



PLANNING AND DEVELOPMENT DEPARTMENT CASE REPORT

Case Number: RZC2022-00001
Current Zoning: C-2 (General Business District) and O-I (Office-Institutional District)
Request: Rezoning to MU-R (Regional Mixed-Use District)
Address: 2449 Duluth Highway
Map Number: R7119 002A
Site Area: 9.37 acres
Units: 174
Commercial Square Feet: 52,300
Proposed Development: Mixed-Use Development
Commission District: District 1 – Commissioner Carden
Character Area: Workplace Center

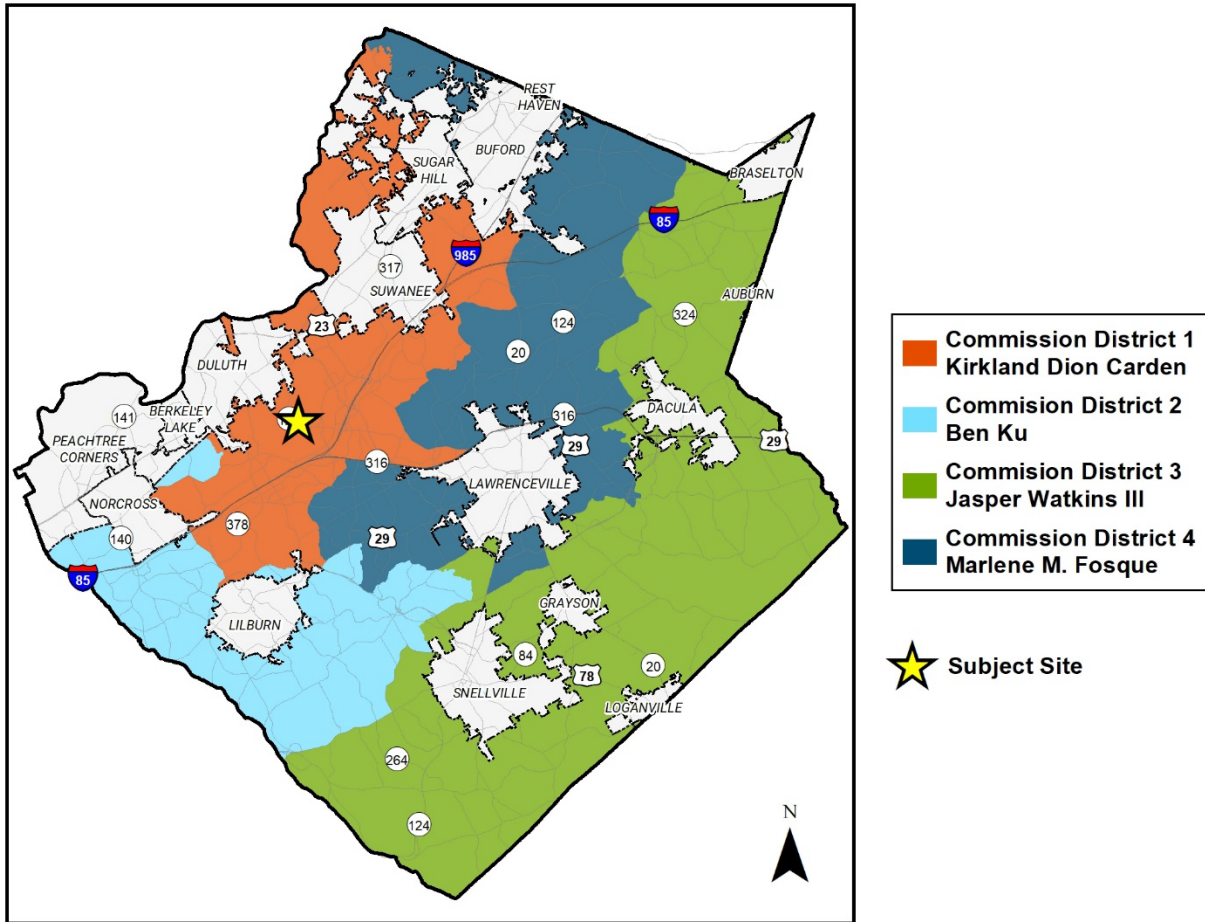
Staff Recommendation: DENIAL

**Planning Commission
Recommendation:** DENIAL

Case Number: RZC2022-00002
Current Zoning: C-2 (General Business District) and O-I (Office-Institutional District)
Request: Rezoning to MU-R (Regional Mixed-Use District)
Addresses: 2539 Duluth Highway, 2805, 2815, 2825 McDaniel Road
Map Numbers: R7119 100, 114, 116, and 118
Site Area: 11.50 acres
Units: 132
Commercial Square Feet: 36,000
Proposed Development: Mixed-Use Development
Commission District: District 1 – Commissioner Carden
Character Area: Workplace Center and Established Neighborhoods

Staff Recommendation: DENIAL

**Planning Commission
Recommendation:** DENIAL



Applicant: Synergy Development Partners, LLC
 83 Walnut Street, NW, Unit 400
 Atlanta, GA 30303

Owner: Brandenton Investors, LLC
 999 Peachtree Street, NE, Suite 855
 Atlanta, GA 30309

Contact: M. Hakim Hilliard

Contact Phone: 404.389.9085

Zoning History

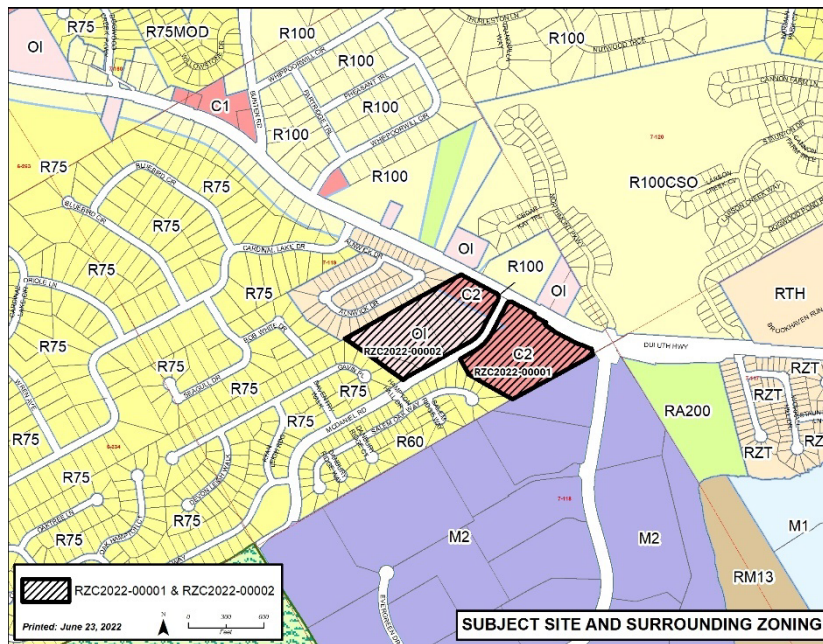
The subject properties are zoned C-2 (General Business District) and O-I (Office-Institutional District). In 1991, the front portion of parcel 7119 002A was rezoned from R-75 to C-2 pursuant to REZ1991-00014, and the rear portion was rezoned from R-75 to M-1 pursuant to REZ1991-00016. In 1992 the rear portion of this same parcel was rezoned from M-1 to C-2 pursuant to REZ1992-00062. In 1991, the front portion of parcel 7119 118 was rezoned from R-75 to C-2 pursuant to REZ1991-00014, and the rear portion along with parcels 7119 114, 7119 116, and 7119 100, were rezoned from R-75 to O-I pursuant to REZ1991-00015.

Existing Site Condition

The subject site is a 20.87-acre assemblage of five parcels located at the Duluth Highway and McDaniel Road intersection. Four parcels are located to the west of McDaniel Road, and one parcel is located to the east of McDaniel Road. Both properties are heavily wooded, and the western property contains a pond and a stream near the southern property line. The site has elevation changes with high and low points throughout the site, however it generally slopes down from the northwest to the southeast by 30 feet. There is no vehicular access to the site and no sidewalks exist along either the Duluth Highway or McDaniel Road frontages. McDaniel Road includes landscaped medians near its intersection with Duluth Highway. A deceleration lane and overhead power lines are located along Duluth Highway. The nearest Gwinnett County Transit stop is located 0.8 miles from the subject site.

Surrounding Use and Zoning

The subject site is surrounded by residential, commercial, light industrial, and office uses. To the north, across Duluth Highway, is a place of worship and office uses. To the east are light industrial uses along Northmont Parkway. To the south is Hampton Place, a single-family detached subdivision. To the west is Village at Cardinal Lake, a single-family detached subdivision. The following is a summary of surrounding uses and zoning:



Location	Land Use	Zoning	Density
Proposed	Mixed-Use Development	MU-R	14.66 units per acre
North	Institutional Office	R-100 O-I	N/A N/A
East	Light Industrial	M-2	N/A
South	Single-Family Residential Single-Family Residential	R-75 R-60	1.76 units per acre 3.34 units per acre
West	Single-Family Residential	RZT	4.42 units per acre

Project Summary

The applicant requests rezoning of a 20.87-acre site zoned C-2 and O-I to MU-R for a mixed-use development consisting of apartments, townhouses, and retail uses including:

- 306 residential units, yielding a net density of 14.66 units per acre, including 276 apartment units and 30 townhouses.
- Five multifamily three and four-story multifamily buildings with retail uses on the first floor containing 276,000 square feet with 187,900 square feet of residential space and 88,300 square feet of commercial space. The facades appear to be constructed of brick and siding though materials are not identified on the submitted elevations.
- Townhouse units located to the rear of the multifamily buildings.
- 726 parking spaces including 90 driveway and garage parking spaces for townhouses, 131 surface parking spaces, and 505 parking spaces in two structured parking decks.
- Common space totaling 40% or 8.3 acres.
- Amenities include park/green spaces located throughout the site.
- Eight rear-loaded townhouses along the road frontage of McDaniel Road.
- Two entrances from Duluth Highway and three entrances from McDaniel Road.
- 10-foot-wide multiuse trail along the road frontage of Duluth Highway.
- 10-foot-wide landscape strip adjacent to the right-of-way abutting the property and running the length of the entire property frontage of Duluth Highway and McDaniel Road.
- A 25-foot-wide undisturbed zoning buffer adjacent to RZT zoned properties.
- A 50-foot-wide undisturbed zoning buffer adjacent to R-75 and R-60 zoned properties.
- A stream with associated buffers and impervious surface setbacks along the rear portion of the site on the western side of McDaniel Road.
- Several stormwater management facilities on the site including three dry detention basins and three bio retention areas.
- Wide pedestrian plazas located between the buildings and Duluth Highway with removable bollards for fire truck access.
- Internal sidewalks throughout the site.
- A mixture of three-story and four-story mixed use multifamily buildings with facades that appear to consist of brick and siding, though materials are not identified on the submitted elevations.
- Three-story townhouses with facades consisting of brick and siding.

Zoning and Development Standards

The applicant is requesting a rezoning to **MU-R** (Regional Mixed-Use District) for a mixed-use development. The following is a summary of applicable development standards from the Unified Development Ordinance (UDO):

Standard	Required	Proposed	Meets Standard?
Floor Area Ratio (FAR)	Maximum 0.4 (without bonus) Maximum 5 (with bonus)	0.48	YES
Dwelling Units	Maximum 32 dwelling units per acre (for 0.41-1.00 FAR)	14.66 dwelling units per acre	YES

Building Height	Maximum 5 stories and 75' (for 0.41-1.00 FAR)	Townhouses: 35' Apartment with Retail: ≤55'	YES
Standard	Required	Proposed	Meets Standard?
Setbacks	Front Yard: 5' - 15' Side Yard: 10' - 20' Rear Yard: 10' - 20'	>5' >10' >10'	YES YES YES
Off-Street Parking (Multifamily)	Minimum: 414 spaces Maximum: 828 spaces	414 spaces	YES
Off-Street Parking (Townhouses)	Minimum: 90 spaces Maximum: 180 spaces	90 spaces	YES
Off-Street Parking (Retail)	Minimum: 177 spaces Maximum: 442 spaces	222 spaces	YES
Zoning Buffer	25' adjacent to RZT 50' adjacent to R-75 50' adjacent to R-60	25' 50' 50'	YES YES YES
Common Area	15% or 3.13 acres	40% or 8.30 acres	YES

Internal and External Agency Review

In addition to these Development Standards, the applicant must meet all other UDO requirements related to infrastructure improvements. Internal and External agency review comments are attached (Exhibit E). Standard site and infrastructure improvements will also be required related to transportation, stormwater, water, and sewer utilities. Recommended improvements not already required by the UDO have been added as staff recommended conditions.

Staff Analysis

Rezoning Request Analysis: According to the UDO, if a proposed amendment is for the rezoning of property and involves a change in zoning classification the Department shall evaluate the request and make a recommendation with respect to the standards governing exercise of zoning power as defined in Section 270-20.5. After this evaluation, staff makes the following findings based on the standards from the UDO:

A. Whether a proposed rezoning will permit a use that is suitable in view of the use and development of adjacent and nearby property.

The surrounding area is characterized primarily by single-family subdivisions, light industrial uses, and some institutional and commercial uses. To the south and west, are Hampton Place, Hampton Hall and Village at Cardinal Lake single-family detached subdivisions. The densities of these single-family subdivisions are significantly lower than the proposed development. To the north, across Duluth Highway, is Cornerstone Baptist Church on a large lot. There are offices next to the church property. However, the scale and character of the offices are more compatible with the existing single-family subdivisions in the area. To the east of the property are light industrial uses including distribution facilities, warehouses, Amazon fulfillment center, etc. The proposed height and density are not compatible with the surrounding area. Allowing

the development of this site at the proposed density would not be suitable or consistent with the adjacent and nearby property.

B. Whether a proposed rezoning will adversely affect the existing use or usability of adjacent or nearby property.

The existing use and usability of adjacent or nearby properties would be negatively impacted by the zoning change. The incompatible density is likely to have a negative impact on the urban aesthetic and form. In addition, McDaniel Road is a dead-end street and vehicular access culminates at the McDaniel Farm Park to the southwest of the subject property. McDaniel Road provides the only access to two subdivisions, Hampton Hall and Hampton Place. The proposed development will add a significant amount of traffic on McDaniel Road which consequently will have an impact on Duluth Highway. In addition, the site plan indicates intrusion into the 75-foot no impervious setback and does not appear to be an accurate representation of what could be built on site. For example, parking does not appear to be appropriately located to service buildings, streets include 90 degree turns and include pull-in parking spaces. Allowing the construction of the development as proposed would adversely affect the existing use or usability of adjacent and nearby property.

C. Whether the property to be affected by a proposed rezoning has a reasonable economic use as currently zoned.

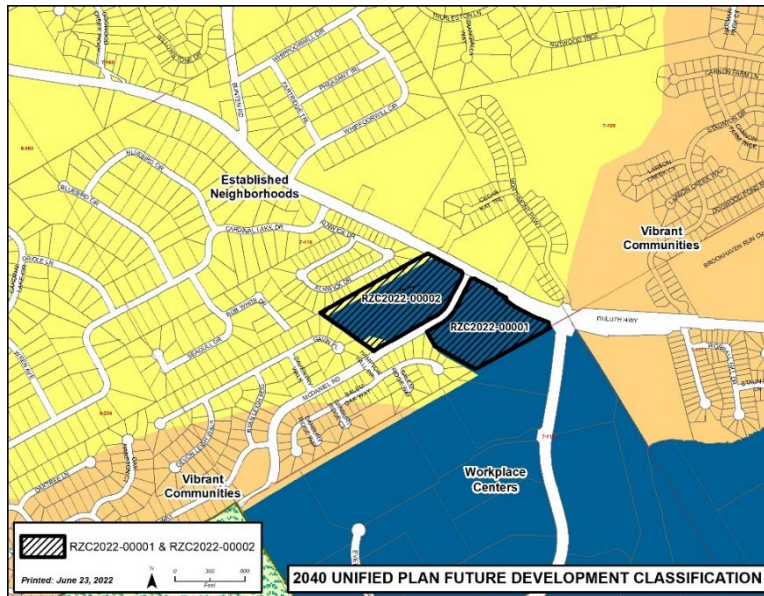
The property has reasonable economic use as currently zoned.

D. Whether the proposed rezoning will result in a use which will or could cause an excessive or burdensome use of existing streets, transportation facilities, utilities, or schools.

Impacts on public facilities would be anticipated in the form of traffic, utility demand, and stormwater runoff; however, these impacts would be mitigated with appropriate conditions, site development requirements, and planning. An impact is anticipated on school enrollment. Agency review comments related to any potential improvements concerning this rezoning request is attached (Exhibit E).

E. Whether the proposed rezoning is in conformity with the policy and intent of the Unified Plan and Future Development Map.

The 2040 Unified Plan and Future Development Map indicates that the subject property lies within the Workplace Center Character Area. This designation is predominantly for employment-oriented uses and includes office parks, industrial parks, and locations for freight-oriented and logistic uses. While mixed-use developments are listed as potential development types, focus should be put on attracting a larger share of the region's service employment in these areas to offset anticipated shrinking in manufacturing, light industrial, and retail employment and help maintain Gwinnett's overall employer variety and household incomes. While retail space is indicated on the plan, the location of a large portion of the retail is in locations that make its success unlikely. The proposed zoning for this property does not meet the policy and intent of the Unified Plan and Future Development Map.



F. Whether there are other existing or changing conditions affecting the use and development of the property which give supporting grounds for either approval or disapproval of the proposed rezoning.

The Duluth Highway corridor has experienced rapid growth within recent years. However, most of the higher density developments have been closer to Interstate 85. A site approximately 0.8 miles from the subject site to the east was approved for MU-R in 2017. However, it is closer to I-85 and is not adjacent to single-family subdivisions. In addition, the road infrastructure located around this MU-R development is better suited to disperse traffic generated through multiple traffic lights and an interconnected street network. The subject site is surrounded predominantly by single-family detached subdivisions. The proposed development is denser than the single-family subdivisions that have been approved in the area. In addition, McDaniel Road is classified as a local street and is the sole access point to the existing subdivisions. Adding a development of the proposed scale on a local street would likely overwhelm McDaniel Road. In addition, The Department of Community Services also has concerns with the safety of vehicular access to the park due to the increased volume of traffic, which the rezoning of these parcels will have on the intersection of McDaniel Road and Duluth Highway. The development would be inconsistent in size and scale relative to surrounding uses and therefore gives supporting grounds for disapproval of the proposed rezoning.

Staff Recommendation:

Based on the staff’s evaluation of the request and the standards governing exercise of zoning power, the Department of Planning and Development recommends **DENIAL** of the rezoning requests.

Staff Recommended Conditions:

NOTE: The following conditions are provided as a guide should the Board of Commissioners choose to approve this petition.

Approval as MU-R (Regional Mixed Use District) subject to the following conditions:

1. The proposed development shall be constructed in general conformance with Exhibit B: Site Plan dated received June 27, 2022, and Exhibit C: Building Elevations dated received June 8, 2022, with revisions required by conditions of approval and the Unified Development Ordinance, subject to the review and approval of the Department of Planning and Development.
2. All buildings and parking structures shall comply with Category 4 of the Gwinnett County Architectural Standards.
3. Parking visible from the right of way shall be screened by landscaping or other means. Final parking plan shall be reviewed and approved by the Department of Planning and Development.
4. The common area shall include at least one conveniently located public gathering area or activity center with related amenities and improvements in the form of a square, green, plaza, or similar approved element that is accessible by the general public from at least three points of entry by sidewalks. The location of this common area shall be subject to the review and approval of the Director of Planning and Development.
5. Prior to issuance of a development permit, the developer shall provide a pedestrian circulation plan for the site. Plan to include connection of internal sidewalks to external sidewalks along McDaniel Road and Duluth Highway. The Plan is subject to the review and approval of the Department of Planning and Development.
6. The developer shall revise the submitted traffic impact study (TIS) to include an intersection control evaluation (ICE) analysis and signal warrant analysis for Duluth Highway and McDaniel Road. This analysis shall reflect input from the Georgia Department of Transportation (GDOT) that no direct access will be allowed to Duluth Highway (SR 120).
7. The developer shall make improvements to the intersection of Duluth Highway (SR 120) and McDaniel Road of either constructing a roundabout or signaling the intersection, per the recommendations of the above listed studies/analyses, and subject to the approval of the Gwinnett County Department of Transportation (GCDOT) and the Georgia Department of Transportation (GDOT).
8. Per the site being shown as within the Gwinnett County Trails Master Plan, the developer shall construct a minimum 10' concrete trail along the entire frontage of Duluth Highway and McDaniel Road.
9. Per the road classification of Duluth Highway as a major arterial, the developer shall dedicate a minimum of 60' of right-of-way from the centerline along the entire Duluth Highway frontage.
10. Per the concept site plan dated June 8, 2022, the developer shall provide a driveway extension from parcel 7119 002A and an access easement for future access to Northmont Parkway, subject to the review and approval of the Department of Planning and Development.

Planning Commission Recommendation

Based on staff's evaluation of the request, information presented at the public hearing, and the Planning Commission's consideration of the standards governing the exercise of zoning power related to this application, the Planning Commission recommends **DENIAL** of the zoning requests.

Exhibits:

- A. Site Visit Photos
- B. Site Plan
- C. Building Elevations
- D. Letter of Intent and Applicant's Response to Standards
- E. Internal and External Agency Review Comments
- F. Traffic Impact Study
- G. Maps

Exhibit A: Site Visit Photos



Site View from Duluth Highway



Site View from McDaniel Road

Exhibit B: Site Plan

[attached]

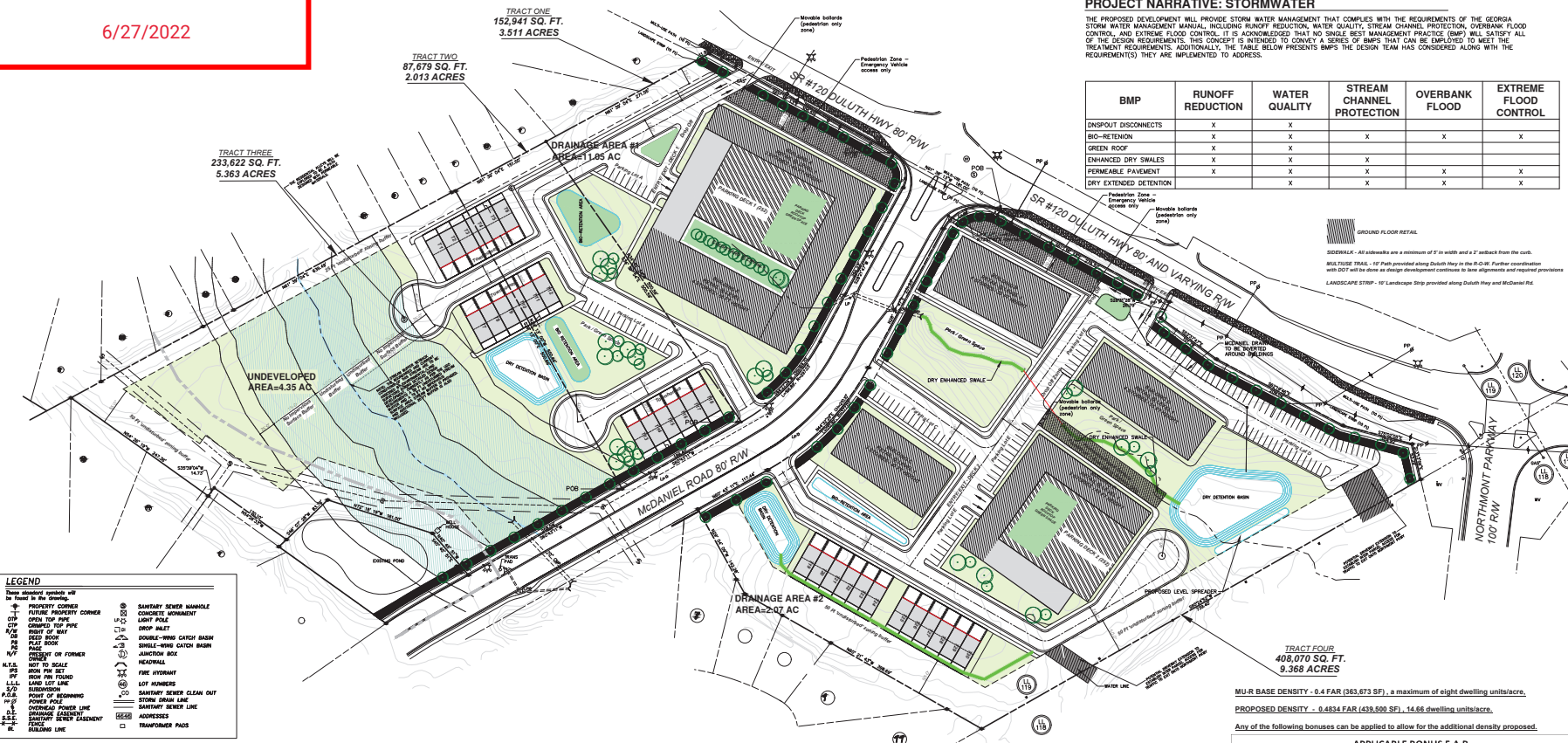
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6/27/2022

PROJECT NARRATIVE: STORMWATER

THE PROPOSED DEVELOPMENT WILL PROVIDE STORM WATER MANAGEMENT THAT COMPLIES WITH THE REQUIREMENTS OF THE GEORGIA STORM WATER MANAGEMENT MANUAL, INCLUDING RUNOFF REDUCTION, WATER QUALITY, STREAM CHANNEL PROTECTION, OVERBANK FLOOD CONTROL, AND EXTREME FLOOD CONTROL. IT IS ACKNOWLEDGED THAT NO SINGLE BEST MANAGEMENT PRACTICE (BMP) WILL SATISFY ALL OF THE DESIGN REQUIREMENTS. THIS CONCEPT IS INTENDED TO CONVEY A SERIES OF BMPs THAT CAN BE EMPLOYED TO MEET THE TREATMENT REQUIREMENTS. ADDITIONALLY, THE TABLE BELOW PRESENTS BMPs THE DESIGN TEAM HAS CONSIDERED ALONG WITH THE REQUIREMENT(S) THEY ARE IMPLEMENTED TO ADDRESS.

BMP	RUNOFF REDUCTION	WATER QUALITY	STREAM CHANNEL PROTECTION	OVERBANK FLOOD	EXTREME FLOOD CONTROL
DISPOUT DISCONNECTS	X	X			
BIO-RETENTION	X	X	X	X	X
GREEN ROOF	X	X	X		
ENHANCED DRY SWALES	X	X	X		
PERMEABLE PAVEMENT	X	X	X	X	X
DRY EXTENDED DETENTION		X	X	X	X



LEGEND

Other boundary symbols not shown in the drawing:

- PROPERTY CORNER
- FUTURE PROPERTY CORNER
- OPEN TOP PIPE
- COVERED TOP PIPE
- ROOF OF BOX
- DEEP BOX
- PAVED BOX
- PRESENT OR FORMER
- NOT TO SCALE
- IRON PIN FOUND
- LAND LOT LINE
- POINT OF BEGINNING
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- UNDERGROUND TELEPHONE
- SEWER
- WATER
- REVENUE LINE
- SAWNEY SEWER MANHOLE
- CONCRETE MANHOLE
- LIGHT POLE
- DROP INLET
- DOUBLE-WING CATCH BASIN
- SINGLE-WING CATCH BASIN
- JUNCTION BOX
- HEAVY METAL
- FIRE HYDRANT
- LOT NUMBERS
- SAWNEY SEWER CLEAN OUT
- STORM DRAIN LINE
- SAWNEY SEWER LINE
- ADDRESS
- TRANSFORMER PAD

SUMMARY

- TOTAL GROSS SF – 439,500 SF
- Gross Residential SF + Total Units (Building A to E + Townhomes)
 - 351,200 SF / 306 Units (276 apartments + 30 Townhomes)
 - Townhome Lot Size 22' x 65'
 - Refer Table 1 for Unit Breakdown
- Gross Retail SF (Building A to E)
 - 88,300 SF (20% of Proposed Gross SF)
 - Refer Table 2 for Retail Breakdown
- Parking
 - Required Multifamily Residential Parking – 414 Spaces (PROVIDED – 414)
 - Required Townhomes Parking – 90 Spaces (Provided – 90)
 - Required Retail Parking – 221 Spaces (PROVIDED – 222)
 - Refer Table 3.1 & 3.2 for Parking Breakdown

Table 1 - Residential Square Footage and Unit Count

Building No	Building Height/ No. of Floors	Gross Square Footage (GSF)	Total No. of Units	Unit Breakdown			Required Residential Parking Spaces
				Studio (600 SF)	1B/1B (750 SF)	2B/2B (1000 SF)	
Building A	3 to 4 Floors / 55 Ft	117000	114	20	50	44	173
Building B	4 Floors / 55 Ft	37800	39	6	18	15	59
Building C	3 Floors / 45 Ft	31300	32	5	14	13	48
Building D	4 Floors / 55 Ft	42000	44	8	20	16	66
Building E	3 Floors / 45 Ft	48100	47	9	20	18	71
Townhomes North	3 Floors / 35 Ft	45000	18				54
Townhomes South	3 Floors / 35 Ft	30000	12				36
TOTAL		351200	306				

Table 2 - Retail Square Footage

Building No	Retail Location	Gross Square Footage (GSF)	Required Retail Parking Spaces
Building A	Level 1	36000	90
Building B	Level 1	16500	41
Building C	Level 1	7000	18
Building D	Level 1	14300	36
Building E	Level 1	14500	36
TOTAL		88300	221

Notes:
 1. All Retail is located at Level 1 of the Multifamily Buildings A to E with Street / Open Green Space Frontage.
 2. Retail at Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
 3. Retail Parking is accommodated at Level 1 of the enclosed Parking Deck and outdoor surface parking.

Table 3.1 - Parking Provided for Multifamily and Retail

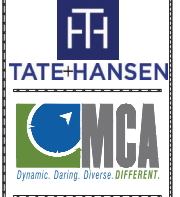
Parking Type	Building Proximity	No. of Floors	Parking Capacity
Deck 1	Building A	4	252
Deck 2	Building E	4	252
Parking Deck Total			
			505
Parking Lot A	Building A Rear	Surface Parking	17
Parking Lot C	Building C	Surface Parking	20
Parking Lot D	Building D Side	Surface Parking	65
Parking Lot E	Building E	Surface Parking	29
Surface Parking Total			
			131
TOTAL PARKING PROVIDED			
			636

Table 3.2 - Parking Allotment for Multifamily and Retail

Residential	Allotted Parking	Retail	Allotted Parking
Building A	Deck 1	Building A	Parking Lot A & Deck 1
Building B	Deck 2	Building B	Deck 1
Building C	Deck 2	Building C	Parking Lot C & D
Building D	Deck 2	Building D	Parking Lot D
Building E	Deck 2	Building E	Deck 2 & Parking Lot E

MUR BASE DENSITY - 0.4 FAR (363.673 SF) , a maximum of eight dwelling units/acre.
 PROPOSED DENSITY - 0.4834 FAR (439,500 SF) , 14.66 dwelling units/acre.
 Any of the following bonuses can be applied to allow for the additional density proposed.

- APPLICABLE BONUS F.A.R**
- Note: The following estimates are conceptual approximate values and are subject to change with further design development.
- Common Area Bonus + 2.5 FAR Bonus
 - Net Project Acreage (Site Area) - 20.872 Acres
 - Minimum Required Common Area - 15% (3.130 Acres)
 - Total Proposed Common Area - 40% (8.3 Acres)
 - Common Area in Excess of Required Minimum - 25% (5.218 Acres)
 - NORTH & SOUTH PARCEL COMBINED DENSITY - 15.4 Dwelling Units per Acre
 - Tract One (3.511 Acres)
 - Proposed Mixed Use Building A - 114 Residential Units
 - Proposed Retail in Building A - 36,000 SF
 - Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces
 - Tract Four (9.368 Acres)
 - Proposed Mixed Use Building B, C, D, E - 162 Residential Units
 - Proposed Retail in Building B, C, D, E - 52,300 SF
 - Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces
 - Structured Parking (+1.0 F.A.R)
 - 2 Structured Parking Decks Provided - Approx. 504 Spaces Estimated
 - Required Parking for Multifamily - 414 Spaces
 - Parking Decks Proposed Are Able to Accommodate Greater Than 50% of the Required Multifamily Residential Parking



PROJECT NAME
MCDANIEL ROAD
 Mixed-Use Development

LOCATION
 2449 Duluth Hwy,
 Duluth, GA 30097

OWNER/DEVELOPER
 REPRESENTATIVE
 HAKIM HILLIARD, ESQUIRE
 404-389-9085
 hilliard@hstarlaw.com

ARCHITECT
 TATE + HANSEN LLC
 ARCHITECTURE & PLANNING
 404-845-6468

Issue

No.	Description	Date
4	Revised	06.08.2022

DRAWING TITLE
Conceptual Site Plan

DRAWN BY:

CHECKED BY:

DATE
 06.08.2022

JOB NO.
 202109.02

SCALE
 1" = 75'-0"

DRAWING NO.
01

Exhibit C: Building Elevations

[attached]

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View of Multi-Family
8/8/2022



Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

Cornices to be added during schematic design development to articulate the building height.

Siding to reflect surrounding single family context

Variation in material color to break monotony

Buildings oriented to frame central green space.

Ground Floor Retail base articulated with large window openings allowing citizens to engage with the architecture and program.

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Elevation of Multi-Family with Retail on Ground Floor

Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

Cornices to be added during schematic design development to articulate the building height.

Buildings oriented to frame central green space.

Variation in material color to break monotony

Ground Floor Retail base articulated with large window openings allowing citizens to engage with the architecture and program.



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Elevation of Townhomes

Emphasis on street scape and creating a accessible and serene public realm with a view of green spaces.

Siding to reflect surrounding single family context with Brick Base.

Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

Cornices to be added during schematic design development to articulate the building height.



Exhibit D: Letter of Intent and Applicant's Response to Standards

[attached]

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RESPONSE TO STANDARDS GOVERNING EXERCISE OF ZONING POWER

and

Other Material Required by the
Unified Development Ordinance of Gwinnett County

Application for Rezoning of SYNERGY DEVELOPMENT PARTNERS, LLC

for

**± 11.054 acres of land located at
2449 Duluth Highway and McDaniel Road
Gwinnett County, Georgia 30310
Land Lot 119, 7th District**

[The Subject Property is located on the north side of McDaniel Road and is identified on the site plan filed herewith as the NORTH PARCEL. A second parcel of land located on the south side of McDaniel Road and consisting of ± 9.368 acres is planned to be developed with the Subject Property and is identified on the site plan filed herewith as the SOUTH PARCEL. The total development area for North and South parcels combined is 20.872]

REQUEST TO REZONE THE SUBJECT PROPERTY FROM C-2 and O-I to MU-R

Submitted for Applicant by:

M. Hakim Hilliard, Esquire
Hilliard Starkey Law
260 Peachtree Street, NW, Suite 401
Atlanta, Georgia 30303
404.389.9085 (office)
bhilliard@hstarlaw.com

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SUMMARY OF PROPOSED PROJECT

This is the application of Synergy Development Partners, LLC (hereinafter referred to as the "Applicant") to rezone ± 11.504 acres of land located at 2449 Duluth Highway and McDaniel Road (the "Subject Property") for the purpose of developing a mixed-use project including retail, multi-family and townhome uses. The Subject Property comprises the northern half of a ± 20.872 area of land being proposed for development by the Applicant, divided by McDaniel Road, and is identified as the NORTH PARCEL on the site plan filed contemporaneously herewith. To accommodate the Applicant's proposal, the Subject Property must be rezoned from its current C-2 and O-1 Zoning District designation to the MU-R Zoning District Designation. See, "Development Summary" for the North Parcel outlined on the rezoning site plan filed herewith.

In furtherance of the intent of Section 210-220.1 of the Unified Development Ordinance of Gwinnett County, the Applicant's project is designed to "encourage the development, redevelopment or revitalization of commercial and residential areas along major transportation corridors into vibrant, high density, pedestrian friendly, live-work-play environments that offer employees and residents the opportunity to fulfill their daily activities with minimal use of single-occupant automobiles.

In particular, the Applicant's development proposal is focused on creating a development that celebrates the prominence of the site along Duluth Highway, the surrounding context, and creates a place for all. It is a development that is aimed at creating a sense of place that is community-driven one that celebrates pedestrian mobility and nature and offers to the residents and the community, a place to congregate and share.

The analysis of the combined North and South parcels highlighted the importance to frame a

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strong urban edge along Duluth Hwy and the potential to create commercial/retail opportunities as well as amplify accessible green space for the community to gather in. The plan is framed so as to respect the single-family community adjacent to the site by staying within a single-family context along these protected edges, utilizing green space as a buffer, providing the recommended transitional yards, and focusing the density along Duluth Hwy.

The key elements established in the plan are:

1. With the intention to create a Mixed-Use development that scales down and transitions to a Single-family context the plan looks at the surrounding zoning context and identifies the MU-R district to be suitable to achieve the desired program and density.
2. Green Buffers and transitional yards that are greater than 20 Ft have been provided along the protected Single Family district.
3. Mid-Rise Multifamily Residential - Approximately 3 to 4 stories high proposed along Duluth Hwy that transitions to townhomes along the single-family protected district.
4. Accessible outdoor green space that can be programmed into parks, dog parks, weekend makers/market space for the community to gather and participate and create a people-focused place that promotes the best quality of life and healthy living.
5. Opportunities to create neighborhood-friendly commercial/ retail along Duluth Hwy.
6. We aim to achieve a walkable, pedestrian-focused development.
7. Opportunities to propose Parking decks that are concealed by multifamily buildings along Duluth Hwy are being explored to limit the amount of asphalt and promote more green space. The plan also explores the information
8. New Access roads proposed to bring vehicular flow into the development and proposed parking in order to alleviate traffic congestion along McDaniel Rd.

The Subject Property is located wholly within Commission District 1. In this regard, the Applicant looks forward to working with the District 1 Commissioner, the planning staff as well as the adjacent nearby residents and other community stakeholders to ensure that the development proposed herein is designed in a way that is beneficial to the community. In anticipation of these further discussions, the Applicant presents the following conditions as baseline standards for its project:

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- (1) The Subject Property shall be developed substantially in accordance with the site plan filed contemporaneously herewith.
- (2) All lighting associated with the project shall be set so as to minimize the glare on adjoining properties.
- (3) The Subject Property shall be developed in accordance with the requirements outlined in the Gwinnett County Tree Ordinance.
- (4) The Subject Property shall be developed with appropriate buffers with the intention of mitigating the impact of the development of the Subject Property on adjacent and nearby properties.
- (5) Where feasible, and in consultation with the appropriate transportation official(s) of Gwinnett County, the Applicant shall implement the recommendation outlined in the traffic study prepared for this rezoning application.
- (6) The Subject Property shall be rezoned to the MU-R Zoning District designation.

The Applicant looks forward to continuing to work with all interested neighbors to discuss any and all additional conditions that respond to issues presented by the community.

(A)

WHETHER THE PROPOSED REZONING WILL PERMIT A USE THAT IS SUITABLE IN VIEW OF THE USE AND DEVELOPMENT OF ADJACENT AND NEARBY PROPERTY:

Yes. The Applicant is unaware of any other land in the immediate area that is both available and suitable for the proposed use. The primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. The traditional method of achieving this goal is through both "offsite" and "onsite" transition. Offsite transition consists of avoiding the placement of dissimilar uses next to each other by placing uses of intermediate density between them. Onsite transition, which might either supplement or replace offsite transition, consists of measures imposed on or adjacent to the more intensive use to protect neighborhoods from adverse effects.

In the present matter, the Subject Property is located along Duluth Highway and McDaniel Road. Along Duluth Highway, the Subject Property sits opposite and nearby to certain commercial and industrial uses, along with townhomes. The Applicant's proposal attempts to thoughtfully blend a multi-family housing option into the area and in a way that provides an appropriate buffer between

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less and more intense uses. While there are a variety of zoning district designations along Duluth Highway and nearby to the Subject Property, the MU-R Zoning District allows the Applicant to present a development proposal that is wholly in keeping with the intent of the Unified Development Ordinance of Gwinnett County.

Moreover, the Subject Property is designated as Workplace Center Character Area on the Gwinnett County 2040 Unified Plan map and the proposed zoning to the MU-R Zoning District is wholly consistent with this plan designation. In this regard, the Applicant has developed a site plan for the the Subject property that is intended to accomplish many of the objectives outlined in the Plan. Based upon the facts and circumstances regarding development existing in the area, and the development plan put forth by the Applicant in the foregoing request is suitable.

(B)

WHETHER THE PROPOSED REZONING WILL ADVERSELY AFFECT THE EXISTING USE OR USABILITY OF ADJACENT OR NEARBY PROPERTY:

No. On the contrary, the Applicant's creative effort to accomplish the goals of the MU-R Zoning District designation within the boundaries of the Workplace Center Character Area of the 2040 Unified Plan Map will protect existing neighborhoods while presenting needed housing options that will serve this area of Gwinnett County well for years to come. While the area to the west of the Subject Property is predominantly single-family residential, the development plan for the Subject Property has been planned in a way that it blends seamlessly with the adjacent and nearby residential, commercial and institutional uses.

(C)

WHETHER THE PROPERTY TO BE AFFECTED BY A PROPOSED REZONING HAS REASONABLE ECONOMIC USE AS CURRENTLY ZONED:

The Subject Property cannot be economically developed by the owner as currently zoned. Therefore, the Applicant, on behalf the owners of the tract of land at issue in this rezoning application

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(the "Property"), respectfully submits that the Uniform Development Ordinance of Gwinnett County, as amended from time to time and known as the "Uniform Development Ordinance", to the extent that it classifies the Property in any zoning district which would preclude a MU-R District development, is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Uniform Development Ordinance deprives the current owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and those requested herein, would deprive the current owner of any reasonable use and development of the Property. Further, any attempt by the County to impose greater restrictions upon the manner in which the property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current C-2 and O-1 District zoning classifications and any other zoning of the Property save for what has been requested by it as established in the Uniform Development Ordinance constitutes an arbitrary and unreasonable use of the zoning and police powers because it bears no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Property owners. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute an arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality or general welfare of the public and would substantially harm the Property owner. Further, the existing inconsistent zoning classifications

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constitute, and all zoning and plan classifications intervening between the existing inconsistent zoning classification and that required to develop this project would constitute a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Due Process Clause of the Fourteenth Amendment of the United States Constitution and the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that the failure to approve the requested zoning change would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that Gwinnett County cannot lawfully impose more restrictive standards upon the development of the property than presently exist as to do so not only would constitute a taking of the property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power, Guhl vs. Holcomb Bridge Road, 238 Ga. 322 (1977)

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(D)

WHETHER THE PROPOSED REZONING WILL RESULT IN A USE WHICH WILL OR
COULD CAUSE AN EXCESSIVE OR BURDENSOME USE OF EXISTING STREETS,
TRANSPORTATION FACILITIES, UTILITIES OR SCHOOLS:

Adequate stormwater management practices and construction methods will be employed as the project is developed. In addition, the impact upon utilities and schools are being studied as a part of the rezoning process, but the Applicant is confident that its development will not have an excessive or burdensome impact upon existing streets, transportation facilities, utilities or schools. In furtherance of this goal, the Applicant has commissioned a traffic study for its proposal project and is looking forward to working with Gwinnett County to review the recommendations in the study and, where feasible and appropriate, to implement them where appropriate. The Applicant otherwise looks forward to any specific comments offered related to the proposed development plan filed herewith that may impact any of the facilities and/or services required to support the project.

(E)

WHETHER THE PROPOSED REZONING IS IN CONFORMITY WITH THE POLICY
AND INTENT OF THE LAND USE PLAN:

The County's 2040 Unified Plan consists of a text and series of maps. The Plan is accompanied by a procedure to link changes in zoning with corresponding changes in the Plan in order to avoid repeating the situation in which a static land use plan and an evolving zoning map become increasingly out of step with each other. Thus, with an updated Plan in effect and a mandatory planning and zoning consistency mechanism in place, it is extremely important that any rezoning request, such as this one, be based on sound land use planning and comprehensive planning principles.

The Subject Property is designated as Workplace Center Character Area on the 2040 Unified Plan and this designation is wholly consistent with the Applicant's development plan, as well as the zoning district designation requested to accommodate the Applicant's proposed development. In

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this regard, the Applicant submits that the proposal does accomplish many of the policy objectives that the County is pursuing with development in the MU-R Zoning District. Specifically, the Applicant's project will provide other housing options, some of which may be used by persons working nearby and, thereby, reduce traffic. These additional options also allow current residents who seek to relocate to other housing types without leaving their existing communities. In addition to these benefits, the Applicant's proposed development will promote an environment where people can live, work and play in one community. .

(F)

WHETHER THERE ARE OTHER EXISTING OR CHANGING CONDITIONS AFFECTING THE USE AND DEVELOPMENT OF THE PROPERTY WHICH GIVE SUPPORTING GROUNDS FOR EITHER APPROVAL OR DISAPPROVAL OF THE PROPOSED REZONING:

Again, the primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. In the present matter, while the Applicant proposes to develop a vacant piece of property, the thoughtful manner in which the development is planned accomplishes several important objectives in the County's 2040 Unified Plan without negatively impacting the existing and nearby uses. The scale, style and diversity of uses located within the Applicant's plan is an appropriate mixed-use project for the Subject Property. where the Subject Property is located, each of which support the Applicant's proposal.


