

Memo

To: Mayor and Town Board of Commissioners
From: Meredith Gruber, Planning Director
Date: November 1, 2022 Town Board of Commissioners Meeting
Re: Map Amendment (Rezoning) MA 22-06 - 5109 Mitchell Mill

Background

Suggested Approach for the Legislative Hearing on November 1, 2022

According to the 2020 Census, among municipalities with populations of 5,000 or more, Rolesville was the fastest growing town in North Carolina. Rolesville is a very desirable place to call home and continues to be one of the fastest growing towns in North Carolina. With this rapid growth, careful attention to planning our community's future is imperative.

Town staff have received multiple Map Amendment (Rezoning) applications over the past several months that could each bring 300 – 600 new homes to Rolesville. With the number of homes being considered along with associated infrastructure and amenities, the Town Board of Commissioners may need additional time to work through conditional rezoning requests with applicants, staff, and residents.

One way to allow for additional consideration and collaboration is to anticipate the legislative hearing take place and then be continued to a future date. At the first legislative hearing, questions may be posed, and anything that requires further study or additional information, can be presented at the second or continued legislative hearing. It is best that the Board act upon conditions that have been fully vetted by both the applicant and staff prior to any final vote.

Please see the *Proposed Motions* section of this report for options to continue the legislative hearing or make a decision on the Map Amendment (Rezoning) application on the evening of November 1, 2022.

Map Amendment (Rezoning) Application

The Town of Rolesville Planning Department received a Map Amendment (Rezoning) application in March 2022 for 139.05 acres located at 5109 Mitchell Mill Road, being Wake County PIN 1757571035. The applicant, Hopper Communities, is requesting to change the zoning from Wake County R-30 District to the Town's Land Development Ordinance (LDO) Neighborhood Center – Conditional District (NC-CZ) and Residential Medium – Conditional District (RM-CZ). A set of Conditions of Approval and a Concept Plan are included (see Attachments 2 and 3). An associated Voluntary Annexation Petition (ANX 22-03) is being

processed as the property is not currently in the Town's corporate limits. The annexation petition is included in the legislative hearing on November 1, 2022.



Conceptual Master Plan – October 18, 2022, North is oriented to the right

Request

The Applicant is requesting to rezone the property into two distinct zoning districts (which are neatly separated by Jonesville Road) to create a residential neighborhood comprising single-family detached and attached (townhome) dwelling units along with a commercial node at the northwest corner of the Jonesville/Mitchell Mill intersection. The development would include multiple amenities both exclusively for the neighborhood residents and for the general public. The Residential Medium (RM) District would be wholly single-family detached dwellings, likely subdivided under the “Cluster” option (See Analysis section). The Neighborhood Center (NC) District permits both residential and non-residential uses and has a clause to ensure that non-residential development is pursued before all the residential is developed. Both Districts are requested as “Conditional Districts” which allows the applicant to offer and commit to details that may be above and beyond minimum/maximum standards that would apply at later stages of development. The project triggers many transportation improvements to Jonesville Road and Mitchell Mill Road per the TIA, and these are addressed in the proposed Conditions (and detailed further in this memo).

Highlights/Summary of the Proposed Conditions of Approval (Attachment 2):

1. General compliance with the Concept Plan (Exhibit 1, see Attachment 3)
2. Maximum dwelling unit count of 398, with maximum Attached (townhome) units of 134.
3. Pollinator Plantings commitment.

4. Recreational Amenities – 6 distinct items;
 - a. HOA to own/maintain a pool/amenity site, playground, dog park, community garden, all built by time of issuance of 150th dwelling unit Certificate of Occupancy;
 - b. Town to receive built 10' wide greenways within 25' wide easements;
 - c. Town to receive a Recreation/Park area and a Trailhead parking area, with areas credited toward Active Open Space.
5. Additional Driveway Access / Crosswalk to Commercial Area.
6. Transportation improvements (11 specific) per the TIA recommendations.
7. Single family detached foundation detail;
8. Single family detached minimum square footage;
9. Attached (townhome) limit to 6 dwellings per building;
10. Attached (townhome) minimum square footage;
11. Multi-family dwelling units restricted to upper-story location over ground floor commercial uses in NC-CZ district portion.

Applicant Justification

The Applicant provided a written justification statement for the rezoning request – please see page 11 (of 12) of Attachment 1.

Neighborhood Meeting

The Applicant held an on-line neighborhood meeting on June 20, 2022; there were no attendees. A summary memo is included as Attachment 4.

Comprehensive Plan

Land Use

The Future Land Use Map identifies the subject parcel, and the entire general vicinity of Mitchell Mill/Jonesville Road as appropriate for Medium Density Residential uses and development pattern. This category is described as predominately single-family residential uses with portions of duplex, townhouse, or multifamily residential. These are lots or tracts at a density range of three to five (3-5) dwelling units per acre.

Community Transportation Plan

The Town of Rolesville's Community Transportation Plan includes recommendations for thoroughfares, collectors, and intersections.

Thoroughfare Recommendations

- Jonesville Road is planned to be 2-lane section with two-way left turn lane, curb and gutter, bike lanes, and sidewalks.
- Mitchell Mill Road is planned as a 4-lane median-divided section with curb and gutter, bike lanes, and sidewalks.

Collector Recommendations

- A collector connection is shown between Jonesville Road and Rolesville Road.

Intersection Recommendations

- The Mitchell Mill and Jonesville Road intersection is identified as needing improvement.

Greenway Plan

As per the 2022 Greenway Plan, proposed greenways are shown in the following locations:

- A greenway is proposed along Harris Creek—it is shown on the south side of the creek west of Jonesville Road and along the north side east of Jonesville Road.
- Sidepaths are proposed along Jonesville Road, from Mitchell Mill Road up to Main Street.

Consistency

The applicant's rezoning request is consistent with the Town of Rolesville's Comprehensive Plan for the following reasons:

- The average density of the proposed residential development is 2.9 housing units per acre.
- Both the Residential Medium and Neighborhood Center zoning districts are appropriate in the Medium Density future land use category.
- The proposed collector connection shown in the concept plan matches up with the Community Transportation Plan.
- A greenway connection is shown along or within a reasonable distance of Harris Creek.

Transportation and Traffic

The project proposes development on one or both sides of two State Roads - Jonesville Road (aka State Road 226) and Mitchell Mill Road (aka State Road 2224) - that totals approximately 1.4 miles of frontage:

- Approximately 1,900 feet on the north side of Mitchell Mill;
- Approximately 2,000 feet on both sides of Jonesville Road, from Mitchell Mill;
- Approximately 1,400 feet on the east side of Jonesville Road to the north.

