1	0	0	0	0
245-345	0	0	0	0	0	1	0	0	0	0
300-400	0	0	0	0	0	0	0	0	0	0
315-415	0	0	0	0	0	1	0	0	1	0
330-430	0	0	0	0	0	1	0	0	1	0
345-445	0	0	0	0	0	1	0	0	1	0
400-500	1	0	0	0	0	1	0	0	1	0
415-515	1	0	0	0	0	0	0	0	0	0
430-530	1	0	0	0	0	0	0	0	0	0
445-545	1	0	0	0	0	0	0	0	0	0
500-600	0	0	0	0	0	1	0	0	0	0
515-615	0	0	0	0	0	1	0	0	0	0
530-630	0	0	0	0	0	1	0	0	1	0
545-645	0	0	0	0	1	1	0	0	1	0
600-700	1	0	0	0	2	0	0	0	1	0
615-715	1	0	0	0	4	0	0	0	1	1
630-730	1	0	0	0	6	0	0	0	0	2
645-745	1	0	0	0	5	0	0	0	0	4
700-800	0	0	0	0	4	0	0	0	0	5
715-815	2	0	0	0	3	0	0	0	0	4
730-830	2	0	0	0	2	0	0	0	0	3
745-845	2	0	0	0	3	0	0	0	0	2
800-900	2	0	0	0	5	0	0	0	0	2
815-915	0	0	0	0	5	0	0	0	0	3
830-930	1	0	0	1	4	0	0	0	1	4
845-945	1	0	0	1	3	0	0	0	2	3
900-1000	1	0	0	1	2	1	0	0	2	2
915-1015	1	0	0	1	1	1	0	0	2	3
930-1030	0	0	1	0	1	1	0	0	1	3
945-1045	1	0	1	0	3	1	0	0	0	3
1000-1100	1	0	1	0	4	0	0	0	0	3
1015-1115	1	0	1	0	4	1	0	0	0	4
1030-1130	1	0	0	0	5	2	0	0	0	3
1045-1145	0	0	0	0	3	2	0	0	0	4
1100-1200	1	0	0	0	4	2	0	0	0	4
1115-1215	1	0	1	0	5	1	0	0	0	1
1130-1230	1	0	1	1	4	0	0	0	2	1
1145-1245	1	0	1	1	4	0	0	0	2	1
1200-100	0	0	1	1	2	0	0	0	2	1
1215-115	1	0	0	1	1	0	0	0	2	2
1230-130	1	0	0	0	2	0	0	0	0	2
1245-145	1	0	0	0	2	0	0	0	1	1
100-200	2	0	0	0	1	0	0	0	1	2
115-215	1	0	0	1	2	0	0	0	1	1
130-230	1	0	0	1	1	0	0	0	1	1
145-245	1	0	0	1	1	0	0	0	0	1
200-300	0	0	0	1	1	0	0	0	0	0
215-315	0	0	0	0	2	1	0	0	0	0
230-330	0	0	0	1	2	1	0	0	0	1
245-345	0	0	0	1	3	1	0	0	0	3
300-400	0	0	0	1	5	1	0	0	0	3
315-415	0	0	0	1	3	0	0	0	0	3
330-430	0	0	0	2	3	0	0	0	0	3
345-445	0	0	0	2	3	0	0	0	0	1
400-500	0	0	0	2	1	0	0	0	0	2
415-515	0	0	0	2	2	0	0	0	0	6
430-530	0	0	0	1	3	0	0	0	0	6
445-545	0	0	0	1	4	0	0	0	0	8

500-600	0	0	0	1	4	0	0	0	0	7
515-615	0	0	0	1	4	0	0	0	1	4
530-630	0	0	0	0	4	0	0	0	1	3
545-645	0	0	0	1	2	0	0	0	1	2
600-700	0	0	0	1	9	0	0	0	1	4
615-715	0	0	0	1	8	0	0	0	0	4
630-730	0	0	0	1	7	0	0	0	0	4
645-745	0	0	0	0	7	0	0	0	0	3
700-800	0	0	0	0	0	0	0	0	0	2
715-815	0	0	1	0	1	0	0	0	0	1
730-830	0	0	1	0	1	0	0	0	0	2
745-845	0	0	1	0	1	0	0	0	0	2
800-900	0	0	1	0	1	0	0	0	0	1
815-915	0	0	0	0	1	0	0	0	0	1
830-930	0	0	0	0	1	0	0	0	0	0
845-945	0	0	0	0	1	0	0	0	0	0
900-1000	0	0	0	0	1	0	0	0	0	0
915-1015	0	0	0	0	0	0	0	0	0	0
930-1030	0	0	0	0	0	0	0	0	0	0
945-1045	0	0	0	0	0	0	0	0	0	0
1000-1100	0	0	0	0	0	0	0	0	0	0
1015-1115	0	0	0	0	0	0	0	0	0	0
1030-1130	0	0	0	0	0	0	0	0	0	0
1045-1145	0	0	0	0	0	0	0	0	0	0
1100-1200	0	0	0	0	0	0	0	0	0	0

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: WEDNESDAY APRIL 13TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #3