The Applicant submits that its proposed development is wholly compatible with each of these adjacent and nearby uses, both existing and contemplated. As such, it is clear that this project will be supported by any new or changing conditions not anticipated by the 2040 Unified Plan.

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CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that the Rezoning Application from the C-2 and O-1 District to the MU-R District be approved. The Applicant also invites and welcomes any comments from adjacent and nearby communities, the planning staff of Gwinnett County and/or other officials so that any reasonable and appropriate conditions of approval can be added to this request.



M. Hakim Hilliard
For the Applicant

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RESPONSE TO STANDARDS GOVERNING EXERCISE OF ZONING POWER

and

Other Material Required by the
Unified Development Ordinance of Gwinnett County

Application for Rezoning of SYNERGY DEVELOPMENT PARTNERS, LLC

for

**± 9.368 acres of land located at
2449 Duluth Highway and McDaniel Road
Gwinnett County, Georgia 30310
Land Lot 119, 7th District**

[The Subject Property is located on the south side of McDaniel Road and is identified on the site plan filed herewith as the SOUTH PARCEL. A second parcel of land located on the north side of McDaniel Road and consisting of ± 11.504 acres is planned to be developed with the Subject Property and is identified on the site plan filed herewith as the NORTH PARCEL. The total development area for North and South parcels combined is 20.872.]

REQUEST TO REZONE THE SUBJECT PROPERTY FROM C-2 to MU-R

Submitted for Applicant by:

M. Hakim Hilliard, Esquire
Hilliard Starkey Law
260 Peachtree Street, NW, Suite 401
Atlanta, Georgia 30303
404.389.9085 (office)
hhilliard@hstarlaw.com

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SUMMARY OF PROPOSED PROJECT

This is the application of Synergy Development Partners, LLC (hereinafter referred to as the “Applicant”) to rezone ±9.368 acres of land located at 2449 Duluth Highway and McDaniel Road (the “Subject Property”) for the purpose of developing a mixed-use project including retail, multi-family and townhome uses. The Subject Property comprises the northern half of a ±20.872 area of land being proposed for development by the Applicant, divided by McDaniel Road, and is identified as the SOUTH PARCEL on the site plan filed contemporaneously herewith. To accommodate the Applicant’s proposal, the Subject Property must be rezoned from its current C-2 Zoning District designation to the MU-R Zoning District Designation. See, “Development Summary” for the South Parcel outlined on the rezoning site plan filed herewith.

In furtherance of the intent of Section 210-220.1 of the Unified Development Ordinance of Gwinnett County, the Applicant’s project is designed to “encourage the development, redevelopment or revitalization of commercial and residential areas along major transportation corridors into vibrant, high density, pedestrian friendly, live-work-play environments that offer employees and residents the opportunity to fulfill their daily activities with minimal use of single-occupant automobiles.

In particular, the Applicant’s development proposal is focused on creating a development that celebrates the prominence of the site along Duluth Highway, the surrounding context, and creates a place for all. It is a development that is aimed at creating a sense of place that is community-driven one that celebrates pedestrian mobility and nature and offers to the residents and the community, a place to congregate and share.

The analysis of the combined North and South parcels highlighted the importance to frame a strong urban edge along Duluth Hwy and the potential to create commercial/retail opportunities as

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well as amplify accessible green space for the community to gather in. The plan is framed so as to respect the single-family community adjacent to the site by staying within a single-family context along these protected edges, utilizing green space as a buffer, providing the recommended transitional yards, and focusing the density along Duluth Hwy.

The key elements established in the plan are:

1. With the intention to create a Mixed-Use development that scales down and transitions to a Single-family context the plan looks at the surrounding zoning context and identifies the MU-R district to be suitable to achieve the desired program and density.
2. Green Buffers and transitional yards that are greater than 20 Ft have been provided along the protected Single Family district.
3. Mid-Rise Multifamily Residential - Approximately 3 to 4 stories high proposed along Duluth Hwy that transitions to townhomes along the single-family protected district.
4. Accessible outdoor green space that can be programmed into parks, dog parks, weekend makers/market space for the community to gather and participate and create a people-focused place that promotes the best quality of life and healthy living.
5. Opportunities to create neighborhood-friendly commercial/ retail along Duluth Hwy.
6. We aim to achieve a walkable, pedestrian-focused development.
7. Opportunities to propose Parking decks that are concealed by multifamily buildings along Duluth Hwy are being explored to limit the amount of asphalt and promote more green space. The plan also explores the information
8. New Access roads proposed to bring vehicular flow into the development and proposed parking in order to alleviate traffic congestion along McDaniel Rd.

The Subject Property is located wholly within Commission District 1. In this regard, the Applicant looks forward to working with the District 1 Commissioner, the planning staff as well as the adjacent nearby residents and other community stakeholders to ensure that the development proposed herein is designed in a way that is beneficial to the community. In anticipation of these further discussions, the Applicant presents the following conditions as baseline standards for its project:

- (1) The Subject Property shall be developed substantially in accordance with the site plan filed contemporaneously herewith.
- (2) All lighting associated with the project shall be set so as to minimize the glare on adjoining properties.

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(3) The Subject Property shall be developed in accordance with the requirements outlined in the Gwinnett County Tree Ordinance.

(4) The Subject Property shall be developed with appropriate buffers with the intention of mitigating the impact of the development of the Subject Property on adjacent and nearby properties.

(5) Where feasible, and in consultation with the appropriate transportation official(s) of Gwinnett County, the Applicant shall implement the recommendation outlined in the traffic study prepared for this rezoning application.

(6) The Subject Property shall be rezoned to the MU-R Zoning District designation.

The Applicant looks forward to continuing to work with all interested neighbors to discuss any and all additional conditions that respond to issues presented by the community.

(A)

WHETHER THE PROPOSED REZONING WILL PERMIT A USE THAT IS SUITABLE IN VIEW OF THE USE AND DEVELOPMENT OF ADJACENT AND NEARBY PROPERTY:

Yes. The Applicant is unaware of any other land in the immediate area that is both available and suitable for the proposed use. The primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. The traditional method of achieving this goal is through both "offsite" and "onsite" transition. Offsite transition consists of avoiding the placement of dissimilar uses next to each other by placing uses of intermediate density between them. Onsite transition, which might either supplement or replace offsite transition, consists of measures imposed on or adjacent to the more intensive use to protect neighborhoods from adverse effects.

In the present matter, the Subject Property is located along Duluth Highway and McDaniel Road. Along Duluth Highway, the Subject Property sits opposite and nearby to certain commercial and industrial uses, along with townhomes. The Applicant's proposal attempts to thoughtfully blend a multi-family housing option into the area and in a way that provides an appropriate buffer between less and more intense uses. While there are a variety of zoning district designations along Duluth Highway and nearby to the Subject Property, the MU-R Zoning District allows the Applicant to

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present a development proposal that is wholly in keeping with the intent of the Unified Development Ordinance of Gwinnett County.

Moreover, the Subject Property is designated as Workplace Center Character Area on the Gwinnett County 2040 Unified Plan map and the proposed zoning to the MU-R Zoning District is wholly consistent with this plan designation. In this regard, the Applicant has developed a site plan for the the Subject property that is intended to accomplish many of the objectives outlined in the Plan. Based upon the facts and circumstances regarding development existing in the area, and the development plan put forth by the Applicant in the foregoing request is suitable.

(B)

WHETHER THE PROPOSED REZONING WILL ADVERSELY AFFECT THE EXISTING USE OR USABILITY OF ADJACENT OR NEARBY PROPERTY:

No. On the contrary, the Applicant's creative effort to accomplish the goals of the MU-R Zoning District designation within the boundaries of the Workplace Center Character Area of the 2040 Unified Plan Map will protect existing neighborhoods while presenting needed housing options that will serve this area of Gwinnett County well for years to come. While the area to the west of the Subject Property is predominantly single-family residential, the development plan for the Subject Property has been planned in a way that it blends seamlessly with the adjacent and nearby residential, commercial and institutional uses.

(C)

WHETHER THE PROPERTY TO BE AFFECTED BY A PROPOSED REZONING HAS REASONABLE ECONOMIC USE AS CURRENTLY ZONED:

The Subject Property cannot be economically developed by the owner as currently zoned. Therefore, the Applicant, on behalf the owners of the tract of land at issue in this rezoning application (the "Property"), respectfully submits that the Uniform Development Ordinance of Gwinnett

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County, as amended from time to time and known as the "Uniform Development Ordinance", to the extent that it classifies the Property in any zoning district which would preclude a MU-R District development, is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Uniform Development Ordinance deprives the current owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and those requested herein, would deprive the current owner of any reasonable use and development of the Property. Further, any attempt by the County to impose greater restrictions upon the manner in which the property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current C-2 District zoning classifications and any other zoning of the Property save for what has been requested by it as established in the Uniform Development Ordinance constitutes an arbitrary and unreasonable use of the zoning and police powers because it bears no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Property owners. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute an arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality or general welfare of the public and would substantially harm the Property owner. Further, the existing inconsistent zoning classifications constitute, and all zoning and plan classifications intervening between the existing inconsistent zoning

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classification and that required to develop this project would constitute a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Due Process Clause of the Fourteenth Amendment of the United States Constitution and the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that the failure to approve the requested zoning change would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that Gwinnett County cannot lawfully impose more restrictive standards upon the development of the property than presently exist as to do so not only would constitute a taking of the property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power, Guhl vs. Holcomb Bridge Road, 238 Ga. 322 (1977)

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(D)

WHETHER THE PROPOSED REZONING WILL RESULT IN A USE WHICH WILL OR
COULD CAUSE AN EXCESSIVE OR BURDENSOME USE OF EXISTING STREETS,
TRANSPORTATION FACILITIES, UTILITIES OR SCHOOLS:

Adequate stormwater management practices and construction methods will be employed as the project is developed. In addition, the impact upon utilities and schools are being studied as a part of the rezoning process, but the Applicant is confident that its development will not have an excessive or burdensome impact upon existing streets, transportation facilities, utilities or schools. In furtherance of this goal, the Applicant has commissioned a traffic study for its proposal project and is looking forward to working with Gwinnett County to review the recommendations in the study and, where feasible and appropriate, to implement them where appropriate. The Applicant otherwise looks forward to any specific comments offered related to the proposed development plan filed herewith that may impact any of the facilities and/or services required to support the project.

(E)

WHETHER THE PROPOSED REZONING IS IN CONFORMITY WITH THE POLICY
AND INTENT OF THE LAND USE PLAN:

The County's 2040 Unified Plan consists of a text and series of maps. The Plan is accompanied by a procedure to link changes in zoning with corresponding changes in the Plan in order to avoid repeating the situation in which a static land use plan and an evolving zoning map become increasingly out of step with each other. Thus, with an updated Plan in effect and a mandatory planning and zoning consistency mechanism in place, it is extremely important that any rezoning request, such as this one, be based on sound land use planning and comprehensive planning principles.

The Subject Property is designated as Workplace Center Character Area on the 2040 Unified Plan and this designation is wholly consistent with the Applicant's development plan, as well as the zoning district designation requested to accommodate the Applicant's proposed development. In

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this regard, the Applicant submits that the proposal does accomplish many of the policy objectives that the County is pursuing with development in the MU-R Zoning District. Specifically, the Applicant's project will provide other housing options, some of which may be used by persons working nearby and, thereby, reduce traffic. These additional options also allow current residents who seek to relocate to other housing types without leaving their existing communities. In addition to these benefits, the Applicant's proposed development will promote an environment where people can live, work and play in one community. .

(F)

WHETHER THERE ARE OTHER EXISTING OR CHANGING CONDITIONS
AFFECTING THE USE AND DEVELOPMENT OF THE PROPERTY
WHICH GIVE SUPPORTING GROUNDS FOR EITHER APPROVAL
OR DISAPPROVAL OF THE PROPOSED REZONING:

Again, the primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. In the present matter, while the Applicant proposes to develop a vacant piece of property, the thoughtful manner in which the development is planned accomplishes several important objectives in the County's 2040 Unified Plan without negatively impacting the existing and nearby uses. The scale, style and diversity of uses located within the Applicant's plan is an appropriate mixed-use project for the Subject Property. where the Subject Property is located, each of which support the Applicant's proposal.

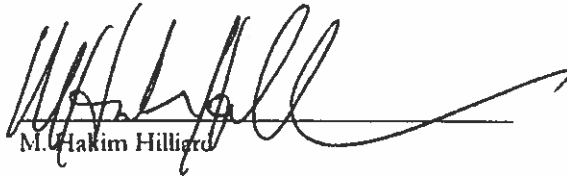
The Applicant submits that its proposed development is wholly compatible with each of these adjacent and nearby uses, both existing and contemplated. As such, it is clear that this project will be supported by any new or changing conditions not anticipated by the 2040 Unified Plan.

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CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that the Rezoning Application from the C-2 Zoning District to the MU-R District be approved. The Applicant also invites and welcomes any comments from adjacent and nearby communities, the planning staff of Gwinnett County and/or other officials so that any reasonable and appropriate conditions of approval can be added to this request.



M. Hakim Hilliard

For the Applicant

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OFFICES:
MABLETON, GA
ATLANTA, GA

M. HAKIM HILLIARD
hhilliard@hstardlaw.com

June 8, 2022

VIA ELECTRONIC MAIL

Gwinnett County Department of Planning and Development
One Justice Square
446 West Crogan Street
Lawrenceville, GA 30046

RE: Supplement to Rezoning Applications Synergy Development Partners, LLC

To Whom It May Concern:

This firm represents Synergy Development Partners, LLC (the "Applicant"), the Applicant for the two above-referenced applications for rezoning with a combined acreage approximately 20.378 acres of land comprising the North Parcel and South Parcel at 2449 Duluth Highway and McDaniel Road in Gwinnett County (the "Subject Property"). This supplement to the two applications being contemporaneously resubmitted herewith is intended to provide a "development summary" and other details requested by the planning staff related to applicable bonus F.A.R., as well as details regarding residential square footage, retail square footage and parking related to the combined project area.

Please see the related charts attached hereto.

Please also note the proposed variances noted in the associated Letters of Intent submitted herewith.

Thank you for your attention to this matter. Please call me if you have any questions.

Sincerely,

M. Hakim Hilliard

Cc: File

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DEVELOPMENT SUMMARY

NORTH PARCEL

- Gross Residential SF + Total Units (Building A + Townhomes)
 - 162,000 SF / 132 Units (114 apartments + 18 Townhomes)
- Gross Retail SF (Building A)
 - 36,000 SF

SOUTH PARCEL

- Gross Residential SF + Total Units (Building B, C, D, E + Townhomes)
 - 189,200 SF / 174 Units (162 apartments + 18 Townhomes)
- Gross Retail SF (Building B, C, D, E)
 - 52,300 SF

COMBINED

- **TOTAL GROSS SF – 439,500 SF**
- Gross Residential SF + Total Units (Building A to E + Townhomes)
 - 351,200 SF / **306 Units (276 apartments + 30 Townhomes)**
 - *Refer Table 1 for Unit Breakdown*
- Gross Retail SF (Building A to E)
 - **88,300 SF (20% of Proposed Gross SF)**
 - *Refer Table 2 for Retail Breakdown*
- Parking
 - Required Multifamily Residential Parking – 414 Spaces (PROVIDED – 414)
 - Required Townhomes Parking – 90 Spaces (Provided – 90)
 - Required Retail Parking – 221 Spaces (PROVIDED – 222)
 - *Refer Table 3.1 & 3.2 for Parking Breakdown*

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APPLICABLE BONUS F.A.R

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

Common Area Bonus (+3.7 F.A.R)

- Net Project Acreage (Site Area) - 20.872 Acres
- Minimum Required Common Area - 15% (3.130 Acres)
- Total Proposed Common Area - 40% (8.3 Acres)
- Common Area in Excess of Required Minimum - 37% (5.17 Acres)
- Additional 0.1 Far for Each 1% Over - $37 \times 0.1 = 3.7$ Far

Green Spaces Within Overall Common Area - Approx. 1.5 Acres - Programmed as Pocket Parks/ Green Spaces / Plazas / Paths and Trails.

Parcels Assembly Bonus (+0.3 F.A.R)

- This Mixed Use Development Is Assembled From 4 Parcels Greater Than 1 Acre.

Mixed-Use Development with A Minimum Of 14 Dwelling Units Per Acres (+0.5 F.A.R)

- **NORTH & SOUTH PARCEL COMBINED DENSITY – 15.4 Dwelling Units per Acre**
- Tract One (3.511 Acres)
Proposed Mixed Use Building A - 114 Residential Units

Proposed Retail in Building A – 36,000 SF

Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces

- Tract Four (9.368 Acres)
Proposed Mixed Use Building B, C, D, E – 162 Residential Units

Proposed Retail in Building B, C, D, E – 52,300 SF

Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces

Structured Parking (+1.0 F.A.R)

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- 2 Structured Parking Decks Provided - Approx. 504 Spaces Estimated
- Required Parking for Multifamily - 414 Spaces
- Parking Decks Proposed Are Able to Accommodate Greater Than 50% Of the Required Multifamily Residential Parking.

References

1. Refer Table 1 for Residential Unit Breakdown, Gross Square Footage, Required Parking
2. Refer Table 2 B for Retail Square Footage, Required Parking
3. Refer Table 3.1 for Parking Provided
4. Refer Table 3.2 for Parking Allotment

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

RESIDENTIAL SUMMARY NORTH + SOUTH COMBINED							
Table 1 - Residential Square Footage and Unit Count							
Building No	Building Height/ No: of Floors	Gross Square Footage (GSF)	Total No: of Units	Unit Breakdown			Required Residential Parking Spaces
				Studio (600 SF)	1B/1B (750 SF)	2B/2B (1000 SF)	
Building A	3 to 4 floors / 55 Ft	117000	114	20	50	44	171
Building B	4 floors / 55 Ft	37800	39	6	18	15	59
Building C	3 floors / 45 Ft	31300	32	5	14	13	48
Building D	4 floors / 55 Ft	42000	44	8	20	16	66
Building E	3 floors / 45 Ft	48100	47	9	20	18	71
Townhomes North	3 Floors / 35 Ft	45000	18			18	54
Townhomes South	3 Floors / 35 Ft	30000	12			12	36
TOTAL		351200	306				

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Notes: 1. Building A is located in the North Parcel. Buildings B, C, D and E are located in the South Parcel. 2. Townhome Parking is calculated at 3.0 Parking Spaces per unit. Townhomes can park 2 cars in enclosed garage and 1 car in the front parking porch. 3. Multifamily Residential Parking is calculated at 1.5 Parking Spaces per unit 4. Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
--

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

RETAIL SUMMARY NORTH + SOUTH COMBINED

Table 2 - Retail Square Footage							
Building No	Retail Location	Gross Square Footage (GSF)	Required Retail Parking Spaces				
Building A	Level 1	36000	90				
Building B	Level 1	16500	41				
Building C	Level 1	7000	18				
Building D	Level 1	14300	36				
Building E	Level 1	14500	36				
TOTAL		88300	221				

Notes:
1. All Retail is located at Level 1 of the Multifamily Buildings A to E with Street / Open Green Space Frontage.
2. Retail at Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
3. Retail Parking is accommodated at Level 1 of the enclosed Parking Deck and outdoor surface parking.

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

PARKING SUMMARY NORTH + SOUTH COMBINED

Table 3.1 - Parking Provided for Multifamily and Retail			
Parking Type	Building Proximity	No: of Floors	Parking Capacity
Deck 1	Building A	4	252

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Deck 2	Building E	4	252
Parking Deck Total			505
Parking Lot A	Building A Rear	Surface Parking	17
Parking Lot C	Building C	Surface Parking	20
Parking Lot D	Building D Side	Surface Parking	65
Parking Lot E	Building E	Surface Parking	29
Surface Parking Total			131
TOTAL PARKING PROVIDED			636

Table 3.2 - Parking Allotment for Multifamily and Retail

Residential		Retail	
Building No	Allotted Parking	Building No	Allotted Parking
Building A	Deck 1	Building A	Parking Lot A & Deck 1
Building B	Deck 2	Building B	Deck 1
Building C	Deck 2	Building C	Parking Lot C & D
Building D	Deck 2	Building D	Parking Lot D
Building E	Deck 2	Building E	Deck 2 & Parking Lot E

Exhibit E: Internal and External Agency Review Comments

[attached]



**Department of Planning and Development
TECHNICAL REVIEW COMMITTEE**

TRC Meeting Date:		7.13.22		
Department/Agency Name:		Transportation		
Reviewer Name:		Brent Hodges		
Reviewer Title:		Construction Manager 1		
Reviewer Email Address:		Brent.Hodges@gwinnettcountry.com		
Case Number:		RZC2022-00001 and RZC2022-00002		
Case Address:		2449 Duluth Highway, 2539 Duluth Highway, 2805, 2815, 2825 McDaniel Mill Road		
Comments:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Duluth Highway is a major arterial. ADT = 20,700. McDaniel Road is a local street. ADT = 2,097.			
2	0.8 miles to nearest transit facility (#2335384) Boggs Road and St. Andrews Church.			
3	A minimum 5' sidewalk shall be required along the entire property frontage of the south parcel.			
4	Prior to the issuance of a Development Permit, a sight distance certification shall be provided.			
5				
6				
7				
Recommended Zoning Conditions:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	The developer shall revise the submitted traffic impact study (TIS) to include an intersection control evaluation (ICE) analysis and signal warrant analysis for Duluth Highway and McDaniel Road. This analysis shall reflect input from the Georgia Department of Transportation (GDOT) that no direct access will be allowed to Duluth Highway (SR 120).			
2	The developer shall make improvements to the intersection of Duluth Highway (SR 120) and McDaniel Road of either constructing a roundabout or signaling the intersection, per the recommendations of the above listed studies/analyses, and subject to the approval of the Gwinnett County Department of Transportation (GCDOT) and the Georgia Department of Transportation (GDOT).			
3	Per the site being shown as within the GC Trails Master Plan, the developer shall construct a minimum 10' concrete trail along the entire north parcel frontage of Duluth Highway and McDaniel Road.			
4	Per the road classification of Duluth Highway as a major arterial, the developer shall dedicate a minimum of 60' of right-of-way from the centerline along the entire Duluth Highway frontage.			
5	Per the concept site plan dated 6.8.22, the developer shall provide a driveway extension from parcel 7119 002A for future access to Northmont Parkway.			

Note: Attach additional pages, if needed

Revised 7/26/2021



**Department of Planning and Development
TECHNICAL REVIEW COMMITTEE**

TRC Meeting Date:		7/13/2022		
Department/Agency Name:		DWR		
Reviewer Name:		Mike Pappas		
Reviewer Title:		GIS Planning Manager		
Reviewer Email Address:		Michael.pappas@gwinnettcountry.com		
Case Number:		RZC2022-00001 & RZC2022-00002		
Case Address:		2449 Duluth Highway, 2539 Duluth Highway, 2805, 2815, 2825 McDaniel Mill Road		
Comments:		<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	Water: The development may connect to a 12-inch water main located on the northwest right-of-way of McDaniel Road.			
2	Sewer: A Sewer Capacity Certification is required to confirm capacity.			
3	Sewer: Pending available sewer capacity, proposed development may connect to an existing 8-inch sanitary sewer main located on the western parcels.			
4	Sewer: For the eastern parcel, an easement is provided to access sewer on parcel 7119 149 via the Hampton Hall Final Plat.			
5				
6				
7				
Recommended Zoning Conditions:		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
1				
2				
3				
4				
5				
6				
7				

Note: Attach additional pages, if needed

Revised 7/26/2021



**Department of Planning and Development
TECHNICAL REVIEW COMMITTEE**

TRC Meeting Date:		July 13, 2022	
Department/Agency Name:		DOCS	
Reviewer Name:		Glenn Boorman	
Reviewer Title:		Division Director – Project Admin – Parks & Recreation	
Reviewer Email Address:		glenn.boorman@gwinnettcountry.com	
Case Number:		RZC2022-00001 and RZC2022-00002	
Case Address:		2449 Duluth Highway, 2539 Duluth Highway, 2805, 2815, 2825 McDaniel Mill Road	
Comments:		<input checked="" type="checkbox"/>	<input type="checkbox"/>
1	The Department of Community Services (DOCS) plans to install signage for McDaniel Farm Park in the center median of McDaniel Road when funding for the project becomes available.	<input type="checkbox"/>	<input type="checkbox"/>
2	The DOCS has concern with the safety of vehicular access to the park due to the increased volume of traffic which the rezoning of these parcels will have on the intersection of McDaniel Road and Duluth Highway.	<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>
7		<input type="checkbox"/>	<input type="checkbox"/>
Recommended Zoning Conditions:		<input type="checkbox"/>	<input checked="" type="checkbox"/>
1		<input type="checkbox"/>	<input type="checkbox"/>
2		<input type="checkbox"/>	<input type="checkbox"/>
3		<input type="checkbox"/>	<input type="checkbox"/>
4		<input type="checkbox"/>	<input type="checkbox"/>
5		<input type="checkbox"/>	<input type="checkbox"/>
6		<input type="checkbox"/>	<input type="checkbox"/>

Note: Attach additional pages, if needed

Revised 7/26/2021

Residential Rezoning Impact on Local Schools
Prepared for Gwinnett County BOC, August, 2022

											Proposed Zoning
	School	2022-23			2023-24			2024-25			Approximate Student Projections from Proposed Developments
		Forecast	Capacity	+/- Cap.	Forecast	Capacity	+/- Cap.	Forecast	Capacity	+/- Cap.	
RZC2022-00001 & RZC2022-00002	Duluth HS	2,643	2,650	-7	2,696	2,650	46	2,736	2,650	86	25
	Duluth MS	1,286	1,775	-489	1,312	1,775	-463	1,331	1,775	-444	19
	Harris ES	680	750	-70	687	750	-63	694	750	-56	33
RZM2022-00026 & RZM2022-00027 & RZM2022-00028	Collins Hill HS	2,730	2,625	105	2,773	2,625	148	2,800	2,625	175	27
	Creekland MS	1,911	2,100	-189	1,892	2,100	-208	1,915	2,100	-185	20
	Rock Springs ES	792	1,325	-533	808	1,325	-517	824	1,325	-501	35
RZM2022-00031	Collins Hill HS	2,730	2,625	105	2,773	2,625	148	2,800	2,625	175	24
	Creekland MS	1,911	2,100	-189	1,892	2,100	-208	1,915	2,100	-185	19
	Taylor ES	826	1,300	-474	817	1,300	-483	809	1,300	-491	32
RZM2022-00032	Peachtree Ridge HS	3,262	3,050	212	3,295	3,050	245	3,271	3,050	221	6
	Hull MS	1,258	1,750	-492	1,271	1,750	-479	1,290	1,750	-460	5
	Mason ES	937	1,150	-213	924	1,150	-226	912	1,150	-238	9
RZM2022-00033	Parkview HS	3,208	2,900	308	3,240	2,900	340	3,224	2,900	324	8
	Trickum MS	2,160	1,775	385	2,182	1,775	407	2,170	1,775	395	7
	Camp Creek ES	1,323	1,325	-2	1,336	1,325	11	1,350	1,325	25	11
RZM2022-00034	Discovery HS	2,862	2,525	337	2,905	2,525	380	2,949	2,525	424	5
	Richards MS	2,052	2,200	-148	2,093	2,200	-107	2,124	2,200	-76	4
	Benefield ES	1,216	1,375	-159	1,204	1,375	-171	1,192	1,375	-183	6
RZM2022-00036	Grayson HS	3,277	3,000	277	3,375	3,000	375	3,477	3,000	477	14
	Bay Creek MS	1,318	1,150	168	1,345	1,150	195	1,385	1,150	235	10
	Trip ES	1,241	1,200	41	1,266	1,200	66	1,291	1,200	91	18
RZM2022-00037	Mill Creek HS	2,915	2,800	115	2,633	2,800	-167	2,596	2,800	-204	30
	Osborne MS	1,658	1,575	83	1,646	1,575	71	1,671	1,575	96	22
	Fort Daniel ES	727	925	-198	749	925	-176	764	925	-161	39
RZR2022-00020	South Gwinnett HS	2,735	2,750	-15	2,790	2,750	40	2,832	2,750	82	37
	Grace Snell MS	1,262	1,200	62	1,281	1,200	81	1,300	1,200	100	26
	Magill ES	1,222	1,525	-303	1,253	1,525	-272	1,284	1,525	-241	47
RZR2022-00023	Collins Hill HS	2,730	2,625	105	2,773	2,625	148	2,800	2,625	175	37
	Creekland MS	1,911	2,100	-189	1,892	2,100	-208	1,915	2,100	-185	26
	Rock Springs ES	792	1,325	-533	808	1,325	-517	824	1,325	-501	47

Exhibit F: Traffic Impact Study

[attached]

1.0 INTRODUCTION

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The purpose of this study is to determine the traffic impact that will result from the proposed mixed-use development that will be located on McDaniel Road in Duluth, Georgia. The traffic analysis evaluates current operations compared to the future conditions with traffic generated by the development. The proposed development will consist of:

Northern Parcel on SR 120 (Duluth Highway) west of McDaniel Road

- Retail building: 21,580 sf
- Multi-family housing: 229 Units

Southern Parcel on SR 120 (Duluth Highway) east of McDaniel Road

- Retail building: 46,010 sf
- Multi-family housing: 258 Units



The development proposes driveways at the following locations:

- Site Driveway 1: Full-access driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 2: Right-in/right-out driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 3: Full-access driveway on McDaniel Road into the northern parcel aligned with Site Driveway 4
- Site Driveway 4: Full-access Southern driveway on McDaniel Road into the southern parcel aligned with Site Driveway 3

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- Site Driveway 5: Full-access Northern driveway on McDaniel Road to the southern parcel
- Site Driveway 6: Full-access driveway on SR 120 (Duluth Highway) to the southern parcel aligned with driveway into 2434 Duluth Highway (State Farm and others)

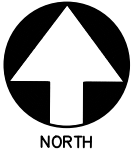
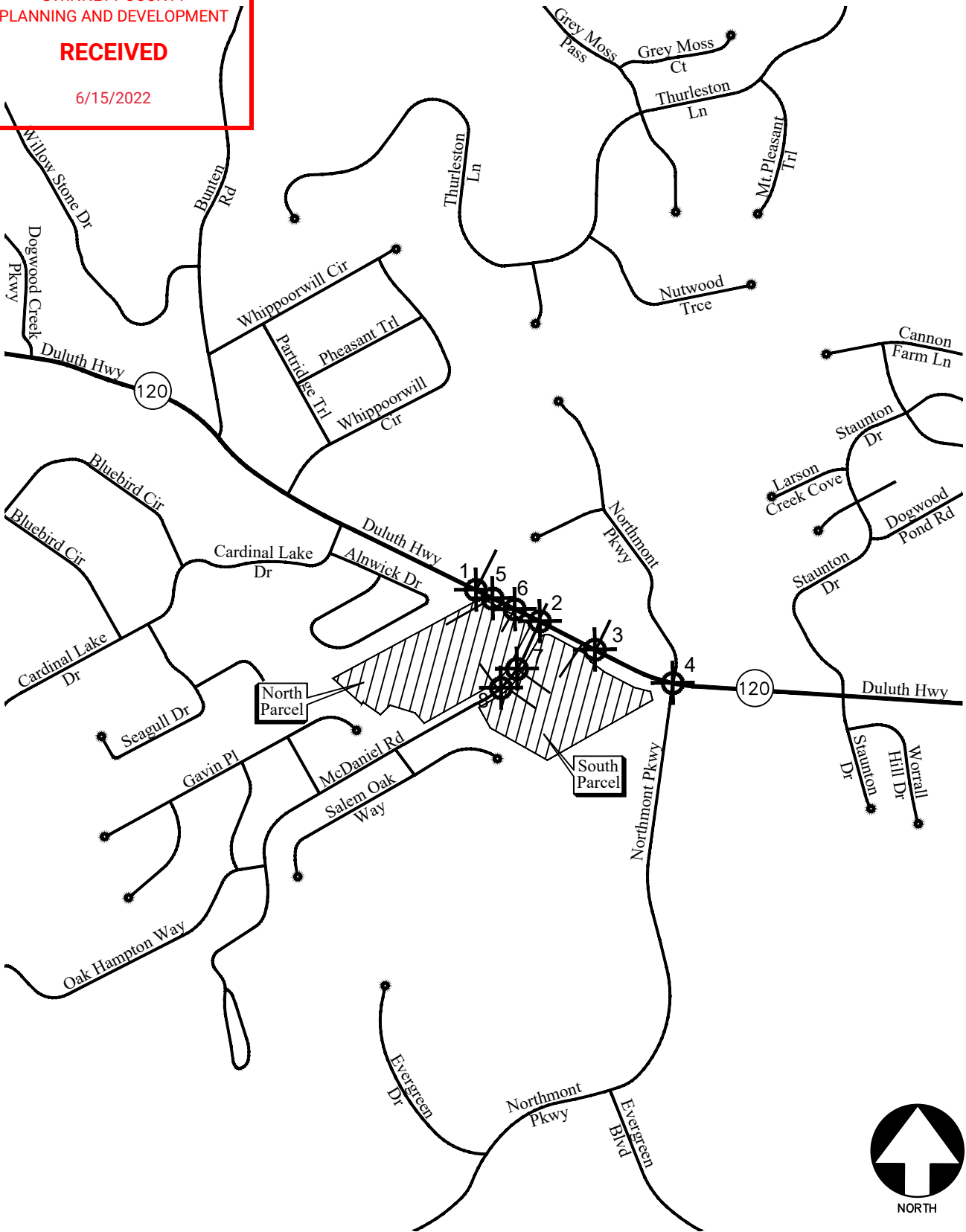
The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections of:

1. SR 120 (Duluth Highway) at McDaniel Road
2. SR 120 (Duluth Highway) at Northmont Parkway
3. SR 120 (Duluth Highway) at driveway to 2434 Duluth Highway (State Farm and other business users)
4. SR 120 (Duluth Highway) at driveway to 2518 Duluth Highway (Office Building)

Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network is shown in Figure 1.

**WINNETT COUNTY
 PLANNING AND DEVELOPMENT**
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 Study Intersections



LOCATION MAP

FIGURE 1

A&R Engineering Inc.

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7.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to determine the traffic impact that will result from the proposed mixed-use development that will be located on McDaniel Road in Duluth, Georgia. The proposed development will consist of:

Northern Parcel on SR 120 (Duluth Highway) west of McDaniel Road

- Retail building: 21,580 sf
- Multi-family housing: 229 Units

Southern Parcel on SR 120 (Duluth Highway) east of McDaniel Road

- Retail building: 46,010 sf
- Multi-family housing: 258 Units

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections of:

1. SR 120 (Duluth Highway) at McDaniel Road
2. SR 120 (Duluth Highway) at Northmont Parkway
3. SR 120 (Duluth Highway) at driveway to 2434 Duluth Highway (State Farm and other users)
4. SR 120 (Duluth Highway) at driveway to 2518 Duluth Highway (Office Building)

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in annual growth of through traffic. The signalized intersection of Northmont Parkway and SR 120 (Duluth Highway) will continue to operate at an acceptable level-of-service in the “No-Build” and “Build” scenarios. Based on the traffic volumes presented in Figure 8, it is recommended that the intersection of SR 120 (Duluth Highway) and McDaniel Road is evaluated to determine if traffic signal warrants are met per MUTCD standards.

7.1 Recommendation for Site Access Configuration

It is recommended that all full access driveways (1, 3, 4, 5 and 6) are stop sign controlled on the driveway approach and consist of one entering lane and one exiting lane. Given the short distance from the neighboring intersection of McDaniel Road and SR 120 (Duluth Highway), it is recommended that site driveway 2 serve as a right-in/right-out driveway. Left turn lanes are recommended at site driveway 1, 4, 5, and 6 per GDOT standards. Deceleration lanes are recommended at site driveways 1, 2, 3, 4, and 6 per GDOT standards. It is recommended that driveway 6 be aligned with the driveway across SR 120 (Duluth Highway) and that site driveways 3 and 4 also be aligned with each other. It is also recommended that adequate sight distance is confirmed per AASHTO standards during the driveway design process.

Exhibit G: Maps

[attached]



ALNWICK DR

ALNWICK DR

RZC2022-00002

RZC2022-00001

NORTHMONT PKWY

DULUTH HWY


GAVIN PL

MCDANIEL RD

HAMPTON HALL DR

SALEM OAK WAY

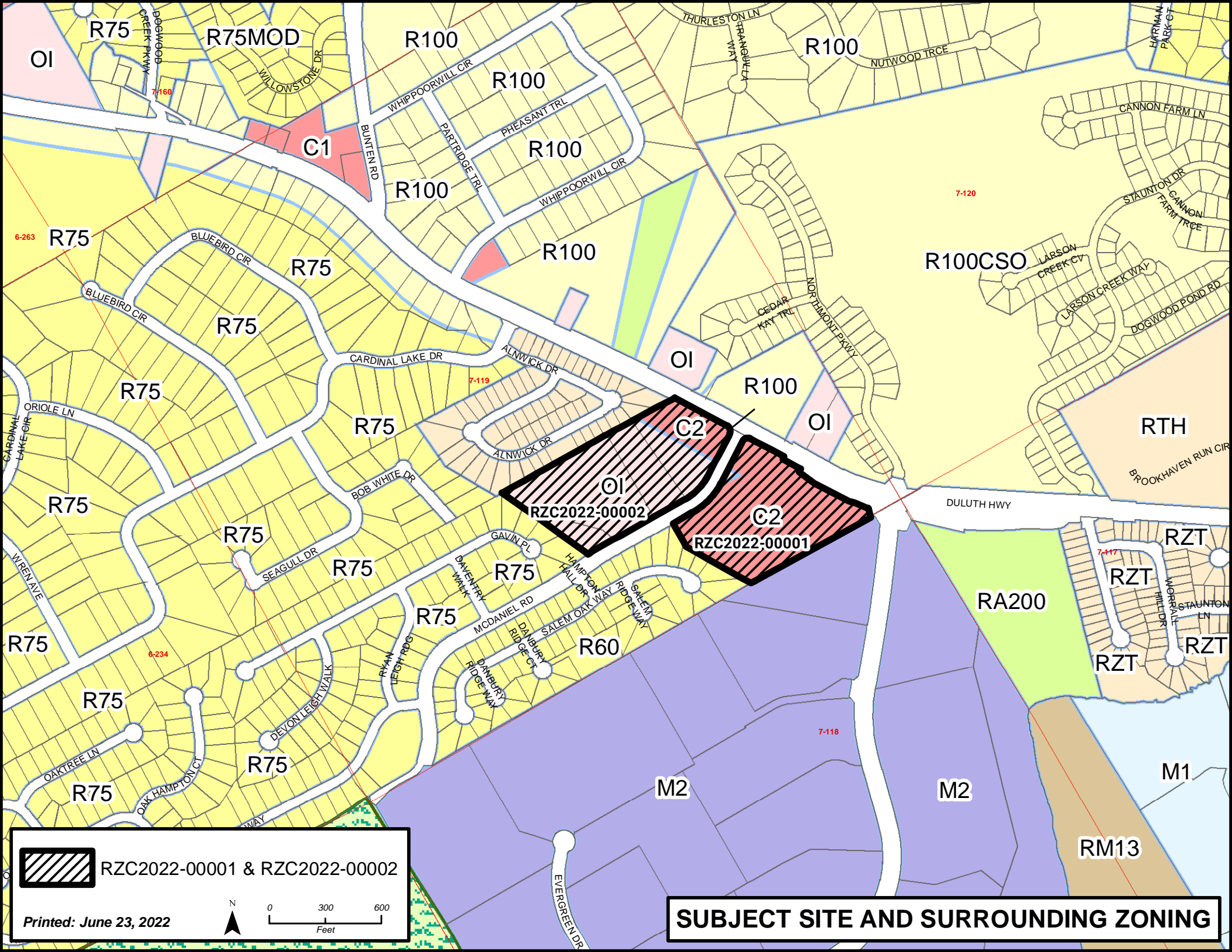
SALEM RIDGE WAY


 RZC2022-00001 & RZC2022-00002

Printed: June 23, 2022

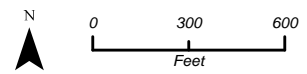
N

0 100 200
Feet

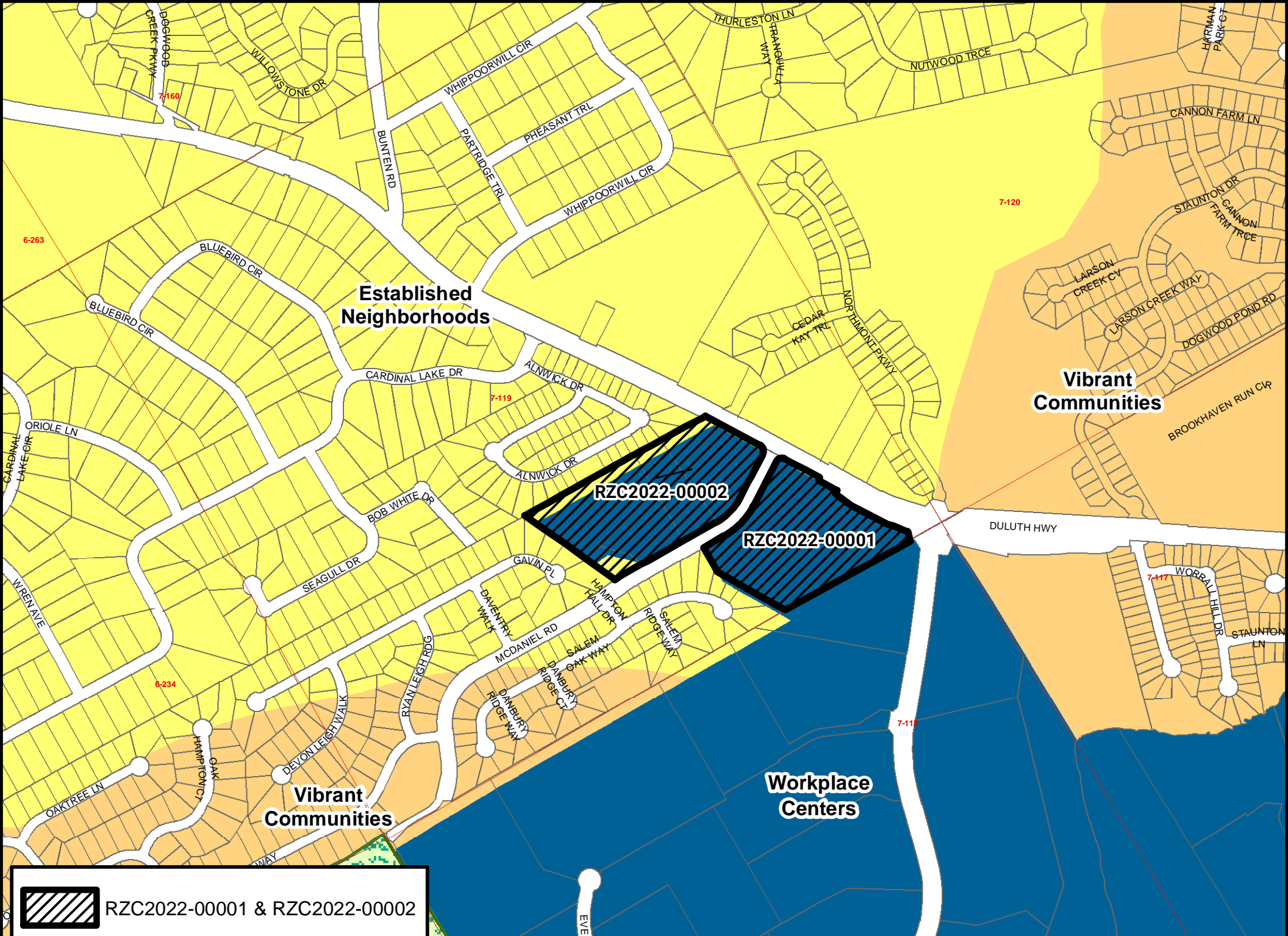


 RZC2022-00001 & RZC2022-00002

Printed: June 23, 2022



SUBJECT SITE AND SURROUNDING ZONING



Established Neighborhoods


Vibrant Communities

Vibrant Communities

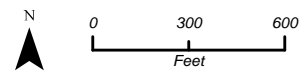
Workplace Centers

RZC2022-00002

RZC2022-00001

 RZC2022-00001 & RZC2022-00002

Printed: June 23, 2022



2040 UNIFIED PLAN FUTURE DEVELOPMENT CLASSIFICATION

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Gwinnett County Planning Division
Rezoning Application
Last Updated 10/2021

REZONING APPLICATION

AN APPLICATION TO AMEND THE OFFICIAL ZONING MAP OF GWINNETT COUNTY, GA.