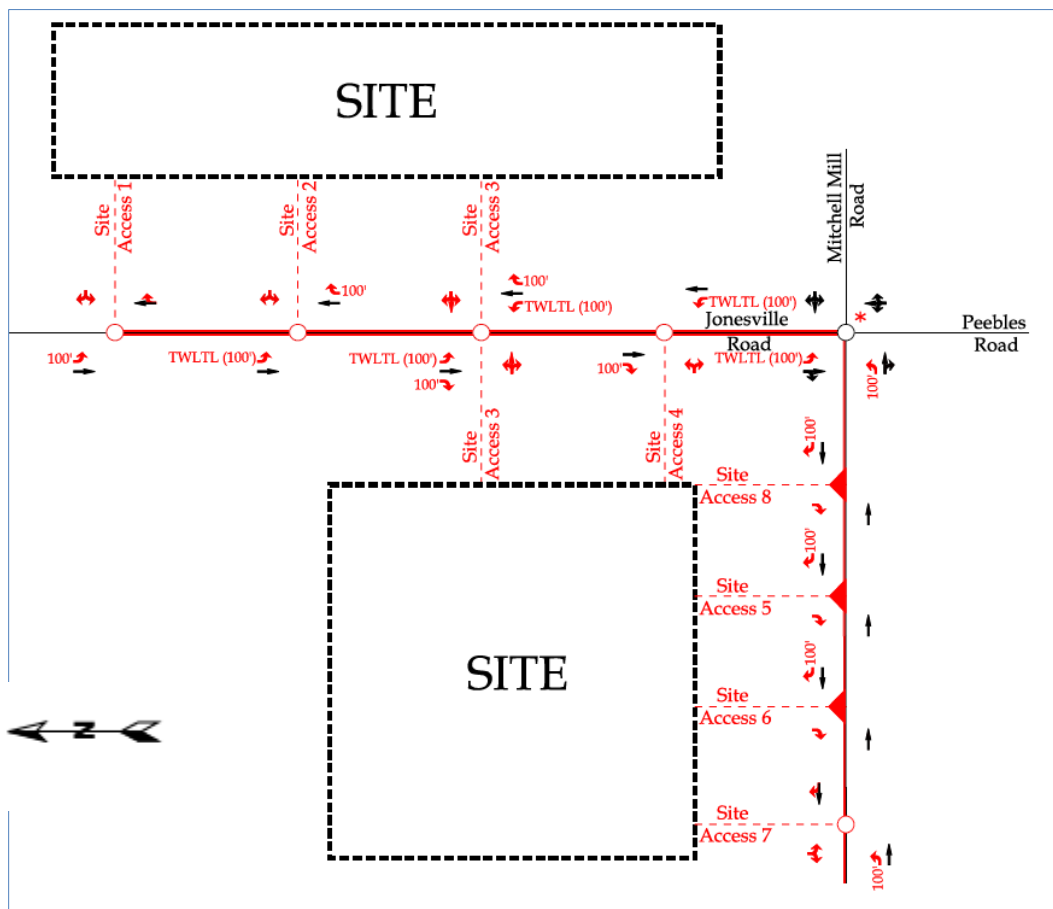
The scope of the project – nearly 400 dwelling units and 8 acres of non-residential uses – met the LDO thresholds for requiring a Traffic Impact Analysis (TIA), and this was performed by Ramey Kemp Associates during 2022 (see Attachment 5; Attachment 6 is the report from NCDOT on the TIA). The study contemplated a project of 264 single-family detached lots, 129 townhomes, and 50,000 square feet of general retail space. Driveway connections studied were four (4) full movement connections to Jonesville Road, and then one (1) full movement and three (3) right-in/right-out (RIRO) connections to Mitchell Mill Road. Condition 5 relates to a possible future additional driveway access into the RM District area from Jonesville Road, just north of Mitchell Mill and opposite the Commercial area.

Per the Town of Rolesville's Community Transportation Plan (2021), the Thoroughfare recommendations for these existing major roadways are:

- Jonesville Road -- a Two-lane (2) with Two-way Left turn lane, curb and gutter, Bike Lanes, and sidewalks.
- Mitchell Mill Road – a Four-lane (4) divided (Raised Median – Narrow) with Curb and Gutter, Bike Lanes, and Sidewalk

The TIA resulted in these general trip generations from the project (excerpted from TIA). Below is a TIA excerpt identifying the various 'Site Access' points. North is to the left.

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)			Weekday PM Peak Hour Trips (vph)		
			Enter	Exit	Total	Enter	Exit	Total
Single-Family Home (210)	264 DU	2,540	48	144	192	163	95	258
Multi-Family Home (Low-Rise) (220)	129 DU	934	14	47	61	47	27	74
Shopping Center (820)	50 KSF	3,752	110	67	177	156	169	325
Total Trips		7,226	172	258	430	366	291	657



The TIA Recommended 12 distinct improvements which are generally described as:

1. Frontage Improvements:

- Jonesville Road – widen between Mitchell Mill and Site Access 1 to ultimate Section (Two-lane + two-way left turn lane)
- Mitchell Mill – widen along site frontage to One-Half section of ultimate Section (Four-lane median divided).

2. **401 Bypass & Jonesville Road intersection (to the north):**
 - a. Conduct Full Signal Warrant analysis prior to full build-out / Install Traffic Signal If Warranted & Approved by Town/NCDOT.
3. **401 Bypass & Eastern U-Turn Location:**
 - a. Conduct Full Signal Warrant analysis prior to full build-out / Install Traffic Signal If Warranted & Approved by Town/NCDOT.
4. **Mitchell Mill Road and Jonesville Road/Peebles Road intersection:**
 - a. Construct southbound (on Jonesville) Left-turn lane with min. 100' of storage + deceleration and taper.
 - b. Construction eastbound (on Mitchell Mill Road) Left-turn lane with min. 100' of storage + deceleration and taper.
 - c. Conduct Full Signal Warrant analysis prior to full build-out / Install Traffic Signal If Warranted & Approved by Town/NCDOT.
5. **Jonesville Road and Site Access 1:**
 - a. Construct Westbound approach (Site Access 1) w/ 1 Ingress Lane/1 Egress Lane.
 - b. Provide Stop-control for westbound approach (Site Access 1).
 - c. Construct Southbound (Jonesville Rd) Left-turn lane with min. 100' of storage + deceleration and taper.
6. **Jonesville Road and Site Access 2:**
 - a. Construct Westbound approach (Site Access 2) w/ 1 Ingress Lane/1 Egress Lane.
 - b. Provide Stop-control for westbound approach (Site Access 2).
 - c. Construct Northbound (Jonesville Rd) Right-turn lane with min. 100' of storage + deceleration and taper.
 - d. Construct Southbound (Jonesville Rd) Left-turn lane with min. 100' of storage + deceleration and taper.
7. **Jonesville Road and Site Access 3:**
 - a. Construct an Eastbound & Westbound approach (Site Access 3) w/ 1 Ingress Lane/1 Egress Lane.
 - b. Provide Stop-control for Eastbound & Westbound approach (Site Access 3).
 - c. Construct a Northbound (Jonesville Rd) Left-turn lane with min. 100' of storage + deceleration and taper.
 - d. Construct a Northbound (Jonesville Rd) Right-turn lane with min. 100' of storage + deceleration and taper.
 - e. Construct a Southbound (Jonesville Rd) Left-turn lane with min. 100' of storage + deceleration and taper.
 - f. Construct a Southbound (Jonesville Rd) Right-turn lane with min. 100' of storage + deceleration and taper.
8. **Jonesville Road and Site Access 4:**
 - a. Construct Eastbound approach (Site Access 4) w/ 1 Ingress Lane/1 Egress Lane.
 - b. Provide Stop-control for the Eastbound approach (Site Access 4).
 - c. Construct a Northbound (Jonesville Rd) Left-turn lane with min. 100' of storage + deceleration and taper.
 - d. Construct a Southbound (Jonesville Rd) Right-turn lane with min. 100' of storage + deceleration and taper.
9. **Mitchell Mill Road and Site Access 5:**
 - a. Construct Southbound approach (Site access 5) with 1 Ingress Lane / 1 Egress Lane striped as an exclusive Right-turn lane.