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	1	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	2	0	0	0	0	2
0045-100	0	0	0	0	0	0	0	0	0	0
100-115	0	0	0	1	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	0
130-145	0	0	0	0	0	0	0	0	0	1
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	0	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	0	0	0	0	0	1	0
245-300	1	0	0	0	0	0	0	0	0	0
300-315	0	0	0	0	0	0	0	0	0	0
315-330	0	0	0	0	0	0	0	0	0	0
330-345	0	0	0	1	0	0	0	0	0	0
345-400	0	0	0	0	0	0	0	0	0	0
400-415	0	0	0	0	1	0	0	0	0	1
415-430	0	0	0	0	0	0	0	0	0	0
430-445	0	0	0	0	0	0	0	0	0	0
445-500	0	0	0	0	0	0	0	0	1	0
500-515	0	0	0	0	0	0	0	0	0	0
515-530	0	0	0	0	0	0	0	0	0	0
530-545	0	0	0	0	0	0	0	0	0	0
545-600	0	0	0	0	1	0	0	0	0	1
600-615	1	0	0	1	0	0	0	0	0	0
615-630	0	0	0	0	0	0	0	0	0	0
630-645	0	0	0	0	0	0	0	0	1	0
645-700	0	0	0	0	0	1	0	0	0	0
700-715	0	0	0	0	0	0	0	0	0	0
715-730	0	0	0	0	0	0	0	0	0	0
730-745	0	0	0	0	0	0	0	0	0	0
745-800	0	0	0	0	0	0	0	0	2	0
800-815	0	0	0	0	1	0	0	0	0	0
815-830	0	0	0	0	0	0	0	0	0	1
830-845	0	0	0	0	0	0	0	0	0	0
845-900	0	0	0	0	1	0	0	0	0	0
900-915	0	0	0	0	1	0	0	0	0	0
915-930	0	0	0	0	0	0	0	0	0	1
930-945	0	0	0	0	1	0	0	0	0	1
945-1000	0	0	0	1	0	0	0	0	0	0
1000-1015	0	0	0	0	1	0	0	0	0	0
1015-1030	1	0	0	0	0	0	0	0	1	1
1030-1045	0	0	0	0	0	0	0	0	1	0
1045-1100	0	0	0	0	1	0	0	0	0	0
1100-1115	0	0	0	0	0	1	0	0	0	1
1115-1130	0	0	0	0	1	0	0	0	0	0
1130-1145	0	0	0	0	0	0	0	0	0	1
1145-1200	0	0	0	0	0	0	0	0	0	0
1200-1215	0	0	0	0	0	0	0	0	0	0
1215-1230	0	0	0	0	0	0	0	0	0	0
1230-1245	0	0	0	0	1	0	0	0	0	1
1245-1300	0	0	0	0	0	0	0	0	0	0
1300-1315	0	0	0	0	0	0	0	0	0	0
1315-1330	0	0	0	0	1	0	0	0	1	0
1330-1345	0	0	0	0	0	0	0	0	0	0
1345-1400	0	0	0	0	0	0	0	0	0	0

1400-1415	0	0	0	0	0	0	0	0	0	1
1415-1430	0	0	0	0	0	0	0	0	0	0
1430-1445	0	0	0	0	1	1	0	0	1	0
1445-1500	0	0	0	1	0	0	0	0	0	1
1500-1515	0	0	0	0	0	0	0	0	0	0
1515-1530	0	0	0	0	0	0	0	0	0	0
1530-1545	0	0	0	0	2	0	0	0	0	2
1545-1600	0	0	0	0	0	2	0	0	0	0
1600-1615	0	0	0	0	0	0	0	0	0	0
1615-1630	1	0	0	0	0	0	0	0	0	0
1630-1645	0	0	0	0	0	0	0	0	1	0
1645-1700	0	0	0	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0	0	0	0
1715-1730	0	0	1	0	0	0	0	0	0	0
1730-1745	0	0	0	0	0	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0	0	0	0
1800-1815	0	0	0	0	0	0	0	0	0	0
1815-1830	0	0	0	0	0	0	0	0	0	0
1830-1845	0	0	0	0	1	0	0	0	0	1
1845-1900	0	0	0	0	0	0	0	0	0	0
1900-1915	0	0	0	0	0	0	0	0	0	0
1915-1930	0	0	0	0	1	0	0	0	0	1
1930-1945	0	0	0	0	0	0	0	0	0	0
1945-2000	0	0	0	0	1	0	0	0	0	1
2000-2015	0	0	0	0	0	0	0	0	0	0
2015-2030	0	0	0	0	0	0	0	0	0	0
2030-2045	0	0	0	0	0	0	0	0	0	0
2045-2100	0	0	0	0	0	0	0	0	0	0
2100-2115	0	0	0	0	0	0	0	0	0	0
2115-2130	1	0	0	0	0	0	0	0	0	0
2130-2145	0	0	0	0	0	0	0	0	0	0
2145-2200	0	0	0	0	0	0	0	0	0	0
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	0	0	0	0	0	0
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	1	0	0	0	0	1
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	6	0	1	5	20	5	0	0	10	20

HOURL TOTALS	INBOUND					OUTBOUND				
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	1	0	0	0	2	0	0	0	0	2
1215-115	1	0	0	1	2	0	0	0	0	2
1230-130	0	0	0	1	2	0	0	0	0	2
1245-145	0	0	0	1	0	0	0	0	0	1
100-200	0	0	0	1	0	0	0	0	0	1
115-215	0	0	0	0	0	0	0	0	0	1
130-230	0	0	0	0	0	0	0	0	0	1
145-245	0	0	0	0	0	0	0	0	1	0
200-300	1	0	0	0	0	0	0	0	1	0
215-315	1	0	0	0	0	0	0	0	1	0
230-330	1	0	0	0	0	0	0	0	1	0
245-345	1	0	0	1	0	0	0	0	0	0
300-400	0	0	0	1	0	0	0	0	0	0
315-415	0	0	0	1	1	0	0	0	0	1
330-430	0	0	0	1	1	0	0	0	0	1
345-445	0	0	0	0	1	0	0	0	0	1
400-500	0	0	0	0	1	0	0	0	1	1
415-515	0	0	0	0	0	0	0	0	1	0
430-530	0	0	0	0	0	0	0	0	1	0
445-545	0	0	0	0	0	0	0	0	1	0
500-600	0	0	0	0	1	0	0	0	0	1
515-615	1	0	0	1	1	0	0	0	0	1
530-630	1	0	0	1	1	0	0	0	0	1
545-645	1	0	0	1	1	0	0	0	1	1
600-700	1	0	0	1	0	1	0	0	1	0
615-715	0	0	0	0	0	1	0	0	1	0
630-730	0	0	0	0	0	1	0	0	1	0
645-745	0	0	0	0	0	1	0	0	0	0
700-800	0	0	0	0	0	0	0	0	2	0
715-815	0	0	0	0	1	0	0	0	2	0
730-830	0	0	0	0	1	0	0	0	2	1
745-845	0	0	0	0	1	0	0	0	2	1
800-900	0	0	0	0	2	0	0	0	0	1
815-915	0	0	0	0	2	0	0	0	0	1
830-930	0	0	0	0	2	0	0	0	0	1
845-945	0	0	0	0	3	0	0	0	0	2
900-1000	0	0	0	1	2	0	0	0	0	2
915-1015	0	0	0	1	2	0	0	0	0	2
930-1030	1	0	0	1	2	0	0	0	1	2
945-1045	1	0	0	1	1	0	0	0	2	1
1000-1100	1	0	0	0	2	0	0	0	2	1
1015-1115	1	0	0	0	1	1	0	0	2	2
1030-1130	0	0	0	0	2	1	0	0	1	1
1045-1145	0	0	0	0	2	1	0	0	0	2
1100-1200	0	0	0	0	1	1	0	0	0	2
1115-1215	0	0	0	0	1	0	0	0	0	1
1130-1230	0	0	0	0	0	0	0	0	0	1
1145-1245	0	0	0	0	1	0	0	0	0	1
1200-100	0	0	0	0	1	0	0	0	0	1
1215-115	0	0	0	0	1	0	0	0	0	1
1230-130	0	0	0	0	2	0	0	0	1	1
1245-145	0	0	0	0	1	0	0	0	1	0
100-200	0	0	0	0	1	0	0	0	1	0
115-215	0	0	0	0	1	0	0	0	1	1
130-230	0	0	0	0	0	0	0	0	0	1
145-245	0	0	0	0	1	1	0	0	1	1
200-300	0	0	0	1	1	1	0	0	1	2
215-315	0	0	0	1	1	1	0	0	1	1
230-330	0	0	0	1	1	1	0	0	1	1
245-345	0	0	0	1	2	0	0	0	0	3
300-400	0	0	0	0	2	2	0	0	0	2
315-415	0	0	0	0	2	2	0	0	0	2
330-430	1	0	0	0	2	2	0	0	0	2
345-445	1	0	0	0	0	2	0	0	1	0
400-500	1	0	0	0	0	0	0	0	1	0
415-515	1	0	0	0	0	0	0	0	1	0
430-530	0	0	1	0	0	0	0	0	1	0
445-545	0	0	1	0	0	0	0	0	0	0