APPLICANT INFORMATION	PROPERTY OWNER INFORMATION*
NAME: <u>SYNERGY DEVELOPMENT PARTNERS, LLC</u>	NAME: <u>BRANDENTON INVESTORS, LLC</u>
ADDRESS: <u>83 WALNUT STREET, NW, UNIT 400</u>	ADDRESS: <u>999 PEACHTREE STREET, NE, SUITE 855</u>
CITY: <u>ATLANTA</u>	CITY: <u>ATLANTA</u>
STATE: <u>GEORGIA</u> ZIP: <u>30303</u>	STATE: <u>GEORGIA</u> ZIP: <u>30309</u>
PHONE: <u>404.254.4755</u>	PHONE: <u>404.201.7840</u>
EMAIL: <u>RPhillips@synergydp.com</u>	EMAIL: <u>weener@wnplp.com</u>
CONTACT PERSON: <u>M. HAKIM HILLIARD</u> PHONE: <u>404.389.9085</u>	
CONTACT'S E-MAIL: <u>HHILLIARD@HSTARLAW.COM</u>	
APPLICANT IS THE:	
<input checked="" type="checkbox"/> OWNER'S AGENT <input type="checkbox"/> PROPERTY OWNER <input type="checkbox"/> CONTRACT PURCHASER	
PRESENT ZONING DISTRICTS(S): <u>C-2;O-1</u> REQUESTED ZONING DISTRICT: <u>MU-R</u>	
PARCEL NUMBER(S): <u>R7119 100; R7119 114; R7119 116</u> <u>R7119 118</u> ACREAGE: <u>11.504</u>	
ADDRESS OF PROPERTY: <u>2449 DULUTH HIGHWAY AND MCDANIEL ROAD (NORTH PARCEL)</u>	
PROPOSED DEVELOPMENT: <u>MIXED-USE (COMMERCIAL, MULTI-FAMILY, TOWNHOMES)</u>	

RESIDENTIAL DEVELOPMENT	NON-RESIDENTIAL DEVELOPMENT
TOWNHOMES: 18 UNITS MULTI-FAMILY - 114 UNITS No. of Lots/Dwelling Units: _____ <small>MULTI-FAMILY-Studio (600SF) 1B/1B(750SF), 2B/2B(1000SF)</small> APPROX. 2500 SF PER HOME AS PER UDO TABLE 210.10 Dwelling Unit Size (Sq. Ft.): _____ Gross Density: <u>11.5 UNITS/ACRE (NORTH PARCEL)</u> <u>15.4 UNITS PER ACRE (NORTH/SOUTH PARCELS COMBINED)</u> Net Density: <u>11.5 UNITS/ACRE (NORTH PARCEL)</u> <u>15.4 UNITS PER ACRE (NORTH/SOUTH PARCELS COMBINED)</u>	No. of Buildings/Lots: <u>1</u> Total Building Sq. Ft. <u>36,000 SF (RETAIL @ LEVEL 1 OF BUILDING A)</u> Density: <u>0.07 FAR</u>

PLEASE ATTACH A LETTER OF INTENT EXPLAINING WHAT IS PROPOSED

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6/8/2022

REZONING APPLICATION

AN APPLICATION TO AMEND THE OFFICIAL ZONING MAP OF GWINNETT COUNTY, GA.

APPLICANT INFORMATION	PROPERTY OWNER INFORMATION*
NAME: <u>SYNERGY DEVELOPMENT PARTNERS, LLC</u>	NAME: <u>BRADENTON INVESTORS, LLC</u>
ADDRESS: <u>83 WALNUT STREET, UNIT 400</u>	ADDRESS: <u>999 PEACHTREE STREET, SUITE 855</u>
CITY: <u>ATLANTA</u>	CITY: <u>ATLANTA</u>
STATE: <u>GEORGIA</u> ZIP: <u>30303</u>	STATE: <u>GEORGIA</u> ZIP: <u>303090</u>
PHONE: <u>404.425.4755</u>	PHONE: <u>404.201.7840</u>
EMAIL: <u>RPhillips@synergydp.com</u>	EMAIL: <u>weener@wnplp.com</u>
CONTACT PERSON: <u>M. HAKIM HILLIARD</u> PHONE: <u>404.389.9085</u>	
CONTACT'S E-MAIL: <u>HHILLIARD@HSTARLAW.COM</u>	
APPLICANT IS THE:	
<input checked="" type="checkbox"/> OWNER'S AGENT <input type="checkbox"/> PROPERTY OWNER <input type="checkbox"/> CONTRACT PURCHASER	
C-2; O-1	
PRESENT ZONING DISTRICTS(S): _____ REQUESTED ZONING DISTRICT: <u>MU-R</u>	
PARCEL NUMBER(S): <u>R7119 002A</u> ACREAGE: <u>9.368 ACRES</u>	
ADDRESS OF PROPERTY: <u>2449 DULUTH HIGHWAY AND MCDANIEL ROAD</u>	
PROPOSED DEVELOPMENT: <u>MIXED-USE (RETAIL, MULTI-FAMILY AND TOWNHOMES)</u>	

RESIDENTIAL DEVELOPMENT	NON-RESIDENTIAL DEVELOPMENT
TOWNHOMES - 12 UNITS MULTI-FAMILY - 162 UNITS No. of Lots/Dwelling Units: _____ <small>MULTI-FAMILY - Studio (600SF) APPROX. 2800 SF PER HOME PER UDO TABLE 210.10 1B/1B (750SF), 2B/2B (1000SF)</small>	No. of Buildings/Lots: <u>Buildings B, C, D and E (4)</u>
Dwelling Unit Size (Sq. Ft.): _____	Total Building Sq. Ft. <u>52,300 SF (RETAIL @ LEVEL 1 OF BUILDINGS B, C, D and E)</u>
Gross Density: <u>18.6 UNITS/ACRE (SOUTH PARCEL) 15.4 UNITS/ACRE (NORTH&SOUTH PARCELS COMBINED)</u>	Density: <u>0.13' FAR</u>
Net Density: <u>18.6 UNITS/ACRE (SOUTH PARCEL) 15.4 UNITS/ACRE (NORTH&SOUTH PARCELS COMBINED)</u>	

PLEASE ATTACH A LETTER OF INTENT EXPLAINING WHAT IS PROPOSED

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TRACT 1

(PARCELS: 7119 100, 7119 114, 7119 116 & 7119 118)

All that tract or parcel of land lying and being in Land Lot 119, 7th District, Gwinnett County, Georgia, being more particularly described as follows:

Beginning at the southwestern intersection of the right of way of Georgia Highway No. 120, a.k.a. Duluth Highway (right of way varies) and the right of way of McDaniel Road (80 feet right of way), that is the **point of beginning**; thence along the right of way of McDaniel Road the following courses and distances: 59.69 feet along a curve to the right, said curve having a chord of South 16°40'31" East 53.74 feet and a radius of 38.00 feet to a point; thence South 28°19'29" West a distance of 247.08 feet to a point; thence 167.70 feet along a curve to the right, said curve having a chord of South 44°29'57" West 165.48 feet and a radius of 297.02 feet to a point; thence South 60°40'25" West a distance of 520.78 feet to a point; thence 74.87 feet along a curve to the left, said curve having a chord of South 58°20'46" West 74.85 feet and a radius of 921.52 feet to a point; thence leaving said right of way North 54°32'42" West a distance of 567.96 feet to a point; thence North 61°31'59" East a distance of 1062.33 feet to a point located on the southwestern right of way of Georgia Highway No. 120; thence along said right of way South 59°41'55" East a distance of 306.13 feet to a point, being the **POINT OF BEGINNING**. Said tract contains 11.504 Acres.

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TRACT 2
(PARCEL: 7119 002A)

All that tract or parcel of land lying and being in Land Lot 119, 7th District, Gwinnett County, Georgia, being more particularly described as follows:

Beginning at the southeastern intersection of the right of way of Georgia Highway No. 120, a.k.a. Duluth Highway (right of way varies) and the right of way of McDaniel Road (80 feet right of way), that is the **point of beginning**; thence along the right of way of Georgia Highway No. 120 the following courses and distances: South 61°40'31" East a distance of 169.02 feet to a point; thence South 28°10'44" West a distance of 4.96 feet to a point; thence South 61°48'45" East a distance of 109.13 feet to a point; thence South 28°17'02" West a distance of 11.10 feet to a point; thence South 53°52'13" East a distance of 101.78 feet to a point; thence South 62°34'12" East a distance of 209.04 feet to a point; thence South 75°16'31" East a distance of 24.99 feet to a point; thence 86.04 feet along a curve to the left, said curve having a chord of South 68°25'59" East 86.04 feet and a radius of 1939.05 feet to a point; thence South 13°28'14" East a distance of 41.66 feet to a point located on the Land Lot Line common to Land Lots 118 and 119; thence leaving said right of way and along said Land Lot Line South 60°16'15" West a distance of 739.36 feet to a point; thence leaving said Land Lot Line thence North 60°30'01" West a distance of 398.65 feet to a point; thence North 29°14'36" West a distance of 141.36 feet to a point located on the southeastern right of way of McDaniel Road; thence along said right of way the following courses and distances: North 60°40'25" East a distance of 115.99 feet to a point; thence 212.87 feet along a curve to the left, said curve having a chord of North 44°29'57" East 210.05 feet and a radius of 377.02 feet to a point; thence North 28°19'29" East a distance of 222.08 feet to a point; thence 98.97 feet along a curve to the right, said curve having a chord of North 73°19'29" East 89.10 feet and a radius of 63.00 feet to a point, being the **POINT OF BEGINNING**. Said tract contains 9.368 Acres.

RECEIVED

6/8/2022

SURVEYOR'S CERTIFICATION
I, the undersigned, being a duly qualified and licensed Professional Engineer and Land Surveyor and as set forth in O.C.G.A. Section 15-6-67.

of an existing parcel or parcels of land and does not create or make any changes to any real property information of the documents, maps, plats, or other instruments which created by this plat does not in any way affect the availability of permits, or suitability for any use, or the minimum technical standards for professional surveys in Georgia and as set forth in O.C.G.A. Section 15-6-67.

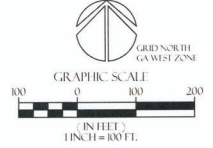


Christopher W. Bailey
6/18/20

GENERAL NOTES:

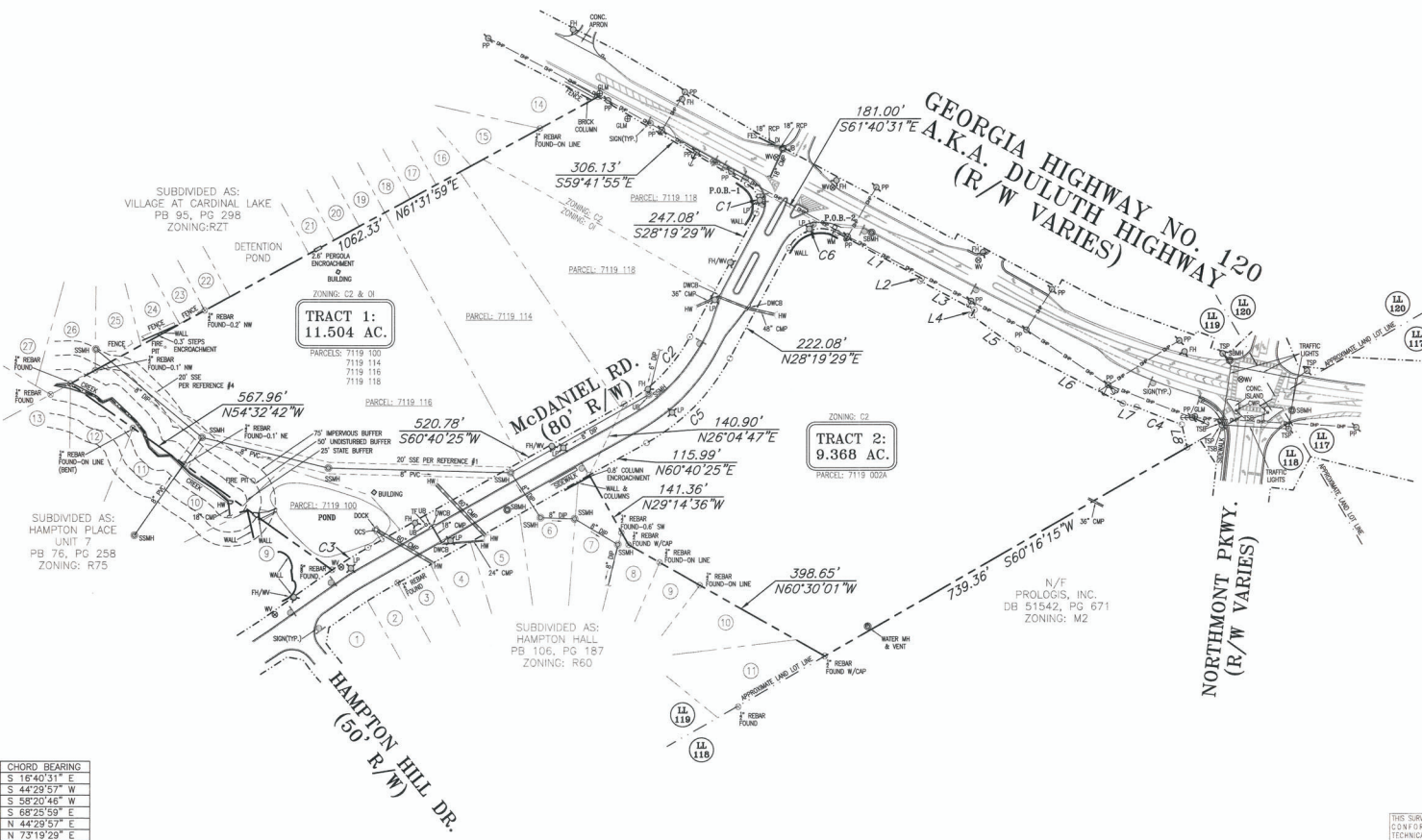
1. FIRM MAP NUMBER 1313200707, EFFECTIVE 09-29-2006, INDICATES THAT THIS TRACT DOES NOT LIE IN AN AREA DESIGNATED AS HAVING FLOOD HAZARD.
2. THIS PLAT OF SURVEY MAKES NO WARRANTY OR GUARANTEE AS TO THE EXISTENCE OF ANY EASEMENTS OF ANY TYPE. NO ABSTRACT OR TITLE SEARCH WAS PERFORMED BY THE SURVEYOR TO DISCOVER THE EXISTENCE OF ANY EASEMENTS.
3. THE PREMISES SHOWN AND DESCRIBED HEREON ARE SUBJECT TO ANY EXISTING EASEMENTS, RIGHTS-OF-WAY, RESTRICTIVE COVENANTS, ZONING REGULATIONS, AND/OR SETBACK LINES WHETHER OR NOT THEY MAY BE SHOWN ON THIS PLAT HEREON OR WHETHER OR NOT RECORDED IN THE PUBLIC RECORDS. NO LIABILITY IS ASSUMED BY THE SURVEYOR FOR ANY LOSS THAT MAY BE ASSOCIATED WITH THE EXISTENCE OF ANY EASEMENTS OR RESTRICTION ON THE USE OF THE PROPERTY.

LEGEND	ABBREVIATIONS
	INV INVERT ELEVATION
	CMP CORRUGATED METAL PIPE
	RCP REINFORCED CONCRETE PIPE
	DIP DUCTILE IRON PIPE
	FTE FINISHED FLOOR ELEVATION
	TEB TEMPORARY BENCHMARK
	GV GAS VALVE
	LICM UNDERGROUND CABLE MARKER
	GLM GAS LINE MARKER
	WLM WATER LINE MARKER
	PB PLAT BOOK
	DB DEED BOOK
	N/F NOW OR FORMERLY
	SSMH SANITARY SEWER MANHOLE
	DWCB DOUBLE WING CATCH BASIN
	SWCB SINGLE WING CATCH BASIN
	FES FLARED END SECTION
	CONC CONCRETE
	CWP CROSS WALK POST
	OWHP OVERHEAD POWER
	SBMH SOUTHERN BELL MANHOLE
	TF TRAFFIC SIGNAL BOX
	TSP TRAFFIC SIGNAL POLE
	UB UTILITY BOX
	P.O.B. POINT OF BEGINNING



- REFERENCES:**
1. PLAT BOOK 57, PAGE 141
 2. PLAT BOOK 73, PAGE 258
 3. PLAT BOOK 76, PAGE 258
 4. PLAT BOOK 95, PAGE 298
 5. PLAT BOOK 102, PAGE 287
 6. PLAT BOOK 106, PAGE 187
 7. DEED BOOK 13478, PAGE 1
 8. DEED BOOK 49221, PAGE 283
 9. DEED BOOK 50026, PAGE 580
 10. DEED BOOK 51542, PAGE 671
 11. DEED BOOK 55611, PAGE 626
 12. DEED BOOK 55611, PAGE 644
 13. DEED BOOK 55838, PAGE 518
 14. DEED BOOK 56083, PAGE 826
 15. DEED BOOK 57013, PAGE 657

TRACT 1: 11.504 AC.
TRACT 2: 9.368 AC.
TOTAL: 20.872 AC.



LINE CHART

LINE	BEARING	DISTANCE
L1	S 61°40'31" E	169.02'
L2	S 28°10'44" W	4.96'
L3	S 61°48'45" E	109.13'
L4	S 28°17'02" W	11.10'
L5	S 53°52'13" E	101.78'
L6	S 62°34'12" E	209.04'
L7	S 75°16'31" E	24.92'
L8	S 13°28'14" E	41.66'

CURVE CHART

CURVE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	38.00'	59.69'	53.74'	S 16°40'31" E
C2	297.02'	167.70'	165.48'	S 44°29'57" W
C3	921.52'	74.87'	74.85'	S 58°20'46" W
C4	1939.05'	88.04'	86.04'	S 68°25'59" E
C5	377.02'	212.87'	210.05'	N 44°29'57" E
C6	63.00'	98.97'	89.10'	N 73°19'29" E

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This plat was prepared for the exclusive use of the person, persons, or entity named herein. This plat does not extend to any unnamed person, persons, or entity without the express consent of the surveyor naming such person, persons, or entity.



MDA
McFarland-Dyer & Associates, Inc.
1279 STATE STREET, SUITE 100
ATLANTA, GEORGIA 30309

THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE TECHNICAL STANDARDS FOR PROFESSIONAL SURVEYS IN GEORGIA AS SET FORTH IN CHAPTER 158-7 OF THE RULES OF THE GEORGIA BOARD OF PROFESSIONAL ENGINEERS AND LAND SURVEYORS AND AS SET FORTH IN THE GEORGIA PLAT ACT O.C.G.A. 15-6-67, 15-6-67.43-15-6, 15-6-67.43-15-6.43-15-6.43-15-6.43-15-6.43-15-6.

DATE	DESCRIPTION
06/18/2022	INDUSTRY PART

BRAND PROPERTIES
(PARCELS: 719 002A, 719 100, 719 104, 719 106 & 719 108)

BOUNDARY SURVEY
SHEET 1 OF 1

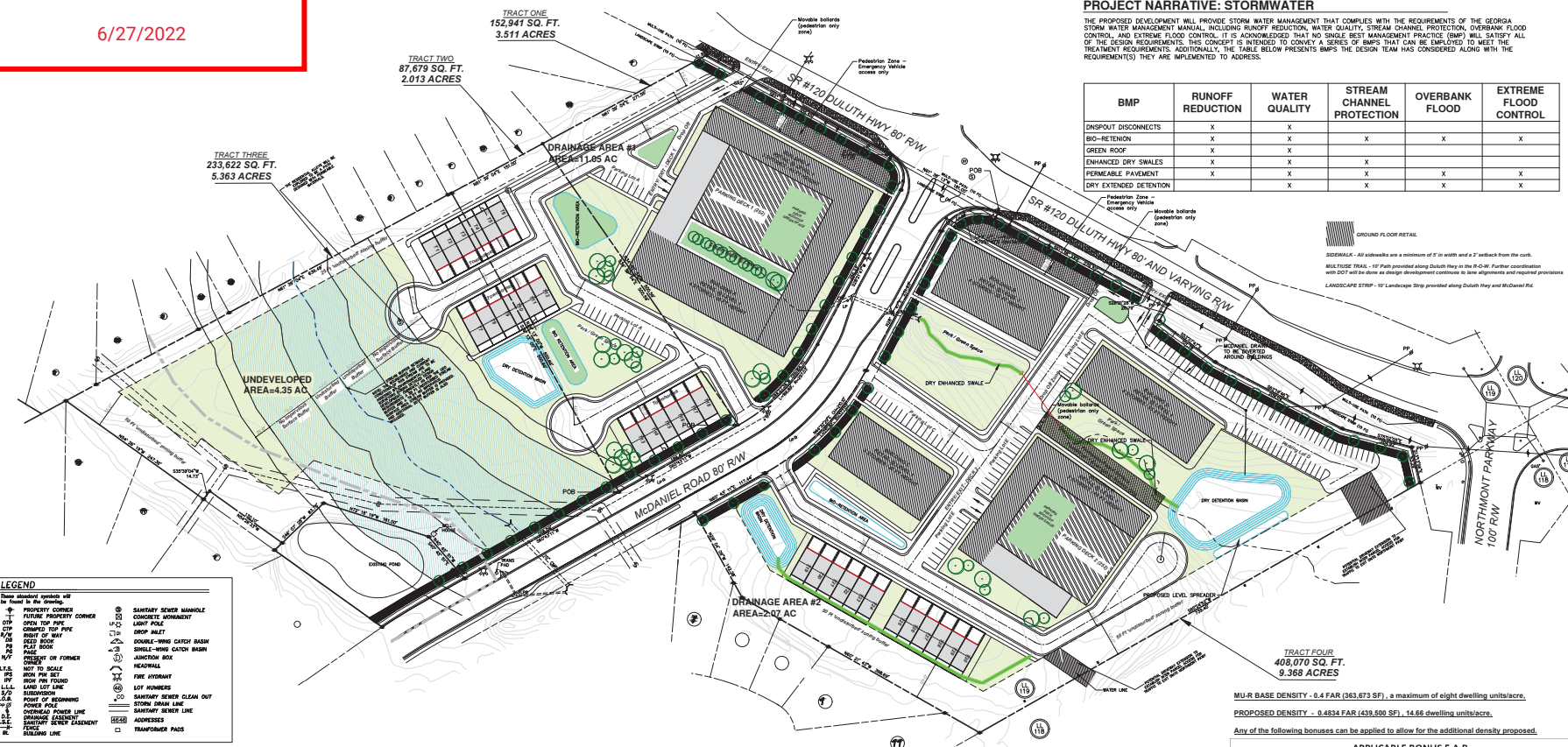
RECEIVED

6/27/2022

PROJECT NARRATIVE: STORMWATER

THE PROPOSED DEVELOPMENT WILL PROVIDE STORM WATER MANAGEMENT THAT COMPLIES WITH THE REQUIREMENTS OF THE GEORGIA STORM WATER MANAGEMENT MANUAL, INCLUDING RUNOFF REDUCTION, WATER QUALITY, STREAM CHANNEL PROTECTION, OVERBANK FLOOD CONTROL, AND EXTREME FLOOD CONTROL. IT IS ACKNOWLEDGED THAT NO SINGLE BEST MANAGEMENT PRACTICE (BMP) WILL SATISFY ALL OF THE DESIGN REQUIREMENTS. THIS CONCEPT IS INTENDED TO CONVEY A SERIES OF BMPs THAT CAN BE EMPLOYED TO MEET THE TREATMENT REQUIREMENTS. ADDITIONALLY, THE TABLE BELOW PRESENTS BMPs THE DESIGN TEAM HAS CONSIDERED ALONG WITH THE REQUIREMENT(S) THEY ARE IMPLEMENTED TO ADDRESS.

BMP	RUNOFF REDUCTION	WATER QUALITY	STREAM CHANNEL PROTECTION	OVERBANK FLOOD	EXTREME FLOOD CONTROL
INSPILT DISCONNECTS	X	X			
BIO-RETENTION	X	X	X	X	X
GREEN ROOF	X	X	X		
ENHANCED DRY SWALES	X	X	X		
PERMEABLE PAVEMENT	X	X	X	X	X
DRY EXTENDED DETENTION		X	X	X	X



LEGEND

Other boundary symbols not shown in the drawing:

- PROPERTY CORNER
- FUTURE PROPERTY CORNER
- OPEN TOP PIPE
- COVERED TOP PIPE
- ROOF OF BOX
- DEEP BOX
- PAVED BOX
- PRESENT OR FORMER
- NOT TO SCALE
- ROAD OR ROAD
- LAND LOT LINE
- POINT OF BEGINNING
- POWER POLE
- OVERHEAD POWER LINE
- UNDERGROUND POWER LINE
- STORM SEWER
- SEWER
- REINFORCE LINE

SUMMARY

- TOTAL GROSS SF – 439,500 SF
- Gross Residential SF + Total Units (Building A to E + Townhomes)
 - 351,200 SF / 306 Units (276 apartments + 30 Townhomes)
 - Townhome Lot Size 22' x 65'
 - Refer Table 1 for Unit Breakdown
- Gross Retail SF (Building A to E)
 - 88,300 SF (20% of Proposed Gross SF)
 - Refer Table 2 for Retail Breakdown
- Parking
 - Required Multifamily Residential Parking – 414 Spaces (PROVIDED – 414)
 - Required Townhomes Parking – 90 Spaces (Provided – 90)
 - Required Retail Parking – 221 Spaces (PROVIDED – 222)
 - Refer Table 3.1 & 3.2 for Parking Breakdown

Table 1 - Residential Square Footage and Unit Count

Building No	Building Height/ No. of Floors	Gross Square Footage (GSF)	Total No. of Units	Unit Breakdown			Required Residential Parking Spaces
				Studio (600 SF)	1B/1B (750 SF)	2B/2B (1000 SF)	
Building A	3 to 4 Floors / 55 Ft	117000	114	20	50	44	173
Building B	4 Floors / 55 Ft	37800	39	6	18	15	59
Building C	3 Floors / 45 Ft	31300	32	5	14	13	48
Building D	4 Floors / 55 Ft	42000	44	8	20	16	66
Building E	3 Floors / 45 Ft	48100	47	9	20	18	71
Townhomes North	3 Floors / 35 Ft	45000	18				54
Townhomes South	3 Floors / 35 Ft	30000	12				36
TOTAL		351200	306				

Table 2 - Retail Square Footage

Building No	Retail Location	Gross Square Footage (GSF)	Required Retail Parking Spaces
Building A	Level 1	36000	90
Building B	Level 1	16500	41
Building C	Level 1	7000	18
Building D	Level 1	14300	36
Building E	Level 1	14500	36
TOTAL		88300	221

Notes:
 1. All Retail is located at Level 1 of the Multifamily Buildings A to E with Street / Open Green Space Frontage.
 2. Retail at Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
 3. Retail Parking is accommodated at Level 1 of the enclosed Parking Deck and outdoor surface parking.

Table 3.1 - Parking Provided for Multifamily and Retail

Parking Type	Building Proximity	No. of Floors	Parking Capacity
Deck 1	Building A	4	252
	Building E	4	252
Parking Deck Total			
			505
Parking Lot A	Building A Rear	Surface Parking	17
Parking Lot C	Building C	Surface Parking	20
Parking Lot D	Building D Side	Surface Parking	65
Parking Lot E	Building E	Surface Parking	29
Surface Parking Total			
			131
TOTAL PARKING PROVIDED			
			636

Table 3.2 - Parking Allotment for Multifamily and Retail

Residential Building No	Allotted Parking	Retail Building No	Allotted Parking
Building A	Deck 1	Building A	Parking Lot A & Deck 1
Building B	Deck 2	Building B	Deck 1
Building C	Deck 2	Building C	Parking Lot C & D
Building D	Deck 2	Building D	Parking Lot D
Building E	Deck 2	Building E	Deck 2 & Parking Lot E

MUR BASE DENSITY - 0.4 FAR (363,673 SF), a maximum of eight dwelling units/acre.
 PROPOSED DENSITY - 0.4834 FAR (439,500 SF), 14.66 dwelling units/acre.
 Any of the following bonuses can be applied to allow for the additional density proposed.

- APPLICABLE BONUS F.A.R**
- Note: The following estimates are conceptual approximate values and are subject to change with further design development.
- Common Area Bonus + 2.5 FAR Bonus**
 - Net Project Acreage (Site Area) - 20.872 Acres
 - Minimum Required Common Area - 15% (3.130 Acres)
 - Total Proposed Common Area - 40% (8.3 Acres)
 - Common Area in Excess of Required Minimum - 25% (5.218 Acres)
 - NORTH & SOUTH PARCEL COMBINED DENSITY - 15.4 Dwelling Units per Acre**
 - Additional 0.1 Far for Each 1% Over - 2.5 FAR Bonus
 - Green Spaces Within Overall Common Area - Approx. 1.5 Acres - Programmed as Pocket Parks / Green Spaces / Plaza / Paths and Trails.
 - Parcels Assembly Bonus (+0.3 F.A.R)**
 - This Mixed Use Development is Assembled From 4 Parcels Greater Than 1 Acre.
 - Mixed-Use Development with a Minimum Of 14 Dwelling Units Per Acre (+0.5 F.A.R)**
 - NORTH & SOUTH PARCEL COMBINED DENSITY - 15.4 Dwelling Units per Acre
 - Tract One (3.511 Acres)
 - Proposed Mixed Use Building A - 114 Residential Units
 - Proposed Retail in Building A - 36,000 SF
 - Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces
 - Tract Four (9.368 Acres)
 - Proposed Mixed Use Building B, C, D, E - 162 Residential Units
 - Proposed Retail in Building B, C, D, E - 52,300 SF
 - Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces
 - Structured Parking (+1.0 F.A.R)**
 - 2 Structured Parking Decks Provided - Approx. 504 Spaces Estimated
 - Required Parking for Multifamily - 414 Spaces
 - Parking Decks Proposed Are Able to Accommodate Greater Than 50% Of the Required Multifamily Residential Parking.



PROJECT NAME
MCDANIEL ROAD
 Mixed-Use Development

LOCATION
 2449 Duluth Hwy,
 Duluth, GA 30097

OWNER/DEVELOPER
REPRESENTATIVE
 HAKIM HILLIARD, ESQUIRE
 404-389-9085
 hilliard@hstarlaw.com

ARCHITECT
 TATE + HANSEN LLC
 ARCHITECTURE & PLANNING
 404-845-6468

Issue

No.	Description	Date
4	Revised	06.08.2022

DRAWING TITLE
Conceptual Site Plan

DRAWN BY:
 CHECKED BY:
 DATE
 06.08.2022
 JOB NO.
 202109.02
 SCALE
 1" = 75'-0"
 DRAWING NO.
01

RECEIVED

View of Multi-Family
8/8/2022

08.29.2021

Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

Cornices to be added during schematic design development to articulate the building height.



Siding to reflect surrounding single family context

Variation in material color to break monotony

Buildings oriented to frame central green space.

Ground Floor Retail base articulated with large window openings allowing citizens to engage with the architecture and program.

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6/8/2022

Elevation of Multi-Family with Retail on Ground Floor

Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

Cornices to be added during schematic design development to articulate the building height.

Buildings oriented to frame central green space.

Variation in material color to break monotony

Ground Floor Retail base articulated with large window openings allowing citizens to engage with the architecture and program.



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6/8/2022

Elevation of Townhomes

Emphasis on street scape and creating a accessible and serene public realm with a view of green spaces.

Siding to reflect surrounding single family context with Brick Base.

Notes:
Max Building Height in view - 3 Stories/45 Ft in Height

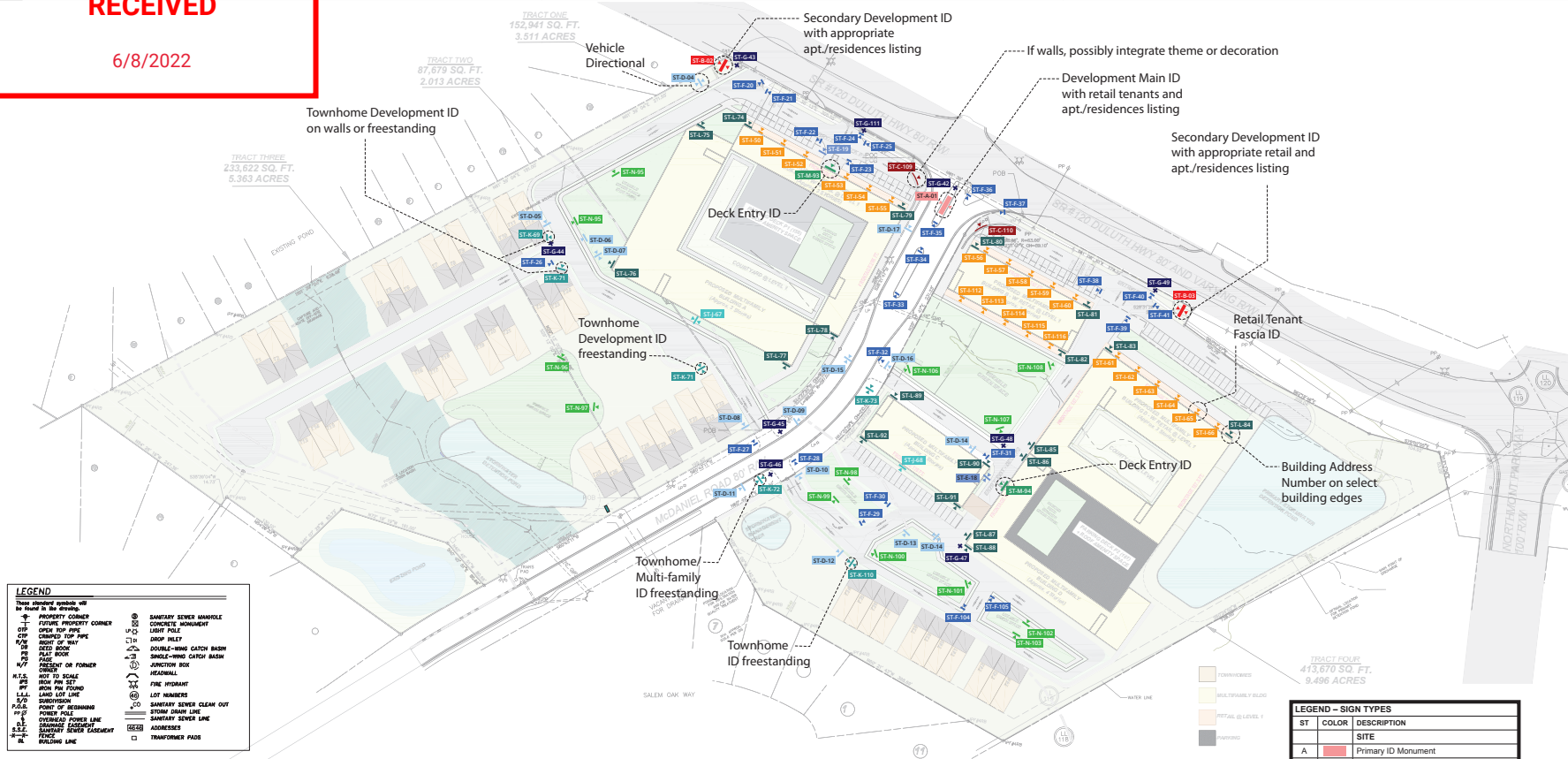
Cornices to be added during schematic design development to articulate the building height.



GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

6/8/2022



LEGEND

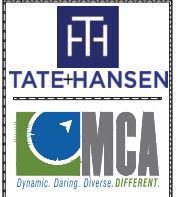
These standard symbols will be found in the drawings

○	PROPERTY CORNER	○	SANITARY SEWER MANHOLE
○	FUTURE PROPERTY CORNER	○	CONCRETE MONUMENT
○	OPEN END PIPE	○	LIGHT POLE
○	CHANGED TOP PIPE	○	DROP INLET
○	SOOT OF WALL	○	DOUBLE-WING CATCH BASIN
○	DECK ROOF	○	SINGLE-WING CATCH BASIN
○	PLAT BOOK	○	JUNCTION BOX
○	ADJACENT OR FORMER	○	VEHICULAR
○	NOTY TO ROAD	○	FIRE HYDRANT
○	IRON PIN SET	○	LOT NUMBER
○	IRON PIN FOUND	○	SANITARY SEWER CLEAN OUT
○	LAND LOT LINE	○	STORM DRAIN LINE
○	CONTOUR	○	SANITARY SEWER LINE
○	POLE OF RESURFACING	○	ADDRESS
○	POWER POLE	○	TRANSFORMER PAD
○	SALEMAN'S EXHIBIT	○	
○	SANITARY SEWER EASEMENT	○	
○	WALL	○	
○	WELDRING LINE	○	

TRACT FOUR
413,670 SQ. FT.
9.496 ACRES

LEGEND - SIGN TYPES

ST	COLOR	DESCRIPTION
SITE		
A	Red	Primary ID Monument
B	Red	Secondary ID Monument
C	Red	Tertiary ID
DIRECTIONALS		
D	Blue	Vehicular Directionals
E	Blue	Parking Directional
F	Blue	Regulatory Signage
G	Blue	Street Name Signs
H	Blue	Pedestrian Crossings
RETAIL		
I	Orange	Fascia Shop ID Graphics
RESIDENTIAL		
J	Green	Primary ID - Res. Buildings
K	Green	Primary ID Monument - Townhomes
L	Green	Address Numbers
PARKING DECK		
M	Green	Entrance ID
GREENSPACE		
N	Green	Greenpace ID
ADDITIONAL		
O	Purple	Lightpole Banners



PROJECT NAME
McDANIEL ROAD
Mixed-Use Development

LOCATION
2449 Duluth Hwy,
Duluth, GA 30096

OWNER/DEVELOPER
REPRESENTATIVE
HAKIM HILLIARD, ESQUIRE
404-389-9085
hilliard@hstarlaw.com

ARCHITECT
TATE + HANSEN LLC
ARCHITECTURE & PLANNING
404-845-6488

Issue

No.	Description	Date

DRAWING TITLE
**PRELIMINARY
SIGN LOCATION
PLAN**

DRAWN BY: _____

CHECKED BY: _____

DATE
09.07.2021

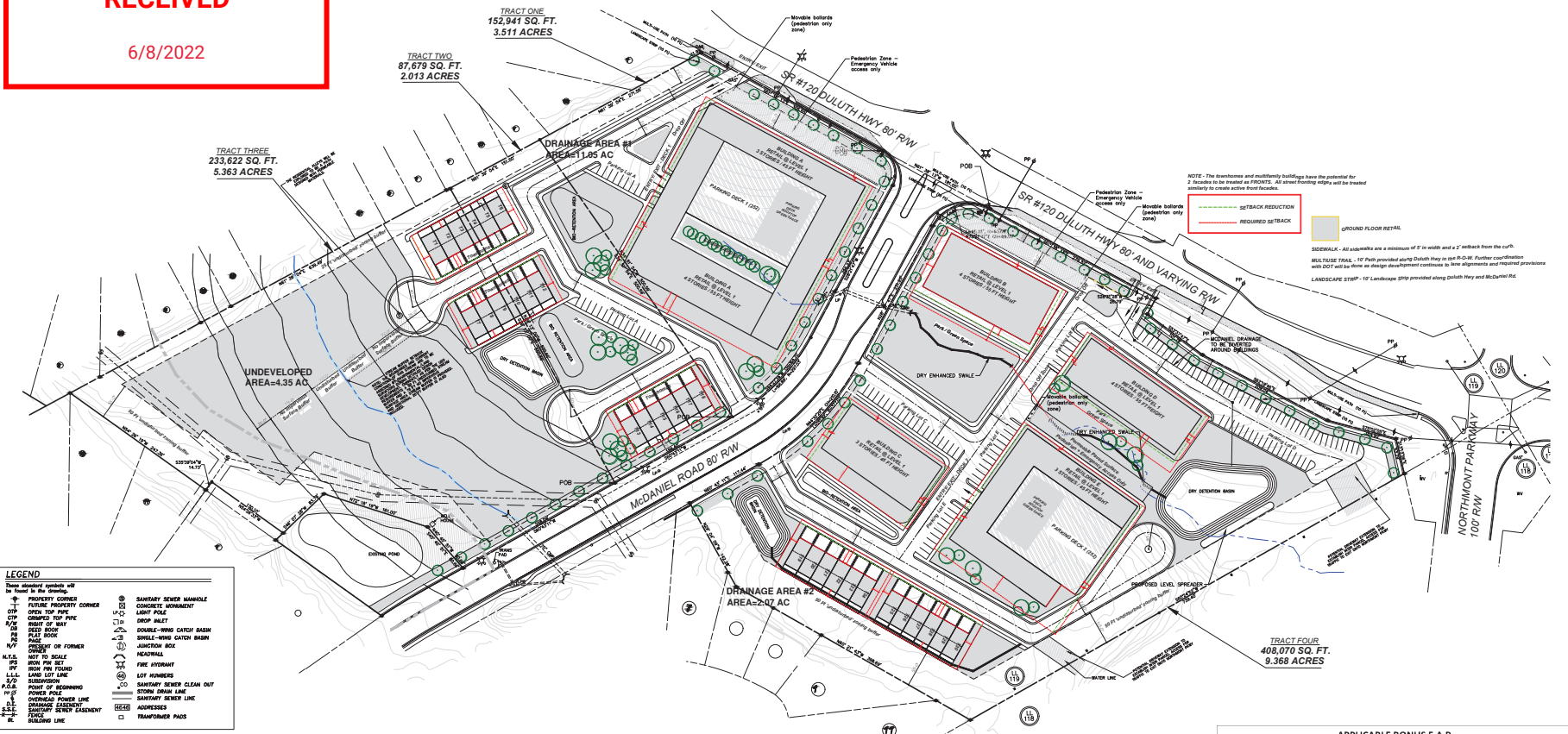
JOB NO. _____

SCALE:
1" = 75'-0"

DRAWING NO.
A100A

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6/8/2022



LEGEND

Some symbols which are found in the drawings:

○	PROPERTY CORNER	○	SAWTOOTH SEWER MANHOLE
⊕	FUTURE PROPERTY CORNER	⊕	CONCRETE MONUMENT
○	OPEN TOP PIPE	○	LIGHT POLE
○	COVERED TOP PIPE	○	DROP INLET
○	ROOF OF MAN	○	DOUBLE-WING GARCH BASH
○	DEEP BUSH	○	SINGLE-WING GARCH BASH
○	PAVED DRIVE	○	JUNCTION BOX
○	PAVED DRIVE	○	HEAVY METAL
○	PRESENT OR FORMER	○	FIRE HYDRANT
○	NOT TO SCALE	○	LOT NUMBERS
○	IRON PIPE SET	○	SAWTOOTH SEWER CLEAN OUT
○	IRON PIPE FOUND	○	STORM DRAIN LINE
○	LAND LOT LINE	○	SAWTOOTH SEWER LINE
○	NEUTRAL	○	DRAINAGE SEWER LINE
○	POINT OF BEGINNING	○	ADDRESS
○	POWER POLE	○	TRANSFORMER PAD
○	OVERHEAD POWER LINE		
○	DRAINAGE SEWER		
○	SEWER SLEEP ESTABLISH		
○	SEWER		
○	REMOVE LINE		

SUMMARY

- TOTAL GROSS SF – 439,500 SF
- Gross Residential SF + Total Units (Building A to E + Townhomes)
 - 351,200 SF / 306 Units (276 apartments + 30 Townhomes)
 - Townhome Lot Size 22' x 65'
 - Refer Table 1 in for Unit Breakdown
- Gross Retail SF (Building A to E)
 - 88,300 SF (20% of Proposed Gross SF)
 - Refer Table 2 for Retail Breakdown
- Parking
 - Required Multifamily Residential Parking – 414 Spaces (PROVIDED – 414)
 - Townhomes Parking – 90 Spaces (Provided – 90)
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Building C	3 floors / 45 Ft	31,300	32	5	14	13	48
Building D	4 floors / 55 Ft	42,000	44	8	20	16	66
Building E	3 floors / 45 Ft	48,100	47	9	20	18	71
Townhomes North	3 floors / 35 Ft	45,000	18				54
Townhomes South	3 floors / 35 Ft	30,000	12				36
TOTAL		351,200	306				

Notes:
 1. Building A is located in the North Parcel. Buildings B, C, D and E are located in the South Parcel.
 2. Townhome Parking is calculated at 3.0 Parking Spaces per unit. Townhomes can park 2 cars in enclosed garage and 1 car in the front parking porch.
 3. Multifamily Residential Parking is calculated at 1.5 Parking Spaces per unit
 4. Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.

Table 2 - Retail Square Footage

Building No	Retail Location	Gross Square Footage (GSF)	Required Retail Parking Spaces
Building A	Level 1	36,000	90
Building B	Level 1	16,500	41
Building C	Level 1	7,000	18
Building D	Level 1	14,300	36
Building E	Level 1	14,500	36
TOTAL		88,300	221

Notes:
 1. All Retail is located at Level 1 of the Multifamily Buildings A to E with Street / Open Green Space Frontage.
 2. Retail at Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
 3. Retail Parking is accommodated at Level 1 of the enclosed Parking Deck and outdoor surface parking.

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Parking Type	Building Proximity	No. of Floors	Parking Capacity
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			505
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Surface Parking Total			
			131
TOTAL PARKING PROVIDED			
			636

Table 3.2 - Parking Allotment for Multifamily and Retail

Residential	Building No	Alotted Parking	Retail	Building No	Alotted Parking
Building A	Deck 1	Building A	Parking Lot A & Deck 1		
Building B	Deck 2	Building B	Deck 1		
Building C	Deck 2	Building C	Parking Lot C & D		
Building D	Deck 2	Building D	Parking Lot D		
Building E	Deck 2	Building E	Deck 2 & Parking Lot E		

APPLICABLE BONUS F.A.R.