- b. Provide Stop-control for Southbound approach (Site Access 5). This proposed intersection will be restricted to RIRO operations.
 - c. Construct exclusive Westbound (Mitchell Mill Road) Right-turn lane with min. 100' of storage + deceleration and taper.
- 10. Mitchell Mill Road and Site Access 6:**
- a. Construct Southbound approach (Site Access 6) with 1 Ingress Lane / 1 Egress Lane striped as exclusive Right-turn lane.
 - b. Provide Stop-control for Southbound approach (Site Access 6). This proposed intersection will be restricted to RIRO operations.
 - c. Construct exclusive Westbound (Mitchell Mill Road) Right-turn lane with min. 100' of storage + deceleration and taper.
- 11. Mitchell Mill Road and Site Access 7:**
- a. Construct Southbound approach (Site Access 7) with 1 Ingress Lane / 1 Egress Lane
 - b. Provide Stop-control for Southbound approach (Site Access 7).
 - c. Construct exclusive Eastbound (Mitchell Mill Road) Left-turn lane with min. 100' of storage + deceleration and taper.
- 12. Mitchell Mill Road and Site Access 8:**
- a. Construct Southbound approach (Site Access 8) with 1 Ingress Lane / 1 Egress Lane striped as exclusive Right-turn lane.
 - b. Provide Stop-control for Southbound approach (Site Access 8). This proposed intersection will be restricted to RIRO operations.
 - c. Construct exclusive Westbound (Mitchell Mill Road) Right-turn lane with min. 100' of storage + deceleration and taper.

Through the TRC Staff review, it was identified that most proposed new public streets within the project will be 50' right-of-way (typical residential streets), except for the main East-West roadway through both sides of the project. This roadway would be developed as a 60' right-of-way Residential Collector – the 'stub' to the east would connect to PIN 1757770396, where an existing easement cart-way names 'Gro Peg Lane' exists; to the west it would both stub to PIN 1757367367 and continues due south to an intersection with Mitchell Mill Road (Site Access 7 per the TIA). The western stub could in the future be extended by those property owners west approximately 800 feet where it would intersect with State Road 2986 (aka Green Farm Lane).

Staff Analysis

The application seeks to 'split-zone' the subject property along the natural break created by Jonesville Road. Both requested districts are sought to be "Conditional" districts per LDO Section 3.3, which allows an applicant to propose, and the Town to consider, additional conditions or restrictions on the range of allowable principal uses, use standards, intensities, development standards, etc. The proposed Concept Plan (Attachment 3) is part of the Conditions (Condition #1, general compliance) and represents a conceptual layout and rendering of how the project may be built; it is not a preliminary subdivision plat or any form of "site plan" that has been vetted against the LDO for absolute buildable compliance. This projects next step after attaining LDO Zoning District(s) is a Major Preliminary Subdivision Plat, followed by Construction Infrastructure Drawings. Non-residential development requires Site Development Plan review and approval also and usually occurs after a development lot has been recorded (via a Final Plat).

Neighborhood Center District (LDO Section 3.4.3.)

The land area for this district is approximately 55 acres and comprises the area of the property west of Jonesville Road. This would entail approximately 69 single-family detached and 119 townhomes dwelling units, and the approximately 8 acre site for non-residential development at the Jonesville/Mitchell Mill corner. This area would comprise all the townhomes contemplated in the application. Table 3.4.3. states the maximum density of dwelling units in NC is 8 units/acre. The gross density of (all) dwelling units in the NC District is approximately 3.4 per acre; if removing the approximately 8 acres of non-residential, the density slightly increases to 4 dwelling units per acre, which is one-half of the permitted maximum.

Non-residential uses have a 'timing of development' requirement; Section 3.4.3.D.4. requires at least 25% of non-residential square footage to be achieved Building Permit issuance by the time that 50% of residential units achieve Building Permit issuance. Section 3.4.3.D.5. requires 50% of non-residential square footage to attain Building permits before remaining residential units can attain Building Permits.

Residential Medium District (LDO Section 3.1.2)

The land area for this district is approximately 86 acres and comprises the area of the property east of Jonesville Road. The lot development is in 3 distinct areas, with one (1) on the far north side of the Harris Creek environmental area. The Concept Plan indicates that, at the preliminary subdivision plat point, the intention is to subdivide utilizing the Cluster options that are part of Table 3.1.2. within the RM district development standards. The Cluster option increases Density maximum (from 3 units per acre to 5), reduces minimum building setbacks, reduces lot width minimum by over half (from 85' to 40') and reduces the minimum lot area by two-thirds (from 15,000 SF to 5,000 SF). The proposed Concept Plan identifies that by exercising the Cluster option, approximately 42 of the 86 acres (49%) would be undeveloped and is generally contiguous as well. Lot density calculates to 2.2 dwelling units per acre, thus utilizing the reduced / lesser standards does not increase density, but rather equates to more undeveloped land area (i.e., open space).

Traffic Impacts / TIA Results

Staff concurs with the recommendation improvements contained within the TIA and find that they demonstrate rational mitigation of impacts from the proposed scope and intensity of development on the area roadways.