500-600	0	0	1	0	0	0	0	0	0	0
515-615	0	0	1	0	0	0	0	0	0	0
530-630	0	0	0	0	0	0	0	0	0	0
545-645	0	0	0	0	1	0	0	0	0	1
600-700	0	0	0	0	1	0	0	0	0	1
615-715	0	0	0	0	1	0	0	0	0	1
630-730	0	0	0	0	2	0	0	0	0	2
645-745	0	0	0	0	1	0	0	0	0	1
700-800	0	0	0	0	2	0	0	0	0	2
715-815	0	0	0	0	2	0	0	0	0	2
730-830	0	0	0	0	1	0	0	0	0	1
745-845	0	0	0	0	1	0	0	0	0	1
800-900	0	0	0	0	0	0	0	0	0	0
815-915	0	0	0	0	0	0	0	0	0	0
830-930	1	0	0	0	0	0	0	0	0	0
845-945	1	0	0	0	0	0	0	0	0	0
900-1000	1	0	0	0	0	0	0	0	0	0
915-1015	1	0	0	0	0	0	0	0	0	0
930-1030	0	0	0	0	0	0	0	0	0	0
945-1045	0	0	0	0	0	0	0	0	0	0
1000-1100	0	0	0	0	1	0	0	0	0	1
1015-1115	0	0	0	0	1	0	0	0	0	1
1030-1130	0	0	0	0	1	0	0	0	0	1
1045-1145	0	0	0	0	1	0	0	0	0	1
1100-1200	0	0	0	0	0	0	0	0	0	0

TRAFFIC DATA SERVICES

Phone: (678) 687-8266 Fax: (404) 294-6122

DRIVEWAY TURNING MOVEMENT COUNT SUMMARY

CLIENT: NV5
PROJECT: SAVANNAH GA DRIVEWAY COUNTS
DATE: THURSDAY APRIL 14TH 2022
PERIOD: 12:00 AM TO 12:00 AM (24 HOURS)
LOCATION: DRIVEWAY #3

15 MIN COUNTS	INBOUND					OUTBOUND				
PERIOD	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
0000-0015	0	0	0	0	0	0	0	0	0	0
0015-0030	0	0	0	0	0	0	0	0	0	0
0030-0045	0	0	0	0	0	0	0	0	0	0
0045-100	0	0	0	0	0	0	0	0	0	0
100-115	0	0	0	0	0	0	0	0	0	0
115-130	0	0	0	0	0	0	0	0	0	0
130-145	0	0	0	0	0	0	0	0	0	0
145-200	0	0	0	0	0	0	0	0	0	0
200-215	0	0	0	0	0	0	0	0	0	0
215-230	0	0	0	0	0	0	0	0	0	0
230-245	0	0	0	1	0	1	0	0	0	0
245-300	0	0	0	0	0	0	0	0	0	0
300-315	0	0	0	0	0	0	0	0	0	0
315-330	0	0	0	0	0	0	0	0	0	0
330-345	0	0	0	0	0	0	0	0	0	0
345-400	0	0	0	0	1	0	0	0	0	0
400-415	0	0	0	0	0	0	0	0	0	0
415-430	0	0	0	0	0	0	0	0	0	2
430-445	0	0	0	0	0	0	0	0	0	0
445-500	0	0	0	0	0	0	0	0	0	0
500-515	1	0	0	0	1	0	0	0	0	0
515-530	0	0	0	0	0	0	0	0	0	0
530-545	0	0	0	0	0	0	0	0	0	1
545-600	0	0	0	0	0	0	0	0	0	0
600-615	0	0	0	0	0	0	0	0	0	0
615-630	2	0	0	1	1	0	0	0	0	1
630-645	0	0	0	0	0	0	0	0	0	0
645-700	0	0	0	0	0	2	0	0	0	0
700-715	0	0	0	0	1	0	0	0	0	0
715-730	0	0	0	0	0	0	0	0	0	0
730-745	0	0	0	0	0	0	0	0	0	0
745-800	0	0	0	0	0	0	0	0	0	1
800-815	0	0	0	0	0	0	0	0	0	0
815-830	0	0	0	0	3	0	0	0	0	0
830-845	0	0	0	0	1	0	0	0	0	0
845-900	0	0	0	0	0	0	0	0	0	0
900-915	0	0	0	0	2	0	0	0	0	3
915-930	1	0	0	0	0	0	0	0	0	0
930-945	0	0	0	0	1	1	0	0	0	2
945-1000	0	0	0	0	0	0	0	0	0	0
1000-1015	0	0	0	0	2	0	0	0	0	1
1015-1030	0	0	0	0	0	0	0	0	0	0
1030-1045	0	0	0	0	0	0	0	0	0	0
1045-1100	0	0	0	0	0	0	0	0	0	1
1100-1115	0	0	0	0	1	0	0	0	0	0
1115-1130	0	0	0	0	0	0	0	0	0	0
1130-1145	0	0	0	1	0	0	0	0	0	0
1145-1200	0	0	0	0	1	1	0	0	0	0
1200-1215	0	0	0	0	0	0	0	0	0	1
1215-1230	0	0	0	0	0	0	0	0	0	0
1230-1245	0	0	0	0	1	0	0	0	0	0
1245-1300	0	0	0	0	0	1	0	0	0	0
1300-1315	0	0	0	0	0	0	0	0	0	1
1315-1330	0	0	0	0	1	0	0	0	0	0
1330-1345	0	0	0	1	0	0	0	0	0	0
1345-1400	0	0	0	0	0	0	0	0	0	0