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

Common Area Bonus (+3.7 F.A.R.)

- Net Project Acreage (Site Area) - 20.872 Acres
- Minimum Required Common Area - 15% (3.130 Acres)
- Total Proposed Common Area - 40% (8.3 Acres)
- Common Area in Excess of Required Minimum - 37% (5.17 Acres)
- Additional 0.1 Far for Each 1% Over - 37x0.1 = 3.7 Far

Green Spaces Within Overall Common Area - Approx. 1.5 Acres - Programmed as Pocket Parks / Green Spaces / Plazas / Paths and Trails.

Parcels Assembly Bonus (+0.3 F.A.R.)

- This Mixed Use Development is Assembled From 4 Parcels Greater Than 1 Acre.

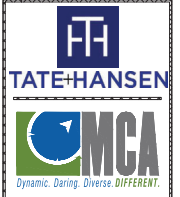
Mixed-Use Development with a Minimum Of 14 Dwelling Units Per Acre (+0.5 F.A.R.)

- NORTH & SOUTH PARCEL COMBINED DENSITY - 15.4 Dwelling Units per Acre
- Tract One (3.511 Acres)

Proposed Mixed Use Building A - 114 Residential Units
 Proposed Retail in Building A - 36,000 SF
 Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces
 • Tract Four (9.368 Acres)
 Proposed Mixed Use Building B, C, D, E - 162 Residential Units
 Proposed Retail in Building B, C, D, E - 52,300 SF
 Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces

Structured Parking (+1.0 F.A.R.)

- 2 Structured Parking Decks Provided - Approx. 504 Spaces Estimated
- Required Parking for Multifamily - 414 Spaces
- Parking Decks Proposed Are Able to Accommodate Greater Than 50% Of the Required Multifamily Residential Parking.



PROJECT NAME
 MCDANIEL ROAD
 Mixed-Use Development

LOCATION
 2449 Duluth Hwy,
 Duluth, GA 30097

OWNER/DEVELOPER
 REPRESENTATIVE
 HAKIM HILLIARD, ESQUIRE
 404-389-9085
 hilliard@hstarlaw.com

ARCHITECT
 TATE + HANSEN LLC
 ARCHITECTURE & PLANNING
 404-845-6468

Issue

No.	Description	Date
4	Revised	06.08.2022

DRAWING TITLE
 Setback Variance
 Exhibit

DRAWN BY:

CHECKED BY:

DATE
 06.08.2022

JOB NO.
 202109.02

SCALE
 1" = 75'-0"

DRAWING NO.
 01

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Gwinnett County Planning Division
Rezoning Application
Last Updated 12/2020

REZONING APPLICANT'S RESPONSE
STANDARDS GOVERNING THE EXERCISE OF THE ZONING POWER

PURSUANT TO REQUIREMENTS OF THE UNIFIED DEVELOPMENT ORDINANCE, THE BOARD OF COMMISSIONERS FINDS THAT THE FOLLOWING STANDARDS ARE RELEVANT IN BALANCING THE INTEREST IN PROMOTING THE PUBLIC HEALTH, SAFETY, MORALITY OR GENERAL WELFARE AGAINST THE RIGHT TO THE UNRESTRICTED USE OF PROPERTY AND SHALL GOVERN THE EXERCISE OF THE ZONING POWER.

PLEASE RESPOND TO THE FOLLOWING STANDARDS IN THE SPACE PROVIDED OR USE AN ATTACHMENT AS NECESSARY:

- (A) WHETHER A PROPOSED REZONING WILL PERMIT A USE THAT IS SUITABLE IN VIEW OF THE USE AND DEVELOPMENT OF ADJACENT AND NEARBY PROPERTY:
See, attached.
- (B) WHETHER A PROPOSED REZONING WILL ADVERSELY AFFECT THE EXISTING USE OR USABILITY OF ADJACENT OR NEARBY PROPERTY:
See, attached.
- (C) WHETHER THE PROPERTY TO BE AFFECTED BY A PROPOSED REZONING HAS REASONABLE ECONOMIC USE AS CURRENTLY ZONED:
See, attached.
- (D) WHETHER THE PROPOSED REZONING WILL RESULT IN A USE WHICH WILL OR COULD CAUSE AN EXCESSIVE OR BURDENSOME USE OF EXISTING STREETS, TRANSPORTATION FACILITIES, UTILITIES, OR SCHOOLS:
See, attached.
- (E) WHETHER THE PROPOSED REZONING IS IN CONFORMITY WITH THE POLICY AND INTENT OF THE LAND USE PLAN:
See, attached.
- (F) WHETHER THERE ARE OTHER EXISTING OR CHANGING CONDITIONS AFFECTING THE USE AND DEVELOPMENT OF THE PROPERTY WHICH GIVE SUPPORTING GROUNDS FOR EITHER APPROVAL OR DISAPPROVAL OF THE PROPOSED REZONING:
See, attached.

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RESPONSE TO STANDARDS GOVERNING EXERCISE OF ZONING POWER

and

Other Material Required by the
Unified Development Ordinance of Gwinnett County

Application for Rezoning of SYNERGY DEVELOPMENT PARTNERS, LLC

for

**± 11.054 acres of land located at
2449 Duluth Highway and McDaniel Road
Gwinnett County, Georgia 30310
Land Lot 119, 7th District**

[The Subject Property is located on the north side of McDaniel Road and is identified on the site plan filed herewith as the NORTH PARCEL. A second parcel of land located on the south side of McDaniel Road and consisting of ± 9.368 acres is planned to be developed with the Subject Property and is identified on the site plan filed herewith as the SOUTH PARCEL. The total development area for North and South parcels combined is 20.872]

REQUEST TO REZONE THE SUBJECT PROPERTY FROM C-2 and O-I to MU-R

Submitted for Applicant by:

M. Hakim Hilliard, Esquire
Hilliard Starkey Law
260 Peachtree Street, NW, Suite 401
Atlanta, Georgia 30303
404.389.9085 (office)
bhilliard@hstarlaw.com

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SUMMARY OF PROPOSED PROJECT

This is the application of Synergy Development Partners, LLC (hereinafter referred to as the "Applicant") to rezone ± 11.504 acres of land located at 2449 Duluth Highway and McDaniel Road (the "Subject Property") for the purpose of developing a mixed-use project including retail, multi-family and townhome uses. The Subject Property comprises the northern half of a ± 20.872 area of land being proposed for development by the Applicant, divided by McDaniel Road, and is identified as the NORTH PARCEL on the site plan filed contemporaneously herewith. To accommodate the Applicant's proposal, the Subject Property must be rezoned from its current C-2 and O-1 Zoning District designation to the MU-R Zoning District Designation. See, "Development Summary" for the North Parcel outlined on the rezoning site plan filed herewith.

In furtherance of the intent of Section 210-220.1 of the Unified Development Ordinance of Gwinnett County, the Applicant's project is designed to "encourage the development, redevelopment or revitalization of commercial and residential areas along major transportation corridors into vibrant, high density, pedestrian friendly, live-work-play environments that offer employees and residents the opportunity to fulfill their daily activities with minimal use of single-occupant automobiles.

In particular, the Applicant's development proposal is focused on creating a development that celebrates the prominence of the site along Duluth Highway, the surrounding context, and creates a place for all. It is a development that is aimed at creating a sense of place that is community-driven one that celebrates pedestrian mobility and nature and offers to the residents and the community, a place to congregate and share.

The analysis of the combined North and South parcels highlighted the importance to frame a

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strong urban edge along Duluth Hwy and the potential to create commercial/retail opportunities as well as amplify accessible green space for the community to gather in. The plan is framed so as to respect the single-family community adjacent to the site by staying within a single-family context along these protected edges, utilizing green space as a buffer, providing the recommended transitional yards, and focusing the density along Duluth Hwy.

The key elements established in the plan are:

1. With the intention to create a Mixed-Use development that scales down and transitions to a Single-family context the plan looks at the surrounding zoning context and identifies the MU-R district to be suitable to achieve the desired program and density.
2. Green Buffers and transitional yards that are greater than 20 Ft have been provided along the protected Single Family district.
3. Mid-Rise Multifamily Residential - Approximately 3 to 4 stories high proposed along Duluth Hwy that transitions to townhomes along the single-family protected district.
4. Accessible outdoor green space that can be programmed into parks, dog parks, weekend makers/market space for the community to gather and participate and create a people-focused place that promotes the best quality of life and healthy living.
5. Opportunities to create neighborhood-friendly commercial/ retail along Duluth Hwy.
6. We aim to achieve a walkable, pedestrian-focused development.
7. Opportunities to propose Parking decks that are concealed by multifamily buildings along Duluth Hwy are being explored to limit the amount of asphalt and promote more green space. The plan also explores the information
8. New Access roads proposed to bring vehicular flow into the development and proposed parking in order to alleviate traffic congestion along McDaniel Rd.

The Subject Property is located wholly within Commission District 1. In this regard, the Applicant looks forward to working with the District 1 Commissioner, the planning staff as well as the adjacent nearby residents and other community stakeholders to ensure that the development proposed herein is designed in a way that is beneficial to the community. In anticipation of these further discussions, the Applicant presents the following conditions as baseline standards for its project:

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- (1) The Subject Property shall be developed substantially in accordance with the site plan filed contemporaneously herewith.
- (2) All lighting associated with the project shall be set so as to minimize the glare on adjoining properties.
- (3) The Subject Property shall be developed in accordance with the requirements outlined in the Gwinnett County Tree Ordinance.
- (4) The Subject Property shall be developed with appropriate buffers with the intention of mitigating the impact of the development of the Subject Property on adjacent and nearby properties.
- (5) Where feasible, and in consultation with the appropriate transportation official(s) of Gwinnett County, the Applicant shall implement the recommendation outlined in the traffic study prepared for this rezoning application.
- (6) The Subject Property shall be rezoned to the MU-R Zoning District designation.

The Applicant looks forward to continuing to work with all interested neighbors to discuss any and all additional conditions that respond to issues presented by the community.

(A)

WHETHER THE PROPOSED REZONING WILL PERMIT A USE THAT IS SUITABLE IN VIEW OF THE USE AND DEVELOPMENT OF ADJACENT AND NEARBY PROPERTY:

Yes. The Applicant is unaware of any other land in the immediate area that is both available and suitable for the proposed use. The primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. The traditional method of achieving this goal is through both "offsite" and "onsite" transition. Offsite transition consists of avoiding the placement of dissimilar uses next to each other by placing uses of intermediate density between them. Onsite transition, which might either supplement or replace offsite transition, consists of measures imposed on or adjacent to the more intensive use to protect neighborhoods from adverse effects.

In the present matter, the Subject Property is located along Duluth Highway and McDaniel Road. Along Duluth Highway, the Subject Property sits opposite and nearby to certain commercial and industrial uses, along with townhomes. The Applicant's proposal attempts to thoughtfully blend a multi-family housing option into the area and in a way that provides an appropriate buffer between

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less and more intense uses. While there are a variety of zoning district designations along Duluth Highway and nearby to the Subject Property, the MU-R Zoning District allows the Applicant to present a development proposal that is wholly in keeping with the intent of the Unified Development Ordinance of Gwinnett County.

Moreover, the Subject Property is designated as Workplace Center Character Area on the Gwinnett County 2040 Unified Plan map and the proposed zoning to the MU-R Zoning District is wholly consistent with this plan designation. In this regard, the Applicant has developed a site plan for the the Subject property that is intended to accomplish many of the objectives outlined in the Plan. Based upon the facts and circumstances regarding development existing in the area, and the development plan put forth by the Applicant in the foregoing request is suitable.

(B)

WHETHER THE PROPOSED REZONING WILL ADVERSELY AFFECT THE EXISTING USE OR USABILITY OF ADJACENT OR NEARBY PROPERTY:

No. On the contrary, the Applicant's creative effort to accomplish the goals of the MU-R Zoning District designation within the boundaries of the Workplace Center Character Area of the 2040 Unified Plan Map will protect existing neighborhoods while presenting needed housing options that will serve this area of Gwinnett County well for years to come. While the area to the west of the Subject Property is predominantly single-family residential, the development plan for the Subject Property has been planned in a way that it blends seamlessly with the adjacent and nearby residential, commercial and institutional uses.

(C)

WHETHER THE PROPERTY TO BE AFFECTED BY A PROPOSED REZONING HAS REASONABLE ECONOMIC USE AS CURRENTLY ZONED:

The Subject Property cannot be economically developed by the owner as currently zoned. Therefore, the Applicant, on behalf the owners of the tract of land at issue in this rezoning application

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(the "Property"), respectfully submits that the Uniform Development Ordinance of Gwinnett County, as amended from time to time and known as the "Uniform Development Ordinance", to the extent that it classifies the Property in any zoning district which would preclude a MU-R District development, is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Uniform Development Ordinance deprives the current owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and those requested herein, would deprive the current owner of any reasonable use and development of the Property. Further, any attempt by the County to impose greater restrictions upon the manner in which the property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current C-2 and O-1 District zoning classifications and any other zoning of the Property save for what has been requested by it as established in the Uniform Development Ordinance constitutes an arbitrary and unreasonable use of the zoning and police powers because it bears no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Property owners. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute an arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality or general welfare of the public and would substantially harm the Property owner. Further, the existing inconsistent zoning classifications

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constitute, and all zoning and plan classifications intervening between the existing inconsistent zoning classification and that required to develop this project would constitute a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Due Process Clause of the Fourteenth Amendment of the United States Constitution and the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that the failure to approve the requested zoning change would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that Gwinnett County cannot lawfully impose more restrictive standards upon the development of the property than presently exist as to do so not only would constitute a taking of the property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power, Guhl vs. Holcomb Bridge Road, 238 Ga. 322 (1977)

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(D)

WHETHER THE PROPOSED REZONING WILL RESULT IN A USE WHICH WILL OR
COULD CAUSE AN EXCESSIVE OR BURDENSOME USE OF EXISTING STREETS,
TRANSPORTATION FACILITIES, UTILITIES OR SCHOOLS:

Adequate stormwater management practices and construction methods will be employed as the project is developed. In addition, the impact upon utilities and schools are being studied as a part of the rezoning process, but the Applicant is confident that its development will not have an excessive or burdensome impact upon existing streets, transportation facilities, utilities or schools. In furtherance of this goal, the Applicant has commissioned a traffic study for its proposal project and is looking forward to working with Gwinnett County to review the recommendations in the study and, where feasible and appropriate, to implement them where appropriate. The Applicant otherwise looks forward to any specific comments offered related to the proposed development plan filed herewith that may impact any of the facilities and/or services required to support the project.

(E)

WHETHER THE PROPOSED REZONING IS IN CONFORMITY WITH THE POLICY
AND INTENT OF THE LAND USE PLAN:

The County's 2040 Unified Plan consists of a text and series of maps. The Plan is accompanied by a procedure to link changes in zoning with corresponding changes in the Plan in order to avoid repeating the situation in which a static land use plan and an evolving zoning map become increasingly out of step with each other. Thus, with an updated Plan in effect and a mandatory planning and zoning consistency mechanism in place, it is extremely important that any rezoning request, such as this one, be based on sound land use planning and comprehensive planning principles.

The Subject Property is designated as Workplace Center Character Area on the 2040 Unified Plan and this designation is wholly consistent with the Applicant's development plan, as well as the zoning district designation requested to accommodate the Applicant's proposed development. In

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this regard, the Applicant submits that the proposal does accomplish many of the policy objectives that the County is pursuing with development in the MU-R Zoning District. Specifically, the Applicant's project will provide other housing options, some of which may be used by persons working nearby and, thereby, reduce traffic. These additional options also allow current residents who seek to relocate to other housing types without leaving their existing communities. In addition to these benefits, the Applicant's proposed development will promote an environment where people can live, work and play in one community.

(F)

WHETHER THERE ARE OTHER EXISTING OR CHANGING CONDITIONS AFFECTING THE USE AND DEVELOPMENT OF THE PROPERTY WHICH GIVE SUPPORTING GROUNDS FOR EITHER APPROVAL OR DISAPPROVAL OF THE PROPOSED REZONING:

Again, the primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. In the present matter, while the Applicant proposes to develop a vacant piece of property, the thoughtful manner in which the development is planned accomplishes several important objectives in the County's 2040 Unified Plan without negatively impacting the existing and nearby uses. The scale, style and diversity of uses located within the Applicant's plan is an appropriate mixed-use project for the Subject Property. where the Subject Property is located, each of which support the Applicant's proposal.

The Applicant submits that its proposed development is wholly compatible with each of these adjacent and nearby uses, both existing and contemplated. As such, it is clear that this project will be supported by any new or changing conditions not anticipated by the 2040 Unified Plan.

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CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that the Rezoning Application from the C-2 and O-1 District to the MU-R District be approved. The Applicant also invites and welcomes any comments from adjacent and nearby communities, the planning staff of Gwinnett County and/or other officials so that any reasonable and appropriate conditions of approval can be added to this request.



M. Hakim Hilliard
For the Applicant

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RESPONSE TO STANDARDS GOVERNING EXERCISE OF ZONING POWER

and

Other Material Required by the
Unified Development Ordinance of Gwinnett County

Application for Rezoning of SYNERGY DEVELOPMENT PARTNERS, LLC

for

**± 9.368 acres of land located at
2449 Duluth Highway and McDaniel Road
Gwinnett County, Georgia 30310
Land Lot 119, 7th District**

[The Subject Property is located on the south side of McDaniel Road and is identified on the site plan filed herewith as the SOUTH PARCEL. A second parcel of land located on the north side of McDaniel Road and consisting of ± 11.504 acres is planned to be developed with the Subject Property and is identified on the site plan filed herewith as the NORTH PARCEL. The total development area for North and South parcels combined is 20.872.]

REQUEST TO REZONE THE SUBJECT PROPERTY FROM C-2 to MU-R

Submitted for Applicant by:

M. Hakim Hilliard, Esquire
Hilliard Starkey Law
260 Peachtree Street, NW, Suite 401
Atlanta, Georgia 30303
404.389.9085 (office)
hhilliard@hstarlaw.com

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SUMMARY OF PROPOSED PROJECT

This is the application of Synergy Development Partners, LLC (hereinafter referred to as the "Applicant") to rezone ±9.368 acres of land located at 2449 Duluth Highway and McDaniel Road (the "Subject Property") for the purpose of developing a mixed-use project including retail, multi-family and townhome uses. The Subject Property comprises the northern half of a ±20.872 area of land being proposed for development by the Applicant, divided by McDaniel Road, and is identified as the SOUTH PARCEL on the site plan filed contemporaneously herewith. To accommodate the Applicant's proposal, the Subject Property must be rezoned from its current C-2 Zoning District designation to the MU-R Zoning District Designation. See, "Development Summary" for the South Parcel outlined on the rezoning site plan filed herewith.

In furtherance of the intent of Section 210-220.1 of the Unified Development Ordinance of Gwinnett County, the Applicant's project is designed to "encourage the development, redevelopment or revitalization of commercial and residential areas along major transportation corridors into vibrant, high density, pedestrian friendly, live-work-play environments that offer employees and residents the opportunity to fulfill their daily activities with minimal use of single-occupant automobiles.

In particular, the Applicant's development proposal is focused on creating a development that celebrates the prominence of the site along Duluth Highway, the surrounding context, and creates a place for all. It is a development that is aimed at creating a sense of place that is community-driven one that celebrates pedestrian mobility and nature and offers to the residents and the community, a place to congregate and share.

The analysis of the combined North and South parcels highlighted the importance to frame a strong urban edge along Duluth Hwy and the potential to create commercial/retail opportunities as

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well as amplify accessible green space for the community to gather in. The plan is framed so as to respect the single-family community adjacent to the site by staying within a single-family context along these protected edges, utilizing green space as a buffer, providing the recommended transitional yards, and focusing the density along Duluth Hwy.

The key elements established in the plan are:

1. With the intention to create a Mixed-Use development that scales down and transitions to a Single-family context the plan looks at the surrounding zoning context and identifies the MU-R district to be suitable to achieve the desired program and density.
2. Green Buffers and transitional yards that are greater than 20 Ft have been provided along the protected Single Family district.
3. Mid-Rise Multifamily Residential - Approximately 3 to 4 stories high proposed along Duluth Hwy that transitions to townhomes along the single-family protected district.
4. Accessible outdoor green space that can be programmed into parks, dog parks, weekend makers/market space for the community to gather and participate and create a people-focused place that promotes the best quality of life and healthy living.
5. Opportunities to create neighborhood-friendly commercial/ retail along Duluth Hwy.
6. We aim to achieve a walkable, pedestrian-focused development.
7. Opportunities to propose Parking decks that are concealed by multifamily buildings along Duluth Hwy are being explored to limit the amount of asphalt and promote more green space. The plan also explores the information
8. New Access roads proposed to bring vehicular flow into the development and proposed parking in order to alleviate traffic congestion along McDaniel Rd.

The Subject Property is located wholly within Commission District 1. In this regard, the Applicant looks forward to working with the District 1 Commissioner, the planning staff as well as the adjacent nearby residents and other community stakeholders to ensure that the development proposed herein is designed in a way that is beneficial to the community. In anticipation of these further discussions, the Applicant presents the following conditions as baseline standards for its project:

- (1) The Subject Property shall be developed substantially in accordance with the site plan filed contemporaneously herewith.
- (2) All lighting associated with the project shall be set so as to minimize the glare on adjoining properties.

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(3) The Subject Property shall be developed in accordance with the requirements outlined in the Gwinnett County Tree Ordinance.

(4) The Subject Property shall be developed with appropriate buffers with the intention of mitigating the impact of the development of the Subject Property on adjacent and nearby properties.

(5) Where feasible, and in consultation with the appropriate transportation official(s) of Gwinnett County, the Applicant shall implement the recommendation outlined in the traffic study prepared for this rezoning application.

(6) The Subject Property shall be rezoned to the MU-R Zoning District designation.

The Applicant looks forward to continuing to work with all interested neighbors to discuss any and all additional conditions that respond to issues presented by the community.

(A)

WHETHER THE PROPOSED REZONING WILL PERMIT A USE THAT IS SUITABLE IN VIEW OF THE USE AND DEVELOPMENT OF ADJACENT AND NEARBY PROPERTY:

Yes. The Applicant is unaware of any other land in the immediate area that is both available and suitable for the proposed use. The primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. The traditional method of achieving this goal is through both "offsite" and "onsite" transition. Offsite transition consists of avoiding the placement of dissimilar uses next to each other by placing uses of intermediate density between them. Onsite transition, which might either supplement or replace offsite transition, consists of measures imposed on or adjacent to the more intensive use to protect neighborhoods from adverse effects.

In the present matter, the Subject Property is located along Duluth Highway and McDaniel Road. Along Duluth Highway, the Subject Property sits opposite and nearby to certain commercial and industrial uses, along with townhomes. The Applicant's proposal attempts to thoughtfully blend a multi-family housing option into the area and in a way that provides an appropriate buffer between less and more intense uses. While there are a variety of zoning district designations along Duluth Highway and nearby to the Subject Property, the MU-R Zoning District allows the Applicant to

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present a development proposal that is wholly in keeping with the intent of the Unified Development Ordinance of Gwinnett County.

Moreover, the Subject Property is designated as Workplace Center Character Area on the Gwinnett County 2040 Unified Plan map and the proposed zoning to the MU-R Zoning District is wholly consistent with this plan designation. In this regard, the Applicant has developed a site plan for the the Subject property that is intended to accomplish many of the objectives outlined in the Plan. Based upon the facts and circumstances regarding development existing in the area, and the development plan put forth by the Applicant in the foregoing request is suitable.

(B)

WHETHER THE PROPOSED REZONING WILL ADVERSELY AFFECT THE EXISTING USE OR USABILITY OF ADJACENT OR NEARBY PROPERTY:

No. On the contrary, the Applicant's creative effort to accomplish the goals of the MU-R Zoning District designation within the boundaries of the Workplace Center Character Area of the 2040 Unified Plan Map will protect existing neighborhoods while presenting needed housing options that will serve this area of Gwinnett County well for years to come. While the area to the west of the Subject Property is predominantly single-family residential, the development plan for the Subject Property has been planned in a way that it blends seamlessly with the adjacent and nearby residential, commercial and institutional uses.

(C)

WHETHER THE PROPERTY TO BE AFFECTED BY A PROPOSED REZONING HAS REASONABLE ECONOMIC USE AS CURRENTLY ZONED:

The Subject Property cannot be economically developed by the owner as currently zoned. Therefore, the Applicant, on behalf the owners of the tract of land at issue in this rezoning application (the "Property"), respectfully submits that the Uniform Development Ordinance of Gwinnett

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County, as amended from time to time and known as the "Uniform Development Ordinance", to the extent that it classifies the Property in any zoning district which would preclude a MU-R District development, is unconstitutional as a taking of property, a denial of equal protection, an arbitrary and capricious act, and an unlawful delegation of authority under the specific constitutional provisions later set forth herein. Any existing inconsistent zoning of the Property pursuant to the Uniform Development Ordinance deprives the current owner of any alternative reasonable use and development of the Property. Additionally, all other zoning classifications, including ones intervening between the existing classification and those requested herein, would deprive the current owner of any reasonable use and development of the Property. Further, any attempt by the County to impose greater restrictions upon the manner in which the property will be developed than presently exist would be equally unlawful.

Accordingly, Applicant submits that the current C-2 District zoning classifications and any other zoning of the Property save for what has been requested by it as established in the Uniform Development Ordinance constitutes an arbitrary and unreasonable use of the zoning and police powers because it bears no substantial relationship to the public health, safety, morality or general welfare of the public and substantially harm the Property owners. All inconsistent zoning classifications between the existing zoning and the zoning requested hereunder would constitute an arbitrary and unreasonable use of the zoning and police powers because they bear or would bear no substantial relationship to the public health, safety, morality or general welfare of the public and would substantially harm the Property owner. Further, the existing inconsistent zoning classifications constitute, and all zoning and plan classifications intervening between the existing inconsistent zoning

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classification and that required to develop this project would constitute a taking of the owner's private property without just compensation and without due process in violation of the Fifth Amendment and Fourteenth Amendment of the Constitution of the United States, and Article I, Section I, Paragraph I and Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Due Process Clause of the Fourteenth Amendment of the United States Constitution and the Equal Protection Clause of the Fourteenth Amendment to the Constitution of the United States.

Further, the Applicant respectfully submits that the failure to approve the requested zoning change would be unconstitutional and would discriminate in an arbitrary, capricious and unreasonable manner between the Property owner and owners of similarly situated property in violation of Article I, Section III, Paragraph I of the Constitution of the State of Georgia and the Equal Protection Clause of the Fourteenth Amendment of the Constitution of the United States.

Finally, the Applicant respectfully submits that Gwinnett County cannot lawfully impose more restrictive standards upon the development of the property than presently exist as to do so not only would constitute a taking of the property as set forth above, but also would amount to an unlawful delegation of their authority, in response to neighborhood opposition, in violation of Article IX, Section IV, Paragraph II of the Georgia Constitution.

This Application meets favorably the prescribed test set out by the Georgia Supreme Court to be used in establishing the constitutional balance between private property rights and zoning and planning as an expression of the government's police power, Guhl vs. Holcomb Bridge Road, 238 Ga. 322 (1977)

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(D)

WHETHER THE PROPOSED REZONING WILL RESULT IN A USE WHICH WILL OR
COULD CAUSE AN EXCESSIVE OR BURDENSOME USE OF EXISTING STREETS,
TRANSPORTATION FACILITIES, UTILITIES OR SCHOOLS:

Adequate stormwater management practices and construction methods will be employed as the project is developed. In addition, the impact upon utilities and schools are being studied as a part of the rezoning process, but the Applicant is confident that its development will not have an excessive or burdensome impact upon existing streets, transportation facilities, utilities or schools. In furtherance of this goal, the Applicant has commissioned a traffic study for its proposal project and is looking forward to working with Gwinnett County to review the recommendations in the study and, where feasible and appropriate, to implement them where appropriate. The Applicant otherwise looks forward to any specific comments offered related to the proposed development plan filed herewith that may impact any of the facilities and/or services required to support the project.

(E)

WHETHER THE PROPOSED REZONING IS IN CONFORMITY WITH THE POLICY
AND INTENT OF THE LAND USE PLAN:

The County's 2040 Unified Plan consists of a text and series of maps. The Plan is accompanied by a procedure to link changes in zoning with corresponding changes in the Plan in order to avoid repeating the situation in which a static land use plan and an evolving zoning map become increasingly out of step with each other. Thus, with an updated Plan in effect and a mandatory planning and zoning consistency mechanism in place, it is extremely important that any rezoning request, such as this one, be based on sound land use planning and comprehensive planning principles.

The Subject Property is designated as Workplace Center Character Area on the 2040 Unified Plan and this designation is wholly consistent with the Applicant's development plan, as well as the zoning district designation requested to accommodate the Applicant's proposed development. In

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this regard, the Applicant submits that the proposal does accomplish many of the policy objectives that the County is pursuing with development in the MU-R Zoning District. Specifically, the Applicant's project will provide other housing options, some of which may be used by persons working nearby and, thereby, reduce traffic. These additional options also allow current residents who seek to relocate to other housing types without leaving their existing communities. In addition to these benefits, the Applicant's proposed development will promote an environment where people can live, work and play in one community. .

(F)

WHETHER THERE ARE OTHER EXISTING OR CHANGING CONDITIONS
AFFECTING THE USE AND DEVELOPMENT OF THE PROPERTY
WHICH GIVE SUPPORTING GROUNDS FOR EITHER APPROVAL
OR DISAPPROVAL OF THE PROPOSED REZONING:

Again, the primary goal of land use planning is to eliminate or minimize the potential adverse effect of the dissimilar uses of adjacent tracts of land by establishing a harmonious transition between them. In the present matter, while the Applicant proposes to develop a vacant piece of property, the thoughtful manner in which the development is planned accomplishes several important objectives in the County's 2040 Unified Plan without negatively impacting the existing and nearby uses. The scale, style and diversity of uses located within the Applicant's plan is an appropriate mixed-use project for the Subject Property. where the Subject Property is located, each of which support the Applicant's proposal.

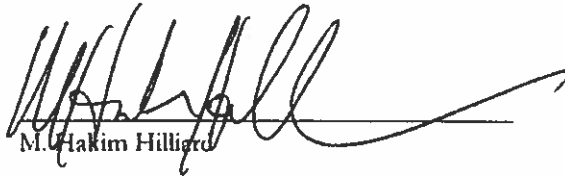
The Applicant submits that its proposed development is wholly compatible with each of these adjacent and nearby uses, both existing and contemplated. As such, it is clear that this project will be supported by any new or changing conditions not anticipated by the 2040 Unified Plan.

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CONCLUSION

For the foregoing reasons, the Applicant respectfully requests that the Rezoning Application from the C-2 Zoning District to the MU-R District be approved. The Applicant also invites and welcomes any comments from adjacent and nearby communities, the planning staff of Gwinnett County and/or other officials so that any reasonable and appropriate conditions of approval can be added to this request.



M. Hakim Hilliard

For the Applicant

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HILLIARD STARKEY LAW

260 PEACHTREE STREET, N.W., SUITE 401 ATLANTA,
GEORGIA 30303
404.389.9085

OFFICES:
MABLETON, GA
ATLANTA, GA

M. HAKIM HILLIARD
hhilliard@hstardlaw.com

June 8, 2022

VIA ELECTRONIC MAIL

Gwinnett County Department of Planning and Development
One Justice Square
446 West Crogan Street
Lawrenceville, GA 30046

RE: Supplement to Rezoning Applications Synergy Development Partners, LLC

To Whom It May Concern:

This firm represents Synergy Development Partners, LLC (the "Applicant"), the Applicant for the two above-referenced applications for rezoning with a combined acreage approximately 20.378 acres of land comprising the North Parcel and South Parcel at 2449 Duluth Highway and McDaniel Road in Gwinnett County (the "Subject Property"). This supplement to the two applications being contemporaneously resubmitted herewith is intended to provide a "development summary" and other details requested by the planning staff related to applicable bonus F.A.R., as well as details regarding residential square footage, retail square footage and parking related to the combined project area.

Please see the related charts attached hereto.

Please also note the proposed variances noted in the associated Letters of Intent submitted herewith.

Thank you for your attention to this matter. Please call me if you have any questions.

Sincerely,

M. Hakim Hilliard

Cc: File

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DEVELOPMENT SUMMARY

NORTH PARCEL

- Gross Residential SF + Total Units (Building A + Townhomes)
 - 162,000 SF / 132 Units (114 apartments + 18 Townhomes)
- Gross Retail SF (Building A)
 - 36,000 SF

SOUTH PARCEL

- Gross Residential SF + Total Units (Building B, C, D, E + Townhomes)
 - 189,200 SF / 174 Units (162 apartments + 18 Townhomes)
- Gross Retail SF (Building B, C, D, E)
 - 52,300 SF

COMBINED

- **TOTAL GROSS SF – 439,500 SF**
- Gross Residential SF + Total Units (Building A to E + Townhomes)
 - 351,200 SF / **306 Units (276 apartments + 30 Townhomes)**
 - *Refer Table 1 for Unit Breakdown*
- Gross Retail SF (Building A to E)
 - **88,300 SF (20% of Proposed Gross SF)**
 - *Refer Table 2 for Retail Breakdown*
- Parking
 - Required Multifamily Residential Parking – 414 Spaces (PROVIDED – 414)
 - Required Townhomes Parking – 90 Spaces (Provided – 90)
 - Required Retail Parking – 221 Spaces (PROVIDED – 222)
 - *Refer Table 3.1 & 3.2 for Parking Breakdown*

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APPLICABLE BONUS F.A.R

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

Common Area Bonus (+3.7 F.A.R)

- Net Project Acreage (Site Area) - 20.872 Acres
- Minimum Required Common Area - 15% (3.130 Acres)
- Total Proposed Common Area - 40% (8.3 Acres)
- Common Area in Excess of Required Minimum - 37% (5.17 Acres)
- Additional 0.1 Far for Each 1% Over - $37 \times 0.1 = 3.7$ Far

Green Spaces Within Overall Common Area - Approx. 1.5 Acres - Programmed as Pocket Parks/ Green Spaces / Plazas / Paths and Trails.

Parcels Assembly Bonus (+0.3 F.A.R)

- This Mixed Use Development Is Assembled From 4 Parcels Greater Than 1 Acre.

Mixed-Use Development with A Minimum Of 14 Dwelling Units Per Acres (+0.5 F.A.R)

- **NORTH & SOUTH PARCEL COMBINED DENSITY – 15.4 Dwelling Units per Acre**
- Tract One (3.511 Acres)
Proposed Mixed Use Building A - 114 Residential Units

Proposed Retail in Building A – 36,000 SF

Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces

- Tract Four (9.368 Acres)
Proposed Mixed Use Building B, C, D, E – 162 Residential Units

Proposed Retail in Building B, C, D, E – 52,300 SF

Ground Floor Use - Commercial/Retail/Residential Lobby/Support Spaces

Structured Parking (+1.0 F.A.R)

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- 2 Structured Parking Decks Provided - Approx. 504 Spaces Estimated
- Required Parking for Multifamily - 414 Spaces
- Parking Decks Proposed Are Able to Accommodate Greater Than 50% Of the Required Multifamily Residential Parking.

References

1. Refer Table 1 for Residential Unit Breakdown, Gross Square Footage, Required Parking
2. Refer Table 2 B for Retail Square Footage, Required Parking
3. Refer Table 3.1 for Parking Provided
4. Refer Table 3.2 for Parking Allotment

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

RESIDENTIAL SUMMARY NORTH + SOUTH COMBINED							
Table 1 - Residential Square Footage and Unit Count							
Building No	Building Height/ No: of Floors	Gross Square Footage (GSF)	Total No: of Units	Unit Breakdown			Required Residential Parking Spaces
				Studio (600 SF)	1B/1B (750 SF)	2B/2B (1000 SF)	
Building A	3 to 4 floors / 55 Ft	117000	114	20	50	44	171
Building B	4 floors / 55 Ft	37800	39	6	18	15	59
Building C	3 floors / 45 Ft	31300	32	5	14	13	48
Building D	4 floors / 55 Ft	42000	44	8	20	16	66
Building E	3 floors / 45 Ft	48100	47	9	20	18	71
Townhomes North	3 Floors / 35 Ft	45000	18			18	54
Townhomes South	3 Floors / 35 Ft	30000	12			12	36
TOTAL		351200	306				

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Notes: 1. Building A is located in the North Parcel. Buildings B, C, D and E are located in the South Parcel. 2. Townhome Parking is calculated at 3.0 Parking Spaces per unit. Townhomes can park 2 cars in enclosed garage and 1 car in the front parking porch. 3. Multifamily Residential Parking is calculated at 1.5 Parking Spaces per unit 4. Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
--

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

RETAIL SUMMARY NORTH + SOUTH COMBINED

Table 2 - Retail Square Footage							
Building No	Retail Location	Gross Square Footage (GSF)	Required Retail Parking Spaces				
Building A	Level 1	36000	90				
Building B	Level 1	16500	41				
Building C	Level 1	7000	18				
Building D	Level 1	14300	36				
Building E	Level 1	14500	36				
TOTAL		88300	221				

Notes:
 1. All Retail is located at Level 1 of the Multifamily Buildings A to E with Street / Open Green Space Frontage.
 2. Retail at Level 1 of all Multifamily Buildings A to E have a floor-to-floor height of 20 Ft.
 3. Retail Parking is accommodated at Level 1 of the enclosed Parking Deck and outdoor surface parking.

Note: The following estimates are conceptual approximate values and are subject to change with further design development.

PARKING SUMMARY NORTH + SOUTH COMBINED

Table 3.1 - Parking Provided for Multifamily and Retail			
Parking Type	Building Proximity	No: of Floors	Parking Capacity
Deck 1	Building A	4	252

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Deck 2	Building E	4	252
Parking Deck Total			505
Parking Lot A	Building A Rear	Surface Parking	17
Parking Lot C	Building C	Surface Parking	20
Parking Lot D	Building D Side	Surface Parking	65
Parking Lot E	Building E	Surface Parking	29
Surface Parking Total			131
TOTAL PARKING PROVIDED			636

Table 3.2 - Parking Allotment for Multifamily and Retail

Residential		Retail	
Building No	Allotted Parking	Building No	Allotted Parking
Building A	Deck 1	Building A	Parking Lot A & Deck 1
Building B	Deck 2	Building B	Deck 1
Building C	Deck 2	Building C	Parking Lot C & D
Building D	Deck 2	Building D	Parking Lot D
Building E	Deck 2	Building E	Deck 2 & Parking Lot E

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REZONING APPLICANT'S CERTIFICATION

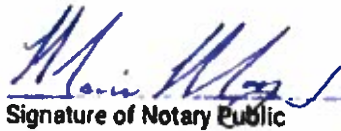
THE UNDERSIGNED BELOW IS AUTHORIZED TO MAKE THIS APPLICATION. THE UNDERSIGNED IS AWARE THAT NO APPLICATION OR REAPPLICATION AFFECTING THE SAME LAND SHALL BE ACTED UPON WITHIN 12 MONTHS FROM THE DATE OF LAST ACTION BY THE BOARD OF COMMISSIONERS UNLESS WAIVED BY THE BOARD OF COMMISSIONERS. IN NO CASE SHALL AN APPLICATION OR REAPPLICATION BE ACTED UPON IN LESS THAN SIX (6) MONTHS FROM THE DATE OF LAST ACTION BY THE BOARD OF COMMISSIONERS.



Signature of Applicant

8/31/21
Date

Ralph Phillips, PRESIDENT
Type or Print Name and Title



Signature of Notary Public

8/31/2021
Date



Maria Mays
NOTARY PUBLIC
Fulton County, Georgia
My Commission Expires
September 19, 2023

Notary Seal

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Last Updated 12/2020

REZONING PROPERTY OWNER'S CERTIFICATION

THE UNDERSIGNED BELOW, OR AS ATTACHED, IS THE OWNER OF THE PROPERTY CONSIDERED IN THIS APPLICATION. THE UNDERSIGNED IS AWARE THAT NO APPLICATION OR REAPPLICATION AFFECTING THE SAME LAND SHALL BE ACTED UPON WITHIN 12 MONTHS FROM THE DATE OF LAST ACTION BY THE BOARD OF COMMISSIONERS UNLESS WAIVED BY THE BOARD OF COMMISSIONERS. IN NO CASE SHALL AN APPLICATION OR REAPPLICATION BE ACTED UPON IN LESS THAN SIX (6) MONTHS FROM THE DATE OF LAST ACTION BY THE BOARD OF COMMISSIONERS.



Signature of Property Owner

8-3-2021

Date

R. K. Acnell, Manager

Type or Print Name and Title

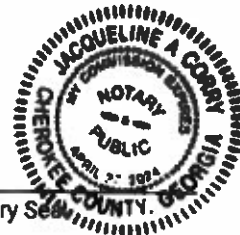


Signature of Notary Public

8-3-2021

Date

Notary Seal



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Rezoning Application
Last Updated 12/2015

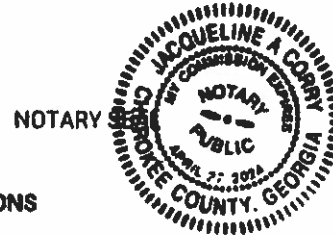
CONFLICT OF INTEREST CERTIFICATION FOR REZONING

The undersigned below, making application for a Rezoning, has complied with the Official Code of Georgia Section 36-67A-1, et. seq, Conflict of Interest in Zoning Actions, and has submitted or attached the required information on the forms provided.

R. K. Annell 8-3-2021 R. K. Annell Manager
SIGNATURE OF APPLICANT DATE TYPE OR PRINT NAME AND TITLE
PROPERTY OWNER

M. Hakim Hillman 8/3/21 M. Hakim Hillman
SIGNATURE OF APPLICANT'S DATE TYPE OR PRINT NAME AND TITLE
ATTORNEY OR REPRESENTATIVE

Jacqueline A. Corry 8-3-2021
SIGNATURE OF NOTARY PUBLIC DATE



DISCLOSURE OF CAMPAIGN CONTRIBUTIONS

Have you, within the two years immediately preceding the filing of this application, made campaign contributions aggregating \$250.00 or more to a member of the Board of Commissioners or a member of the Gwinnett County Planning Commission?

YES NO R. K. Annell
YOUR NAME

If the answer is yes, please complete the following section:

NAME AND OFFICAL POSITION OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or More)	DATE CONTRIBUTION WAS MADE (Within last two years)

Attach additional sheets if necessary to disclose or describe all contributions.


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6/08/2022

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Rezoning Application
Last Updated 5/2021

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SIGNATURE OF APPLICANT DATE TYPE OR PRINT NAME AND TITLE
Raulo Phillips, Accountant

SIGNATURE OF APPLICANT'S ATTORNEY OR REPRESENTATIVE DATE TYPE OR PRINT NAME AND TITLE
Maria Mays 8/31/2021  NOTARY PUBLIC
Fulton County, Georgia
My Commission Expires September 19, 2023
SIGNATURE OF NOTARY PUBLIC DATE NOTARY SEAL

DISCLOSURE OF CAMPAIGN CONTRIBUTIONS

Have you, within the two years immediately preceding the filing of this application, made campaign contributions aggregating \$250.00 or more to a member of the Board of Commissioners or a member of the Gwinnett County Planning Commission?

YES NO *Raulo Phillips*
YOUR NAME

If the answer is yes, please complete the following section.

NAME AND OFFICIAL POSITION OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or More)	DATE CONTRIBUTION WAS MADE (Within last two years)

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Last Updated 5/2021

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SIGNATURE OF APPLICANT 8/31/2021 Jeanie Hunter/CEO
DATE TYPE OR PRINT NAME AND TITLE

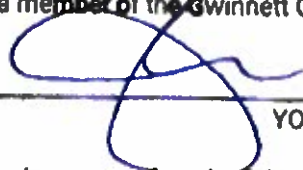
SIGNATURE OF APPLICANT'S DATE TYPE OR PRINT NAME AND TITLE
ATTORNEY OR REPRESENTATIVE

 8/31/2021  Maria Mays
SIGNATURE OF NOTARY PUBLIC DATE NOTARY SEAL
NOTARY PUBLIC
Fulton County, Georgia
My Commission Expires
September 19, 2023

DISCLOSURE OF CAMPAIGN CONTRIBUTIONS

Have you, within the two years immediately preceding the filing of this application, made campaign contributions aggregating \$250.00 or more to a member of the Board of Commissioners or a member of the Gwinnett County Planning Commission?

YES NO


YOUR NAME Jeanie Hunter

If the answer is yes, please complete the following section:

NAME AND OFFICIAL POSITION OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or More)	DATE CONTRIBUTION WAS MADE (Within last two years)

Attach additional sheets if necessary to disclose or describe all contributions.


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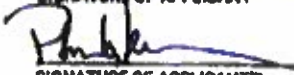
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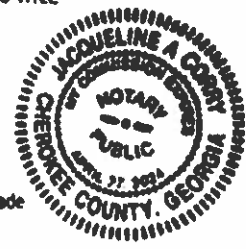
CONFLICT OF INTEREST CERTIFICATION FOR REZONING

The undersigned below, making application for a Rezoning, has complied with the Official Code of Georgia Section 36-47A-1, et. seq, Conflict of Interest in Zoning Actions, and has submitted attached the required information on the forms provided.