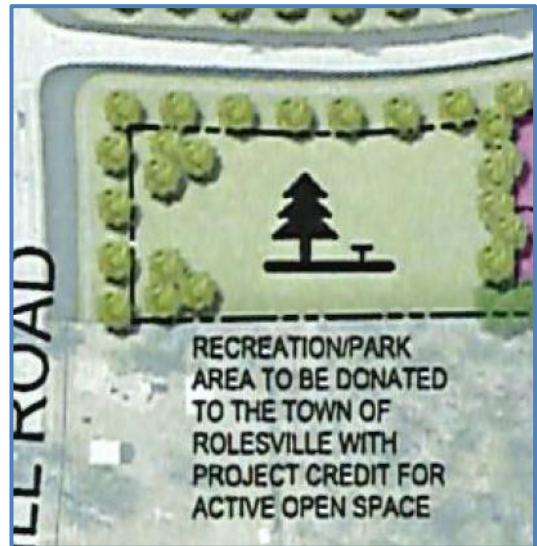
Consistency

The applicant's request for a combination of Residential Medium (RM) and Neighborhood Center (NC) districts, conditioned to a project for up to 398 residential dwelling units and ~8 acres of non-residential development (which could include upper-story multi-family dwelling units), at calculated residential densities less than the maximums permitted by the respective proposed Zoning Districts, is consistent with the Town of Rolesville's Comprehensive Plan.

Development Review

The Technical Review Committee (TRC) reviewed three submittals of this rezoning request and associated Conditions of Approval and concept plan. There are no remaining outstanding comments to be addressed at this stage of development. An item of concern regards Condition #4.f and the Concept Plan, and the proposal to dedicate a trail-head parking lot and a recreation/park area, and the fiscal and operational obligations of the Town Parks & Recreation

Department that result. These items originated with the Submittal received October 20, 2022 (Conditions dated October 17, 2022, and Concept Plan revised dated October 19, 2022).



Planning Board Recommendation

At the September 26, 2022 meeting, the Planning Board unanimously recommended approval of MA 22-06, 5109 Mitchell Mill Road, with a recommended condition of further review of adding multiple access points and crosswalks on Jonesville Road. Staff notes that the (revised and now included) Concept Plan and Condition #5 speak to providing that, pending future NCDOT approval. Staff also notes that Conditions #3 and #4.e. and #4.f. were not presented to the Planning Board (having been added post Planning Board meeting in the Conditions and Concept Plan dated October 17th and October 19th respectively).

Staff Recommendation

Based on consistency with the Comprehensive Plan and mitigation of expected impacts, staff recommends approval of MA 22-06 5109 Mitchell Mill once all conditions have been fully vetted.

Consistency and Reasonableness

As noted above under the Comprehensive Plan section of this report, the rezoning request for the subject parcel complies with the Future Land Use category of Medium Density Residential and is within the density ranges of the respective NC and RM Districts. The non-residential component of the NC District, and the mix of single family detached and attached (townhomes), creates the mixed-use district and development pattern of the NC District. The development will implement Greenways, sidepaths, and bicycle lanes per the Town's Greenway and Bicycle Plans. MA 22-06 is thus consistent with the Comprehensive Plan and other applicable Plans and is therefore reasonable.

Proposed Motions

1. Motion to continue the legislative hearing for MA 22-06 and ANX 22-03 to a future Town Board meeting to continue discussion and exchange of information.

Or

2. Motion to (approve or deny) rezoning request MA 22-06 – 5109 Mitchell Mill Road.
3. (Following Approval) Motion to adopt a Plan Consistency Statement and Statement of Reasonableness for MA 22-06.
4. Motion to (approve or deny) the annexation petition received under G.S. 160A-31 for ANX 22-03 – 5109 Mitchell Mill Road.

Attachments

	Description	Date
1	Application (i.e., Exhibit A, B, C)	March 2022
2	Conditions (i.e., Exhibit D)	October 17, 2022
3	Concept Plan (i.e., Exhibits 1 & 2)	Revised dated October 19, 2022
4	Neighborhood Meeting documents	June 2022
5	Traffic Impact Analysis (TIA) Final report	Final version, dated August 2022
6	Traffic Impact Analysis (TIA) NCDOT Congestion Management Report	10-07-2022
7	Vicinity Map	2022
8	Existing Zoning Map	2021
9	Future Land Use Map	2017 Comprehensive Plan
10	Commercial Development Example	October 2022

ATTACHMENT 1 - APPLICATION AND EXHIBITS A, B, C



Case No. MA 22-06

Date March 2022

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address City/State/Zip

Phone Email

Developer Hopper Communities

Contact Name Beth Trahos, Nelson Mullins

Address 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612

Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

Address 5109 Mitchell Mill Road, Wake Forest, North Carolina 27587-7246

Wake County PIN(s) 1757 5 103 5

Current Zoning District Wake County R-30 Requested Zoning District NC CD

Total Acreage 139.054 acres

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature Date 2-28-22

STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that James Robert Fowler III

personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This

the 28th day of February 2022

My commission expires 8-22-2023

Signature Seal

Shawn E. Scarborough
NOTARY PUBLIC
WAKE COUNTY, N.C.
My Commission Expires 08-22-2023

Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address _____ City/State/Zip _____

Phone _____ Email _____

Developer Hopper CommunitiesContact Name Beth Trahos, Nelson MullinsAddress 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

Address 5109 Mitchell Mill Road, Wake Forest, North Carolina 27587-7246Wake County PIN(s) 1757 57 1035Current Zoning District Wake County R-30 Requested Zoning District NC CDTotal Acreage 139.054± acres

Owner Signature

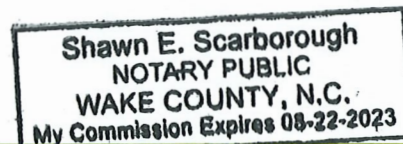
I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature Leigh Fowler Date 2/28/2022

STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Leigh Fowler
personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This
the 28th day of February 2022.

My commission expires 8-22-2023.Signature Shawn E. Scarborough Seal

Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address _____ City/State/Zip _____

Phone _____ Email _____

Developer Hopper Communities

Contact Name Beth Trahos, Nelson Mullins

Address 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612

Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

Address 5109 Mitchell Mill Road, Wake Forest, North Carolina 27587-7246

Wake County PIN(s) 1757 57 1035

Current Zoning District Wake County R-30 Requested Zoning District NC CD

Total Acreage 139.054± acres

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature Dana Bright Date 2/28/22

STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Dana Bright personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 28th day of February 2022.

My commission expires 8-22-2023.

Signature Shawn E. Scarborough Seal

Shawn E. Scarborough
NOTARY PUBLIC
WAKE COUNTY, N.C.
My Commission Expires 08-22-2023

Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address _____ City/State/Zip _____

Phone _____ Email _____

Developer Hopper CommunitiesContact Name Beth Trahos, Nelson MullinsAddress 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

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Owner Signature

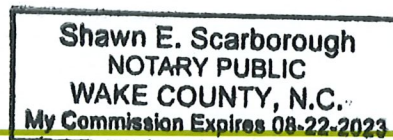
I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature  Date 2/28/22

STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Randy Bright personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 28th day of February 20 22.