1400-1415	0	0	0	0	0	1	0	0	0	0
1415-1430	1	0	0	1	2	0	0	0	0	0
1430-1445	1	0	0	0	0	0	0	0	1	1
1445-1500	0	0	0	0	0	0	0	0	0	0
1500-1515	0	0	0	0	0	1	0	0	0	0
1515-1530	0	0	0	0	0	0	0	0	0	1
1530-1545	0	0	0	0	0	0	0	0	0	3
1545-1600	0	0	0	0	0	0	0	0	2	0
1600-1615	0	0	0	0	0	0	0	0	0	0
1615-1630	0	0	0	0	0	0	0	0	1	0
1630-1645	0	0	0	0	1	0	0	0	0	0
1645-1700	0	0	0	0	0	0	0	0	0	0
1700-1715	0	0	0	0	0	0	0	0	1	0
1715-1730	0	0	0	0	0	0	0	0	0	0
1730-1745	0	0	0	0	1	0	0	0	0	0
1745-1800	0	0	0	0	0	0	0	0	0	1
1800-1815	0	0	0	0	0	0	0	0	0	1
1815-1830	0	0	0	0	0	0	0	0	0	0
1830-1845	0	0	0	0	0	0	0	0	0	1
1845-1900	0	0	0	0	0	0	0	0	0	0
1900-1915	0	0	0	0	1	0	0	0	0	1
1915-1930	0	0	0	0	1	0	0	0	0	0
1930-1945	0	0	0	0	0	0	0	0	0	1
1945-2000	0	0	0	0	0	0	0	0	0	0
2000-2015	0	0	0	0	1	0	0	0	1	1
2015-2030	0	0	0	0	1	0	0	0	0	1
2030-2045	0	0	0	0	2	0	0	0	0	1
2045-2100	0	0	0	0	1	0	0	0	0	2
2100-2115	0	0	0	0	0	0	0	0	0	0
2115-2130	0	0	0	0	1	0	0	0	0	1
2130-2145	0	0	0	0	0	0	0	0	0	0
2145-2200	0	0	0	0	1	0	0	0	0	1
2200-2215	0	0	0	0	0	0	0	0	0	0
2215-2230	0	0	0	0	1	0	0	0	0	1
2230-2245	0	0	0	0	0	0	0	0	0	0
2245-2300	0	0	0	0	1	0	0	0	0	1
2300-2315	0	0	0	0	0	0	0	0	0	0
2315-2330	0	0	0	0	0	0	0	0	0	0
2330-2345	0	0	0	0	0	0	0	0	0	0
2345-0000	0	0	0	0	0	0	0	0	0	0
TOTAL	6	0	0	5	32	8	0	0	6	33