SIGNATURE OF APPLICANT DATE: 6/2/21 TYPE OR PRINT NAME AND TITLE: Ronald P. ... President


SIGNATURE OF APPLICANT'S ATTORNEY OR REPRESENTATIVE DATE: 6/03/2021 TYPE OR PRINT NAME AND TITLE: Philip H. Weener, Attorney

 - 8-3-2021
SIGNATURE OF NOTARY PUBLIC DATE NOTARY SEAL



DISCLOSURE OF CAMPAIGN CONTRIBUTIONS

Have you, within the two years immediately preceding the filing of this application, made campaign contributions aggregating \$250.00 or more to a member of the Board of Commissioners or a member of the Gwinnett County Planning Commission?

YES NO Philip H. Weener
YOUR NAME

If the answer is yes, please complete the following section

NAME AND OFFICIAL POSITION OF GOVERNMENT OFFICIAL	CONTRIBUTIONS (List all which aggregate to \$250 or More)	DATE CONTRIBUTION WAS MADE (Within last two years)

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Last Updated 5/2021

VERIFICATION OF CURRENT PAID PROPERTY TAXES FOR REZONING

THE UNDERSIGNED BELOW IS AUTHORIZED TO MAKE THIS APPLICATION. THE UNDERSIGNED CERTIFIES THAT ALL GWINNETT COUNTY PROPERTY TAXES BILLED TO DATE FOR THE PARCEL LISTED BELOW HAVE BEEN PAID IN FULL TO THE TAX COMMISSIONER OF GWINNETT COUNTY, GEORGIA. IN NO CASE SHALL AN APPLICATION OR REAPPLICATION FOR REZONING BE PROCESSED WITHOUT SUCH PROPERTY VERIFICATION.

***Note: A SEPARATE VERIFICATION FORM MUST BE COMPLETED FOR EACH TAX PARCEL INCLUDED IN THE REZONING REQUEST.**

PARCEL I.D. NUMBER: 7th - 119 - R7119 002A
(Map Reference Number) District Land Lot Parcel

M. Hilliard 8/26/21
Signature of Applicant Date

M. Hakim Hilliard, Attorney at Law and Applicant
Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONERS OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE, FOR THEIR APPROVAL BELOW.

paid in Full

TAX COMMISSIONERS USE ONLY

(PAYMENT OF ALL PROPERTY TAXES BILLED TO DATE FOR THE ABOVE REFERENCED PARCEL HAVE BEEN VERIFIED AS PAID CURRENT AND CONFIRMED BY THE SIGNATURE BELOW)

Judy Fitzgerald Tax Service Associate
NAME TITLE
8/30/21
DATE

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PARCEL I.D. NUMBER: 7th - 119 - R7119 100
(Map Reference Number) District Land Lot Parcel

M. Hakim Hilliard 8/26/21
Signature of Applicant Date

M. Hakim Hilliard, Attorney at Law and Applicant
Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONERS OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE FOR THEIR APPROVAL BELOW.

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Judy D. [Signature] Tax Service Associate
NAME TITLE
8/30/21
DATE

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PARCEL I.D. NUMBER: 7th . 119 . R7119 114
(Map Reference Number) District Land Lot Parcel

M. Hakim Hilliard 8/26/21
Signature of Applicant Date

M. Hakim Hilliard, Attorney at Law and Applicant
Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONERS OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE, FOR THEIR APPROVAL BELOW.

Paid in full

TAX COMMISSIONERS USE ONLY

(PAYMENT OF ALL PROPERTY TAXES BILLED TO DATE FOR THE ABOVE REFERENCED PARCEL HAVE BEEN VERIFIED AS PAID CURRENT AND CONFIRMED BY THE SIGNATURE BELOW)

Judy M. Magala Tax Service Associate
NAME TITLE
8/30/21
DATE

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PARCEL I.D. NUMBER: 7th - 119 - R7119 116
(Map Reference Number) District Land Lot Parcel

 8/20/21
Signature of Applicant Date

M. Hakim Hilliard, Attorney at Law and Applicant
Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONERS OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE, FOR THEIR APPROVAL BELOW.

paid in full

TAX COMMISSIONERS USE ONLY

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 Tax Service Associate
NAME TITLE
8/30/21
DATE

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PARCEL I.D. NUMBER: 7th - 119 - R7119 118
(Map Reference Number) District Land Lot Parcel


Signature of Applicant

8/26/21
Date

M. Hakim Hilliard, Attorney at Law and Applicant


Type or Print Name and Title

PLEASE TAKE THIS FORM TO THE TAX COMMISSIONERS OFFICE AT THE GWINNETT JUSTICE AND ADMINISTRATION CENTER, 75 LANGLEY DRIVE, FOR THEIR APPROVAL BELOW.

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NAME
8/30/21
DATE

Tax Service Associate
TITLE

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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6/15/2022

**TRAFFIC IMPACT STUDY
FOR
MIXED-USE DEVELOPMENT AT MCDANIEL ROAD AND
DULUTH HIGHWAY, DULUTH, GEORGIA**



Prepared for:

**SYNERGY DP
83 Walton Street, NW
Suite 400
Atlanta, GA 30303**

Prepared By:



A&R Engineering Inc.

2160 Kingston Court, Suite O
Marietta, GA 30067
Tel: (770) 690-9255 Fax: (770) 690-9210
www.areng.com

August 26, 2021
A & R Project # 21-120

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6/15/2023

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1.0 INTRODUCTION

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The purpose of this study is to determine the traffic impact that will result from the proposed mixed-use development that will be located on McDaniel Road in Duluth, Georgia. The traffic analysis evaluates current operations compared to the future conditions with traffic generated by the development. The proposed development will consist of:

Northern Parcel on SR 120 (Duluth Highway) west of McDaniel Road

- Retail building: 21,580 sf
- Multi-family housing: 229 Units

Southern Parcel on SR 120 (Duluth Highway) east of McDaniel Road

- Retail building: 46,010 sf
- Multi-family housing: 258 Units



The development proposes driveways at the following locations:

- Site Driveway 1: Full-access driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 2: Right-in/right-out driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 3: Full-access driveway on McDaniel Road into the northern parcel aligned with Site Driveway 4
- Site Driveway 4: Full-access Southern driveway on McDaniel Road into the southern parcel aligned with Site Driveway 3

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- Site Driveway 5: Full-access Northern driveway on McDaniel Road to the southern parcel
- Site Driveway 6: Full-access driveway on SR 120 (Duluth Highway) to the southern parcel aligned with driveway into 2434 Duluth Highway (State Farm and others)

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections of:


1. SR 120 (Duluth Highway) at McDaniel Road
2. SR 120 (Duluth Highway) at Northmont Parkway
3. SR 120 (Duluth Highway) at driveway to 2434 Duluth Highway (State Farm and other business users)
4. SR 120 (Duluth Highway) at driveway to 2518 Duluth Highway (Office Building)

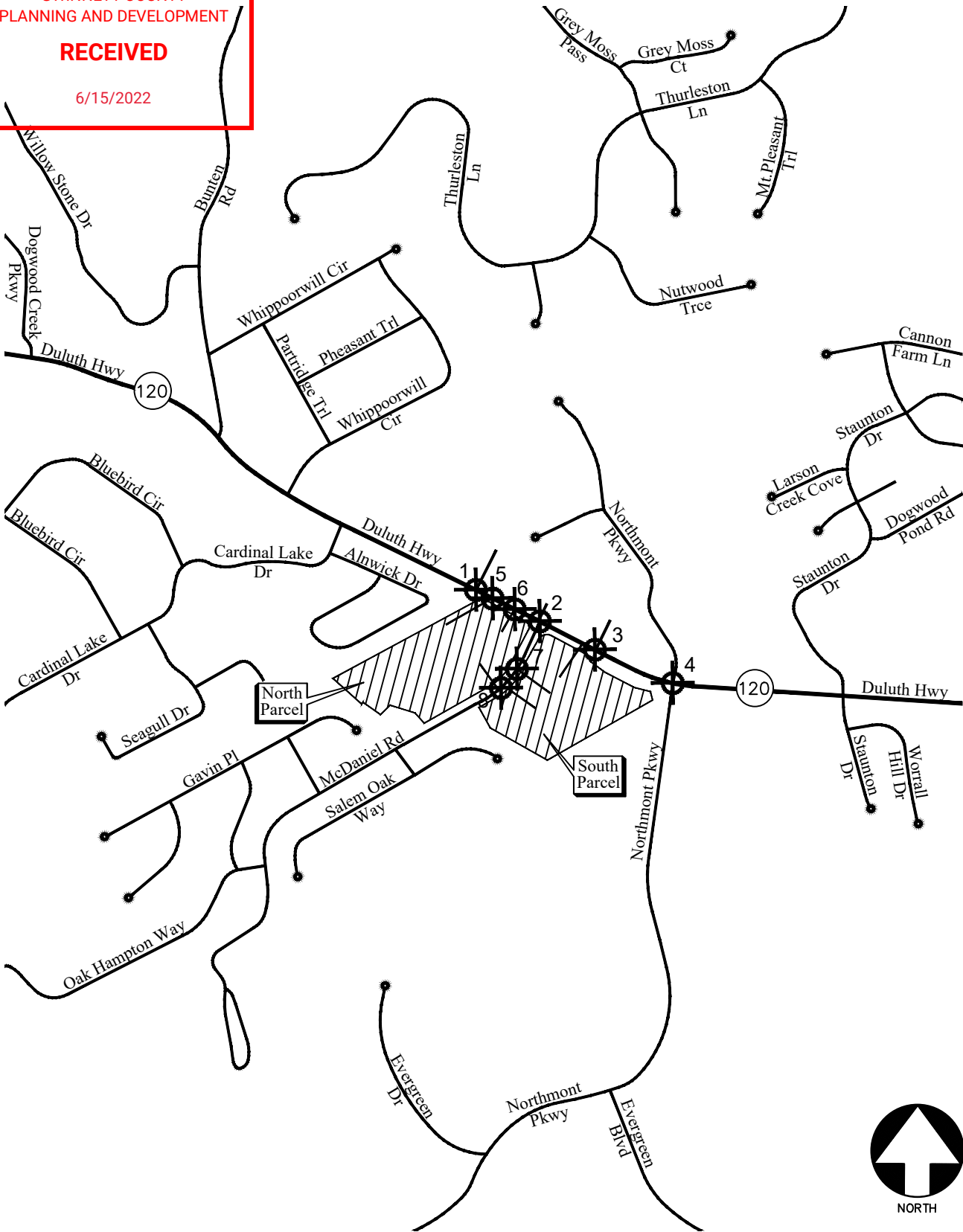
Recommendations to improve traffic operations have been identified as appropriate and are discussed in detail in the following sections of the report. The location of the development and the surrounding roadway network is shown in Figure 1.

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 Study Intersections



LOCATION MAP

FIGURE 1

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2.0 EXISTING FACILITIES / CONDITIONS

2.1 Roadway Facilities

The following is a brief description of each of the roadway facilities located in proximity to the site:

2.1.1 SR 120 (Duluth Highway)

SR 120 (Duluth Highway) is an east-west, two-lane, undivided roadway with a posted speed limit of 45 mph in the vicinity of the site. GDOT traffic counts (Station ID's 135-0161 & 135-0163) indicate that the daily traffic volume on SR 120 (Duluth Highway) in 2019 was 18,700 vehicles per day northwest of Clairborne Drive and 22,500 vehicles per day west of Meadow Church Road. GDOT classifies SR 120 (Duluth Highway) as an Urban Minor Arterial roadway.

2.1.2 McDaniel Road

McDaniel Road is a north-south, two-lane, undivided roadway with a posted speed limit of 25 mph.

2.1.3 Northmont Parkway

Northmont Parkway is a north-south, five-lane roadway with a two-way left-turn lane and posted speed limit of 40 mph in the vicinity of the site.

In this study, the methodology used for evaluating traffic operations at each of the subject intersections is based on the criteria set forth in the Transportation Research Board’s Highway Capacity Manual, 6th edition (HCM 6). Synchro software, which utilizes the HCM methodology, was used for the analysis. The following is a description of the methodology employed for the analysis of unsignalized and signalized intersections.

3.1 Unsignalized Intersections

For unsignalized intersections at which the side street or minor street is control by a stop sign, the criteria for evaluating traffic operations are the level-of-service (LOS) for the turning movements at the intersection and the level-of-service for the overall intersection. Level-of-service is based on control delay incurred at the intersection. Control delay for unsignalized intersections includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Several factors affect the control delay for unsignalized intersections, such as the availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Level-of-service is assigned a letter designation from “A” through “F”. Level-of-service “A” indicates excellent operations with little delay to motorists, while level-of-service “F” exists when there are insufficient gaps of acceptable size to allow vehicles on the side street to cross safely, resulting in extremely long total delays and long queues. The level-of-service criteria for two-way stop-controlled and all-way stop-controlled (unsignalized) intersections are given in Table 1.

TABLE 1 — LEVEL-OF-SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS	
Level-of-service	Control Delay (sec)
A	≤ 10
B	> 10 and ≤ 15
C	> 15 and ≤ 25
D	> 25 and ≤ 35
E	> 35 and ≤ 50
F	> 50

Source: Highway Capacity Manual

3.2 Signalized Intersections

For signalized intersections, it is necessary to evaluate both capacity and level-of-service in order to evaluate the overall operation of the intersection. The capacity analysis of an intersection is performed by comparing the volume of traffic using the various lane groups at the intersection to the capacity of those lane groups. This results in a volume/capacity (v/c) ratio for each lane group. A v/c ratio greater than 1.0 indicates that the volume of traffic has exceeded the capacity available, resulting in a temporary excess of demand. Although the capacity of the entire intersection is not defined, a composite v/c ratio for the sum of the critical lane groups within the intersection is computed. This composite v/c ratio is an indication of the overall intersection sufficiency.

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Level-of-service for a signalized intersection is defined in terms of average control delay per vehicle, which is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The level-of-service criteria for signalized intersections, based on control delay, are shown in Table 2. Level-of-service "A" indicates operations with very low control delay, while level-of-service "F" describes operations with extremely high control delay. Level-of-service "E" is typically considered to be the limit of acceptable delay, and level-of-service "F" is considered unacceptable by most drivers.

Level-of-service	Control Delay (sec)
A	≤ 10
B	> 10 and ≤ 20
C	> 20 and ≤ 35
D	> 35 and ≤ 55
E	> 55 and ≤ 80
F	> 80

Source: Highway Capacity Manual

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4.0 EXISTING 2021 TRAFFIC ANALYSIS
6/15/2022

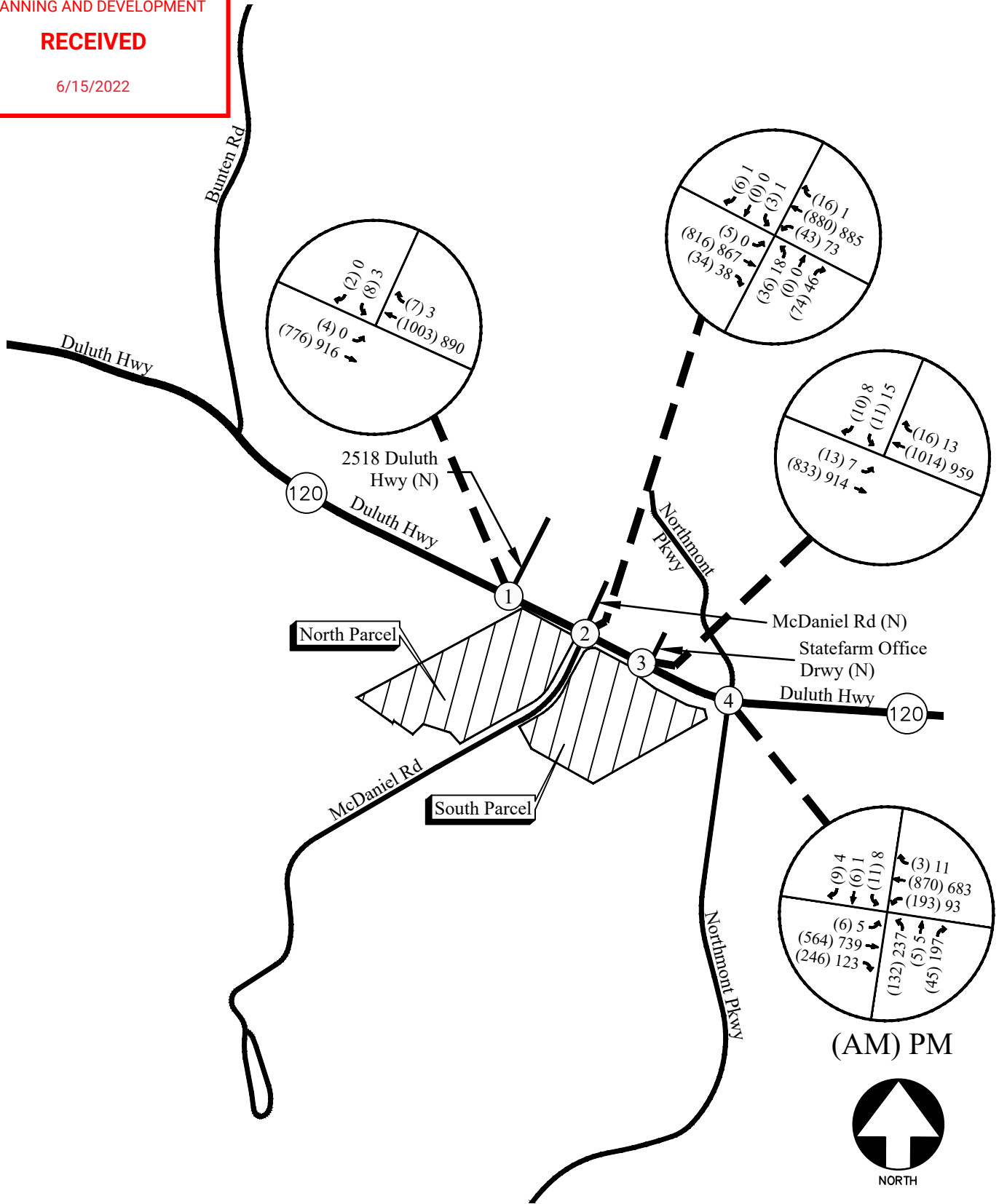
4.1 Existing Traffic Volumes

Existing traffic counts were obtained at the following study intersections:

- SR 120/Duluth Highway at McDaniel Road
- SR 120/Duluth Highway at Northmont Parkway
- SR 120/Duluth Highway at driveway to 2434 Duluth Highway (State Farm and other users)
- SR 120/Duluth Highway at driveway to 2518 Duluth Highway (Office Building)

Turning movement counts were collected on Tuesday, August 24, 2021. All turning movement counts were recorded during the AM and PM peak hours between 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM, respectively. The four consecutive 15-minute interval volumes that summed to produce the highest volume at the intersections were then determined. These volumes make up the peak hour traffic volumes for the intersections counted and are shown in Figure 2.

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EXISTING WEEKDAY PEAK-HOUR VOLUMES

FIGURE 2

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4.2 Existing Traffic Operations

Existing 2021 traffic operations were analyzed at the study intersections in accordance with the HCM methodology. The results of the analysis are shown in Table 3.




TABLE 3 – EXISTING INTERSECTION OPERATIONS				
Intersection		Traffic Control	LOS (Delay)	
			AM Peak Hour	PM Peak Hour
1	<u>SR 120 (Duluth Highway) @ 2518 State Farm Driveway</u>	Stop Controlled On SB Approach	B (10.4) E (46.4)	A (0.0) F (53.1)
	-Eastbound Left -Southbound Approach			
2	<u>SR 120 (Duluth Highway) @ McDaniel Rd / Church Driveway</u>	Stop Controlled On NB & SB Approaches	A (9.9) A (9.8) F (63.8) E (42.9)	A (0.0) B (10.4) F (55.8) F (64.1)
	-Eastbound Left -Westbound Left -Northbound Approach -Southbound Approach			
3	<u>SR 120 (Duluth Highway) @ 2434 Office Building Driveway</u>	Stop Controlled On SB Approach	B (10.6) E (47.0)	B (10.3) F (57.4)
	-Eastbound Left -Southbound Approach			
4	<u>SR 120 (Duluth Highway) @ Northmont Parkway</u>	Signalized	<u>B (11.9)</u> A (9.4) A (7.0) D (54.7) D (46.9)	<u>C (23.0)</u> C (23.1) B (13.1) D (54.1) D (37.0)
	-Eastbound Approach -Westbound Approach -Northbound Approach -Southbound Approach			

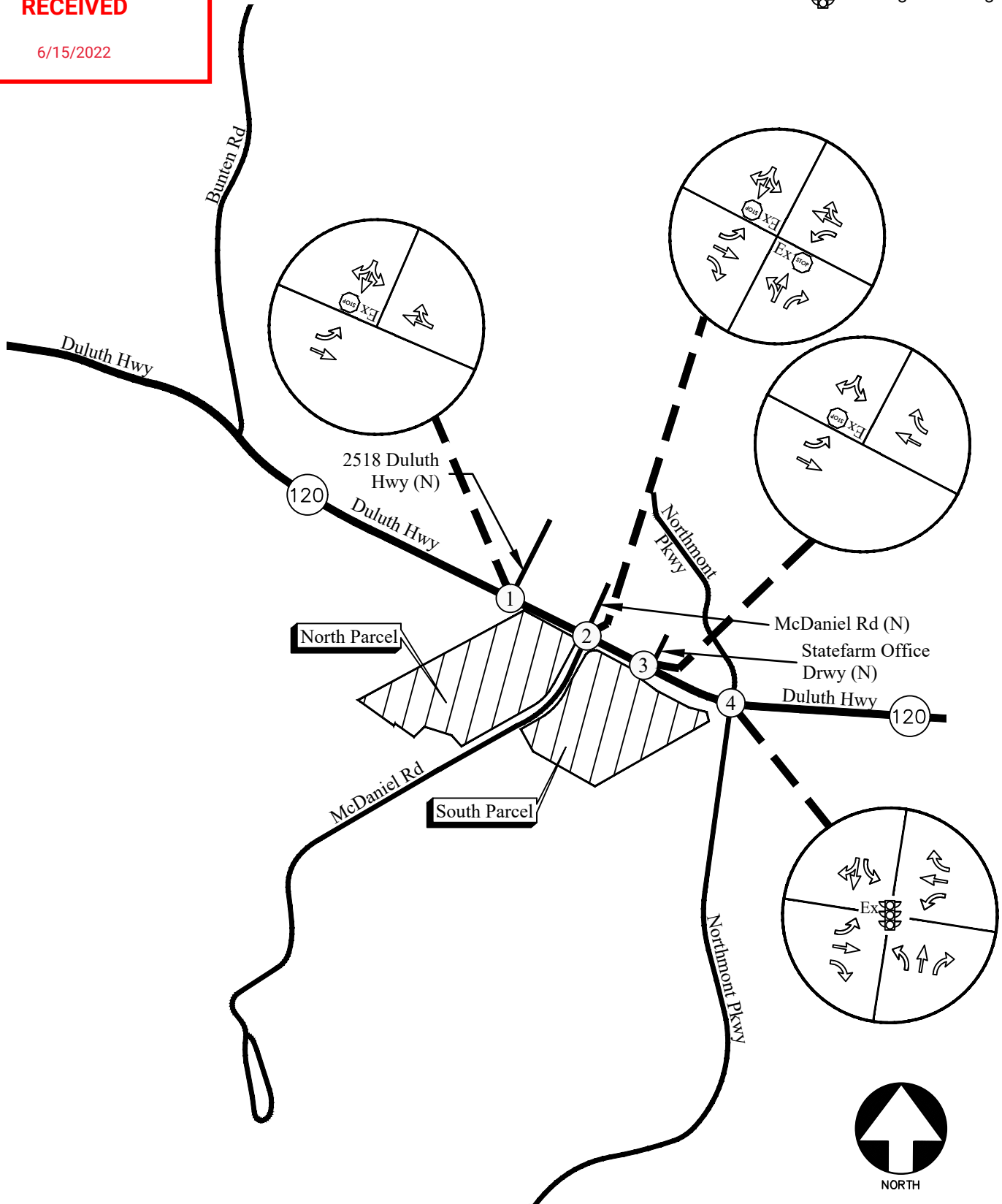
The results of existing traffic operations analysis indicate that signalized intersection of SR 120 (Duluth Highway) at Northmont Parkway is operating at level-of-service “B” and “C” during the AM and PM peak hours, respectively. At stop-controlled approaches at the other intersections, some stop-controlled intersections are operating at a level of “F” delay which is due to the time gap required for a vehicle to turn onto a busy highway. The existing traffic control and lane geometry for the intersections are shown in Figure 3.

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LEGEND

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal



EXISTING TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 3

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5.0 PROPOSED DEVELOPMENT

6/15/2022

The proposed mixed-use development will be located on McDaniel Road in Duluth, Georgia. The traffic analysis evaluates current operations compared to the future conditions with traffic generated by the development. The proposed development will consist of:

Northern Parcel on SR 120 (Duluth Highway) west of McDaniel Road

- Retail building: 21,580 sf
- Multi-family housing: 229 Units

Southern Parcel on SR 120 (Duluth Highway) east of McDaniel Road

- Retail building: 46,010 sf
- Multi-family housing: 258 Units

The development proposes access at the following locations:

- Site Driveway 1: Full-access driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 2: Right-in/right-out driveway on SR 120 (Duluth Highway) to the northern parcel
- Site Driveway 3: Full-access driveway on McDaniel Road into the northern parcel aligned with Site Driveway 4
- Site Driveway 4: Full-access Southern driveway on McDaniel Road into the southern parcel aligned with Site Driveway 3
- Site Driveway 5: Full-access Northern driveway on McDaniel Road to the southern parcel
- Site Driveway 6: Full-access driveway on SR 120 (Duluth Highway) to the southern parcel aligned with driveway into 2434 Duluth Highway (State Farm and others)

A site plan has been included as Figure 4.

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5.1 Trip Generation

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Trip generation estimates for the project were based on the rates and equations published in the 10th edition of the Institute of Transportation Engineers (ITE) Trip Generation report. This reference contains traffic volume count data collected at similar facilities nationwide. The trip generation was based on the following ITE *Land Use: 221- Multi-family Housing (Mid-rise) and 820 – Shopping Center*. The calculated total trip generation for the proposed development is shown in Tables 4A and 4B.

TABLE 4A – TRIP GENERATION –NORTHERN PARCEL

Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-way
ITE 221 – Multi-Family Housing (Mid-Rise)	229units	20	57	77	60	38	98	1,246
Mixed-Use Reduction		-6	-9	-15	-11	-8	-19	-211
ITE 820 – Shopping Center	21,580 sf	101	62	163	84	91	175	2,119
Mixed-Use Reduction		-9	-6	-15	-8	-11	-19	-211
Pass-by Trips (0%) 34%		0	0	0	-26	-27	-53	-530
Total Trips (without Reductions)		121	119	240	144	129	273	3,365
New External Trips (with Reductions)		106	104	210	99	83	182	2,413

TABLE 4B – TRIP GENERATION –SOUTHERN PARCEL

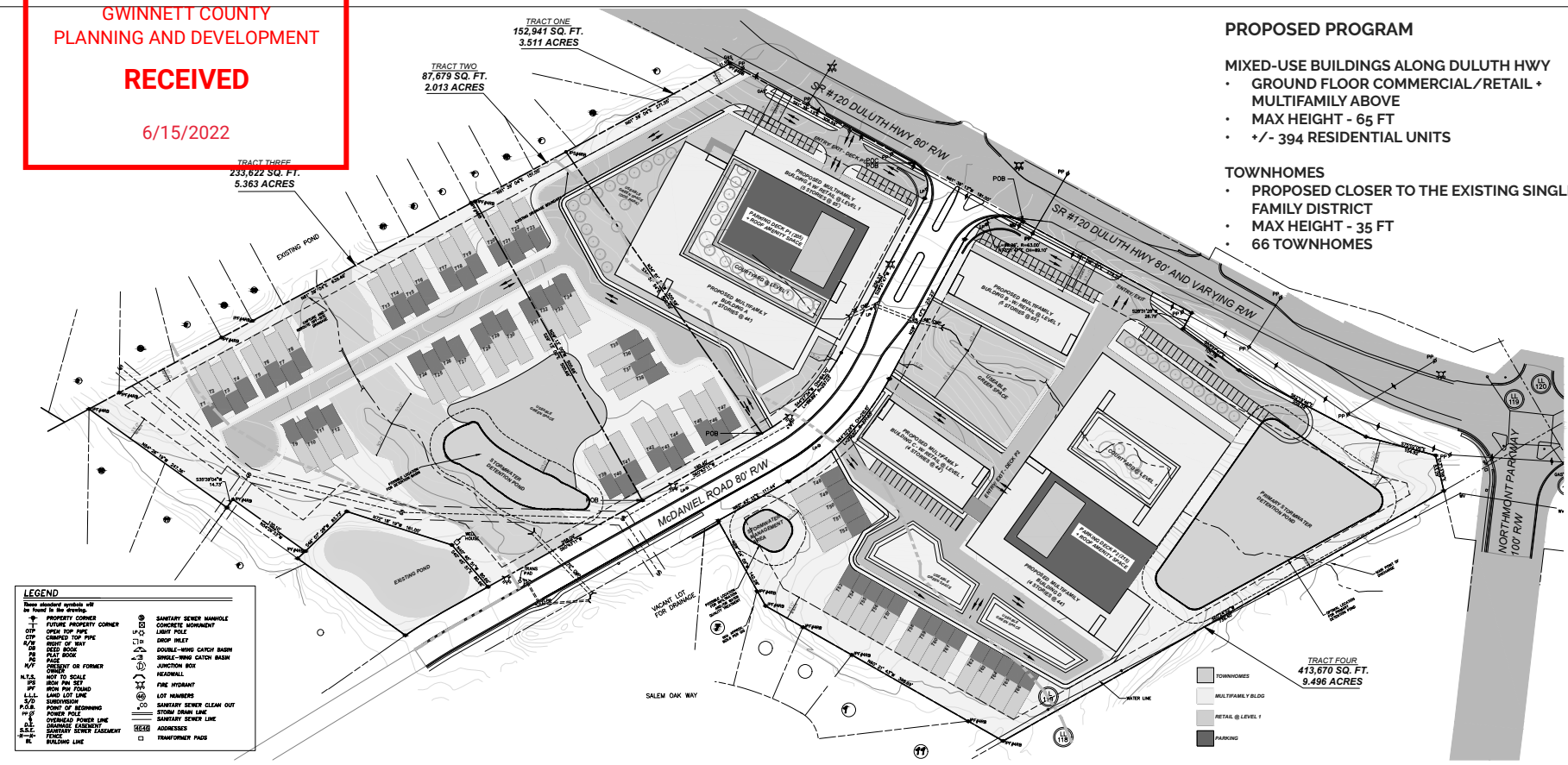
Land Use	Size	AM Peak Hour			PM Peak Hour			24 Hour
		Enter	Exit	Total	Enter	Exit	Total	Two-way
ITE 221 – Multi-Family Housing (Mid-Rise)	258units	23	64	87	67	43	110	1,404
Mixed-Use Reduction		-7	-10	-17	-19	-13	-32	-355
ITE 820 – Shopping Center	46,010 sf	108	67	175	147	159	306	3,546
Mixed-Use Reduction		-10	-7	-17	-13	-19	-32	-355
Pass-by Trips (0%) 34%		0	0	0	-46	-48	-94	-940
Total Trips (without Reductions)		131	131	262	214	202	416	4,950
New External Trips (with Reductions)		114	114	228	136	122	258	3,300

5.2 Trip Distribution

The trip distribution describes how traffic arrives and departs from the site. An overall trip distribution was developed for the site based on a review of the existing travel patterns in the area and the locations of major roadways and highways that will serve the development. The site-generated peak hour traffic volumes, shown in Tables 4A and 4B, were assigned to the study area intersections based on this distribution. The outer-leg distribution and AM and PM peak hour new traffic generated by the site are shown in Figure 5. Pass-by volumes have also been distributed based on existing travel patterns and are shown in Figure 6.

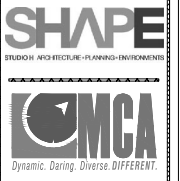
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PROPOSED PROGRAM

- MIXED-USE BUILDINGS ALONG DULUTH HWY
- GROUND FLOOR COMMERCIAL/RETAIL + MULTIFAMILY ABOVE
 - MAX HEIGHT - 65 FT
 - +/- 394 RESIDENTIAL UNITS
- TOWNHOMES
- PROPOSED CLOSER TO THE EXISTING SINGLE FAMILY DISTRICT
 - MAX HEIGHT - 35 FT
 - 66 TOWNHOMES



PROJECT NAME
MCDANIEL ROAD
Mixed-Use Development

LOCATION
2449 Duluth Hwy,
Duluth, GA 30096

OWNER/DEVELOPER
REPRESENTATIVE
HAKIM HILLIARD, ESQUIRE
404-389-9085
hhilliard@nstarlaw.com

ARCHITECT
STUDIO H ARCHITECTURE
PLANNING ENVIRONMENTS
404-487-8043

Issue

No.	Description	Date

DEVELOPMENT SUMMARY NORTH PARCEL
11.504 ACRES

DEVELOPMENT SUMMARY	Area / Units
RETAIL @ LEVEL 1 OF BLDG A GROSS AREA	21,580 SF
MULTIFAMILY BUILDING A GROSS RESIDENTIAL AREA TOTAL UNITS	200,120 SF +/- 155 UNITS
TOWNHOMES TYP. LOT SIZE GROSS RESIDENTIAL AREA PER TOWNHOME TOTAL TOWNHOMES	22' X 80' 2,380 SF 47 UNITS @ 11,240 SF
PARKING SUMMARY REQUIRED (RETAIL)* (PARKING FACTOR: 1 PER 500 SF) PROPOSED (RETAIL)**	43 SPACES +/- 25 SPACES SURFACE PARKING
REQUIRED (TOWNHOMES)* (PARKING FACTOR: 3.0) PROPOSED (TOWNHOMES)**	141 SPACES 141 SPACES
REQUIRED (MULTIFAMILY)** (PARKING FACTOR: 1.5) PROPOSED (MULTIFAMILY)**	232 SPACES +/- 205 SPACES IN PARKING DECK P1

DEVELOPMENT SUMMARY SOUTH PARCEL
9.368 ACRES

DEVELOPMENT SUMMARY	Area / Units
RETAIL @ LEVEL 1 OF BLDG. B,C,D GROSS AREA	46,010 SF
MULTIFAMILY BUILDING B GROSS RESIDENTIAL AREA TOTAL UNITS	56,000 SF +/- 44 UNITS
MULTIFAMILY BUILDING C GROSS RESIDENTIAL AREA TOTAL UNITS	39,120 SF +/- 30 UNITS
MULTIFAMILY BUILDING D GROSS RESIDENTIAL AREA TOTAL UNITS	215,180 SF +/- 165 UNITS
TOWNHOMES TYP. LOT SIZE GROSS RESIDENTIAL AREA PER TOWNHOME TOTAL TOWNHOMES	22' X 80' 2,380 SF 19 UNITS @ 45,220 SF
PARKING SUMMARY REQUIRED (RETAIL)* (PARKING FACTOR: 1 PER 500 SF) PROPOSED (RETAIL)**	92 SPACES +/- 50 SPACES SURFACE PARKING

DEVELOPMENT SUMMARY SOUTH PARCEL (cont'd.)

PARKING SUMMARY	Spaces
REQUIRED (TOWNHOMES)*	57 SPACES
PROPOSED (TOWNHOMES)**	57 SPACES
REQUIRED (MULTIFAMILY)** (PARKING FACTOR: 1.5)	359 SPACES
PROPOSED (MULTIFAMILY)**	+/- 215 SPACES IN PARKING DECK P2

DEVELOPMENT SUMMARY NORTH & SOUTH PARCEL
20.872 ACRES

TOTAL DEVELOPMENT SUMMARY	Area / Units
RETAIL GROSS AREA	67,590 SF
MULTIFAMILY BUILDINGS GROSS RESIDENTIAL AREA TOTAL UNITS	510,420 SF +/- 394 UNITS
TOWNHOMES TOTAL TOWNHOMES	66 UNITS @ 157,080 SF
TOTAL COMBINED RESIDENTIAL	460 UNITS
PARKING SUMMARY PROPOSED (RETAIL)* PROPOSED (TOWNHOMES)* PROPOSED (MULTIFAMILY)**	75 SPACES 198 SPACES 420 SPACES
PROGRAMMED USEABLE GREEN SPACE AND OUTDOOR AMENITY	38% (~8 ACRES)

NOTES

- * Townhomes have the potential to park two cars in an indoor garage and 1 or 2 cars in paved parking porch. Total Car parking potential per townhome is 3 to 4 cars.
- ** Multifamily Parking required at 1.5 per unit can be utilized by exploring options of shared / programmed parking in proposed parking decks P1 and P2 as well as on-street parking.

DRAWING TITLE
SITE PLAN

DRAWN BY:
KV

CHECKED BY:

DATE
06.09.2021

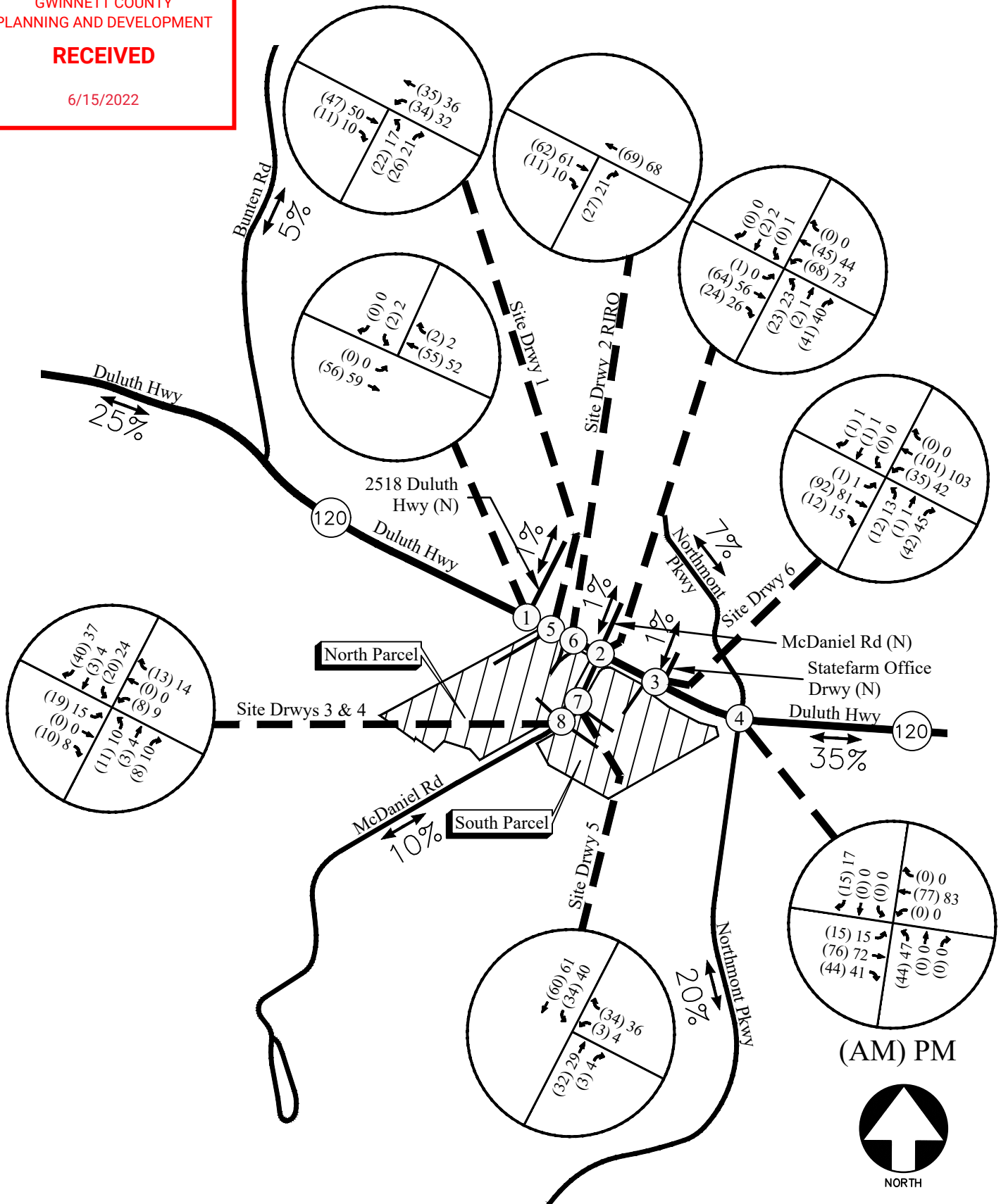
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SCALE
1" = 75'-0"

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6/15/2022



TRIP DISTRIBUTION AND SITE-GENERATED
WEEKDAY PEAK HOUR VOLUMES

FIGURE 5

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6.0 FUTURE 2023 TRAFFIC ANALYSIS

6/15/2022

The future 2023 traffic operations are analyzed for the “Build” and “No-Build” conditions.

6.1 Future Conditions

The “No-Build” (or background) conditions provide an assessment of how traffic will operate in the study horizon year without the study site being developed as proposed, with projected increases in through traffic volumes due to normal annual growth. The Future “No-Build” volumes consist of the existing traffic volumes (Figure 2) plus increases for annual growth of through traffic. These future “No-Build” traffic volumes are shown in Figure 7.

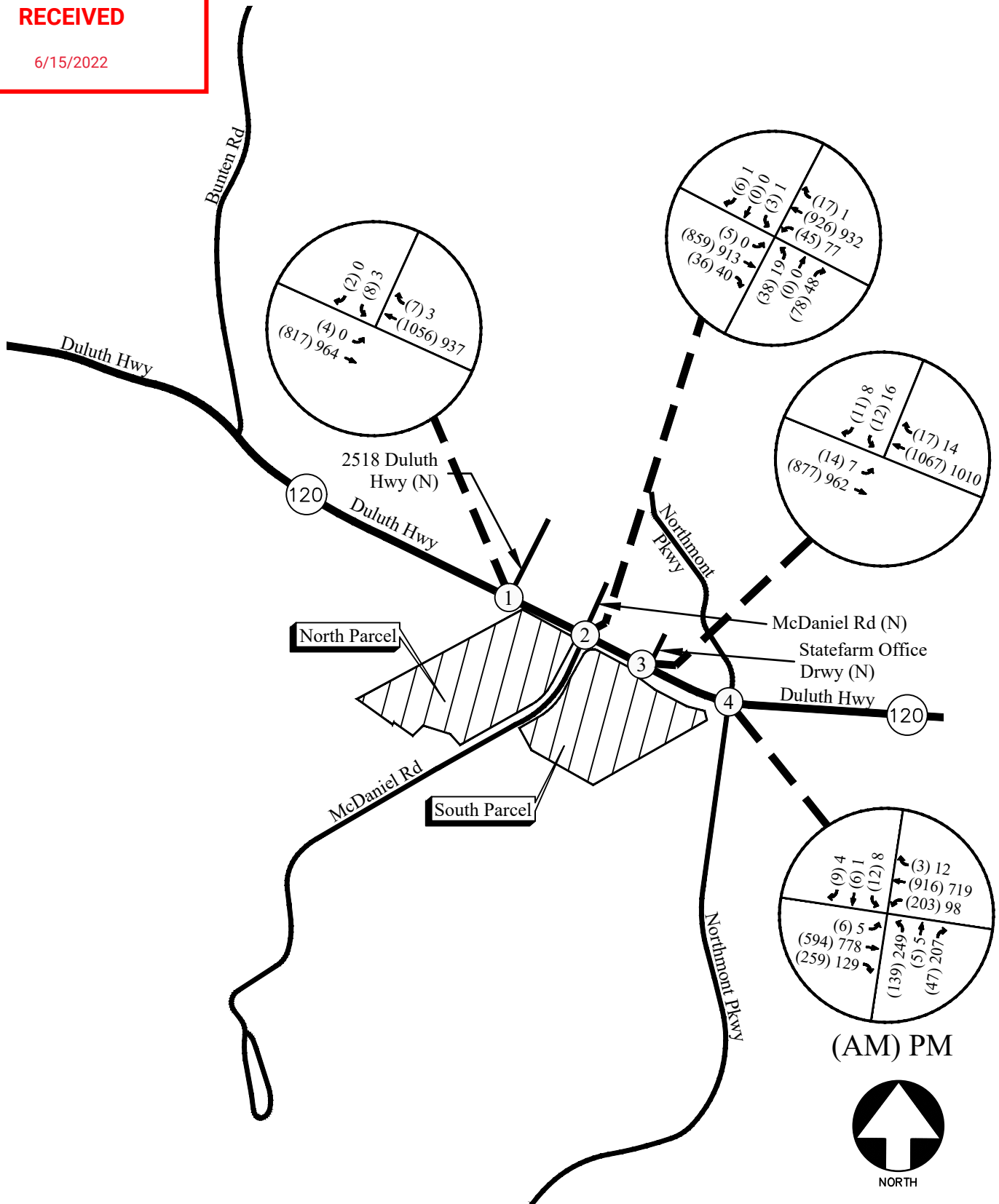
The “Build” or development conditions include the estimated background traffic from the “No-Build” conditions. In order to evaluate future traffic operations in this area, the additional traffic volumes from the site (Figure 5) and pass by (Figure 6) were added to base traffic volumes (Figure 2) to calculate the future traffic volumes after the construction of the development. These total future “Build” traffic volumes are shown in Figure 8.