My commission expires March 8-22-2023.Signature  Seal

Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____

Date 2/28/22

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address _____ City/State/Zip _____

Phone _____ Email _____

Developer Hopper CommunitiesContact Name Beth Trahos, Nelson MullinsAddress 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

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Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature [Signature] Date 2/28/22

STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Griny Wheeler
personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This
the 28th day of February 20 22.

My commission expires 10/18/2026.Signature [Signature] Seal

STEPHEN M. SCHMOEGER
NOTARY PUBLIC
WAKE COUNTY, N.C.
My Commission Expires 10/18/2026

Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517



Case No. _____
Date 2/28/22

Map Amendment Application

Contact Information

Property Owner Please see attached Exhibit A.

Address _____ City/State/Zip _____

Phone _____ Email _____

Developer Hopper Communities

Contact Name Beth Trahos, Nelson Mullins

Address 4140 Parklake Avenue, Suite 200 City/State/Zip Raleigh, NC 27612

Phone 919.329.3884 Email beth.trahos@nelsonmullins.com

Property Information

Address 5109 Mitchell Mill Road, Wake Forest, North Carolina 27587-7246

Wake County PIN(s) 1757 57 1035

Current Zoning District Wake County R-30 Requested Zoning District NC CD

Total Acreage 139.054± acres

Owner Signature

I hereby certify that the information contained herein is true and completed. I understand that if any item is found to be otherwise after evidentiary hearing before the Town Board of Commissioners, that the action of the Board may be invalidated.

Signature Stephen Wheeler Date 2/28/2022

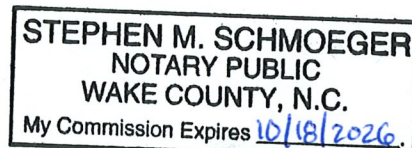
STATE OF NORTH CAROLINA

COUNTY OF Wake

I, a Notary Public, do hereby certify that Stephen Wheeler personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the 28th day of February 20 22.

My commission expires 10/18/2026.

Signature Stephen M. Schmoeger Seal



Town of Rolesville Planning

PO Box 250 / Rolesville, North Carolina 27571 / RolesvilleNC.gov / 919.554.6517

EXHIBIT A

	PIN: 1767 57 1035
Contact Information:	Dana and Randy Bright Giny and Stephen Wheeler Leigh and James Robert Fowler III 7928 Sutterton Court Raleigh, NC 27615
Property Address:	5109 Mitchell Mill Road
Current Zoning District:	R-30
Requested Zoning District:	NC CD
Total Acreage:	139.054

EXHIBIT B

LEGAL DESCRIPTION

146.812 GROSS ACRES

POINT OF BEGINNING BEING NEW PK NAIL IN CENTERLINE OF JONESVILLE ROAD
LOCATED SOUTH 03 DEGREES 39 MINUTES 27 SECONDS EAST 6691.07' FROM NCGS MONUMENT
"SCARBORO" NAD 83 NC GRID COORDINATES N = 785291.32 E = 2153832.22

THENCE South 81 degrees 13 minutes 36 seconds East for a distance of 581.67 feet to a new iron pipe

THENCE South 84 degrees 14 minutes 11 seconds East for a distance of 254.17 feet to an eip;

THENCE South 81 degrees 44 minutes 51 seconds East for a distance of 203.47 feet to an eip;

THENCE South 81 degrees 50 minutes 46 seconds East for a distance of 221.49 feet to an eip;

THENCE South 79 degrees 18 minutes 42 seconds East for a distance of 440.70 feet to an eip;

THENCE North 25 degrees 12 minutes 36 seconds East for a distance of 0.99 feet to a new iron pipe;

THENCE South 80 degrees 54 minutes 24 seconds East for a distance of 467.97 feet to an eip;

THENCE South 08 degrees 18 minutes 30 seconds West for a distance of 692.28 feet to an eip;

THENCE South 08 degrees 17 minutes 36 seconds West for a distance of 259.85 feet to an eip;

THENCE South 79 degrees 39 minutes 38 seconds East for a distance of 298.45 feet to an eip;

THENCE South 08 degrees 28 minutes 21 seconds West for a distance of 557.14 feet to an eip;

THENCE North 78 degrees 03 minutes 15 seconds West for a distance of 473.68 feet to an eip;

THENCE North 67 degrees 03 minutes 12 seconds West for a distance of 535.05 feet to an eip;

THENCE South 06 degrees 26 minutes 42 seconds West for a distance of 1705.50 feet to a new pk nail in centerline of Mitchell Mill Rd.;

THENCE North 83 degrees 37 minutes 41 seconds West for a distance of 100.67 feet to a new mag nail in cl rd;

THENCE North 85 degrees 33 minutes 48 seconds West for a distance of 96.77 feet to a new mag nail in cl rd;

THENCE North 87 degrees 17 minutes 52 seconds West for a distance of 60.47 feet to a new mag cl intersection of Jonesville Rd. and Mitchell Mill Rd.;

THENCE North 89 degrees 20 minutes 37 seconds West for a distance of 99.85 feet to a new mag nail in cl rd;

THENCE South 86 degrees 08 minutes 11 seconds West for a distance of 100.39 feet to a new mag nail in cl rd;

THENCE South 81 degrees 56 minutes 47 seconds West for a distance of 105.02 feet to a new mag nail in cl rd;

THENCE South 78 degrees 57 minutes 50 seconds West for a distance of 103.53 feet to a new mag nail in cl rd;
THENCE South 77 degrees 26 minutes 26 seconds West for a distance of 102.89 feet to a new mag nail in cl rd;
THENCE South 79 degrees 32 minutes 41 seconds West for a distance of 77.32 feet to a new mag cl rd;
THENCE South 85 degrees 34 minutes 24 seconds West for a distance of 67.43 feet to a new mag nail;
THENCE North 07 degrees 04 minutes 28 seconds East for a distance of 19.75 feet to an eip;
THENCE South 88 degrees 31 minutes 32 seconds West for a distance of 563.89 feet to an eip;
THENCE South 83 degrees 02 minutes 24 seconds West for a distance of 446.06 feet to an eip;
THENCE North 07 degrees 09 minutes 19 seconds East for a distance of 160.38 feet to an eip;
THENCE North 06 degrees 58 minutes 12 seconds East for a distance of 1599.62 feet to a new iron pipe;
THENCE South 81 degrees 18 minutes 24 seconds East for a distance of 4.60 feet to a point;
THENCE North 62 degrees 11 minutes 46 seconds East for a distance of 259.13 feet to a point;
THENCE North 79 degrees 20 minutes 16 seconds East for a distance of 165.95 feet to a point;
THENCE South 77 degrees 22 minutes 09 seconds East for a distance of 220.98 feet to a point;
THENCE North 69 degrees 21 minutes 06 seconds East for a distance of 141.50 feet to a point;
THENCE North 11 degrees 29 minutes 46 seconds East for a distance of 308.82 feet to a new mag nail in c/l of Jonesville Rd.;
THENCE North 22 degrees 16 minutes 48 seconds West for a distance of 76.10 feet to a new mag nail in cl bridge;
THENCE North 21 degrees 58 minutes 57 seconds West for a distance of 253.76 feet to a new mag nail in cl rd;
THENCE North 18 degrees 49 minutes 53 seconds West for a distance of 116.90 feet to a new mag nail in cl rd;
THENCE North 14 degrees 15 minutes 58 seconds West for a distance of 104.69 feet to a new mag cl rd;
THENCE North 09 degrees 44 minutes 06 seconds West for a distance of 111.66 feet to a new mag nail in cl rd;
THENCE North 05 degrees 39 minutes 55 seconds West for a distance of 103.00 feet to a new mag cl rd;
THENCE North 01 degrees 56 minutes 23 seconds West for a distance of 102.51 feet to a new mag nail in cl rd;
THENCE North 02 degrees 41 minutes 02 seconds East for a distance of 106.93 feet to a new mag nail in cl rd;
THENCE North 07 degrees 04 minutes 34 seconds East for a distance of 108.26 feet to a new mag nail in cl rd;
THENCE North 09 degrees 32 minutes 21 seconds East for a distance of 126.39 feet to point of beginning;