HOURL TOTALS	INBOUND					OUTBOUND				
TIME	CARS	AXLE TRUCKS				CARS	AXLE TRUCKS			
		2	3	4	5+		2	3	4	5+
1200-100	0	0	0	0	0	0	0	0	0	0
1215-115	0	0	0	0	0	0	0	0	0	0
1230-130	0	0	0	0	0	0	0	0	0	0
1245-145	0	0	0	0	0	0	0	0	0	0
100-200	0	0	0	0	0	0	0	0	0	0
115-215	0	0	0	0	0	0	0	0	0	0
130-230	0	0	0	0	0	0	0	0	0	0
145-245	0	0	0	1	0	1	0	0	0	0
200-300	0	0	0	1	0	1	0	0	0	0
215-315	0	0	0	1	0	1	0	0	0	0
230-330	0	0	0	1	0	1	0	0	0	0
245-345	0	0	0	0	0	0	0	0	0	0
300-400	0	0	0	0	1	0	0	0	0	0
315-415	0	0	0	0	1	0	0	0	0	0
330-430	0	0	0	0	1	0	0	0	0	2
345-445	0	0	0	0	1	0	0	0	0	2
400-500	0	0	0	0	0	0	0	0	0	2
415-515	1	0	0	0	1	0	0	0	0	2
430-530	1	0	0	0	1	0	0	0	0	0
445-545	1	0	0	0	1	0	0	0	0	1
500-600	1	0	0	0	1	0	0	0	0	1
515-615	0	0	0	0	0	0	0	0	0	1
530-630	2	0	0	1	1	0	0	0	0	2
545-645	2	0	0	1	1	0	0	0	0	1
600-700	2	0	0	1	1	2	0	0	0	1
615-715	2	0	0	1	2	2	0	0	0	1
630-730	0	0	0	0	1	2	0	0	0	0
645-745	0	0	0	0	1	2	0	0	0	0
700-800	0	0	0	0	1	0	0	0	0	1
715-815	0	0	0	0	0	0	0	0	0	1
730-830	0	0	0	0	3	0	0	0	0	1
745-845	0	0	0	0	4	0	0	0	0	1
800-900	0	0	0	0	4	0	0	0	0	0
815-915	0	0	0	0	6	0	0	0	0	3
830-930	1	0	0	0	3	0	0	0	0	3
845-945	1	0	0	0	3	1	0	0	0	5
900-1000	1	0	0	0	3	1	0	0	0	5
915-1015	1	0	0	0	3	1	0	0	0	3
930-1030	0	0	0	0	3	1	0	0	0	3
945-1045	0	0	0	0	2	0	0	0	0	1
1000-1100	0	0	0	0	2	0	0	0	0	2
1015-1115	0	0	0	0	1	0	0	0	0	1
1030-1130	0	0	0	0	1	0	0	0	0	1
1045-1145	0	0	0	1	1	0	0	0	0	1
1100-1200	0	0	0	1	2	1	0	0	0	0
1115-1215	0	0	0	1	1	1	0	0	0	1
1130-1230	0	0	0	1	1	1	0	0	0	1
1145-1245	0	0	0	0	2	1	0	0	0	1
1200-100	0	0	0	0	1	1	0	0	0	1
1215-115	0	0	0	0	1	1	0	0	0	1
1230-130	0	0	0	0	2	1	0	0	0	1
1245-145	0	0	0	1	1	1	0	0	0	1
100-200	0	0	0	1	1	0	0	0	0	1
115-215	0	0	0	1	1	1	0	0	0	0
130-230	1	0	0	2	2	1	0	0	0	0
145-245	2	0	0	1	2	1	0	0	1	1
200-300	2	0	0	1	2	1	0	0	1	1
215-315	2	0	0	1	2	1	0	0	1	1
230-330	1	0	0	0	0	1	0	0	1	2
245-345	0	0	0	0	0	1	0	0	0	4
300-400	0	0	0	0	0	1	0	0	2	4
315-415	0	0	0	0	0	0	0	0	2	4
330-430	0	0	0	0	0	0	0	0	3	3
345-445	0	0	0	0	1	0	0	0	3	0
400-500	0	0	0	0	1	0	0	0	1	0
415-515	0	0	0	0	1	0	0	0	2	0
430-530	0	0	0	0	1	0	0	0	1	0
445-545	0	0	0	0	1	0	0	0	1	0

500-600	0	0	0	0	1	0	0	0	1	1
515-615	0	0	0	0	1	0	0	0	0	2
530-630	0	0	0	0	1	0	0	0	0	2
545-645	0	0	0	0	0	0	0	0	0	3
600-700	0	0	0	0	0	0	0	0	0	2
615-715	0	0	0	0	1	0	0	0	0	2
630-730	0	0	0	0	2	0	0	0	0	2
645-745	0	0	0	0	2	0	0	0	0	2
700-800	0	0	0	0	2	0	0	0	0	2
715-815	0	0	0	0	2	0	0	0	1	2
730-830	0	0	0	0	2	0	0	0	1	3
745-845	0	0	0	0	4	0	0	0	1	3
800-900	0	0	0	0	5	0	0	0	1	5
815-915	0	0	0	0	4	0	0	0	0	4
830-930	0	0	0	0	4	0	0	0	0	4
845-945	0	0	0	0	2	0	0	0	0	3
900-1000	0	0	0	0	2	0	0	0	0	2
915-1015	0	0	0	0	2	0	0	0	0	2
930-1030	0	0	0	0	2	0	0	0	0	2
945-1045	0	0	0	0	2	0	0	0	0	2
1000-1100	0	0	0	0	2	0	0	0	0	2
1015-1115	0	0	0	0	2	0	0	0	0	2
1030-1130	0	0	0	0	1	0	0	0	0	1
1045-1145	0	0	0	0	1	0	0	0	0	1
1100-1200	0	0	0	0	0	0	0	0	0	0

Trailer Storage

Based upon methodology from Trip Generation Study at three similar sites in Savannah, GA (May 2022)

Project Land Use	Project Density	Project Trips			ITE Code	Variable	Equation Used ¹	In/Out Distribution		Average Rate
		Total	Inbound	Outbound						
Trailer Storage	Personal Vehicle Trips	1.6 Acres								
	Daily		6	6	N/A	Acres	$T = 7 * X$	50%	50%	7.00
	AM Peak Hour		1	1			$T = 1.15 * X$	54%	46%	1.15
	PM Peak Hour		0	1			$T = 0.46 * X$	41%	59%	0.46
	Truck Trips									
	Daily		24	24			$T = 30.2 * X$	50%	50%	30.20
	AM Peak Hour		3	2			$T = 2.87 * X$	54%	46%	2.87
	PM Peak Hour		1	2			$T = 2.07 * X$	41%	59%	2.07
TOTAL PROJECT TRIPS										
	Daily		30	30						
	AM Peak Hour		4	3						
	PM Peak Hour		1	3						

Note:

¹ Where: T = Trips; X = Density by Variable



CITY OF GAINESVILLE

Planning and Appeals Board Agenda Request

Item Created: July 19, 2022

Date Submitted: July 22, 2022

Final Approval Date: July 26, 2022

Presenter: Matt Tate, Community & Economic Development Dept Deputy Director

Item of Business: Request from **Kaiz Isani** for a special use on a 3.74± acres tract located at the southeast corner of Candler Road and Calvary Church Road (a/k/a **1311 Calvary Church Road, SW**), having a zoning of Light Industrial (L-I).

Meeting Date: August 9, 2022

Purpose of Request:

The applicant is proposing a special use request for a retail store that sells tobacco and alternative nicotine products such as premium cigars, vape, CBD, kratoms and accessories. The store is not a lounge and there is no smoking allowed inside. The anticipated hours of operation are from 9:00 A.M. to 9:00 P.M. / 7 days a week. There will be two employees. The applicant desires to occupy a vacant suite within the retail strip center. There are no proposed changes to the exterior of the building except for updating the sign. Access will remain from Calvary Church Road. Other uses within the retail center include AAA Bonding, Easy Out Bail Bonds and Candler Package Store. The property is located within the Gateway Corridor Overlay Zone and the surrounding uses include a gas station, cellular tower, tree service business and a single-family home.