6.1.1 Annual Traffic Growth

In order to evaluate future traffic operations in this area, a projection of normal traffic growth was applied to the existing volumes. The Georgia Department of Transportation recorded average daily traffic volumes at several locations in the vicinity of the site. Reviewing the growth over the last three years revealed growth of approximately 2.6% in the area. This growth factor was applied to the existing traffic volumes arterial roadways in order to estimate the future year traffic volumes prior to the addition of site-generated traffic. The resulting Future “No-Build” volumes on the roadway are shown in Figure 8.

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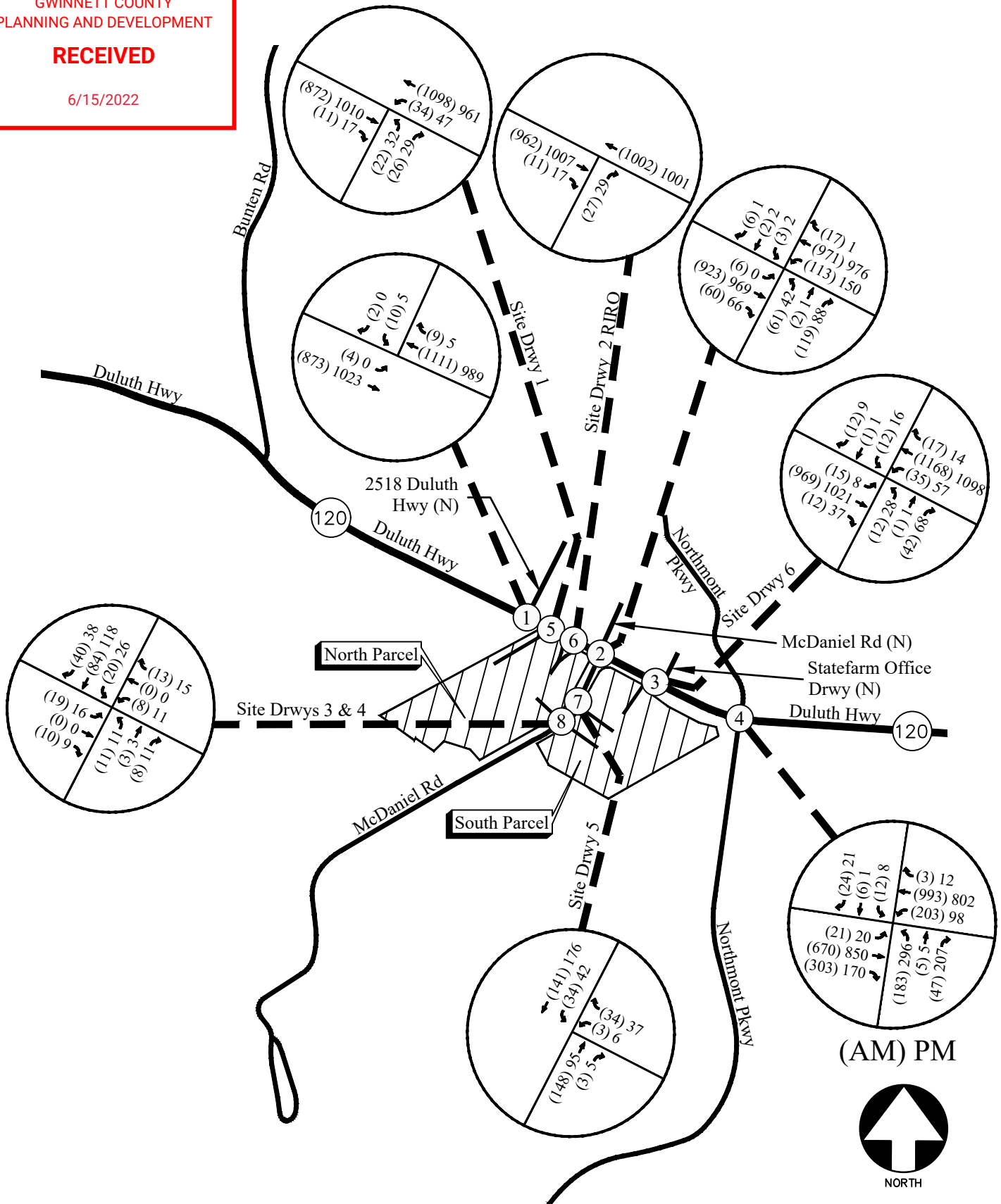
FUTURE (NO-BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 7

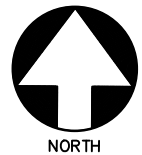
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(AM) PM



FUTURE (BUILD) WEEKDAY PEAK HOUR VOLUMES

FIGURE 8

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6.1.2 Auxiliary Lane Analysis

Included below are analyses for left turn and deceleration lanes for all site driveways per GDOT standards. The analyses below are based off the trip distribution included in Section 5.2. According to the trip distribution, the 24-hour two-way volume entering and exiting the site is 3,365 and 4,950 vehicles, respectively.

6.1.2.1 Left Turn Lane Analysis

According to GDOT standards, for a two-lane roadway with AADT's less than 6,000 vehicles, the threshold of daily site generated left-turn volume to warrant a left-turn lane is 175 vehicles for speed limit 45 mph. According to GDOT standards, for a two-lane roadway with AADT's greater than 6,000 vehicles, the threshold of daily site generated left-turn volume to warrant a left-turn lane is 200 vehicles for speed limit 25 mph. The projected left-turn volume per day for the proposed driveways is shown in Table 5.

TABLE 5 - GDOT REQUIREMENTS FOR LEFT TURN LANES				
Intersection	Left turn traffic (% total entering)	Left-turn Volume (vehicle/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicle/day)
SR 120 (Duluth Hwy) @ Site Drwy 1 (N Parcel)	31.9%	469 (total trips – mixed-use trips) ÷ 2 × 0.319 = (3,365-422) ÷ 2 × 0.319 = 469	45 mph / 2-Lane / >=6000	175
McDaniel Rd @ Site Drwy 3 (N Parcel)	10%	147 (total trips – mixed-use trips) ÷ 2 × 0.1 = (3,365-422) ÷ 2 × 0.1 = 147	45 mph / 2-Lane / >=6000	175
McDaniel Rd @ Site Drwy 4 (S Parcel)	17.8%	262 (total trips – mixed-use trips) ÷ 2 × 0.178 = (4,950-710) ÷ 2 × 0.178 = 262	25 mph / 2-Lane / <6,000	200
McDaniel Rd @ Site Drwy 5 (S Parcel)	29.4%	433 (total trips – mixed-use trips) ÷ 2 × 0.294 = (4,950-710) ÷ 2 × 0.294 = 433	25 mph / 2-Lane / <6,000	200
SR 120 (Duluth Hwy) @ Site Drwy 6 (S Parcel)	31%	456 (total trips – mixed-use trips) ÷ 2 × 0.31 = (4,950-710) ÷ 2 × 0.31 = 456	45 mph / 2-Lane / >=6,000	175

*Pass-by reductions included, mixed use reductions not included

Left turn lanes are required at site driveway 1, 4, 5, and 6 per GDOT standards.

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6.1.2.2 Deceleration Turn Lane Analysis

For two-lane roadways with AADT's less than 6,000 vehicles and a posted speed limit of 30 mph, the threshold of daily site generated right-turn volume to warrant a right-turn lane is 200 vehicles. The projected right-turn volume per day for the proposed driveway is shown in Table 6.

TABLE 6 - GDOT REQUIREMENTS FOR DECELERATION LANES				
Intersection	Left turn traffic (% total entering)	Left-turn Volume (vehicle/day)	Roadway Speed/ # lanes / ADT	GDOT Threshold (vehicle/day)
SR 120 (Duluth Hwy) @ Site Drwy 1 (N Parcel)	10.4%	147 (total trips – mixed-use trips) ÷ 2 × 0.104 = (3,365-422) ÷ 2 × 0.104 = 147	45 mph / 2-Lane />=6000	75
SR 120 (Duluth Hwy) @ Site Drwy 2 (N Parcel)	10.4%	147 (total trips – mixed-use trips) ÷ 2 × 0.104 = (3,365-422) ÷ 2 × 0.104 = 147	45 mph / 2-Lane />=6000	75
McDaniel Rd @ Site Drwy 3 (N Parcel)	37.3%	549 (total trips – mixed-use trips) ÷ 2 × 0.373= (3,365-422) ÷ 2 × 0.373 = 549	25 mph / 2-Lane/ < 6000	100
McDaniel Rd @ Site Drwy 4 (S Parcel)	7%	103 (total trips – mixed-use trips) ÷ 2 × 0.07= (4,950-710) ÷ 2 × 0.07 = 103	25 mph / 2-Lane/ < 6000	100
McDaniel Rd @ Site Drwy 5 (S Parcel)	3%	44 (total trips – mixed-use trips) ÷ 2 × 0.03= (4,950-710) ÷ 2 × 0.03 = 4	25 mph / 2-Lane/ < 6000	100
SR 120 (Duluth Hwy) @ Site Drwy 6 (S Parcel)	11.8%	174 (total trips – mixed-use trips) ÷ 2 × 0.118 = (4,950-710) ÷ 2 × 0.118 = 174	45 mph / 2-Lane />=6,000	75

*Pass-by reductions included, mixed use reductions not included

Deceleration lanes are required at site driveways 1, 2, 3, 4, and 6 per GDOT standards.

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6.1.3 Future Traffic Operations

6/15/2022

The future “No-Build” and “Build” traffic operations were analyzed using the volumes in Figure 7 and Figure 8, respectively. The results of the future traffic operations analysis are shown below in Table 7.

TABLE 7 – FUTURE INTERSECTION OPERATIONS

Intersection		Future Conditions: LOS (Delay)			
		NO - BUILD		BUILD	
		AM Peak	PM Peak	AM Peak	PM Peak
1	SR 120 (Duluth Highway) @ 2518 State Farm Driveway				
	-Eastbound Left -Southbound Approach	B (10.3) F (53.0)	A (0.0) F (60.5)	B (10.9) F (66.0)	A (0.0) F (74.4)
2	SR 120 (Duluth Highway) @ McDaniel Rd / Church Driveway				
	-Eastbound Left	B (10.1)	A (0.0)	B (10.3)	A (0.0)
	-Westbound Left	A (10.0)	B (10.7)	B (10.9)	B (11.9)
	-Northbound Approach -Southbound Approach	F (82.9) E (49.5)	F (70.3) F (75.7)	F (*) F (112.8)	F (*) F (214.1)
3	SR 120 (Duluth Highway) @ 2434 Office Building Driveway / Site Driveway 6				
	-Eastbound Left	B (10.9)	B (10.6)	B (11.5)	B (11.1)
	-Westbound Left	-	-	B (10.5)	B (11.3)
	-Northbound Approach -Southbound Approach	F (56.5)	F (70.4)	F (152.8) F (295.1)	F (*) F (*)
4	SR 120 (Duluth Highway) @ Northmont Parkway	B (12.6)	C (25.5)	B (17.5)	D (36.4)
	-Eastbound Approach	B (10.2)	C (26.7)	B (15.0)	D (41.4)
	-Westbound Approach	A (7.8)	B (14.8)	B (12.3)	C (20.4)
	-Northbound Approach -Southbound Approach	D (54.4) D (46.4)	E (56.0) D (36.3)	D (53.8) D (42.2)	E (70.7) C (34.4)
5	SR 120 (Duluth Highway) @ Site Driveway 1				
	-Westbound Left -Northbound Approach	-	-	F (118.9) B (10.3)	B (11.3) F (246.6)
6	SR 120 (Duluth Highway) @ Site Driveway 2				
	-Northbound Approach	-	-	C (19.5)	C (20.7)
7	McDaniel Rd @ Site Driveway 5				
	-Westbound Approach -Southbound Left	-	-	A (9.5) A (7.6)	A (9.3) A (7.5)
8	McDaniel Rd @ Site Driveway 3 / Site Driveway 4				
	-Eastbound Approach			A (9.7)	B (10.0)
	-Westbound Approach	-	-	A (9.0)	A (9.3)
	-Northbound Left -Southbound Left			A (7.5) A (7.3)	A (7.6) A (7.3)

*Delays beyond 300






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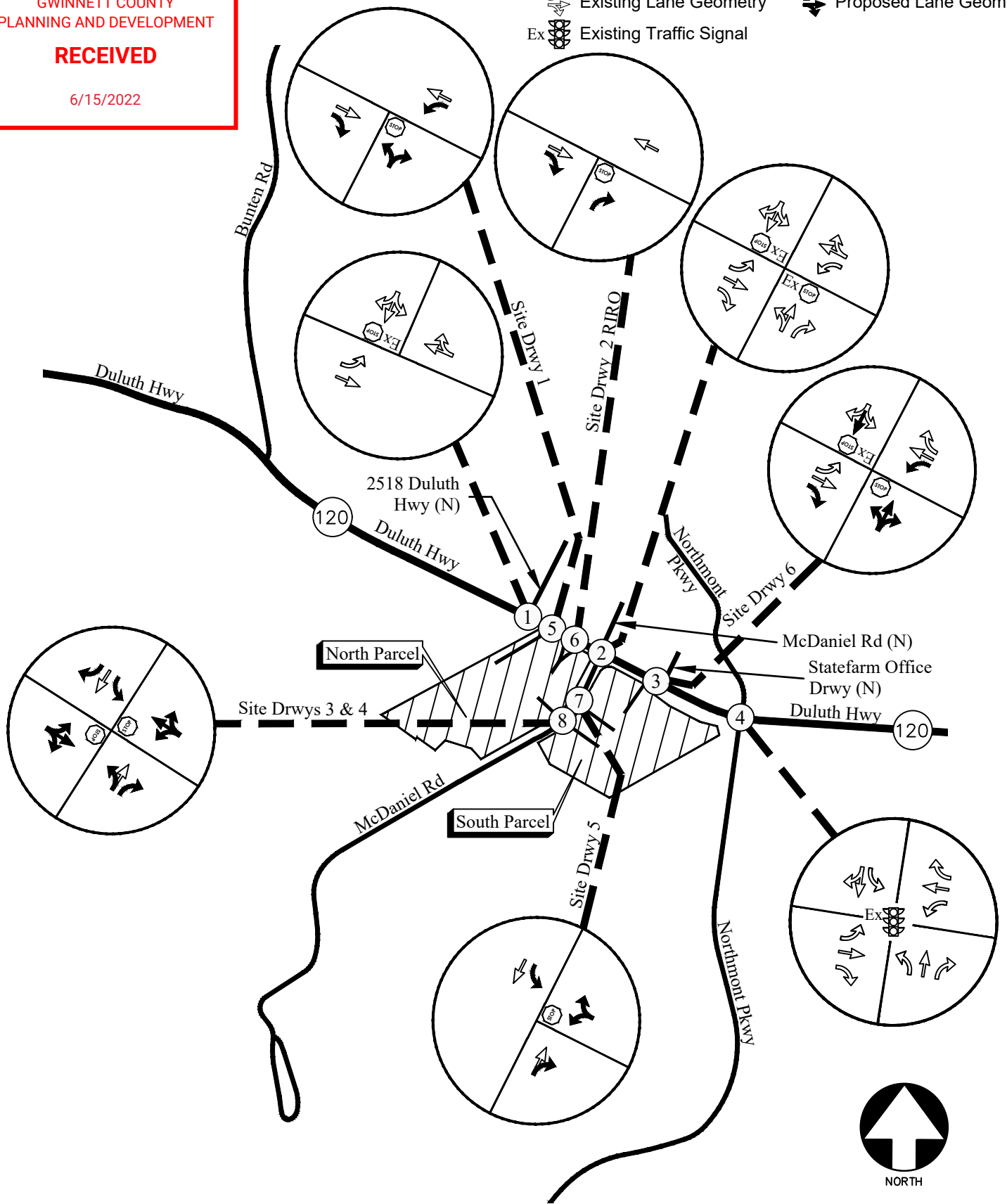
6/13/2022
The signalized intersection of Northmont Parkway and SR 120 (Duluth Highway) will continue to operate at an acceptable level-of-service in the “No-Build” and “Build” scenarios. Based on the traffic volumes presented in Figure 8, it is recommended that the intersection of SR 120 (Duluth Highway) and McDaniel Road is evaluated to determine if traffic signal warrants are met per MUTCD standards. Recommendations for future traffic control and lane geometry is shown in Figure 9.

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LEGEND

- Ex  Existing Signed Approach
-  Existing Lane Geometry
- Ex  Existing Traffic Signal
-  Proposed Signed Approach
-  Proposed Lane Geometry



FUTURE TRAFFIC CONTROL AND LANE GEOMETRY

FIGURE 9

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7.0 CONCLUSIONS AND RECOMMENDATIONS

The purpose of this study is to determine the traffic impact that will result from the proposed mixed-use development that will be located on McDaniel Road in Duluth, Georgia. The proposed development will consist of:

Northern Parcel on SR 120 (Duluth Highway) west of McDaniel Road

- Retail building: 21,580 sf
- Multi-family housing: 229 Units

Southern Parcel on SR 120 (Duluth Highway) east of McDaniel Road

- Retail building: 46,010 sf
- Multi-family housing: 258 Units

The AM and PM peak hours have been analyzed in this study. In addition to the site access points, this study includes the evaluation of traffic operations at the following intersections of:

1. SR 120 (Duluth Highway) at McDaniel Road
2. SR 120 (Duluth Highway) at Northmont Parkway
3. SR 120 (Duluth Highway) at driveway to 2434 Duluth Highway (State Farm and other users)
4. SR 120 (Duluth Highway) at driveway to 2518 Duluth Highway (Office Building)

The analysis included the evaluation of Future operations for “No-Build” and “Build” conditions, both of which account for increases in annual growth of through traffic. The signalized intersection of Northmont Parkway and SR 120 (Duluth Highway) will continue to operate at an acceptable level-of-service in the “No-Build” and “Build” scenarios. Based on the traffic volumes presented in Figure 8, it is recommended that the intersection of SR 120 (Duluth Highway) and McDaniel Road is evaluated to determine if traffic signal warrants are met per MUTCD standards.

7.1 Recommendation for Site Access Configuration

It is recommended that all full access driveways (1, 3, 4, 5 and 6) are stop sign controlled on the driveway approach and consist of one entering lane and one exiting lane. Given the short distance from the neighboring intersection of McDaniel Road and SR 120 (Duluth Highway), it is recommended that site driveway 2 serve as a right-in/right-out driveway. Left turn lanes are recommended at site driveway 1, 4, 5, and 6 per GDOT standards. Deceleration lanes are recommended at site driveways 1, 2, 3, 4, and 6 per GDOT standards. It is recommended that driveway 6 be aligned with the driveway across SR 120 (Duluth Highway) and that site driveways 3 and 4 also be aligned with each other. It is also recommended that adequate sight distance is confirmed per AASHTO standards during the driveway design process.

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Appendix

Existing Intersection Traffic Counts	
Linear Regression of Daily Traffic.....	
Existing Intersection Analysis.....	
Future “No-Build” Intersection Analysis	
Future “Build” Intersection Analysis.....	
Traffic Volume Worksheets	

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EXISTING INTERSECTION TRAFFIC COUNTS

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TMC DATA
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Duluth Hwy @ Drwy of 2518
Duluth Hwy Office Building
7-9 am | 4-6 pm

File Name : 20210268
Site Code : 20210268
Start Date : 08-24-2021
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Northbound				Drwy of 2518 Duluth Hwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	0	0	1	2	128	0	130	0	207	1	208	339
07:15 AM	0	0	0	0	0	0	0	0	1	148	0	149	0	240	2	242	391
07:30 AM	0	0	0	0	0	0	1	1	0	156	0	156	0	294	3	297	454
07:45 AM	0	0	0	0	3	0	1	4	1	195	0	196	0	257	0	257	457
Total	0	0	0	0	4	0	2	6	4	627	0	631	0	998	6	1004	1641
08:00 AM	0	0	0	0	0	0	0	0	0	198	0	198	0	251	1	252	450
08:15 AM	0	0	0	0	5	0	0	5	3	227	0	230	0	201	3	204	439
08:30 AM	0	0	0	0	2	0	2	4	0	225	0	225	0	208	1	209	438
08:45 AM	0	0	0	0	1	0	0	1	1	203	0	204	0	197	1	198	403
Total	0	0	0	0	8	0	2	10	4	853	0	857	0	857	6	863	1730
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	1	1	0	228	0	228	0	179	0	179	408
04:15 PM	0	0	0	0	0	0	1	1	0	240	0	240	0	169	1	170	411
04:30 PM	0	0	0	0	0	0	0	0	0	235	0	235	0	167	0	167	402
04:45 PM	0	0	0	0	2	0	0	2	0	235	0	235	0	186	1	187	424
Total	0	0	0	0	2	0	2	4	0	938	0	938	0	701	2	703	1645
05:00 PM	0	0	0	0	0	0	0	0	0	198	0	198	0	251	1	252	450
05:15 PM	0	0	0	0	1	0	0	1	0	232	0	232	0	236	1	237	470
05:30 PM	0	0	0	0	0	0	0	0	0	251	0	251	0	217	0	217	468
05:45 PM	0	0	0	0	0	0	1	1	0	223	0	223	0	198	0	198	422
Total	0	0	0	0	1	0	1	2	0	904	0	904	0	902	2	904	1810
Grand Total	0	0	0	0	15	0	7	22	8	3322	0	3330	0	3458	16	3474	6826
Apprch %	0	0	0	0	68.2	0	31.8		0.2	99.8	0		0	99.5	0.5		
Total %	0	0	0	0	0.2	0	0.1	0.3	0.1	48.7	0	48.8	0	50.7	0.2	50.9	

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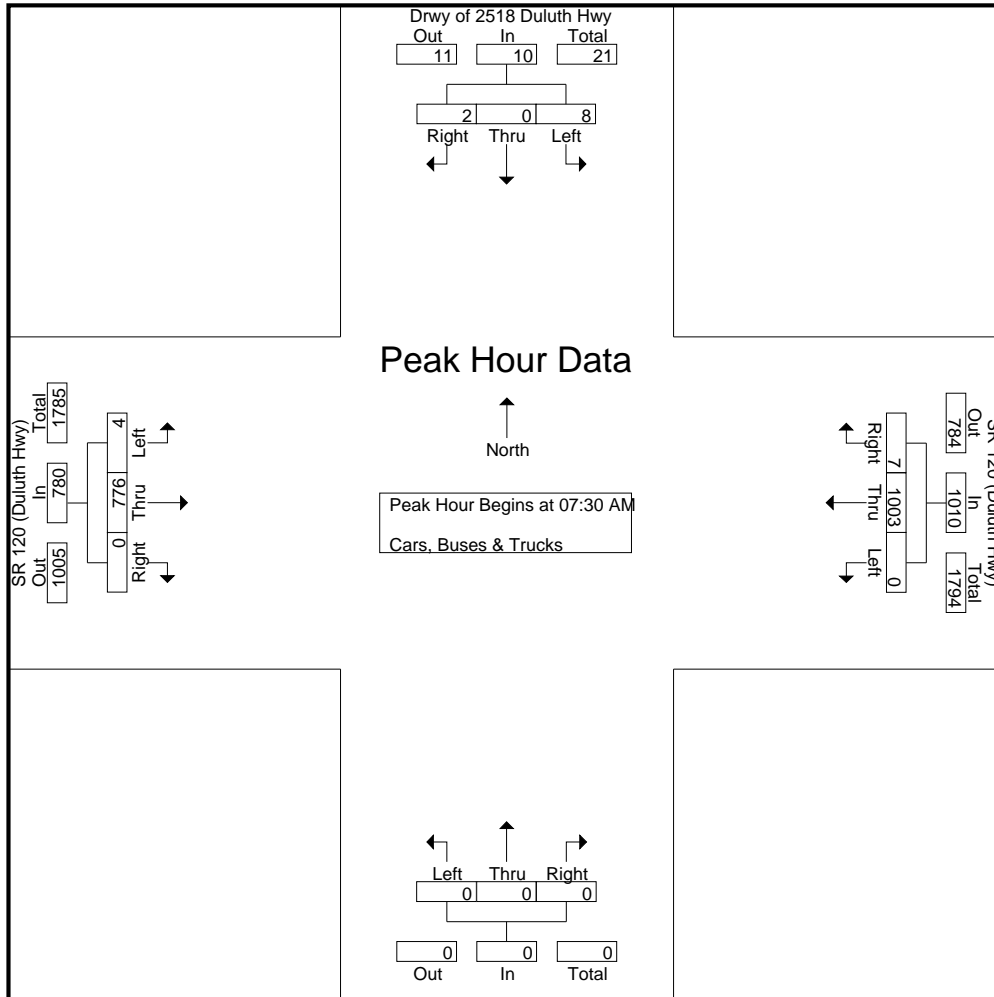
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Duluth Hwy @ Drwy of 2518
Duluth Hwy Office Building
4/15/2021
7-9 am | 4-6 pm

File Name : 20210268
Site Code : 20210268
Start Date : 08-24-2021
Page No : 2

Start Time	Northbound				Drwy of 2518 Duluth Hwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	0	0	1	1	0	156	0	156	0	294	3	297	454
07:45 AM	0	0	0	0	3	0	1	4	1	195	0	196	0	257	0	257	457
08:00 AM	0	0	0	0	0	0	0	0	0	198	0	198	0	251	1	252	450
08:15 AM	0	0	0	0	5	0	0	5	3	227	0	230	0	201	3	204	439
Total Volume	0	0	0	0	8	0	2	10	4	776	0	780	0	1003	7	1010	1800
% App. Total	0	0	0	0	80	0	20	100	0.5	99.5	0	100	0	99.3	0.7	100	100
PHF	.000	.000	.000	.000	.400	.000	.500	.500	.333	.855	.000	.848	.000	.853	.583	.850	.985

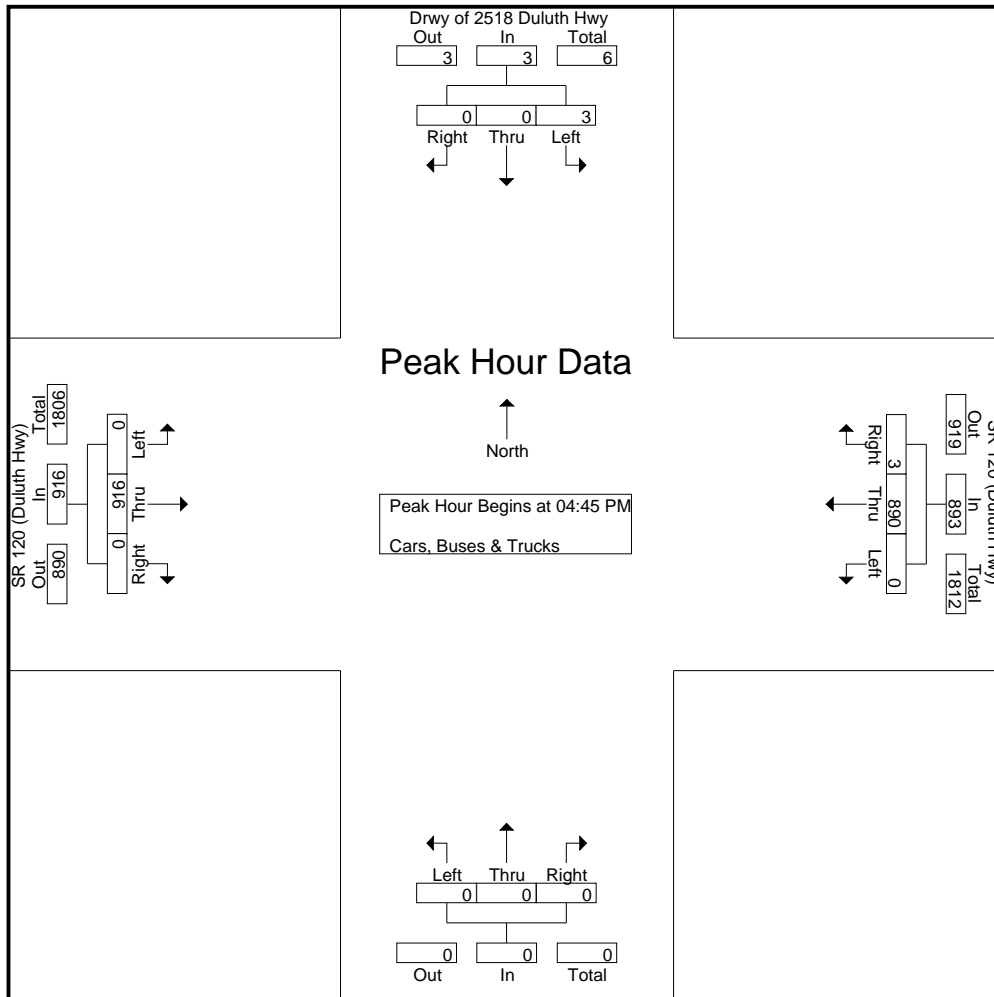


TMC DATA

Duluth Hwy @ Drwy of 2518
Duluth Hwy Office Building
7-9 am | 4-6 pm

File Name : 20210268
Site Code : 20210268
Start Date : 08-24-2021
Page No : 3

Start Time	Northbound				Drwy of 2518 Duluth Hwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	0	0	0	0	2	0	0	2	0	235	0	235	0	186	1	187	424
05:00 PM	0	0	0	0	0	0	0	0	0	198	0	198	0	251	1	252	450
05:15 PM	0	0	0	0	1	0	0	1	0	232	0	232	0	236	1	237	470
05:30 PM	0	0	0	0	0	0	0	0	0	251	0	251	0	217	0	217	468
Total Volume	0	0	0	0	3	0	0	3	0	916	0	916	0	890	3	893	1812
% App. Total	0	0	0	0	100	0	0	100	0	100	0	100	0	99.7	0.3	100	
PHF	.000	.000	.000	.000	.375	.000	.000	.375	.000	.912	.000	.912	.000	.886	.750	.886	.964



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SR 120 (Duluth Hwy) @ McDaniel Rd
7-9 am | 4-6 pm

File Name : 20210269
Site Code : 20210269
Start Date : 08-24-2021
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	McDaniel Rd Northbound				Cornerstone Church Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	9	0	9	18	1	0	0	1	1	125	3	129	5	199	0	204	352
07:15 AM	8	0	15	23	0	0	0	0	0	144	4	148	5	234	1	240	411
07:30 AM	7	0	21	28	0	0	0	0	0	155	1	156	3	290	1	294	478
07:45 AM	3	0	20	23	0	0	0	0	1	193	4	198	11	254	0	265	486
Total	27	0	65	92	1	0	0	1	2	617	12	631	24	977	2	1003	1727
08:00 AM	11	0	22	33	0	0	0	0	0	194	4	198	9	241	3	253	484
08:15 AM	13	0	13	26	0	0	0	0	2	215	15	232	11	191	0	202	460
08:30 AM	9	0	19	28	3	0	6	9	2	214	11	227	12	194	13	219	483
08:45 AM	8	0	18	26	7	0	9	16	5	187	12	204	12	181	8	201	447
Total	41	0	72	113	10	0	15	25	9	810	42	861	44	807	24	875	1874
*** BREAK ***																	
04:00 PM	4	0	15	19	2	0	5	7	1	217	10	228	20	170	0	190	444
04:15 PM	6	0	2	8	0	0	0	0	0	233	7	240	18	164	0	182	430
04:30 PM	0	0	11	11	1	0	1	2	0	225	10	235	13	166	0	179	427
04:45 PM	4	0	9	13	0	0	0	0	0	230	7	237	15	183	0	198	448
Total	14	0	37	51	3	0	6	9	1	905	34	940	66	683	0	749	1749
05:00 PM	4	0	5	9	0	0	0	0	0	189	9	198	18	248	0	266	473
05:15 PM	3	0	6	9	0	0	0	0	0	224	9	233	14	234	0	248	490
05:30 PM	4	0	17	21	0	0	1	1	0	242	9	251	20	212	0	232	505
05:45 PM	7	0	18	25	1	0	0	1	0	212	11	223	21	191	1	213	462
Total	18	0	46	64	1	0	1	2	0	867	38	905	73	885	1	959	1930
Grand Total	100	0	220	320	15	0	22	37	12	3199	126	3337	207	3352	27	3586	7280
Apprch %	31.2	0	68.8		40.5	0	59.5		0.4	95.9	3.8		5.8	93.5	0.8		
Total %	1.4	0	3	4.4	0.2	0	0.3	0.5	0.2	43.9	1.7	45.8	2.8	46	0.4	49.3	

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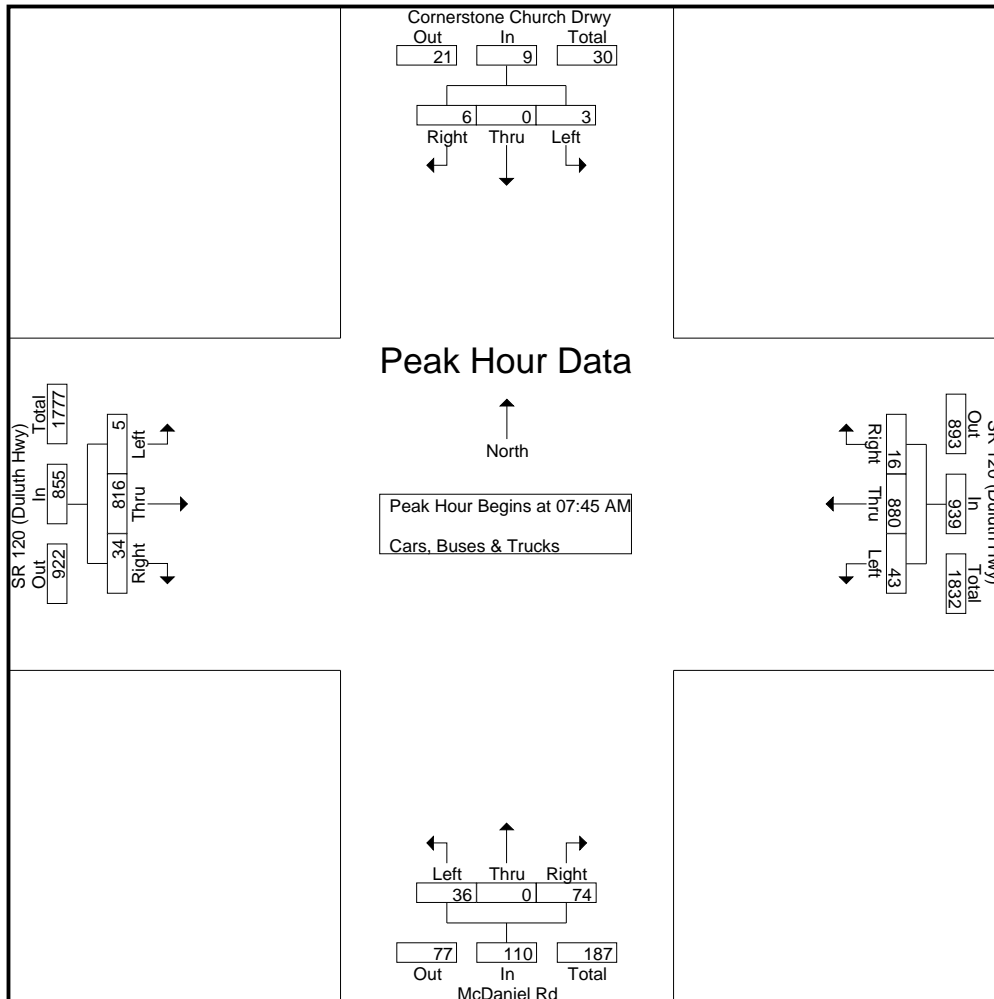
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7-9 am | 4-6 pm

File Name : 20210269
Site Code : 20210269
Start Date : 08-24-2021
Page No : 2

Start Time	McDaniel Rd Northbound				Cornerstone Church Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	3	0	20	23	0	0	0	0	1	193	4	198	11	254	0	265	486
08:00 AM	11	0	22	33	0	0	0	0	0	194	4	198	9	241	3	253	484
08:15 AM	13	0	13	26	0	0	0	0	2	215	15	232	11	191	0	202	460
08:30 AM	9	0	19	28	3	0	6	9	2	214	11	227	12	194	13	219	483
Total Volume	36	0	74	110	3	0	6	9	5	816	34	855	43	880	16	939	1913
% App. Total	32.7	0	67.3		33.3	0	66.7		0.6	95.4	4		4.6	93.7	1.7		
PHF	.692	.000	.841	.833	.250	.000	.250	.250	.625	.949	.567	.921	.896	.866	.308	.886	.984



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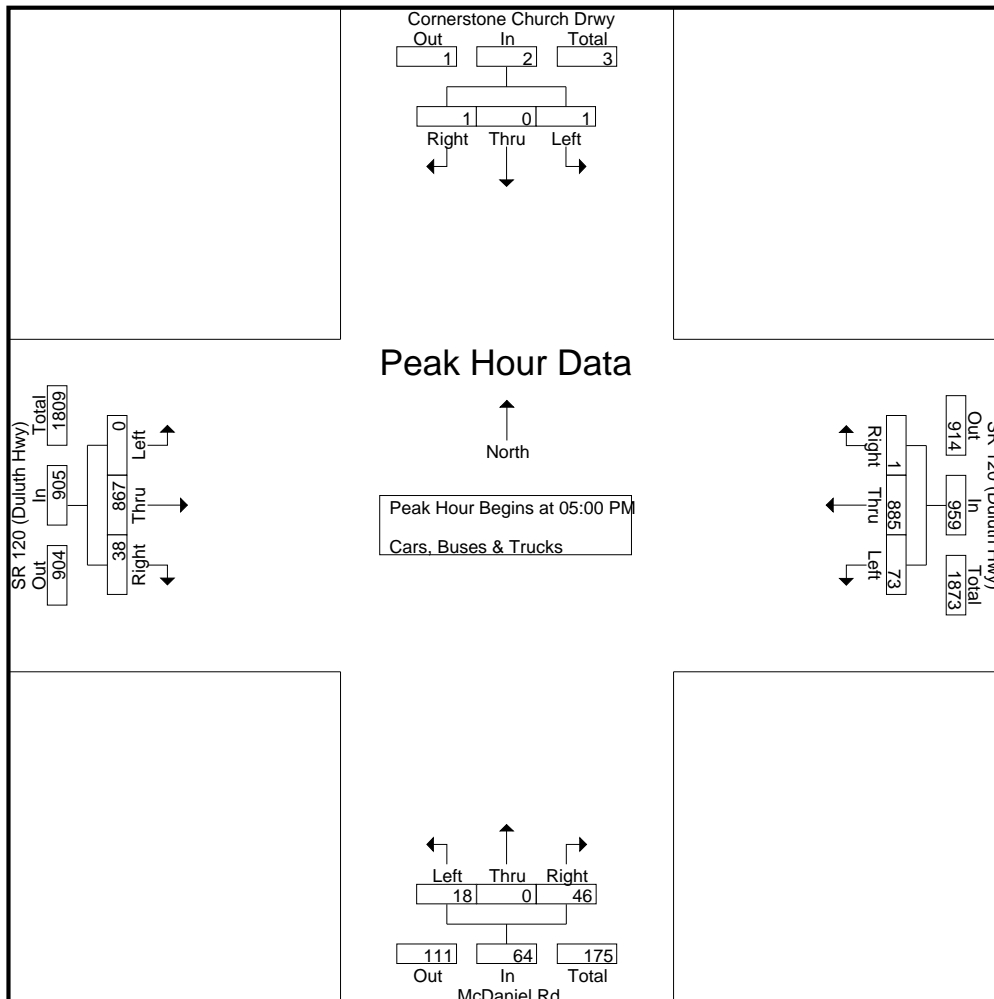
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SR 120 (Duluth Hwy) @ McDaniel Rd
7-9 am | 4-6 pm

File Name : 20210269
Site Code : 20210269
Start Date : 08-24-2021
Page No : 3

Start Time	McDaniel Rd Northbound				Cornerstone Church Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	4	0	5	9	0	0	0	0	0	189	9	198	18	248	0	266	473
05:15 PM	3	0	6	9	0	0	0	0	0	224	9	233	14	234	0	248	490
05:30 PM	4	0	17	21	0	0	1	1	0	242	9	251	20	212	0	232	505
05:45 PM	7	0	18	25	1	0	0	1	0	212	11	223	21	191	1	213	462
Total Volume	18	0	46	64	1	0	1	2	0	867	38	905	73	885	1	959	1930
% App. Total	28.1	0	71.9		50	0	50		0	95.8	4.2		7.6	92.3	0.1		
PHF	.643	.000	.639	.640	.250	.000	.250	.500	.000	.896	.864	.901	.869	.892	.250	.901	.955



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7-9 am | 4-6 pm

File Name : 20210270
Site Code : 20210270
Start Date : 08-24-2021
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Northmont Pkwy Northbound				Northmont Pkwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	16	0	10	26	1	1	0	2	0	95	30	125	38	180	0	218	371
07:15 AM	22	1	9	32	0	1	1	2	0	99	45	144	25	194	5	224	402
07:30 AM	36	0	3	39	1	0	4	5	1	110	44	155	40	219	2	261	460
07:45 AM	36	2	11	49	2	3	3	8	2	142	49	193	34	255	0	289	539
Total	110	3	33	146	4	5	8	17	3	446	168	617	137	848	7	992	1772
08:00 AM	41	0	14	55	1	0	1	2	2	117	75	194	56	213	0	269	520
08:15 AM	25	2	13	40	5	2	3	10	1	161	53	215	45	225	1	271	536
08:30 AM	30	1	7	38	3	1	2	6	1	144	69	214	58	177	2	237	495
08:45 AM	27	1	15	43	2	2	5	9	0	147	40	187	60	220	4	284	523
Total	123	4	49	176	11	5	11	27	4	569	237	810	219	835	7	1061	2074
*** BREAK ***																	
04:00 PM	30	0	30	60	1	1	1	3	1	169	47	217	13	146	2	161	441
04:15 PM	44	1	35	80	0	2	1	3	1	193	39	233	15	149	2	166	482
04:30 PM	41	2	34	77	2	0	3	5	2	178	45	225	25	144	2	171	478
04:45 PM	48	2	32	82	2	2	1	5	1	203	26	230	28	128	1	157	474
Total	163	5	131	299	5	5	6	16	5	743	157	905	81	567	7	655	1875
05:00 PM	48	2	31	81	0	0	0	0	3	157	29	189	19	125	1	145	415
05:15 PM	82	3	83	168	2	0	2	4	0	191	33	224	27	200	2	229	625
05:30 PM	59	0	35	94	3	0	1	4	0	186	56	242	23	171	4	198	538
05:45 PM	48	0	48	96	3	1	1	5	2	205	5	212	24	187	4	215	528
Total	237	5	197	439	8	1	4	13	5	739	123	867	93	683	11	787	2106
Grand Total	633	17	410	1060	28	16	29	73	17	2497	685	3199	530	2933	32	3495	7827
Apprch %	59.7	1.6	38.7		38.4	21.9	39.7		0.5	78.1	21.4		15.2	83.9	0.9		
Total %	8.1	0.2	5.2	13.5	0.4	0.2	0.4	0.9	0.2	31.9	8.8	40.9	6.8	37.5	0.4	44.7	

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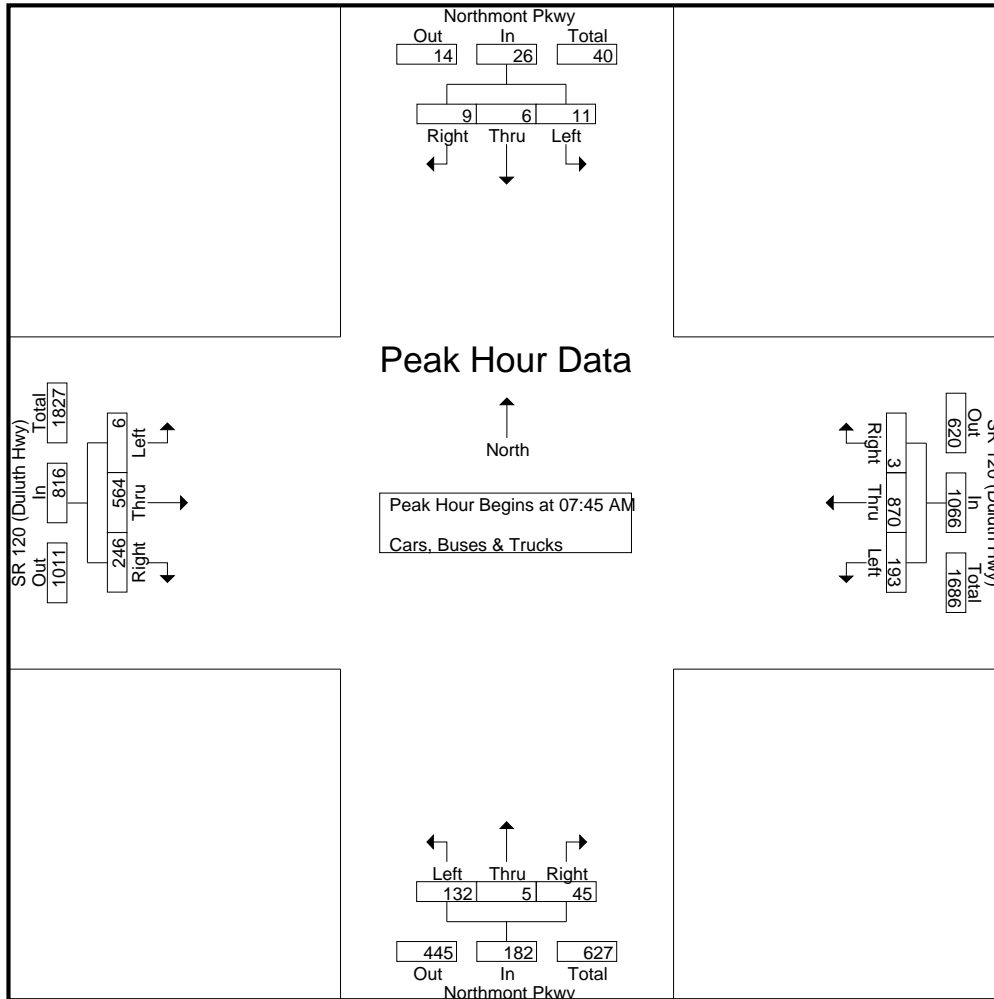
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SR 120 (Duluth Hwy) @ Northmont Pkwy
7-9 am | 4-6 pm
6/15/2022