Together with and subject to covenants, easements, and restrictions of record.

Said property contains 146.812 acres more or less as shown of map by Williams-Pearce & Associates, PA entitled "Property survey for James Robert Fowler III and Jill F. Bright", dated 02-11-2022.

EXHIBIT C

STATE OF NORTH CAROLINA

**BEFORE THE TOWN OF
ROLESVILLE BOARD OF
COMMISSIONERS AND
PLANNING BOARD**

COUNTY OF WAKE

ZONING MAP AMENDMENT

In support of a petition to zone the subject property Mixed Use Neighborhood Center Conditional Zoning District, the applicant offers the following information:

The subject property is approximately 139± acres located on both sides of Jonesville Road north of its intersection with Mitchell Mill Road. The property is currently zoned R-30 by Wake County, a rural holding district. The subject property is planned to come into the Town of Rolesville and to be development as a part of the town. It is located on the southern edge of Rolesville in close proximity to the more urban areas of east Raleigh.

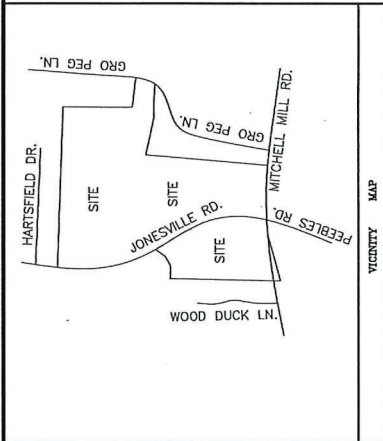
The proposed zoning is Mixed Use Neighborhood Center Conditional District. The Future Land Use Map designates the subject property for Medium Density Residential. Medium Density Residential is described as “[p]redominantly single family residential uses with portions of duplex, townhouse or multifamily residential. These are lots or tracts at a density range of three to five dwelling units per gross acre including preserved open spaces areas along with limited non-residential uses under planned unit development or form base code provisions.” The proposed community includes a mix of housing types (single-family detached homes and townhomes) and is within the density levels recommended by the Comprehensive Plan.

The Town Board of Commissioners has indicated a desire to include more commercial uses within Rolesville. The proposed zoning includes 8.27± acres in the northwest quadrant of the intersection of Mitchell Mill Road and Jonesville Roads as a neighborhood center. In addition this site is approximately one-mile from the Wallbrook mixed-use development with 265,000 square feet of commercial space, including a Publix grocery store

The zoning includes commitments for a community pool, playground, dog park, a public greenway connection as shown on the Town’s Open Space and Greenway Plan. Harris Creek will be preserved as a part of approximately 60 acres of open space on the subject property.

The proposed rezoning is in accordance with the Comprehensive Plan and reasonable and in the public interest. We request your support for the proposed zoning.

PROPERTY ADDRESS:
5109 MITCHELL MILL RD.
WAKE FOREST, NC 27587



Cities	Distance
1	5, 817, 44, 55, 1
2	4, 21, 25, 12, 36, 5
3	4, 21, 25, 12, 36, 5
4	8, 17, 17, 52, 5, 4
5	8, 17, 17, 52, 5, 4
6	8, 17, 17, 52, 5, 4
7	8, 17, 17, 52, 5, 4
8	8, 17, 17, 52, 5, 4
9	8, 17, 17, 52, 5, 4
10	8, 17, 17, 52, 5, 4
11	8, 17, 17, 52, 5, 4
12	8, 17, 17, 52, 5, 4
13	8, 17, 17, 52, 5, 4
14	8, 17, 17, 52, 5, 4
15	8, 17, 17, 52, 5, 4
16	8, 17, 17, 52, 5, 4
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18	8, 17, 17, 52, 5, 4
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20	8, 17, 17, 52, 5, 4
21	8, 17, 17, 52, 5, 4
22	8, 17, 17, 52, 5, 4
23	8, 17, 17, 52, 5, 4
24	8, 17, 17, 52, 5, 4
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26	8, 17, 17, 52, 5, 4
27	8, 17, 17, 52, 5, 4
28	8, 17, 17, 52, 5, 4
29	8, 17, 17, 52, 5, 4
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32	8, 17, 17, 52, 5, 4
33	8, 17, 17, 52, 5, 4
34	8, 17, 17, 52, 5, 4
35	8, 17, 17, 52, 5, 4
36	8, 17, 17, 52, 5, 4
37	8, 17, 17, 52, 5, 4
38	8, 17, 17, 52, 5, 4
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51	8, 17, 17, 52, 5, 4
52	8, 17, 17, 52, 5, 4
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59	8, 17, 17, 52, 5, 4
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63	8, 17, 17, 52, 5, 4
64	8, 17, 17, 52, 5, 4
65	8, 17, 17, 52, 5, 4
66	8, 17, 17, 52, 5, 4
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69	8, 17, 17, 52, 5, 4
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83	8, 17, 17, 52, 5, 4
84	8, 17, 17, 52, 5, 4
85	8, 17, 17, 52, 5, 4
86	8, 17, 17, 52, 5, 4
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88	8, 17, 17, 52, 5, 4
89	8, 17, 17, 52, 5, 4
90	8, 17, 17, 52, 5, 4
91	8, 17, 17, 52, 5, 4
92	8, 17, 17, 52, 5, 4
93	8, 17, 17, 52, 5, 4
94	8, 17, 17, 52, 5, 4
95	8, 17, 17, 52, 5, 4
96	8, 17, 17, 52, 5, 4
97	8, 17, 17, 52, 5, 4
98	8, 17, 17, 52, 5, 4
99	8, 17, 17, 52, 5, 4
100	8, 17, 17, 52, 5, 4

PIN: 1757-57-1035

REFERENCE- BOM 1992 PC 655 & 656

BOM 2007 PC 1224
BOM 1971 PC 127
BOM 1936 PC 524
BOM 1930 PC 1000
BOM 1930 PC 1215
BOM 1981 PC 894
BOM 1989 PC 1474
BOM 1954 PC 949
BOM 1959 PC 387
BOM 1980 PC 396
BOM 1980 PC 956
BOM 2013 PC 868

NOTE: AREA COMPUTED BY COORDINATE METHOD.