Facts & Issues / History & Background:

Department Recommendation:

Planning staff recommended approval with one condition. See the Staff Recommendation report for details.

Department Director:

Rusty Ligon

If funding is involved, are funds approved within the current budget? No

Amount Requested:

Sources of Funds:

Finance Comments:

Administrative Comments:

Attachments:

1. Kaiz Isani spc use staff rep
2. Location Maps
3. Narrative
4. Site plan
5. Pictures

**GAINESVILLE PLANNING and APPEALS BOARD
STAFF RECOMMENDATION**

Applicant.....Kaiz Isani
Property OwnerAJ Cube, LLC
Location1311 Calvary Church Road, SW
Request.....Special Use within L-I zoning
Size.....3.74± acres
Ward.....Three
Proposed Use.....Retail sales of alternative nicotine products
Planning Division Staff Recommendation.....**Approval, with condition**
DateAugust 9, 2022

▪ **Applicant's Proposal and Background Information**

The proposal is for a special use to permit a retail store that sells tobacco and alternative nicotine products such as premium cigars, vape, CBD, kratoms and accessories. The applicant desires to occupy the remaining vacant suite within the existing shopping center which was previously part of a package store. The existing uses within the strip center include AAA Bonding, Easy Out Bail Bonds and Candler Package Store. The proposed store is 1,400 square feet in size and will not include a smoke lounge. The anticipated hours of operation are from 9:00 A.M. to 9:00 P.M. / 7 days a week with two employees. There are no proposed changes to the exterior of the building except for updating the signs. Access from the shopping center will remain from Calvary Church Road.

The property is located within the Gateway Corridor Overlay Zone.

▪ **Adjacent Land Use and Zoning**

Location	Use	Zoning
North	Future Convenience Store and Gas Station	Heavy Industrial (H-I)
South	Single-family homes	Agricultural Residential-III (AR-III)- County
East	Tree Service Business	Light Industrial (I-I) -County
West	Calvary Creek Industrial Park; Cell Tower; Convenience Store and Gas Station	Light Industrial (L-I) and General Business (G-B)

▪ **Other Departmental Comments**

There were no other departmental comments regarding this request.

▪ **Zoning History**

The following zoning actions have taken place in the immediate area during the last ten years:

2020 - A request by City of Gainesville to rezone a 1,320± acres tract located at 1701 Fulenwider Road from Residential-I-A (R-I-A) and Heavy Industrial (H-I) to Planned Unit Development (P-U-D) was approved with conditions for a business park.

2020 - A request by 1430 Calvary Church Rd LLC to annex a 0.46± acre tract located at 1442 Calvary Church Road with Light Industrial (L-I) zoning for a warehouse addition was approved with conditions.

2019 - A request by City of Gainesville to rezone 395.69± acres located at 1701 Fulenwider Road, SW from Residential-I-A (R-I-A) to Heavy Industrial (H-I) was approved with conditions for future industrial uses.

2019 - A request by RY Holding Company LLC to annex a 2.01± acres tract located at 2348 Monroe Drive with Heavy Industrial (H-I) zoning for sewer for an office warehouse was approved.

2016 - A request by R. Lawton, Esq. Partner, Williams Teusink, LLC to rezone a 3.53± acres tract located at 1305, 1307, 1309, 1311, 1313, 1315, 1317, & 1319 Calvary Church Road from Residential-I-A (R-I-A) and General Business (G-B) to Light Industrial (L-I) was approved with conditions for a recycling center.

▪ **Staff Analysis**

(1) Is the proposed use suitable in view of the zoning and development of adjacent and nearby property?

The proposed use appears suitable given it would be located within an existing shopping center and is adjacent to other commercial uses which include two bail bonds businesses and a package store.

(2) Will the proposed use adversely affect the existing use or usability of adjacent or nearby property?

The proposed use should not adversely impact the existing use or usability of the adjacent property. The retail sales of nicotine products will function similar to other retail uses within the center. The proposal does not include a smoke or vape lounge or bar.

(3) Is the proposed use compatible with the purpose and intent of the Comprehensive Plan?

The Gainesville Future Development Map places the property within the *Industrial* land use category which includes a wide range of office, business, light industrial, manufacturing, research, and development uses; and commercial uses that directly support or are otherwise linked to the dominant business use.

The subject property is also located within the *Economic Development Gateways* Character Area. The primary vision for the area is to continue to support economic development, while preserving and strengthening important natural and cultural resources. Other goals include creating gateways for visitors entering the city from I-985. Land uses allowed within this area include public / institutional, parks and recreation, general mixed-use, commercial (retail and office), industrial; and public and institutional.

(4) Are there substantial reasons why the property cannot or should not be used as currently zoned?

The property is currently zoned Light Industrial (L-I). The applicant is not proposing to rezone the property but is asking for a special use within L-I zoning. The Unified Land Development Code was previously amended in 2019 which now requires a special use for stores that specialize in the retail sales of alternative nicotine products. If the request were to be denied, the retail suite would still reserve its right to be occupied for other uses permitted within the L-I zoning district. The proposal appears reasonable given the adjacent and surrounding uses.

(5) Will the proposed use cause an excessive or burdensome use of public facilities or services, including but not limited to streets, schools, water or sewer utilities, and police or fire protection?

The proposal should not cause an excessive or burdensome use of public facilities or services. The development proposes to utilize City water and sewer services and capacity is sufficient. Existing public safety services already respond to the adjacent and nearby properties. Gainesville Fire Station #1 is located 2.2± miles from the property. The additional traffic created by the proposal is expected to be minimal given the shopping center has been in operation for many years. According to the Institute of Transportation Engineers (ITE) Trip Generation Handbook (9th Edition), the proposed use could generate 62± new trips per weekday, 10± A.M. and 10± P.M. peak hour trips. The proposed development is nonresidential and should have no impact on Gainesville City Schools.

(6) Is the proposed use supported by new or changing conditions not anticipated by the Comprehensive Plan or reflected in the existing zoning on the property or surrounding properties?

The property is expected to remain nonresidential due to commercial and industrial zoning and growth along Candler Road and Calvary Church Road.

(7) Does the proposed use reflect a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property?