File Name : 20210270
Site Code : 20210270
Start Date : 08-24-2021
Page No : 2

Start Time	Northmont Pkwy Northbound				Northmont Pkwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	36	2	11	49	2	3	3	8	2	142	49	193	34	255	0	289	539
08:00 AM	41	0	14	55	1	0	1	2	2	117	75	194	56	213	0	269	520
08:15 AM	25	2	13	40	5	2	3	10	1	161	53	215	45	225	1	271	536
08:30 AM	30	1	7	38	3	1	2	6	1	144	69	214	58	177	2	237	495
Total Volume	132	5	45	182	11	6	9	26	6	564	246	816	193	870	3	1066	2090
% App. Total	72.5	2.7	24.7		42.3	23.1	34.6		0.7	69.1	30.1		18.1	81.6	0.3		
PHF	.805	.625	.804	.827	.550	.500	.750	.650	.750	.876	.820	.949	.832	.853	.375	.922	.969



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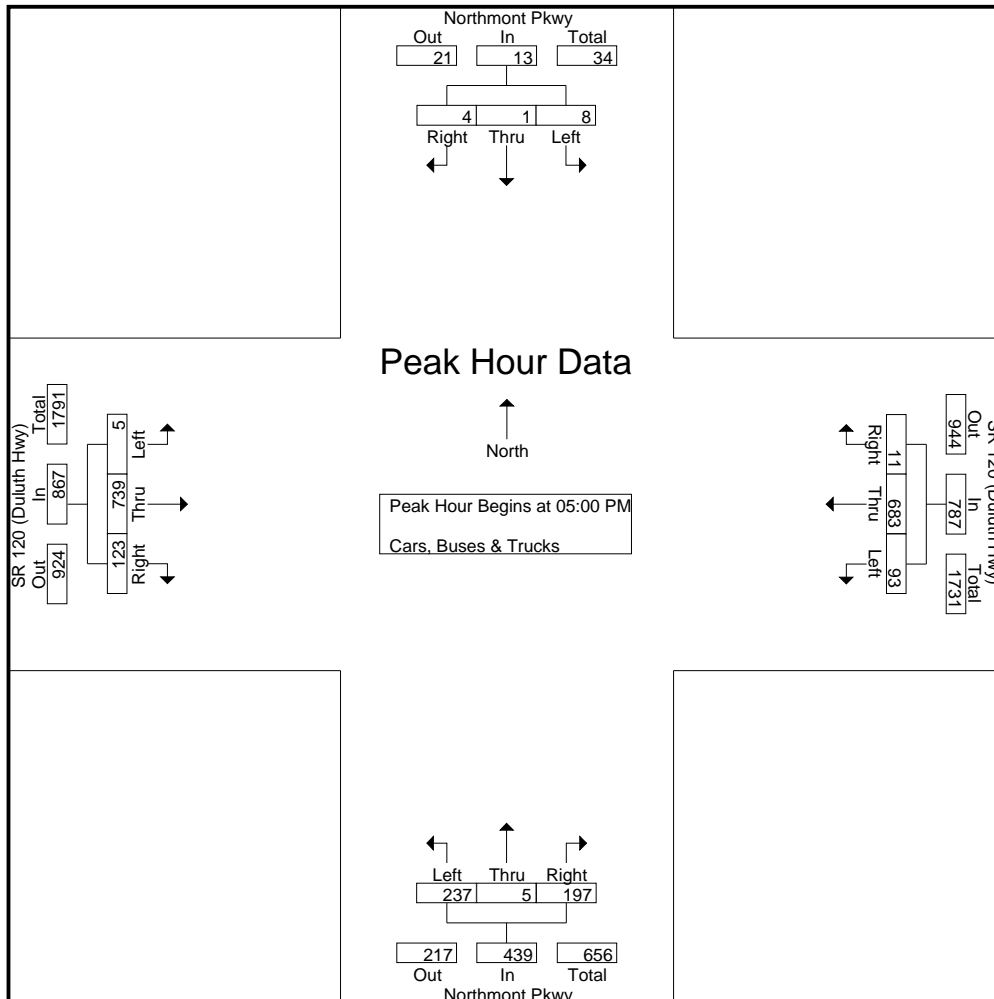
GWINNETT COUNTY
PLANNING AND DEVELOPMENT

TMC DATA **RECEIVED**

SR 120 (Duluth Hwy) @ Northmont Pkwy
7-9 am 6/15/2022
4-6 pm

File Name : 20210270
Site Code : 20210270
Start Date : 08-24-2021
Page No : 3

Start Time	Northmont Pkwy Northbound				Northmont Pkwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	48	2	31	81	0	0	0	0	3	157	29	189	19	125	1	145	415
05:15 PM	82	3	83	168	2	0	2	4	0	191	33	224	27	200	2	229	625
05:30 PM	59	0	35	94	3	0	1	4	0	186	56	242	23	171	4	198	538
05:45 PM	48	0	48	96	3	1	1	5	2	205	5	212	24	187	4	215	528
Total Volume	237	5	197	439	8	1	4	13	5	739	123	867	93	683	11	787	2106
% App. Total	54	1.1	44.9		61.5	7.7	30.8		0.6	85.2	14.2		11.8	86.8	1.4		
PHF	.723	.417	.593	.653	.667	.250	.500	.650	.417	.901	.549	.896	.861	.854	.688	.859	.842



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WINNETT COUNTY
PLANNING AND DEVELOPMENT

TMC DATA
RECEIVED
SR 120 (Duluth Hwy) @ 2434 State Farm
Office Drwy
6/15/2022
7-9 am | 4-6 pm

File Name : 20210271
Site Code : 20210271
Start Date : 08-24-2021
Page No : 1

Groups Printed- Cars, Buses & Trucks

Start Time	Northbound				2434 State Farm Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
07:00 AM	0	0	0	0	1	0	2	3	3	135	0	138	0	204	5	209	350
07:15 AM	0	0	0	0	2	0	1	3	4	159	0	163	0	240	5	245	411
07:30 AM	0	0	0	0	2	0	3	5	3	176	0	179	0	294	4	298	482
07:45 AM	0	0	0	0	2	0	3	5	2	213	0	215	0	265	5	270	490
Total	0	0	0	0	7	0	9	16	12	683	0	695	0	1003	19	1022	1733
08:00 AM	0	0	0	0	3	0	1	4	5	216	0	221	0	253	4	257	482
08:15 AM	0	0	0	0	4	0	3	7	3	228	0	231	0	202	3	205	443
08:30 AM	0	0	0	0	5	0	2	7	4	236	0	240	0	219	2	221	468
08:45 AM	0	0	0	0	3	0	5	8	0	212	0	212	0	201	4	205	425
Total	0	0	0	0	15	0	11	26	12	892	0	904	0	875	13	888	1818
*** BREAK ***																	
04:00 PM	0	0	0	0	5	0	2	7	1	234	0	235	0	190	3	193	435
04:15 PM	0	0	0	0	5	0	1	6	1	235	0	236	0	182	2	184	426
04:30 PM	0	0	0	0	4	0	3	7	2	237	0	239	0	179	2	181	427
04:45 PM	0	0	0	0	4	0	3	7	1	239	0	240	0	198	3	201	448
Total	0	0	0	0	18	0	9	27	5	945	0	950	0	749	10	759	1736
05:00 PM	0	0	0	0	5	0	4	9	3	194	0	197	0	266	3	269	475
05:15 PM	0	0	0	0	3	0	2	5	1	230	0	231	0	248	2	250	486
05:30 PM	0	0	0	0	4	0	1	5	1	259	0	260	0	232	4	236	501
05:45 PM	0	0	0	0	3	0	1	4	2	231	0	233	0	213	4	217	454
Total	0	0	0	0	15	0	8	23	7	914	0	921	0	959	13	972	1916
Grand Total	0	0	0	0	55	0	37	92	36	3434	0	3470	0	3586	55	3641	7203
Apprch %	0	0	0	0	59.8	0	40.2		1	99	0		0	98.5	1.5		
Total %	0	0	0	0	0.8	0	0.5	1.3	0.5	47.7	0	48.2	0	49.8	0.8	50.5	

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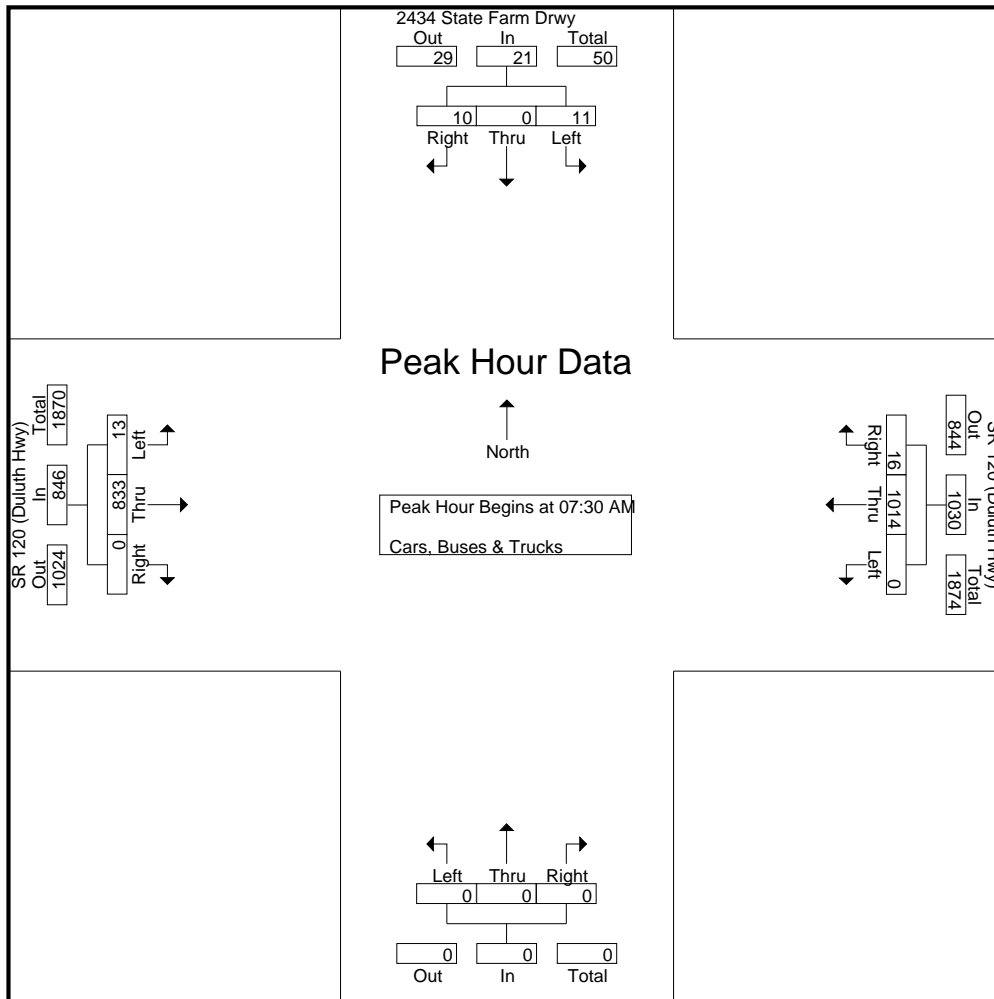
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GWINNETT COUNTY
PLANNING AND DEVELOPMENT

TMC DATA
RECEIVED
SR 120 (Duluth Hwy) @ 2434 State Farm
Office Drwy
6/15/2022
7-9 am | 4-6 pm

File Name : 20210271
Site Code : 20210271
Start Date : 08-24-2021
Page No : 2

Start Time	Northbound				2434 State Farm Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	0	0	0	0	2	0	3	5	3	176	0	179	0	294	4	298	482
07:45 AM	0	0	0	0	2	0	3	5	2	213	0	215	0	265	5	270	490
08:00 AM	0	0	0	0	3	0	1	4	5	216	0	221	0	253	4	257	482
08:15 AM	0	0	0	0	4	0	3	7	3	228	0	231	0	202	3	205	443
Total Volume	0	0	0	0	11	0	10	21	13	833	0	846	0	1014	16	1030	1897
% App. Total	0	0	0	0	52.4	0	47.6		1.5	98.5	0		0	98.4	1.6		
PHF	.000	.000	.000	.000	.688	.000	.833	.750	.650	.913	.000	.916	.000	.862	.800	.864	.968



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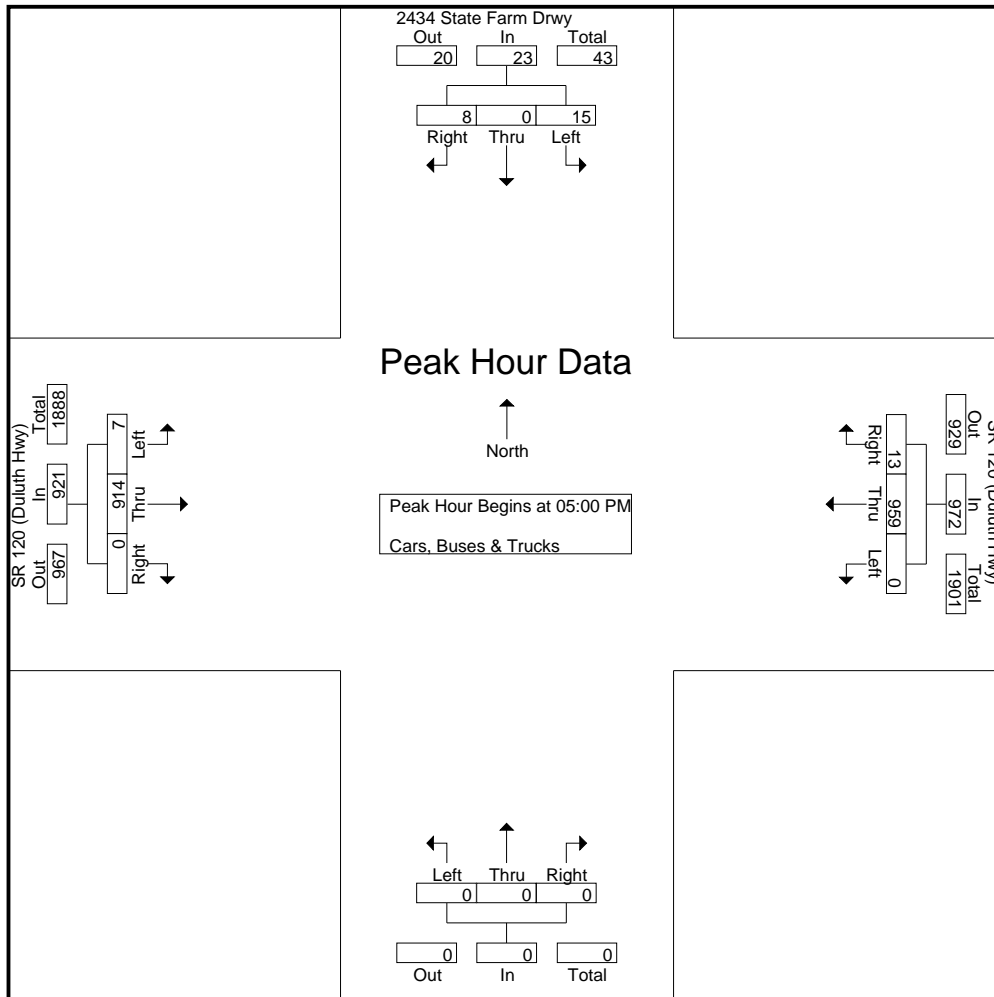
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PLANNING AND DEVELOPMENT

TMC DATA
RECEIVED
SR 120 (Duluth Hwy) @ 2434 State Farm
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File Name : 20210271
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Start Date : 08-24-2021
Page No : 3

Start Time	Northbound				2434 State Farm Drwy Southbound				SR 120 (Duluth Hwy) Eastbound				SR 120 (Duluth Hwy) Westbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	0	0	5	0	4	9	3	194	0	197	0	266	3	269	475
05:15 PM	0	0	0	0	3	0	2	5	1	230	0	231	0	248	2	250	486
05:30 PM	0	0	0	0	4	0	1	5	1	259	0	260	0	232	4	236	501
05:45 PM	0	0	0	0	3	0	1	4	2	231	0	233	0	213	4	217	454
Total Volume	0	0	0	0	15	0	8	23	7	914	0	921	0	959	13	972	1916
% App. Total	0	0	0	0	65.2	0	34.8		0.8	99.2	0		0	98.7	1.3		
PHF	.000	.000	.000	.000	.750	.000	.500	.639	.583	.882	.000	.886	.000	.901	.813	.903	.956



GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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6/15/2022

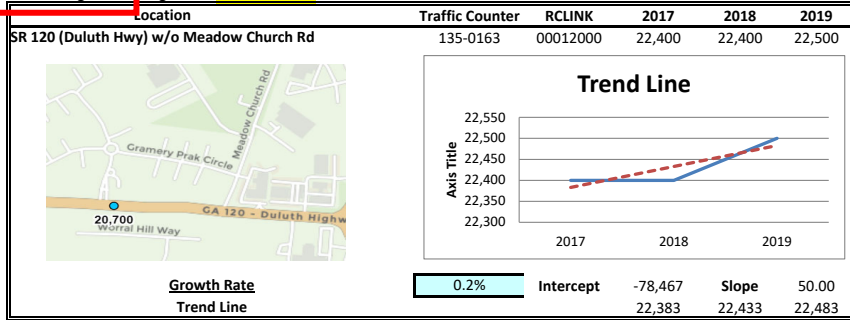
LINEAR REGRESSION OF DAILY TRAFFIC

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

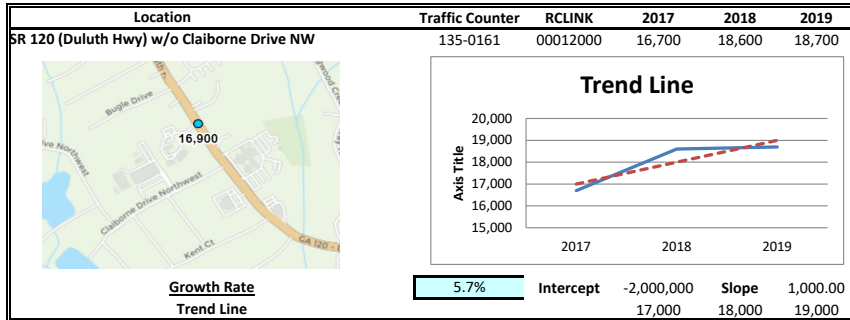
RECEIVED

6/15/2022

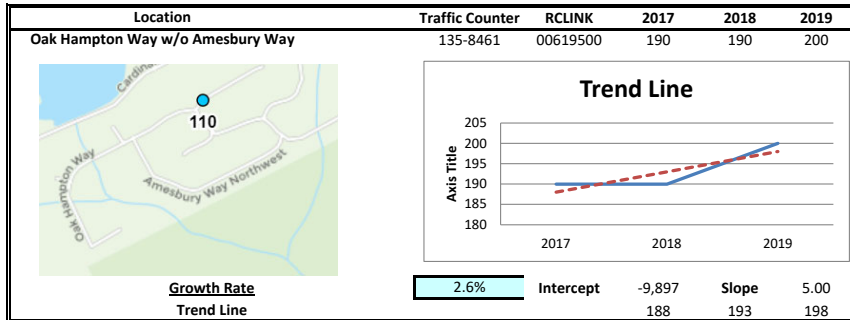
Location	Growth Rate	R Squared	Station ID	Route	2017	2018	2019	2020	
SR 120 (Duluth Hwy) w/o Mead	0.2%	0.75	135-0163	00012000	22,400	22,400	22,500	20,700	Minor Arter
SR 120 (Duluth Hwy) w/o Claib	5.7%	0.79	135-0161	00012000	16,700	18,600	18,700	16,900	
Oak Hampton Way w/o Amesb	2.6%	0.75	135-8461	00619500	190	190	200	110	
Weighted Average	2.6%	0.82	Sum of Count Stations =		39,290	41,190	41,400		



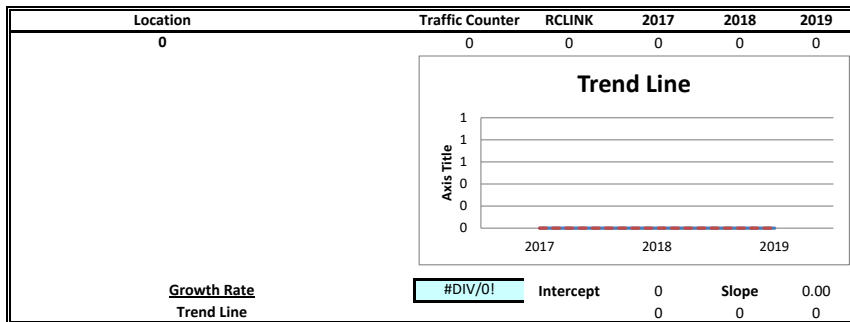
Sum X
Sum Y
Sum XY
Sum X²
Count
a
b
Mean Y
SS_{tot}
SS_{res}
R²



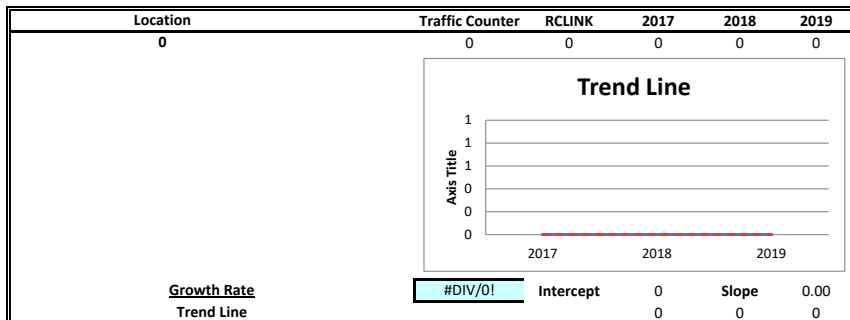
Sum X
Sum Y
Sum XY
Sum X²
Count
a
b
Mean Y
SS_{tot}
SS_{res}
R²



Sum X
Sum Y
Sum XY
Sum X²
Count
a
b
Mean Y
SS_{tot}
SS_{res}
R²



Sum X
Sum Y
Sum XY
Sum X²
Count
a
b
Mean Y
SS_{tot}
SS_{res}
R²



Sum X
Sum Y
Sum XY
Sum X²
Count
a
b
Mean Y
SS_{tot}
SS_{res}
R²

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

6/15/2022

EXISTING INTERSECTION ANALYSIS

HCM 6th TWSC

WINNETT COUNTY
 PLANNING AND DEVELOPMENT

1a. Existing AM

08/27/2021

1. SR 120 (Dunuth Hwy) & 2518 (Office Building Drwy)

RECEIVED

6/15/2022
 Intersection

Int Delay, s/veh 0.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	↗
Traffic Vol, veh/h	4	776	1003	7	8	2
Future Vol, veh/h	4	776	1003	7	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	792	1023	7	8	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1030	0	0 1827 1027
Stage 1	-	-	- 1027 -
Stage 2	-	-	- 800 -
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	674	-	- 84 285
Stage 1	-	-	- 345 -
Stage 2	-	-	- 442 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	674	-	- 83 285
Mov Cap-2 Maneuver	-	-	- 83 -
Stage 1	-	-	- 343 -
Stage 2	-	-	- 442 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	46.4
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	674	-	-	-	97
HCM Lane V/C Ratio	0.006	-	-	-	0.105
HCM Control Delay (s)	10.4	-	-	-	46.4
HCM Lane LOS	B	-	-	-	E
HCM 95th %tile Q(veh)	0	-	-	-	0.3

HCM 6th TWSC

WINNETT COUNTY
 PLANNING AND DEVELOPMENT

1a. Existing AM

08/27/2021

21-120 McDaniel Rd/O Cornerstone Church Drwy & SR 120 (Duluth Hwy)

RECEIVED

6/15/2022
 Intersection

Int Delay, s/veh 4.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↗			↘	↗		↔	
Traffic Vol, veh/h	5	816	34	43	880	16	36	0	74	3	0	6
Future Vol, veh/h	5	816	34	43	880	16	36	0	74	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	833	35	44	898	16	37	0	76	3	0	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	914	0	0	833
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	746	-	-	800
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	746	-	-	800
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.4	63.8	42.9
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	54	369	746	-	-	800	-	-	104
HCM Lane V/C Ratio	0.68	0.205	0.007	-	-	0.055	-	-	0.088
HCM Control Delay (s)	159.7	17.2	9.9	-	-	9.8	-	-	42.9
HCM Lane LOS	F	C	A	-	-	A	-	-	E
HCM 95th %tile Q(veh)	2.8	0.8	0	-	-	0.2	-	-	0.3

HCM 6th TWSC

WINNETT COUNTY
 PLANNING AND DEVELOPMENT

1a. Existing AM

08/27/2021

SR 120 (Dunuth Hwy) & 2434 (State Farm Drwy)

RECEIVED

6/15/2022
 Intersection

Int Delay, s/veh 0.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑	↑		↑	
Traffic Vol, veh/h	13	833	1014	16	11	10
Future Vol, veh/h	13	833	1014	16	11	10
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	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	13	859	1045	16	11	10

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1061	0	0 1938 1053
Stage 1	-	-	- 1053 -
Stage 2	-	-	- 885 -
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	657	-	- 72 275
Stage 1	-	-	- 336 -
Stage 2	-	-	- 403 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	657	-	- 69 275
Mov Cap-2 Maneuver	-	-	- 69 -
Stage 1	-	-	- 323 -
Stage 2	-	-	- 403 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	47
HCM LOS			E

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	657	-	-	-	107
HCM Lane V/C Ratio	0.02	-	-	-	0.202
HCM Control Delay (s)	10.6	0	-	-	47
HCM Lane LOS	B	A	-	-	E
HCM 95th %tile Q(veh)	0.1	-	-	-	0.7

Timings

1a. Existing AM

08/27/2021

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗
Traffic Volume (vph)	6	564	246	193	870	3	132	5	45	11	6
Future Volume (vph)	6	564	246	193	870	3	132	5	45	11	6
Lane Group Flow (vph)	6	581	254	199	897	3	136	5	46	11	15
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	73.0	73.0	73.0	15.0	88.0	88.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	60.8%	60.8%	60.8%	12.5%	73.3%	73.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.02	0.50	0.24	0.35	0.63	0.00	0.69	0.02	0.16	0.06	0.06
Control Delay	11.0	15.2	2.4	6.0	9.6	0.0	65.8	40.6	4.7	41.8	26.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.0	15.2	2.4	6.0	9.6	0.0	65.8	40.6	4.7	41.8	26.6
Queue Length 50th (ft)	2	233	4	34	266	0	101	3	0	7	4
Queue Length 95th (ft)	8	377	41	71	484	0	161	15	15	24	23
Internal Link Dist (ft)		436			478			799			530
Turn Bay Length (ft)	215		175	70		185	200				
Base Capacity (vph)	357	1164	1079	576	1427	1218	307	411	406	310	381
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.50	0.24	0.35	0.63	0.00	0.44	0.01	0.11	0.04	0.04

Intersection Summary

Cycle Length: 120

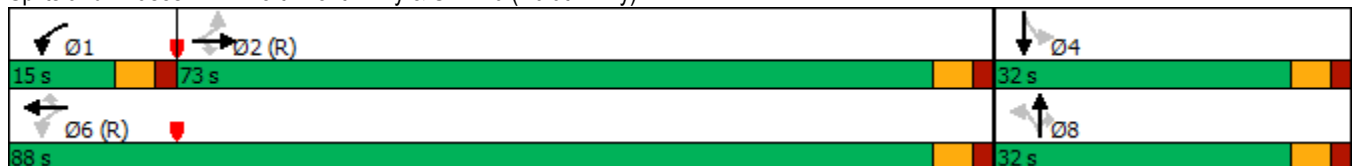
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary

1a. Existing AM

WINNETT COUNTY
 PLANNING DEPARTMENT
 4. Northmont Pkwy & SR 120 (Duluth Hwy)

08/27/2021

RECEIVED

6/15/2022

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↑	↗	↖	↑	↗	↖	↑	↗	↖	↗	↖
Traffic Volume (veh/h)	6	564	246	193	870	3	132	5	45	11	6	9
Future Volume (veh/h)	6	564	246	193	870	3	132	5	45	11	6	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	581	0	199	897	3	136	5	0	11	6	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	425	1294		608	1471	1246	220	228		229	82	124
Arrive On Green	0.69	0.69	0.00	0.05	0.79	0.79	0.12	0.12	0.00	0.12	0.12	0.12
Sat Flow, veh/h	619	1870	1585	1781	1870	1585	1398	1870	1585	1411	675	1013
Grp Volume(v), veh/h	6	581	0	199	897	3	136	5	0	11	0	15
Grp Sat Flow(s),veh/h/ln	619	1870	1585	1781	1870	1585	1398	1870	1585	1411	0	1688
Q Serve(g_s), s	0.5	16.7	0.0	3.7	23.6	0.0	11.5	0.3	0.0	0.8	0.0	0.9
Cycle Q Clear(g_c), s	12.7	16.7	0.0	3.7	23.6	0.0	12.4	0.3	0.0	1.1	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	425	1294		608	1471	1246	220	228		229	0	206
V/C Ratio(X)	0.01	0.45		0.33	0.61	0.00	0.62	0.02		0.05	0.00	0.07
Avail Cap(c_a), veh/h	425	1294		662	1471	1246	358	413		368	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.2	8.3	0.0	5.9	5.3	2.7	52.2	46.4	0.0	46.9	0.0	46.7
Incr Delay (d2), s/veh	0.1	1.1	0.0	0.3	1.9	0.0	2.8	0.0	0.0	0.1	0.0	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(95%),veh/ln	0.1	10.1	0.0	1.9	11.2	0.0	7.4	0.2	0.0	0.5	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	10.3	9.4	0.0	6.2	7.2	2.7	55.0	46.4	0.0	47.0	0.0	46.8
LnGrp LOS	B	A		A	A	A	D	D		D	A	D
Approach Vol, veh/h		587	A		1099			141	A		26	
Approach Delay, s/veh		9.4			7.0			54.7			46.9	
Approach LOS		A			A			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.4	88.5		20.1		99.9		20.1				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	9.5	67.5		26.5		82.5		26.5				
Max Q Clear Time (g_c+1), s	5.7	18.7		3.1		25.6		14.4				
Green Ext Time (p_c), s	0.2	20.8		0.0		39.8		0.3				

Intersection Summary

HCM 6th Ctrl Delay	11.9
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

1: SR 120 (Duluth Hwy) & 2518 (Office Building Drwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.1

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	
Traffic Vol, veh/h	0	916	890	3	3	0
Future Vol, veh/h	0	916	890	3	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	954	927	3	3	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	930	0	0 1883 929
Stage 1	-	-	- 929 -
Stage 2	-	-	- 954 -
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	736	-	- 78 324
Stage 1	-	-	- 385 -
Stage 2	-	-	- 374 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	736	-	- 78 324
Mov Cap-2 Maneuver	-	-	- 78 -
Stage 1	-	-	- 385 -
Stage 2	-	-	- 374 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	53.1
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	736	-	-	-	78
HCM Lane V/C Ratio	-	-	-	-	0.04
HCM Control Delay (s)	0	-	-	-	53.1
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.1

2: McDaniel Rd/Cornerstone Church Drwy & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 2.3

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↗			↖	↗		↔	
Traffic Vol, veh/h	0	867	38	73	885	1	18	0	46	1	0	1
Future Vol, veh/h	0	867	38	73	885	1	18	0	46	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	913	40	77	932	1	19	0	48	1	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	933	0	0	913
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	734	-	-	746
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	734	-	-	746
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	55.8	64.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	41	331	734	-	-	746	-	-	63
HCM Lane V/C Ratio	0.462	0.146	-	-	-	0.103	-	-	0.033
HCM Control Delay (s)	153.2	17.7	0	-	-	10.4	-	-	64.1
HCM Lane LOS	F	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	1.6	0.5	0	-	-	0.3	-	-	0.1

3: SR 120 (Duluth Hwy) & 2434 (State Farm Drwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.7

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	914	959	13	15	8
Future Vol, veh/h	7	914	959	13	15	8
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	952	999	14	16	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1013	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	684	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	684	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	57.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	684	-	-	-	92
HCM Lane V/C Ratio	0.011	-	-	-	0.26
HCM Control Delay (s)	10.3	0	-	-	57.4
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.9

Timings

1b. Existing PM

08/27/2021

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗
Traffic Volume (vph)	5	739	123	93	683	11	237	5	197	8	1
Future Volume (vph)	5	739	123	93	683	11	237	5	197	8	1
Lane Group Flow (vph)	6	880	146	111	813	13	282	6	235	10	6
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	70.0	70.0	70.0	15.0	85.0	85.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	58.3%	58.3%	58.3%	12.5%	70.8%	70.8%	29.2%	29.2%	29.2%	29.2%	29.2%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.02	0.83	0.16	0.45	0.64	0.01	0.89	0.01	0.44	0.03	0.02
Control Delay	13.2	30.6	6.3	12.9	14.2	1.4	74.3	34.4	7.3	35.0	22.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	30.6	6.3	12.9	14.2	1.4	74.3	34.4	7.3	35.0	22.2
Queue Length 50th (ft)	2	559	21	28	346	0	207	4	0	6	1
Queue Length 95th (ft)	9	686	48	46	417	4	#308	14	48	19	11
Internal Link Dist (ft)		436			478			799			530
Turn Bay Length (ft)	215		175	70		185	200				
Base Capacity (vph)	312	1061	938	264	1272	1088	345	457	566	345	404
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.83	0.16	0.42	0.64	0.01	0.82	0.01	0.42	0.03	0.01

Intersection Summary

Cycle Length: 120

Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

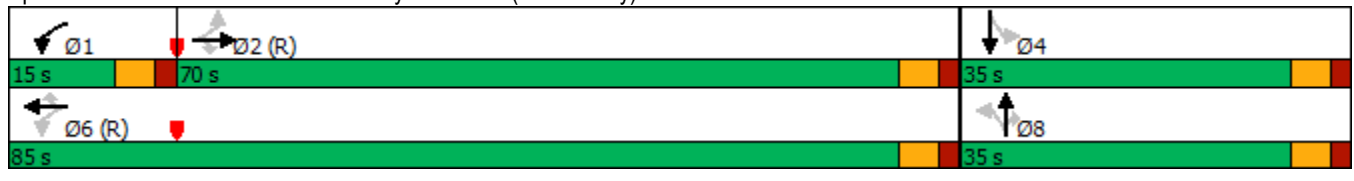
Natural Cycle: 100

Control Type: Actuated-Coordinated

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary
 4: Northmont Pkwy & SR 120 (Duluth Hwy)

1b. Existing PM
 08/27/2021

GWINNETT COUNTY
 PLANNING AND DEVELOPMENT

RECEIVED

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	5	739	123	93	683	11	237	5	197	8	1	4
Future Volume (veh/h)	5	739	123	93	683	11	237	5	197	8	1	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	880	0	111	813	13	282	6	0	10	1	5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	359	1129		291	1290	1093	364	409		364	59	296
Arrive On Green	0.60	0.60	0.00	0.04	0.69	0.69	0.22	0.22	0.00	0.22	0.22	0.22
Sat Flow, veh/h	663	1870	1585	1781	1870	1585	1410	1870	1585	1410	271	1355
Grp Volume(v), veh/h	6	880	0	111	813	13	282	6	0	10	0	6
Grp Sat Flow(s),veh/h/ln	663	1870	1585	1781	1870	1585	1410	1870	1585	1410	0	1626
Q Serve(g_s), s	0.6	42.3	0.0	2.7	28.6	0.3	23.5	0.3	0.0	0.7	0.0	0.3
Cycle Q Clear(g_c), s	18.8	42.3	0.0	2.7	28.6	0.3	23.9	0.3	0.0	1.0	0.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	359	1129		291	1290	1093	364	409		364	0	355
V/C Ratio(X)	0.02	0.78		0.38	0.63	0.01	0.77	0.01		0.03	0.00	0.02
Avail Cap(c_a), veh/h	359	1129		359	1290	1093	403	460		403	0	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	17.8	0.0	17.3	10.2	5.8	46.1	36.8	0.0	37.1	0.0	36.8
Incr Delay (d2), s/veh	0.1	5.4	0.0	0.8	2.3	0.0	8.3	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	24.6	0.0	2.2	15.9	0.2	13.8	0.2	0.0	0.4	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	18.3	23.2	0.0	18.1	12.6	5.8	54.5	36.8	0.0	37.2	0.0	36.8
LnGrp LOS	B	C		B	B	A	D	D		D	A	D
Approach Vol, veh/h		886	A		937			288	A			16
Approach Delay, s/veh		23.1			13.1			54.1				37.0
Approach LOS		C			B			D				D
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.4	77.9		31.7		88.3		31.7				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	9.5	64.5		29.5		79.5		29.5				
Max Q Clear Time (g_c+I1), s	4.7	44.3		3.0		30.6		25.9				
Green Ext Time (p_c), s	0.1	16.8		0.0		31.9		0.3				

Intersection Summary

HCM 6th Ctrl Delay	23.0
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

6/15/2022

FUTURE "NO-BUILD" INTERSECTION ANALYSIS

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.3

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations	↖	↗	↖		↗	
Traffic Vol, veh/h	4	817	1056	7	8	2
Future Vol, veh/h	4	817	1056	7	8	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	834	1078	7	8	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1085	0	0 1924 1082
Stage 1	-	-	- 1082 -
Stage 2	-	-	- 842 -
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	643	-	- 73 264
Stage 1	-	-	- 325 -
Stage 2	-	-	- 423 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	643	-	- 73 264
Mov Cap-2 Maneuver	-	-	- 73 -
Stage 1	-	-	- 323 -
Stage 2	-	-	- 423 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	53
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	643	-	-	-	85
HCM Lane V/C Ratio	0.006	-	-	-	0.12
HCM Control Delay (s)	10.6	-	-	-	53
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.4

2: McDaniel Rd/Cornerstone Church Drwy & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 5.3

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↗			↖	↗		↔	
Traffic Vol, veh/h	5	859	36	45	926	17	38	0	78	3	0	6
Future Vol, veh/h	5	859	36	45	926	17	38	0	78	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	877	37	46	945	17	39	0	80	3	0	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	962	0	0	877
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	715	-	-	770
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	715	-	-	770
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	82.9	49.5
HCM LOS			F	E

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	47	348	715	-	-	770	-	-	90
HCM Lane V/C Ratio	0.825	0.229	0.007	-	-	0.06	-	-	0.102
HCM Control Delay (s)	215.4	18.4	10.1	-	-	10	-	-	49.5
HCM Lane LOS	F	C	B	-	-	A	-	-	E
HCM 95th %tile Q(veh)	3.3	0.9	0	-	-	0.2	-	-	0.3

3: SR 120 (Duluth Hwy) & 2434 (State Farm Drwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.7

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	14	877	1067	17	12	11
Future Vol, veh/h	14	877	1067	17	12	11
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	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	14	904	1100	18	12	11

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1118	0	0 2041 1109
Stage 1	-	-	- 1109 -
Stage 2	-	-	- 932 -
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	625	-	- 62 255
Stage 1	-	-	- 316 -
Stage 2	-	-	- 383 -
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	625	-	- 59 255
Mov Cap-2 Maneuver	-	-	- 59 -
Stage 1	-	-	- 302 -
Stage 2	-	-	- 383 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	56.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	625	-	-	-	93
HCM Lane V/C Ratio	0.023	-	-	-	0.255
HCM Control Delay (s)	10.9	0	-	-	56.5
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0.1	-	-	-	0.9

Timings

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗
Traffic Volume (vph)	6	594	259	203	916	3	139	5	47	12	6
Future Volume (vph)	6	594	259	203	916	3	139	5	47	12	6
Lane Group Flow (vph)	6	612	267	209	944	3	143	5	48	12	15
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	71.0	71.0	71.0	17.0	88.0	88.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	59.2%	59.2%	59.2%	14.2%	73.3%	73.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.02	0.53	0.25	0.38	0.67	0.00	0.70	0.02	0.16	0.06	0.06
Control Delay	11.5	16.1	3.0	6.6	10.8	0.0	65.9	40.0	5.0	41.3	26.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	16.1	3.0	6.6	10.8	0.0	65.9	40.0	5.0	41.3	26.2
Queue Length 50th (ft)	2	253	10	37	302	0	107	3	0	8	4
Queue Length 95th (ft)	9	423	52	76	554	0	167	14	16	25	23
Internal Link Dist (ft)		436			478			799			530
Turn Bay Length (ft)	215		175	70		185	200				
Base Capacity (vph)	321	1157	1070	553	1418	1210	307	411	406	310	381
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.53	0.25	0.38	0.67	0.00	0.47	0.01	0.12	0.04	0.04

Intersection Summary

Cycle Length: 120

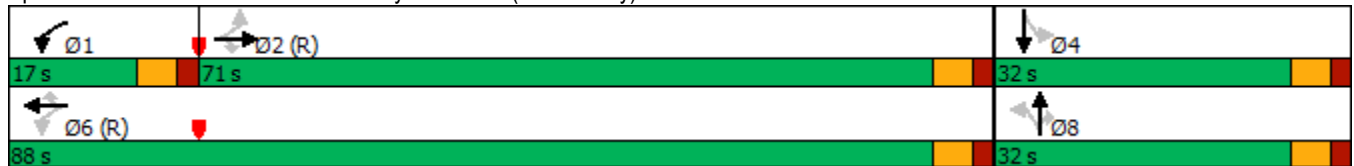
Actuated Cycle Length: 120

Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary
 4: Northmont Pkwy & SR 120 (Duluth Hwy)

2a. No-Build AM
 08/27/2021

GWINNETT COUNTY
 PLANNING AND DEVELOPMENT

RECEIVED

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↖	↗
Traffic Volume (veh/h)	6	594	259	203	916	3	139	5	47	12	6	9
Future Volume (veh/h)	6	594	259	203	916	3	139	5	47	12	6	9
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	612	0	209	944	3	143	5	0	12	6	9
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	391	1278		581	1461	1238	227	238		236	86	129
Arrive On Green	0.68	0.68	0.00	0.05	0.78	0.78	0.13	0.13	0.00	0.13	0.13	0.13
Sat Flow, veh/h	592	1870	1585	1781	1870	1585	1398	1870	1585	1411	675	1013
Grp Volume(v), veh/h	6	612	0	209	944	3	143	5	0	12	0	15
Grp Sat Flow(s),veh/h/ln	592	1870	1585	1781	1870	1585	1398	1870	1585	1411	0	1688
Q Serve(g_s), s	0.5	18.5	0.0	4.0	26.7	0.0	12.0	0.3	0.0	0.9	0.0	0.9
Cycle Q Clear(g_c), s	15.5	18.5	0.0	4.0	26.7	0.0	13.0	0.3	0.0	1.2	0.0	0.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.60
Lane Grp Cap(c), veh/h	391	1278		581	1461	1238	227	238		236	0	214
V/C Ratio(X)	0.02	0.48		0.36	0.65	0.00	0.63	0.02		0.05	0.00	0.07
Avail Cap(c_a), veh/h	391	1278		659	1461	1238	358	413		368	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	11.8	8.9	0.0	6.5	5.8	2.9	51.9	45.8	0.0	46.4	0.0	46.1
Incr Delay (d2), s/veh	0.1	1.3	0.0	0.4	2.2	0.0	2.9	0.0	0.0	0.1	0.0	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(95%),veh/ln	0.1	11.1	0.0	2.1	12.7	0.0	7.7	0.2	0.0	0.6	0.0	0.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.9	10.2	0.0	6.9	8.0	2.9	54.7	45.9	0.0	46.5	0.0	46.3
LnGrp LOS	B	B		A	A	A	D	D		D	A	D
Approach Vol, veh/h		618	A		1156			148	A		27	
Approach Delay, s/veh		10.2			7.8			54.4			46.4	
Approach LOS		B			A			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	11.7	87.5		20.7		99.3		20.7				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	11.5	65.5		26.5		82.5		26.5				
Max Q Clear Time (g_c+I1), s	6.0	20.5		3.2		28.7		15.0				
Green Ext Time (p_c), s	0.3	21.3		0.0		40.5		0.3				