NOTE: NO NCCS MONUMENT WITHIN 2000'.

NOTE: THIS PROPERTY IS SUBJECT TO
EASEMENTS AND RESTRICTIONS OF RECORD.

NOTE: ALL BEARING ARE ACCORDING TO MAGNETIC BEARINGS.

DANNY G. WILLIAMS
SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED
DESCRIPTION RECORDED IN BOOK _____ PAGE _____ ETC.); (OTHER); THAT THE
BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION
FOUND IN BOOK _____ PAGE _____; THAT THE RATIO OF PRECISION AS CALCULATED
IS 1 : 10,000; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30
AS AMENDED, WITNESS MY ORIGINAL SIGNATURE, REGISTRATION NUMBER AND SEAL
THIS 17TH DAY OF FEBRUARY, A.D. 2022.

THIS 11TH DAY OF FEBRUARY, A.D., 2022.

Seal or Stamp

Survivor

Registration Number

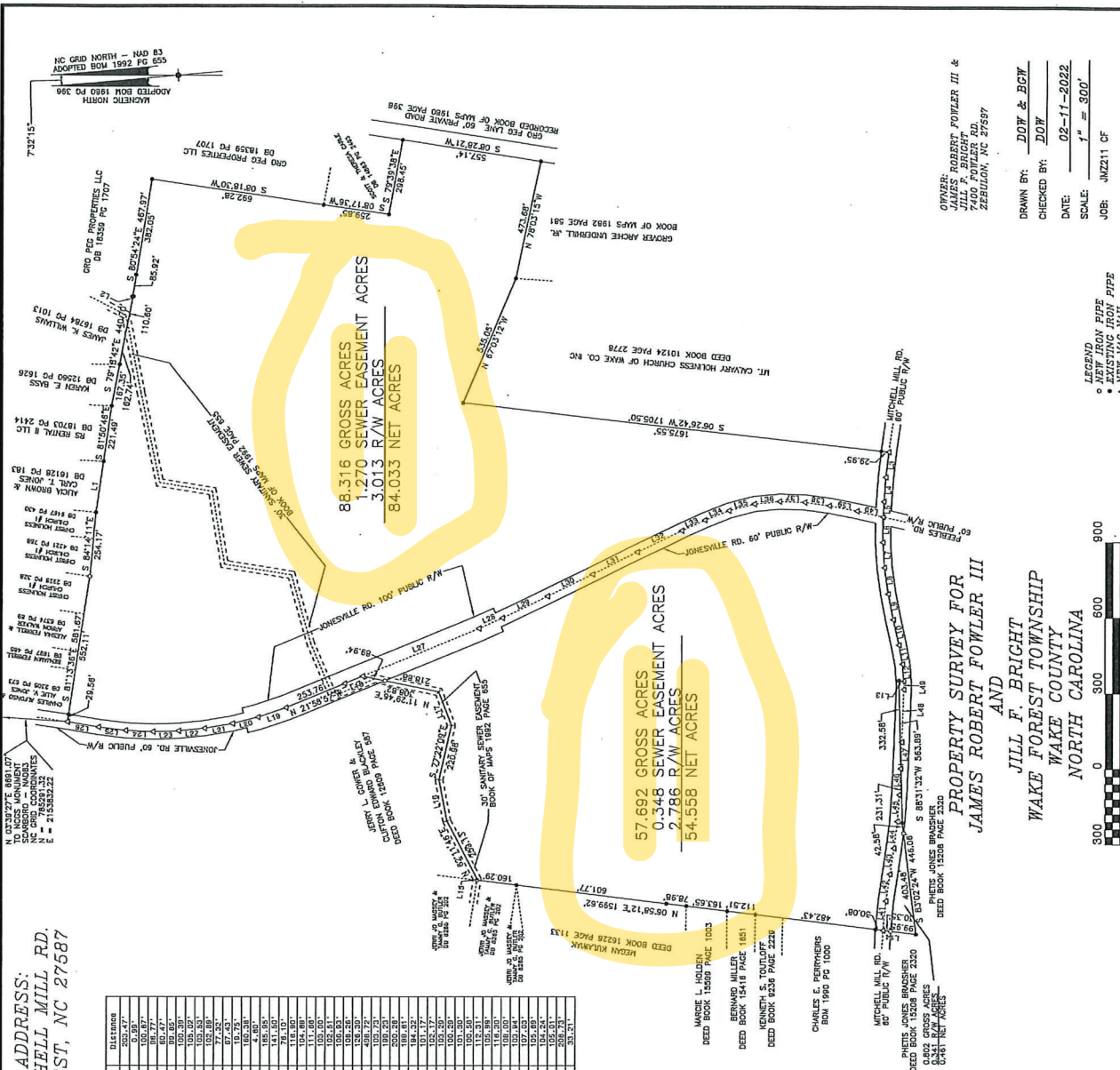
L-2647

I, Danny O. Williams, Professional Land Surveyor No. L-2647, certify that this plat is of a survey of an existing parcel or parcels of land or one or more existing easements and does not create a new street or change an existing street. For the purposes of this subsection, an "existing street," or "existing easement" is an area of land described in a single, legal description or legally recorded subdivision that has been or may be legally conveyed to a new owner by deed in its existing configuration.