Based on the Comprehensive Plan and the adjacent mixture of uses, it appears the proposal reflects a reasonable balance between the promotion of the public health, safety, morality, or general welfare and the right to unrestricted use of property, with the proposed conditions.

Additional Criteria

(1) The type of street providing access to the subject property is adequate to serve the proposed Special Use.

Proposed access is Calvary Church Road which is adequate to serve the proposed use.

(2) Access into and out of the property adequately provides for traffic and pedestrian safety, the anticipated volume of traffic flow, and access by emergency vehicles.

The proposed use should have minimal impact on the existing roads. The existing roads appear adequate to serve emergency vehicles. There are existing ADA pedestrian crossings at the fully signalized intersection of Candler Road and Calvary Church Road. There are no sidewalks along the property frontage.

(3) Public facilities such as schools, water or sewer utilities, and police or fire protection are adequate to serve the Special Use.

Existing public facilities are adequate to serve the proposed use. Police and Fire facilities are located within 2.2 miles of the property.

- (4) Refuse, service, parking and loading areas on the property are located and screened to protect other properties in the area from such adverse effects as noise, light, glare or odor.**

All parking, loading and service areas are currently in place. Parking is more than sufficient and is located to the front and sides of the shopping center. The dumpster area is located to the side of the building and is buffered. The existing building is located a considerable distance from the adjacent residential uses and is significantly buffered by mature vegetation.

- (5) The hours and manner of operation of the Special Use have no adverse effects on other properties in the area.**

The applicant states the proposed store hours are seven days a week from 9:00 A.M. to 9:00 P.M. which is typical of other retail stores.

- (6) The height, size and location of the buildings or other structures proposed on the property are compatible with the height, size or location of buildings or other structures on neighboring properties.**

The applicant is proposing to occupy an existing suite. The proposed exterior of the building will remain the same except for replacing the existing wall and monument sign.

▪ **Staff Recommendation**

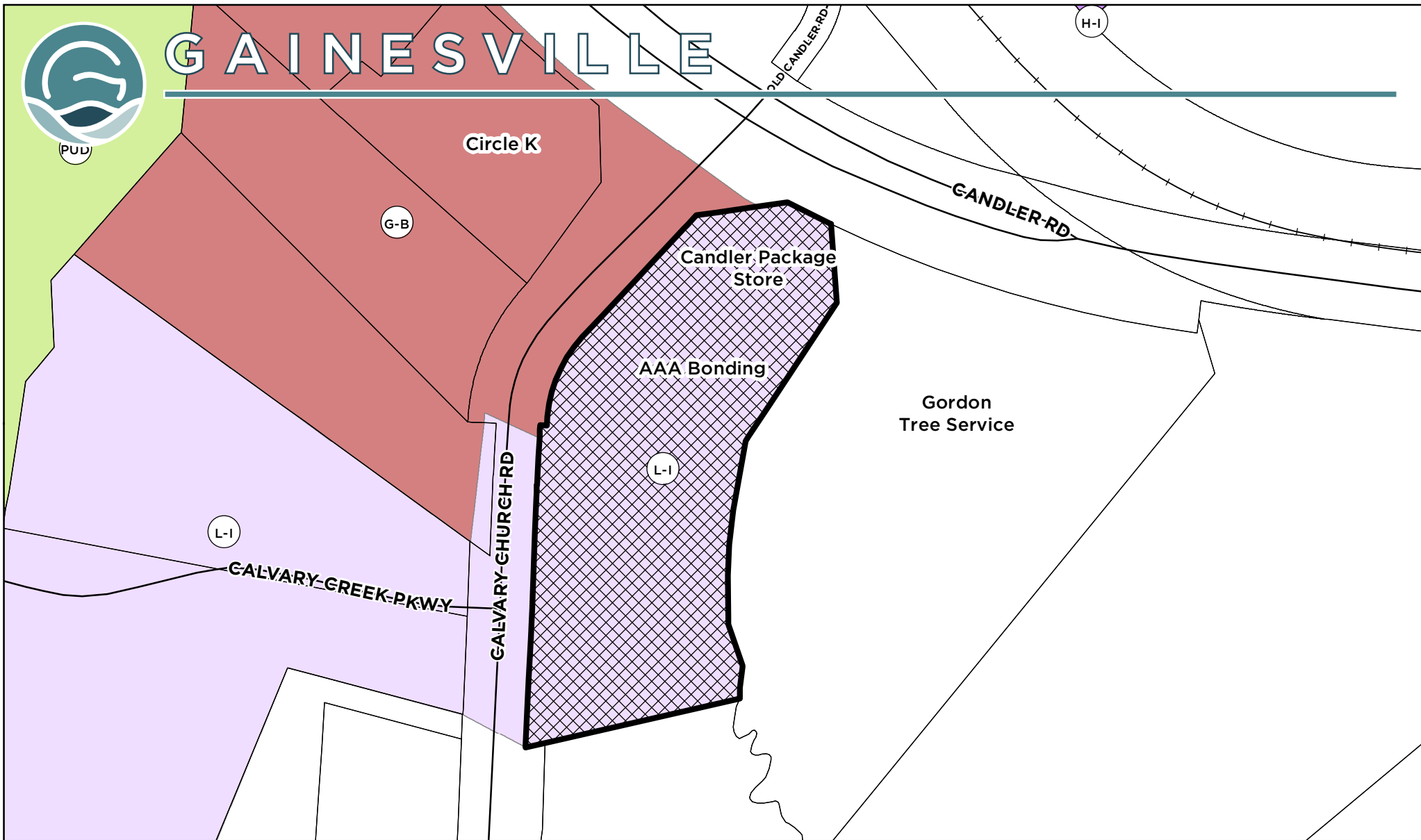
The Planning Division staff is recommending **conditional approval** of this special use request based on the Comprehensive Plan and the adjacent mixture of uses.

Condition

The outline-lighting of windows and doors with any form of lighting shall not be permitted.