Intersection Summary

HCM 6th Ctrl Delay	12.6
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

RECEIVED

Intersection
 Int Delay, s/veh 0.1

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	
Traffic Vol, veh/h	0	964	937	3	3	0
Future Vol, veh/h	0	964	937	3	3	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1004	976	3	3	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	979	0	0
Stage 1	-	-	978
Stage 2	-	-	1004
Critical Hdwy	4.12	-	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	2.218	-	3.518
Pot Cap-1 Maneuver	705	-	68
Stage 1	-	-	364
Stage 2	-	-	354
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	705	-	68
Mov Cap-2 Maneuver	-	-	68
Stage 1	-	-	364
Stage 2	-	-	354

Approach	EB	WB	SB
HCM Control Delay, s	0	0	60.5
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	705	-	-	-	68
HCM Lane V/C Ratio	-	-	-	-	0.046
HCM Control Delay (s)	0	-	-	-	60.5
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.1

2: McDaniel Rd/Cornerstone Church Drwy & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 2.8

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑	↗	↘	↗			↖	↗		↔	
Traffic Vol, veh/h	0	913	40	77	932	1	19	0	48	1	0	1
Future Vol, veh/h	0	913	40	77	932	1	19	0	48	1	0	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	961	42	81	981	1	20	0	51	1	0	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	982	0	0	961
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	703	-	-	716
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	703	-	-	716
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	0.8	70.3	75.7
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	35	311	703	-	-	716	-	-	53
HCM Lane V/C Ratio	0.571	0.162	-	-	-	0.113	-	-	0.04
HCM Control Delay (s)	200.5	18.8	0	-	-	10.7	-	-	75.7
HCM Lane LOS	F	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	2	0.6	0	-	-	0.4	-	-	0.1

3: SR 120 (Duluth Hwy) & 2434 (State Farm Drwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.9

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations		↕	↕		↕	
Traffic Vol, veh/h	7	962	1010	14	16	8
Future Vol, veh/h	7	962	1010	14	16	8
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	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	1002	1052	15	17	8

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1067	0	0 2076 1060
Stage 1	-	-	- 1060 -
Stage 2	-	-	- 1016 -
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	653	-	- 59 272
Stage 1	-	-	- 333 -
Stage 2	-	-	- 350 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	653	-	- 58 272
Mov Cap-2 Maneuver	-	-	- 58 -
Stage 1	-	-	- 325 -
Stage 2	-	-	- 350 -

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	70.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	653	-	-	-	79
HCM Lane V/C Ratio	0.011	-	-	-	0.316
HCM Control Delay (s)	10.6	0	-	-	70.4
HCM Lane LOS	B	A	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	1.2

Timings

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

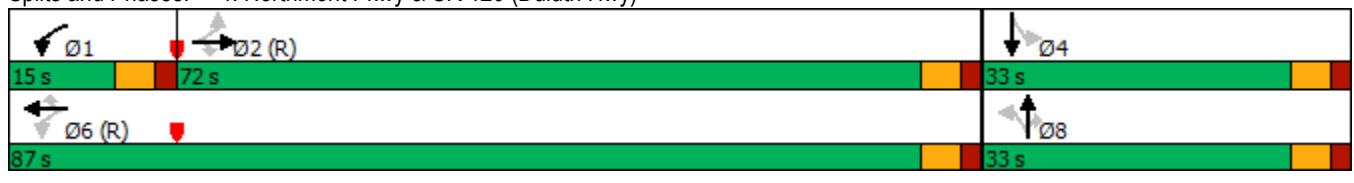
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗
Traffic Volume (vph)	5	778	129	98	719	12	249	5	207	8	1
Future Volume (vph)	5	778	129	98	719	12	249	5	207	8	1
Lane Group Flow (vph)	6	926	154	117	856	14	296	6	246	10	6
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	72.0	72.0	72.0	15.0	87.0	87.0	33.0	33.0	33.0	33.0	33.0
Total Split (%)	60.0%	60.0%	60.0%	12.5%	72.5%	72.5%	27.5%	27.5%	27.5%	27.5%	27.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
v/c Ratio	0.02	0.87	0.16	0.54	0.67	0.01	0.95	0.01	0.45	0.03	0.02
Control Delay	12.4	33.4	6.0	18.6	14.5	1.5	84.8	36.0	8.0	36.5	23.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.4	33.4	6.0	18.6	14.5	1.5	84.8	36.0	8.0	36.5	23.2
Queue Length 50th (ft)	2	591	21	28	358	0	225	4	3	6	1
Queue Length 95th (ft)	8	725	48	57	430	4	#351	15	53	20	12
Internal Link Dist (ft)		436			478			799			530
Turn Bay Length (ft)	215		175	70		185	200				
Base Capacity (vph)	285	1062	941	235	1275	1091	321	426	548	321	377
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.02	0.87	0.16	0.50	0.67	0.01	0.92	0.01	0.45	0.03	0.02

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary
 4: Northmont Pkwy & SR 120 (Duluth Hwy)

2b. No-Build PM
 08/27/2021

GWINNETT COUNTY
 PLANNING AND DEVELOPMENT

RECEIVED

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Traffic Volume (veh/h)	5	778	129	98	719	12	249	5	207	8	1	4
Future Volume (veh/h)	5	778	129	98	719	12	249	5	207	8	1	4
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	6	926	0	117	856	14	296	6	0	10	1	5
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	323	1113		253	1276	1081	375	423		376	61	307
Arrive On Green	0.60	0.60	0.00	0.04	0.68	0.68	0.23	0.23	0.00	0.23	0.23	0.23
Sat Flow, veh/h	637	1870	1585	1781	1870	1585	1410	1870	1585	1410	271	1355
Grp Volume(v), veh/h	6	926	0	117	856	14	296	6	0	10	0	6
Grp Sat Flow(s),veh/h/ln	637	1870	1585	1781	1870	1585	1410	1870	1585	1410	0	1626
Q Serve(g_s), s	0.7	47.6	0.0	2.9	32.2	0.3	24.8	0.3	0.0	0.7	0.0	0.3
Cycle Q Clear(g_c), s	22.4	47.6	0.0	2.9	32.2	0.3	25.1	0.3	0.0	1.0	0.0	0.3
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.83
Lane Grp Cap(c), veh/h	323	1113		253	1276	1081	375	423		376	0	368
V/C Ratio(X)	0.02	0.83		0.46	0.67	0.01	0.79	0.01		0.03	0.00	0.02
Avail Cap(c_a), veh/h	323	1113		321	1276	1081	379	429		380	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.8	19.5	0.0	20.5	11.2	6.1	45.8	36.0	0.0	36.4	0.0	36.1
Incr Delay (d2), s/veh	0.1	7.3	0.0	1.3	2.8	0.0	10.6	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.2	27.9	0.0	2.8	17.8	0.2	14.6	0.2	0.0	0.4	0.0	0.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	20.9	26.8	0.0	21.8	14.0	6.1	56.4	36.0	0.0	36.4	0.0	36.1
LnGrp LOS	C	C		C	B	A	E	D		D	A	D
Approach Vol, veh/h		932	A		987			302	A		16	
Approach Delay, s/veh		26.7			14.8			56.0			36.3	
Approach LOS		C			B			E			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.4	76.9		32.7		87.3		32.7				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	9.5	66.5		27.5		81.5		27.5				
Max Q Clear Time (g_c+I1), s	4.9	49.6		3.0		34.2		27.1				
Green Ext Time (p_c), s	0.1	14.7		0.0		33.1		0.0				

Intersection Summary

HCM 6th Ctrl Delay	25.5
HCM 6th LOS	C

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

6/15/2022

FUTURE "BUILD" INTERSECTION ANALYSIS

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.4

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	4	873	1111	9	10	2
Future Vol, veh/h	4	873	1111	9	10	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	891	1134	9	10	2

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1143	0	0 2038 1139
Stage 1	-	-	- 1139 -
Stage 2	-	-	- 899 -
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	611	-	- 62 245
Stage 1	-	-	- 305 -
Stage 2	-	-	- 397 -
Platoon blocked, %		-	- -
Mov Cap-1 Maneuver	611	-	- 62 245
Mov Cap-2 Maneuver	-	-	- 62 -
Stage 1	-	-	- 303 -
Stage 2	-	-	- 397 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	66
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	611	-	-	-	71
HCM Lane V/C Ratio	0.007	-	-	-	0.172
HCM Control Delay (s)	10.9	-	-	-	66
HCM Lane LOS	B	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.6

2: McDaniel Rd/Cornerstone Church Drwy & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 28.2

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↙	↑	↗	↙	↗			↖	↗		↕	
Traffic Vol, veh/h	6	923	60	113	971	17	61	2	119	3	2	6
Future Vol, veh/h	6	923	60	113	971	17	61	2	119	3	2	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	98	98	98	98	98	98	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	6	942	61	115	991	17	62	2	121	3	2	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1008	0	0	942
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	687	-	-	728
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	687	-	-	728
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.1	\$ 339.9	112.8
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	27	319	687	-	-	728	-	-	44
HCM Lane V/C Ratio	2.381	0.381	0.009	-	-	0.158	-	-	0.255
HCM Control Delay (s)	\$ 938.3	23.1	10.3	-	-	10.9	-	-	112.8
HCM Lane LOS	F	C	B	-	-	B	-	-	F
HCM 95th %tile Q(veh)	7.8	1.7	0	-	-	0.6	-	-	0.9

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Site Drwy 6/2434 (State Farm Drwy) & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 7.1

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	15	969	12	35	1168	17	12	1	42	12	1	12
Future Vol, veh/h	15	969	12	35	1168	17	12	1	42	12	1	12
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97	97	97	97	97	97	97
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	15	999	12	36	1204	18	12	1	43	12	1	12

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1222	0	0	1011
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	570	-	-	686
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	570	-	-	686
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.2	0.3	152.8	295.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	71	570	-	-	686	-	-	31
HCM Lane V/C Ratio	0.799	0.027	-	-	0.053	-	-	0.831
HCM Control Delay (s)	152.8	11.5	0	-	10.5	0	-	295.1
HCM Lane LOS	F	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	3.8	0.1	-	-	0.2	-	-	2.8

Timings

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

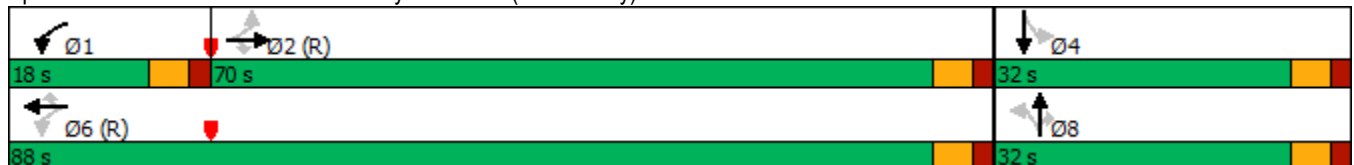
RECEIVED

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗
Traffic Volume (vph)	21	670	303	203	993	3	183	5	47	12	6
Future Volume (vph)	21	670	303	203	993	3	183	5	47	12	6
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	70.0	70.0	70.0	18.0	88.0	88.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	58.3%	58.3%	58.3%	15.0%	73.3%	73.3%	26.7%	26.7%	26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	71.8	71.8	71.8	87.9	87.9	87.9	21.1	21.1	21.1	21.1	21.1
Actuated g/C Ratio	0.60	0.60	0.60	0.73	0.73	0.73	0.18	0.18	0.18	0.18	0.18
v/c Ratio	0.09	0.62	0.30	0.46	0.75	0.00	0.78	0.02	0.14	0.05	0.10
Control Delay	13.8	19.7	4.4	9.0	15.1	0.0	68.9	37.6	4.6	38.7	17.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.8	19.7	4.4	9.0	15.1	0.0	68.9	37.6	4.6	38.7	17.6
LOS	B	B	A	A	B	A	E	D	A	D	B
Approach Delay		15.0			14.0			55.5			23.5
Approach LOS		B			B			E			C

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.78
 Intersection Signal Delay: 18.5
 Intersection LOS: B
 Intersection Capacity Utilization 95.3%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary

3a. Future Build AM

08/27/2021

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	21	670	303	203	993	3	183	5	47	12	6	24
Future Volume (veh/h)	21	670	303	203	993	3	183	5	47	12	6	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	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	22	691	0	209	1024	3	189	5	0	12	6	25
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	292	1188		480	1381	1171	272	317		296	54	224
Arrive On Green	0.63	0.63	0.00	0.06	0.74	0.74	0.17	0.17	0.00	0.17	0.17	0.17
Sat Flow, veh/h	549	1870	1585	1781	1870	1585	1378	1870	1585	1411	316	1317
Grp Volume(v), veh/h	22	691	0	209	1024	3	189	5	0	12	0	31
Grp Sat Flow(s),veh/h/ln	549	1870	1585	1781	1870	1585	1378	1870	1585	1411	0	1633
Q Serve(g_s), s	2.9	25.7	0.0	4.6	38.0	0.1	16.1	0.3	0.0	0.9	0.0	1.9
Cycle Q Clear(g_c), s	28.4	25.7	0.0	4.6	38.0	0.1	18.1	0.3	0.0	1.1	0.0	1.9
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.81
Lane Grp Cap(c), veh/h	292	1188		480	1381	1171	272	317		296	0	277
V/C Ratio(X)	0.08	0.58		0.44	0.74	0.00	0.70	0.02		0.04	0.00	0.11
Avail Cap(c_a), veh/h	292	1188		562	1381	1171	342	413		368	0	361
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.9	12.7	0.0	10.2	9.1	4.1	49.8	41.5	0.0	41.9	0.0	42.2
Incr Delay (d2), s/veh	0.5	2.1	0.0	0.6	3.6	0.0	4.4	0.0	0.0	0.1	0.0	0.2
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(95%),veh/ln	0.7	15.4	0.0	2.8	19.0	0.0	9.7	0.2	0.0	0.6	0.0	1.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	21.4	14.8	0.0	10.8	12.7	4.1	54.2	41.5	0.0	42.0	0.0	42.3
LnGrp LOS	C	B		B	B	A	D	D		D	A	D
Approach Vol, veh/h		713	A		1236			194	A		43	
Approach Delay, s/veh		15.0			12.3			53.8			42.2	
Approach LOS		B			B			D			D	
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	12.4	81.7		25.9		94.1		25.9				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	12.5	64.5		26.5		82.5		26.5				
Max Q Clear Time (g_c+1), s	6.6	30.4		3.9		40.0		20.1				
Green Ext Time (p_c), s	0.3	21.0		0.1		36.0		0.3				

Intersection Summary

HCM 6th Ctrl Delay	17.5
HCM 6th LOS	B

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

5: Site Drwy 1 & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 2.9

6/15/2022

Movement	FBT	FBR	WBL	WBT	NBL	NBR
Lane Configurations	↔		↔		↔	
Traffic Vol, veh/h	872	11	34	1098	22	26
Future Vol, veh/h	872	11	34	1098	22	26
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	948	12	37	1193	24	28

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	960
Stage 1	-	-	954
Stage 2	-	-	1267
Critical Hdwy	-	4.12	6.42
Critical Hdwy Stg 1	-	-	5.42
Critical Hdwy Stg 2	-	-	5.42
Follow-up Hdwy	-	2.218	3.518
Pot Cap-1 Maneuver	-	717	48
Stage 1	-	-	374
Stage 2	-	-	265
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	717	41
Mov Cap-2 Maneuver	-	-	41
Stage 1	-	-	374
Stage 2	-	-	224

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	118.9
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	77	-	-	717	-
HCM Lane V/C Ratio	0.678	-	-	0.052	-
HCM Control Delay (s)	118.9	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	3.1	-	-	0.2	-

6: Site Drwy 2 & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.3

6/15/2022

Movement	FBT	FBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑		↑
Traffic Vol, veh/h	962	11	0	1002	0	27
Future Vol, veh/h	962	11	0	1002	0	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
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	1046	12	0	1089	0	29

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

Approach	EB	WB	NB
HCM Control Delay, s	0	0	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	277	-	-
HCM Lane V/C Ratio	0.106	-	-
HCM Control Delay (s)	19.5	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.4	-	-

7: McDaniel Rd & Site Drwy 5

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 1.7

6/15/2022

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	T	T	T	T	T
Traffic Vol, veh/h	3	34	148	3	34	141
Future Vol, veh/h	3	34	148	3	34	141
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, %	2	2	2	2	2	2
Mvmt Flow	3	37	161	3	37	153

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	390	163	0
Stage 1	163	-	-
Stage 2	227	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	614	882	-
Stage 1	866	-	-
Stage 2	811	-	-
Platoon blocked, %			
Mov Cap-1 Maneuver	596	882	-
Mov Cap-2 Maneuver	596	-	-
Stage 1	866	-	-
Stage 2	787	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.5	0	1.5
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	849	1414
HCM Lane V/C Ratio	-	-	0.047	0.026
HCM Control Delay (s)	-	-	9.5	7.6
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.1	0.1

8: McDaniel Rd & Site Drwy 3/Site Drwy 4

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 3.2

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	0	10	8	0	13	11	3	8	20	84	40
Future Vol, veh/h	19	0	10	8	0	13	11	3	8	20	84	40
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	0	11	9	0	14	12	3	9	22	91	43

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	196	193	113	194	210	8	134	0	0	12	0	0
Stage 1	157	157	-	32	32	-	-	-	-	-	-	-
Stage 2	39	36	-	162	178	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	763	702	940	765	687	1074	1451	-	-	1607	-	-
Stage 1	845	768	-	984	868	-	-	-	-	-	-	-
Stage 2	976	865	-	840	752	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	740	686	940	743	671	1074	1451	-	-	1607	-	-
Mov Cap-2 Maneuver	740	686	-	743	671	-	-	-	-	-	-	-
Stage 1	838	756	-	976	861	-	-	-	-	-	-	-
Stage 2	955	858	-	818	741	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	9.7	9	3.8	1
HCM LOS	A	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1451	-	-	799	918	1607	-	-
HCM Lane V/C Ratio	0.008	-	-	0.039	0.025	0.014	-	-
HCM Control Delay (s)	7.5	0	-	9.7	9	7.3	0	-
HCM Lane LOS	A	A	-	A	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0	-	-

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 0.2

6/15/2022

Movement	FBI	FBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↑	↗		↘	
Traffic Vol, veh/h	0	1023	989	5	5	0
Future Vol, veh/h	0	1023	989	5	5	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	150	-	-	-	0	-
Veh in Median Storage, #	-	0	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	1066	1030	5	5	0

Major/Minor	Major1	Major2	Minor2
Conflicting Flow All	1035	0	0 2099 1033
Stage 1	-	-	- 1033 -
Stage 2	-	-	- 1066 -
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	672	-	- 57 282
Stage 1	-	-	- 343 -
Stage 2	-	-	- 331 -
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	672	-	- 57 282
Mov Cap-2 Maneuver	-	-	- 57 -
Stage 1	-	-	- 343 -
Stage 2	-	-	- 331 -

Approach	EB	WB	SB
HCM Control Delay, s	0	0	74.4
HCM LOS			F

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	672	-	-	-	57
HCM Lane V/C Ratio	-	-	-	-	0.091
HCM Control Delay (s)	0	-	-	-	74.4
HCM Lane LOS	A	-	-	-	F
HCM 95th %tile Q(veh)	0	-	-	-	0.3

2: McDaniel Rd/Cornerstone Church Drwy & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 21.9

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↘	↘	↗			↗	↗		↔	
Traffic Vol, veh/h	0	969	66	150	976	1	42	1	88	2	2	1
Future Vol, veh/h	0	969	66	150	976	1	42	1	88	2	2	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	150	-	150	150	-	-	-	-	120	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	1020	69	158	1027	1	44	1	93	2	2	1

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1028	0	0	1020
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	676	-	-	680
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	676	-	-	680
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	1.6	\$ 361.4	214.1
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	19	287	676	-	-	680	-	-	22
HCM Lane V/C Ratio	2.382	0.323	-	-	-	0.232	-	-	0.239
HCM Control Delay (s)	\$ 1053.1	23.4	0	-	-	11.9	-	-	214.1
HCM Lane LOS	F	C	A	-	-	B	-	-	F
HCM 95th %tile Q(veh)	6.1	1.4	0	-	-	0.9	-	-	0.7

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

3: Site Drwy 6/2434 (State Farm Drwy) & SR 120 (Duluth Hwy)

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

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Intersection

Int Delay s/veh 33.7
6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	8	1021	37	57	1098	14	28	1	68	16	1	9
Future Vol, veh/h	8	1021	37	57	1098	14	28	1	68	16	1	9
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	96	96	96	96	96	96
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	1064	39	59	1144	15	29	1	71	17	1	9

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	1159	0	0	1103
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.12	-	-	4.12
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.218	-	-	2.218
Pot Cap-1 Maneuver	603	-	-	633
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	603	-	-	633
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	0.5	\$ 650.5	\$ 605.3
HCM LOS			F	F

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	50	603	-	-	633	-	-	20
HCM Lane V/C Ratio	2.021	0.014	-	-	0.094	-	-	1.354
HCM Control Delay (s)	\$ 650.5	11.1	0	-	11.3	0	-	\$ 605.3
HCM Lane LOS	F	B	A	-	B	A	-	F
HCM 95th %tile Q(veh)	10.1	0	-	-	0.3	-	-	3.7

Notes
 ~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Timings

4: Northmont Pkwy & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

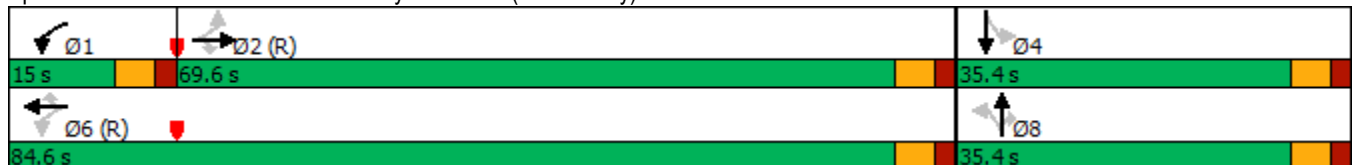
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗
Traffic Volume (vph)	20	850	170	98	802	12	296	5	207	8	1
Future Volume (vph)	20	850	170	98	802	12	296	5	207	8	1
Turn Type	Perm	NA	Perm	pm+pt	NA	Perm	Perm	NA	Perm	Perm	NA
Protected Phases		2		1	6			8			4
Permitted Phases	2		2	6		6	8		8	4	
Detector Phase	2	2	2	1	6	6	8	8	8	4	4
Switch Phase											
Minimum Initial (s)	15.0	15.0	15.0	5.0	15.0	15.0	6.0	6.0	6.0	6.0	6.0
Minimum Split (s)	24.5	24.5	24.5	15.0	33.5	33.5	31.5	31.5	31.5	31.5	31.5
Total Split (s)	69.6	69.6	69.6	15.0	84.6	84.6	35.4	35.4	35.4	35.4	35.4
Total Split (%)	58.0%	58.0%	58.0%	12.5%	70.5%	70.5%	29.5%	29.5%	29.5%	29.5%	29.5%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5
Lead/Lag	Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes	Yes							
Recall Mode	C-Min	C-Min	C-Min	None	C-Min	C-Min	None	None	None	None	None
Act Effct Green (s)	65.3	65.3	65.3	79.1	79.1	79.1	29.9	29.9	29.9	29.9	29.9
Actuated g/C Ratio	0.54	0.54	0.54	0.66	0.66	0.66	0.25	0.25	0.25	0.25	0.25
v/c Ratio	0.13	1.00	0.22	0.64	0.78	0.01	1.03	0.01	0.44	0.03	0.06
Control Delay	16.1	56.2	7.6	35.1	20.0	1.7	100.2	34.2	9.7	34.5	13.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.1	56.2	7.6	35.1	20.0	1.7	100.2	34.2	9.7	34.5	13.6
LOS	B	E	A	D	B	A	F	C	A	C	B
Approach Delay		47.5			21.4			62.7			19.4
Approach LOS		D			C			E			B

Intersection Summary

Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBTL and 6:WBTL, Start of Green
 Natural Cycle: 130
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.03
 Intersection Signal Delay: 40.7
 Intersection LOS: D
 Intersection Capacity Utilization 91.5%
 ICU Level of Service F
 Analysis Period (min) 15

Splits and Phases: 4: Northmont Pkwy & SR 120 (Duluth Hwy)



HCM 6th Signalized Intersection Summary
 4: Northmont Pkwy & SR 120 (Duluth Hwy)

3b. Future Build PM

08/27/2021

GWINNETT COUNTY
 PLANNING AND DEVELOPMENT

RECEIVED

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖	↖	↗	↖	↖	↗	↖
Traffic Volume (veh/h)	20	850	170	98	802	12	296	5	207	8	1	21
Future Volume (veh/h)	20	850	170	98	802	12	296	5	207	8	1	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	1012	0	117	955	14	352	6	0	10	1	25
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	236	1067		172	1233	1045	388	466		408	15	382
Arrive On Green	0.57	0.57	0.00	0.04	0.66	0.66	0.25	0.25	0.00	0.25	0.25	0.25
Sat Flow, veh/h	580	1870	1585	1781	1870	1585	1385	1870	1585	1410	61	1533
Grp Volume(v), veh/h	24	1012	0	117	955	14	352	6	0	10	0	26
Grp Sat Flow(s),veh/h/ln	580	1870	1585	1781	1870	1585	1385	1870	1585	1410	0	1594
Q Serve(g_s), s	3.6	60.7	0.0	3.1	42.7	0.4	28.4	0.3	0.0	0.6	0.0	1.5
Cycle Q Clear(g_c), s	35.7	60.7	0.0	3.1	42.7	0.4	29.9	0.3	0.0	0.9	0.0	1.5
Prop In Lane	1.00		1.00	1.00		1.00	1.00		1.00	1.00		0.96
Lane Grp Cap(c), veh/h	236	1067		172	1233	1045	388	466		408	0	397
V/C Ratio(X)	0.10	0.95		0.68	0.77	0.01	0.91	0.01		0.02	0.00	0.07
Avail Cap(c_a), veh/h	236	1067		237	1233	1045	388	466		408	0	397
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	30.4	24.1	0.0	28.3	14.2	7.0	46.8	33.9	0.0	34.3	0.0	34.4
Incr Delay (d2), s/veh	0.9	17.6	0.0	4.7	4.8	0.0	24.6	0.0	0.0	0.0	0.0	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(95%),veh/ln	1.0	37.8	0.0	3.8	23.6	0.2	19.0	0.2	0.0	0.4	0.0	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	31.2	41.7	0.0	33.0	19.0	7.1	71.3	33.9	0.0	34.3	0.0	34.5
LnGrp LOS	C	D		C	B	A	E	C		C	A	C
Approach Vol, veh/h		1036	A		1086			358	A			36
Approach Delay, s/veh		41.4			20.4			70.7				34.4
Approach LOS		D			C			E				C
Timer - Assigned Phs	1	2		4		6		8				
Phs Duration (G+Y+Rc), s	10.6	74.0		35.4		84.6		35.4				
Change Period (Y+Rc), s	5.5	5.5		5.5		5.5		5.5				
Max Green Setting (Gmax), s	9.5	64.1		29.9		79.1		29.9				
Max Q Clear Time (g_c+I1), s	5.1	62.7		3.5		44.7		31.9				
Green Ext Time (p_c), s	0.1	1.3		0.1		28.4		0.0				

Intersection Summary

HCM 6th Ctrl Delay	36.4
HCM 6th LOS	D

Notes

Unsignalized Delay for [NBR, EBR] is excluded from calculations of the approach delay and intersection delay.

5: Site Drwy 1 & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 7.4

6/15/2022

Movement	FBT	FBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↔	↔	
Traffic Vol, veh/h	1010	17	47	961	32	29
Future Vol, veh/h	1010	17	47	961	32	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	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	1098	18	51	1045	35	32

Major/Minor	Major1	Major2	Minor1
Conflicting Flow All	0	0	1116
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	-	4.12	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	-	2.218	-
Pot Cap-1 Maneuver	-	626	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	-	626	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	246.6
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	62	-	-	626	-
HCM Lane V/C Ratio	1.069	-	-	0.082	-
HCM Control Delay (s)	246.6	-	-	11.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	5.3	-	-	0.3	-

6: Site Drwy 2 & SR 120 (Duluth Hwy)

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 0.3

6/15/2022

Movement	FBT	FBR	WBL	WBT	NBL	NBR
Lane Configurations	↔			↑		↗
Traffic Vol, veh/h	1007	17	0	1001	0	29
Future Vol, veh/h	1007	17	0	1001	0	29
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	Free	-	None	-	Yield
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	1095	18	0	1088	0	32

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

Approach	EB	WB	NB
HCM Control Delay, s	0	0	20.7
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	260	-	-
HCM Lane V/C Ratio	0.121	-	-
HCM Control Delay (s)	20.7	-	-
HCM Lane LOS	C	-	-
HCM 95th %tile Q(veh)	0.4	-	-

7: McDaniel Rd & Site Drwy 5

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 2

6/15/2022

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	T	T	T	T	T
Traffic Vol, veh/h	6	37	95	5	42	176
Future Vol, veh/h	6	37	95	5	42	176
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, %	2	2	2	2	2	2
Mvmt Flow	7	40	103	5	46	191

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	389	106	0
Stage 1	106	-	-
Stage 2	283	-	-
Critical Hdwy	6.42	6.22	-
Critical Hdwy Stg 1	5.42	-	-
Critical Hdwy Stg 2	5.42	-	-
Follow-up Hdwy	3.518	3.318	-
Pot Cap-1 Maneuver	615	948	-
Stage 1	918	-	-
Stage 2	765	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	593	948	-
Mov Cap-2 Maneuver	593	-	-
Stage 1	918	-	-
Stage 2	738	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.3	0	1.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	875	1483
HCM Lane V/C Ratio	-	-	0.053	0.031
HCM Control Delay (s)	-	-	9.3	7.5
HCM Lane LOS	-	-	A	A
HCM 95th %tile Q(veh)	-	-	0.2	0.1

8: McDaniel Rd & Site Drwy 3/Site Drwy 4

08/27/2021

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

Intersection

Int Delay s/veh 2.9

6/15/2022

Movement	FBI	FBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	16	0	9	11	0	15	11	3	11	26	118	38
Future Vol, veh/h	16	0	9	11	0	15	11	3	11	26	118	38
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, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	0	10	12	0	16	12	3	12	28	128	41

Major/Minor	Minor2	Minor1		Major1		Major2						
Conflicting Flow All	246	244	149	243	258	9	169	0	0	15	0	0
Stage 1	205	205	-	33	33	-	-	-	-	-	-	-
Stage 2	41	39	-	210	225	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	708	658	898	711	646	1073	1409	-	-	1603	-	-
Stage 1	797	732	-	983	868	-	-	-	-	-	-	-
Stage 2	974	862	-	792	718	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	683	640	898	688	628	1073	1409	-	-	1603	-	-
Mov Cap-2 Maneuver	683	640	-	688	628	-	-	-	-	-	-	-
Stage 1	790	718	-	974	860	-	-	-	-	-	-	-
Stage 2	951	854	-	768	704	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	9.3	3.3	1
HCM LOS	B	A		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1409	-	-	747	868	1603	-	-
HCM Lane V/C Ratio	0.008	-	-	0.036	0.033	0.018	-	-
HCM Control Delay (s)	7.6	0	-	10	9.3	7.3	0	-
HCM Lane LOS	A	A	-	B	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	0.1	0.1	-	-

GWINNETT COUNTY
PLANNING AND DEVELOPMENT

RECEIVED

6/15/2022

TRAFFIC VOLUME WORKSHEETS

RECEIVED

21-120-22 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

1. SR 120 @ 2518 (Office Drwy)

A.M. Peak Hour

Condition	-				2518 on SR 120 (Office Building)				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	8	0	2	10	4	776	0	780	0	1003	7	1010
Adjusted Existing 2021 Volumes:	0	0	0	0	8	0	2	10	4	776	0	780	0	1003	7	1010
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	8	0	2	10	4	817	0	821	0	1056	7	1063
Northern Parcel New Trips:	0	0	0	0	1	0	0	1	0	27	0	27	0	26	1	27
Southern Parcel New Trips:	0	0	0	0	1	0	0	1	0	29	0	29	0	29	1	30
Total New Trips:	0	0	0	0	2	0	0	2	0	56	0	56	0	55	2	57
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	0	0	10	0	2	12	4	873	0	877	0	1111	9	1120

P.M. Peak Hour

Condition	-				2518 on SR 120 (Office Building)				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	3	0	0	3	0	916	0	916	0	890	3	893
Adjusted Existing 2021 Volumes:	0	0	0	0	3	0	0	3	0	916	0	916	0	890	3	893
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	3	0	0	3	0	964	0	964	0	937	3	940
Northern Parcel New Trips:	0	0	0	0	1	0	0	1	0	25	0	25	0	21	1	22
Southern Parcel New Trips:	0	0	0	0	1	0	0	1	0	34	0	34	0	31	1	32
Total New Trips:	0	0	0	0	2	0	0	2	0	59	0	59	0	52	2	54
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	0	0	5	0	0	5	0	1023	0	1023	0	989	5	994

RECEIVED

21-120-22 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

2. SR 120 @ McDaniel Rd

A.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				SR 120 (Duluth Highway) Eastbound				SR 120 (Duluth Highway) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	36	0	74	110	3	0	6	9	5	816	34	855	43	880	16	939
Adjusted Existing 2021 Volumes:	36	0	74	110	3	0	6	9	5	816	34	855	43	880	16	939
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	38	0	78	116	3	0	6	9	5	859	36	900	45	926	17	988
Northern Parcel New Trips:	5	1	13	19	0	1	0	1	1	52	6	59	33	33	0	66
Southern Parcel New Trips:	18	1	28	47	0	1	0	1	0	12	18	30	35	12	0	47
Total New Trips:	23	2	41	66	0	2	0	2	1	64	24	89	68	45	0	113
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	61	2	119	182	3	2	6	11	6	923	60	989	113	971	17	1101

P.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				SR 120 (Duluth Highway) Eastbound				SR 120 (Duluth Highway) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	18	0	46	64	1	0	1	2	0	867	38	905	73	885	1	959
Adjusted Existing 2021 Volumes:	18	0	46	64	1	0	1	2	0	867	38	905	73	885	1	959
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	19	0	48	67	1	0	1	2	0	913	40	953	77	932	1	1010
Northern Parcel New Trips:	4	0	10	14	0	1	0	1	0	42	5	47	31	31	0	62
Southern Parcel New Trips:	19	1	30	50	1	1	0	2	0	14	21	35	42	13	0	55
Total New Trips:	23	1	40	64	1	2	0	3	0	56	26	82	73	44	0	117
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	42	1	88	131	2	2	1	5	0	969	66	1035	150	976	1	1127

RECEIVED

6/21/2021
21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

3. SR 120 @ Drwy 6 (S Parcel)

A.M. Peak Hour

Condition	Site Driveway 6				2434 on SR 120 (State Farm)				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	11	0	10	21	13	833	0	846	0	1014	16	1030
Adjusted Existing 2021 Volumes:	0	0	0	0	11	0	10	21	13	833	0	846	0	1014	16	1030
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	12	0	11	23	14	877	0	891	0	1067	17	1084
Northern Parcel New Trips:	0	0	0	0	0	0	1	1	1	64	0	65	0	66	0	66
Southern Parcel New Trips:	12	1	42	55	0	1	0	1	0	28	12	40	35	35	0	70
Total New Trips:	12	1	42	55	0	1	1	2	1	92	12	105	35	101	0	136
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	12	1	42	55	12	1	12	25	15	969	12	996	35	1168	17	1220

P.M. Peak Hour

Condition	Site Driveway 6				2434 on SR 120 (State Farm)				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	15	0	8	23	7	914	0	921	0	959	13	972
Adjusted Existing 2021 Volumes:	0	0	0	0	15	0	8	23	7	914	0	921	0	959	13	972
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	16	0	8	24	7	962	0	969	0	1010	14	1024
Northern Parcel New Trips:	0	0	0	0	0	0	1	1	1	51	0	52	0	61	0	61
Southern Parcel New Trips:	13	1	45	59	0	1	0	1	0	30	15	45	42	42	0	84
Total New Trips:	13	1	45	59	0	1	1	2	1	81	15	97	42	103	0	145
Pass-by's Trips:	15	0	23	38	0	0	0	0	0	-22	22	0	15	-15	0	0
Future 2023 Traffic Volumes:	28	1	68	97	16	1	9	26	8	1021	37	1066	57	1098	14	1169

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21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

4. SR 120 @ Northmont Pkwy

A.M. Peak Hour

Condition	Northmont Parkway Northbound				Northmont Parkway Southbound				SR 120 (Duluth Highway) Eastbound				SR 120 (Duluth Highway) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	132	5	45	182	11	6	9	26	6	564	246	816	193	870	3	1066
Adjusted Existing 2021 Volumes:	132	5	45	182	11	6	9	26	6	564	246	816	193	870	3	1066
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	139	5	47	191	12	6	9	27	6	594	259	859	203	916	3	1122
Northern Parcel New Trips:	21	0	0	21	0	0	7	7	7	36	21	64	0	37	0	37
Southern Parcel New Trips:	23	0	0	23	0	0	8	8	8	40	23	71	0	40	0	40
Total New Trips:	44	0	0	44	0	0	15	15	15	76	44	135	0	77	0	77
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	183	5	47	235	12	6	24	42	21	670	303	994	203	993	3	1199

P.M. Peak Hour

Condition	Northmont Parkway Northbound				Northmont Parkway Southbound				SR 120 (Duluth Highway) Eastbound				SR 120 (Duluth Highway) Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	237	5	197	439	8	1	4	13	5	739	123	867	93	683	11	787
Adjusted Existing 2021 Volumes:	237	5	197	439	8	1	4	13	5	739	123	867	93	683	11	787
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	249	5	207	461	8	1	4	13	5	778	129	912	98	719	12	829
Northern Parcel New Trips:	20	0	0	20	0	0	7	7	6	29	17	52	0	35	0	35
Southern Parcel New Trips:	27	0	0	27	0	0	10	10	9	43	24	76	0	48	0	48
Total New Trips:	47	0	0	47	0	0	17	17	15	72	41	128	0	83	0	83
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	296	5	207	508	8	1	21	30	20	850	170	1040	98	802	12	912

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21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

5. SR 120 @ Drwy 1 (N Parcel)

A.M. Peak Hour

Condition	-				Site Driveway 1				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	0	0	0	0	784	0	784	0	1010	0	1010
Adjusted Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	784	0	784	0	1010	0	1010
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	825	0	825	0	1063	0	1063
Northern Parcel New Trips:	22	0	26	48	0	0	0	0	0	17	11	28	34	5	0	39
Southern Parcel New Trips:	0	0	0	0	0	0	0	0	0	30	0	30	0	30	0	30
Total New Trips:	22	0	26	48	0	0	0	0	0	47	11	58	34	35	0	69
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	22	0	26	48	0	0	0	0	0	872	11	883	34	1098	0	1132

P.M. Peak Hour

Condition	-				Site Driveway 1				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	0	0	0	0	919	0	919	0	893	0	893
Adjusted Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	919	0	919	0	893	0	893
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	967	0	967	0	940	0	940
Northern Parcel New Trips:	17	0	21	38	0	0	0	0	0	15	10	25	32	4	0	36
Southern Parcel New Trips:	0	0	0	0	0	0	0	0	0	35	0	35	0	32	0	32
Total New Trips:	17	0	21	38	0	0	0	0	0	50	10	60	32	36	0	68
Pass-by's Trips:	15	0	8	23	0	0	0	0	0	-7	7	0	15	-15	0	0
Future 2023 Traffic Volumes:	32	0	29	61	0	0	0	0	0	1010	17	1027	47	961	0	1008

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21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

6. SR 120 @ Drwy 2 (N Parcel)

A.M. Peak Hour

Condition	-				Site Driveway 2				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	0	0	0	0	855	0	855	0	886	0	886
Adjusted Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	855	0	855	0	886	0	886
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	900	0	900	0	933	0	933
Northern Parcel New Trips:	0	0	27	27	0	0	0	0	0	32	11	43	0	39	0	39
Southern Parcel New Trips:	0	0	0	0	0	0	0	0	0	30	0	30	0	30	0	30
Total New Trips:	0	0	27	27	0	0	0	0	0	62	11	73	0	69	0	69
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	27	27	0	0	0	0	0	962	11	973	0	1002	0	1002

P.M. Peak Hour

Condition	-				Site Driveway 2				SR 120 (Duluth Highway)				SR 120 (Duluth Highway)			
	Northbound				Southbound				Eastbound				Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	0	0	0	0	905	0	905	0	886	0	886
Adjusted Existing 2021 Volumes:	0	0	0	0	0	0	0	0	0	905	0	905	0	886	0	886
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	0	0	0	0	953	0	953	0	933	0	933
Northern Parcel New Trips:	0	0	21	21	0	0	0	0	0	26	10	36	0	36	0	36
Southern Parcel New Trips:	0	0	0	0	0	0	0	0	0	35	0	35	0	32	0	32
Total New Trips:	0	0	21	21	0	0	0	0	0	61	10	71	0	68	0	68
Pass-by's Trips:	0	0	8	8	0	0	0	0	0	-7	7	0	0	0	0	0
Future 2023 Traffic Volumes:	0	0	29	29	0	0	0	0	0	1007	17	1024	0	1001	0	1001

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21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga
Traffic Volumes

A&R Engineering
August 2021

7. McDaniel @ Drwy 5 (S Parcel)

A.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				- Eastbound				Site Driveway 5 Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	110	0	110	0	77	0	77	0	0	0	0	0	0	0	0
Adjusted Existing 2021 Volumes:	0	110	0	110	0	77	0	77	0	0	0	0	0	0	0	0
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	116	0	116	0	81	0	81	0	0	0	0	0	0	0	0
Northern Parcel New Trips:	0	19	0	19	0	40	0	40	0	0	0	0	0	0	0	0
Southern Parcel New Trips:	0	13	3	16	34	20	0	54	0	0	0	0	3	0	34	37
Total New Trips:	0	32	3	35	34	60	0	94	0	0	0	0	3	0	34	37
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	0	148	3	151	34	141	0	175	0	0	0	0	3	0	34	37

P.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				- Eastbound				Site Driveway 5 Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	64	0	64	0	111	0	111	0	0	0	0	0	0	0	0
Adjusted Existing 2021 Volumes:	0	64	0	64	0	111	0	111	0	0	0	0	0	0	0	0
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	67	0	67	0	117	0	117	0	0	0	0	0	0	0	0
Northern Parcel New Trips:	0	15	0	15	0	37	0	37	0	0	0	0	0	0	0	0
Southern Parcel New Trips:	0	14	4	18	40	24	0	64	0	0	0	0	4	0	36	40
Total New Trips:	0	29	4	33	40	61	0	101	0	0	0	0	4	0	36	40
Pass-by's Trips:	0	-1	1	0	2	-2	0	0	0	0	0	0	2	0	1	3
Future 2023 Traffic Volumes:	0	95	5	100	42	176	0	218	0	0	0	0	6	0	37	43

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21-120 Mixed-Use Development on SR 120/Duluth Highway in Gwinnett County, Ga

Traffic Volumes

A&R Engineering
August 2021

8. McDaniel @ Drwy 3 (N)- 4 (S)

A.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				Site Driveway 3 Eastbound				Site Driveway 4 Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	77	0	77	0	0	0	0	0	0	0	0
Adjusted Existing 2021 Volumes:	0	0	0	0	0	77	0	77	0	0	0	0	0	0	0	0
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	81	0	81	0	0	0	0	0	0	0	0
Northern Parcel New Trips:	11	0	0	11	0	0	40	40	19	0	10	29	0	0	0	0
Southern Parcel New Trips:	0	3	8	11	20	3	0	23	0	0	0	0	8	0	13	21
Total New Trips:	11	3	8	22	20	3	40	63	19	0	10	29	8	0	13	21
Pass-by's Trips:	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Future 2023 Traffic Volumes:	11	3	8	22	20	84	40	144	19	0	10	29	8	0	13	21

P.M. Peak Hour

Condition	McDaniel Road Northbound				McDaniel Road Southbound				Site Driveway 3 Eastbound				Site Driveway 4 Westbound			
	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot	L	T	R	Tot
Existing 2021 Counts during Covid-19:	0	0	0	0	0	111	0	111	0	0	0	0	0	0	0	0
Adjusted Existing 2021 Volumes:	0	0	0	0	0	111	0	111	0	0	0	0	0	0	0	0
Growth Factor (%):	3	3	3		3	3	3		3	3	3		3	3	3	
No-Build 2023 Volumes:	0	0	0	0	0	117	0	117	0	0	0	0	0	0	0	0
Northern Parcel New Trips:	10	0	0	10	0	0	37	37	15	0	8	23	0	0	0	0
Southern Parcel New Trips:	0	4	10	14	24	4	0	28	0	0	0	0	9	0	14	23
Total New Trips:	10	4	10	24	24	4	37	65	15	0	8	23	9	0	14	23
Pass-by's Trips:	1	-1	1	1	2	-3	1	0	1	0	1	2	2	0	1	3
Future 2023 Traffic Volumes:	11	3	11	25	26	118	38	182	16	0	9	25	11	0	15	26