GAINESVILLE



Applicant: **KAIZ ISANI**

SPECIAL USE REQUEST

Subject Property Address:
1311 Calvary Church Road, SW

Tax Parcel:
15-035-000-024

Request:

Special use on a 3.74+/- acres tract within Light Industrial (L-I) zoning district for retail sales of alternative nicotine products



Subject Property



Meeting Date: 08/09/2022

Map Prepared: 07/19/2022

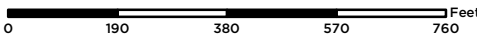
0 90 180 270 360 Feet

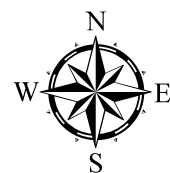
SCALE: 1" = 167'



GAINESVILLE



Applicant: KAIZ ISANI		Request: Special use on a 3.74+/- acres tract within Light Industrial (L-I) zoning district for retail sales of alternative nicotine products	
SPECIAL USE REQUEST			
Subject Property Address: 1311 Calvary Church Road, SW	Tax Parcel: 15-035-000-024	 Subject Property	Aerial from 2021
Meeting Date: 08/09/2022	Map Prepared: 07/19/2022		SCALE: 1" = 333'



KAIZ ISANI

1647 BENHILL DR
SNEVILLE, GA 30078
404-457-1170
KAIZISANI@GMAIL.COM

June 6th 2022

Dear Reader,

I am proposing a zoning request for a special use permit. I am planning to open a retail tobacco shop (not a lounge and no one allowed to smoke inside and its like buy and go) under the name of PHOENIX SMOKE AND VAPE at 1311 Calvary Church Road, Gainesville GA 30507. We are planning to sell alternative nicotine products, tobacco products and accessories, premium cigars, vape, CBD, kratoms etc. So, our store hours will be 9:00am to 9:00pm for 7 days a week. We are going to have two employees who will be working there mostly.

Sincerely,

Kaiz Isani

Curve	Radius	Length	Chord	Chord Bear.
C1	200.00'	9.21'	9.21'	N 03°44'16" E
C2	170.21'	114.46'	112.31'	N 24°46'00" E
C3	1522.39'	61.06'	61.06'	S 62°55'48" E

Course	Bearing	Distance
L2	S 50°45'53" W	34.11'
L3	S 17°27'22" E	70.33'
L4	S 01°56'53" W	23.24'
L5	S 04°01'25" W	52.64'
L6	S 00°29'29" E	56.79'
L7	S 16°49'41" E	64.84'
L8	S 07°24'44" W	37.80'
L9	S 88°13'59" E	10.42'
L10	N 03°08'16" E	17.22'

Calvary Church Road
~Right of Way Varies~
(PER DB 6904, Pg. 677)

Georgia State Route 60
(Candler Highway)
~Right of Way Varies~

3.53 Acres

PROPERTY LINE AS PLATTED AFTER DITCH WAS
"COVERED OVER" PER REVISED SURVEY PREPARED
FOR HOKE & JOAN LOGAN, BY WILLIAM COLLINS AND
WILLIAM WHIDDEN ON 08/23/2004. CURRENT
FLOWLINE/DITCH (SHOWN) MORE ACCURATELY
DEPICTS THE HISTORIC PROPERTY LINE.

N/F
Allen, Paul
DB 5367, Pg. 249
PB 85/208

SURVEYOR'S NOTES:

- The field data upon which this plat is based has a closure of 1:72,872 feet, an angular error of 2.2" per point, and was adjusted using the Least Squares Method.
- This plat has been calculated for closure and has a mathematical error of 1:320,760.
- Field angles and measurements acquired for the production of this plat were obtained on November 10, 2015 using a Nikon DTM-S22 Total Station.
- The bearings shown hereon are based upon Grid North (Georgia West Zone) and were acquired using a dual-frequency GPS receiver and an OPUS solution.
- This plat was prepared without benefit of a current title examination. Easements or other encumbrances may exist which are not shown hereon. No provisions have been made to secure the delineation of any wetlands, historical, or cultural features that may exist on this property.
- All Iron Pins Found (IPF) are 1/2" rebar unless otherwise noted.
- I hereby certify that this plat represents a boundary survey of an existing parcel of land as shown in Hall County Public record(s) identified as Tax Parcel 15035 000024 and described in DB 5848, Pg. 658.
- Municipal boundaries and zoning shown are based upon record documents and current Hall County online systems. The purpose of this plat is for a proposed re-zoning to "L-F".

FLOOD NOTE:

This property is not located within a Special Flood Hazard Area as shown on FEMA Flood Insurance Rate Map (FIRM) 13135C0185F, Community Panel Nos. 130263 and 130466, dated September 29, 2006.

In my professional opinion, this plat and the field survey upon which it is based were performed in accordance with the standards set forth in Chapter 180-7 of the Georgia Board of Professional Engineers and Land Surveyors and O.C.G.A. 15-5-67, in effect at the time of this survey.

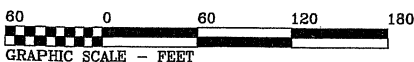


Russell Wallis Howard
G.A.R.L.S. No. 3238

LEGEND

PF - Iron Pin Found
IPF - Iron Pin Set (1/2" Capped Rebar)
RWM - Right of Way Monument Found
CP - Calculated Point
PP - Power Pole
UPT - Underground Power Transformer
EM - Electric Meter
LP - Light Pole
FH - Fire Hydrant
CMP - Corrugated Metal Pipe
RCP - Reinforced Concrete Pipe
WM - Water Meter
WV - Water Valve
ICV - Irrigation Control Valve
UGL - Underground Gas Line
UT - Underground Telephone Line
SM - Sewer Manhole
R/W - Right of Way
N/F - Now or Formerly
DB, pg - Deed Book and Page
PB, pg - Plat Book and Page

Boundary Line
Overhead Electric
City Limits



R.W. Howard Surveying, Inc.

Georgia LSF License No. 1143

89 Ivy Ridge Drive

Jasper, Georgia 30143

(678) 859-0035 www.jaspersurveyor.com

BOUNDARY SURVEY & CONCEPT PLAN
PREPARED FOR
SHREE GANESH INVESTMENTS, LLC

LOCATED IN GENERAL MILITIA DISTRICT 1385
(CANDLER DISTRICT)
CITY OF GAINESVILLE
HALL COUNTY, GEORGIA

DATE: 11/21/2015

SCALE: 1"=60'

DRAWING: 15280

COORD: 15280

SHEET #: 1 of 1