Danny O. Williams, L-2647

Lic. # C-0243

Lic. # C-0243
S:\NEWMAPS\B\BILL HARRELL\FINAL PLAT.DWG
Williams-Pearce and Assoc., Professional Land Surveyors, P.A. P.O. Box 892, Zebulon, N.C. 27597 Tel.(919) 269-9605



OWNER:
JAMES ROBERT FOWLER III &
JILL F. BRIGHT
7400 FOWLER RD.
ZEBULON, NC 27597

DRAWN BY: DOW & BCW
 CHECKED BY: DOW
 DATE: 02-11-2022
 SCALE: 1" = 300'
 JOB: JMZ211 CF

LEGEND
 ○ NEW IRON PIPE
 ● EXISTING IRON PIPE
 ▲ NEW MAC NAIL

GRAPHIC SCALE - FEET

S:\NEWMAPS\B\BILL HARRELL\FINAL PLAT.DWG

A. P.O. Box 892. Zeb

Exhibit D

Mixed-Use Neighborhood Center Conditional Zoning District (NC-CZ) and Residential Medium Density Conditional Zoning District (RM-CZ)

Zoning Conditions

Conditions Applicable to the entire property:

1. The subject property shall be developed generally in accordance with the sketch plan attached hereto as Exhibit 1 and incorporated herein as if fully set out. The approximately 55± acre portion of the subject property located west of Jonesville Road and further described as Parcel 1 on the attached Exhibit 2 attached hereto shall be zoned NC-CZ and the approximately 86± acre portion of the property located east of Jonesville Road and further described as Parcel 2 on Exhibit 2 attached hereto shall be zoned RM-CZ.
2. The total number of dwellings on the subject property shall not exceed 395 dwelling units and no more than 134 of these dwellings shall be permitted to be Dwellings, Single Family, Attached (townhomes.)
3. Pollinator Plantings: At least twenty percent (20%) of the landscaping planted in common areas on the subject property shall utilize plant materials that are listed as Native Pollinator Plants on North Carolina Wildlife Federation ("NCWF") or other resources for native plants recommended by the NCWF on their website, currently found at <https://ncwf.org/habitat/native-pollinator-plants/> Where evergreen plantings or street trees are required by the Rolesville Land Development Ordinance as the same may be amended from time to time, pollinator plantings shall not be required. Nothing herein shall be construed to limit the plant materials permitted on individual residential lots.

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

4. Recreational Amenities: The following recreational amenities shall be provided generally as shown on the attached Exhibit 1 as a part of the development of the subject property and dedicated to the Homeowner's Association except for the public greenway which shall be dedicated as such to the Town of Rolesville:
- a. A swimming pool and cabana, including changing rooms and restrooms shall be constructed prior to the issuance of the 150th certificate of occupancy for a dwelling unit;
 - b. At least one fenced playground shall be constructed prior to the issuance of the 150th certificate of occupancy for a dwelling unit;
 - c. At least one fenced dog park shall be constructed prior to the issuance of the 150th certificate of occupancy for a dwelling unit;
 - d. Public greenway on a greenway easement at least 25' wide with paved trails at least ten feet wide (10') shall be constructed generally as shown on the attached Exhibit 1;
 - e. At least one community garden shall be provided prior to issuance of the 150th certificate of occupancy for a dwelling unit; and
 - f. At least one (1) acre located at the northeast quadrant of the intersection of Jonesville Road and Mitchell Mill Road shall be offered to the Town of Rolesville generally as shown on the attached Exhibit 1 for recreational uses prior to the issuance of the 150th certificate of occupancy for a dwelling unit. The area dedicated to the Town of Rolesville shall be credited to this project as active open space.
5. Additional Driveway Access and Crosswalk to Commercial Area: The property owner shall apply to NCDOT to allow the installation of an additional driveway access and cross-walk across Jonesville Road from the property zoned RM-CZ to the commercial area located in the northwest quadrant of the intersection of Mitchell Mill and Jonesville Road, both as generally shown as "Proposed Additional Driveway Connection and Crosswalk to Commercial Site" on Exhibit 1. The application

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

to NCDOT shall include a plan for the driveway connection and crosswalk drawn by an engineer and an update to the existing traffic impact analysis prepared by a traffic engineer. If NCDOT approves such a cross-walk and/or driveway access, the property owner shall install them in accordance with the requirements of NCDOT.

6. Transportation Improvements: To address transportation impacts reasonably expected to be generated by the development, the following road improvements shall be installed as recommended by the 5109 Mitchell Mill Road Traffic Impact Analysis, prepared by Ramey Kemp & Associates for the Town of Rolesville, a copy of which is on file with the Town of Rolesville.

a. Jonesville Road:

- i. Widen Jonesville Road along the site frontage between Site Access 1 and Site Access 2 to the roadways ultimate cross section per Rolesville Community Transportation Plan, 2 lanes with two-way left turn lanes; and
- ii. Widen Jonesville Road along the site frontage between Site Access 3 and Mitchell Mill Road to the roadways ultimate cross section per Rolesville Community Transportation Plan, 2 lanes with two-way left turn lanes.

b. Mitchell Mill Road:

- i. Widen one-half section along the site frontage to this roadway's ultimate cross-section per the Rolesville Community Transportation Plan, 4-lane median divided.

c. Mitchell Mill Road and Jonesville Road/Peebles Road:

- i. Provide a southbound (Jonesville Road) left turn lane with at least 100 feet of storage and appropriate decel and taper; and
- ii. Construct an eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

d. Jonesville Road and Site Access 1:

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

- i. Construct the westbound approach (Site Access 1) with one ingress lane and one egress lane;
 - ii. Provide stop-control for westbound approach (Site Access 1); and
 - iii. Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- e. Jonesville Road and Site Access 2:
 - i. Construct the westbound approach (Site Access 2) with one ingress lane and one egress lane;
 - ii. Provide stop-control for westbound approach (Site Access 2); and
 - iii. Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- f. Jonesville Road and Site Access 3:
 - i. Construct the eastbound and westbound approaches (Site Access 3) with one ingress lane and one egress lane;
 - ii. Provide stop-control for eastbound and westbound approach (Site Access 3);
 - iii. Construct northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper;
 - iv. Construct northbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper;
 - v. Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper; and
 - vi. Construct a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- g. Jonesville Road and Site Access 4:

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

- i. Construct the eastbound approach (Site Access 4) with one ingress lane and one egress lane;
 - ii. Provide stop-control for eastbound approach (Site Access 4);
 - iii. Provide a northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper; and
 - iv. Provide a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- h. Mitchell Mill and Site Access 5:
 - i. Construct the southbound approach (Site Access 5) with one ingress lane and one egress lane striped as an exclusive right-turn lane;
 - ii. Provide stop-control for southbound approach (Site Access 5) restricted to right-in, right-out operations; and
 - iii. Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- i. Mitchell Mill and Site Access 6:
 - i. Construct the southbound approach (Site Access 6) with one ingress lane and one egress lane striped as an exclusive right-turn lane; and
 - ii. Provide stop-control for southbound approach (Site Access 6) restricted to right-in, right-out operations.
- j. Mitchell Mill and Site Access 7:
 - i. Construct the southbound approach (Site Access 7) with one ingress lane and one egress lane;
 - ii. Provide stop-control for southbound approach (Site Access 7); and

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

Revision Date: October 17, 2022

- iii. Construct an exclusive eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- k. Mitchell Mill Road and Site Access 8:
 - i. Construct the southbound approach (Site Access 8) with one ingress lane and one egress lane striped as an exclusive right-turn lane;
 - ii. Provide stop-control for southbound approach (Site Access 8). This proposed intersection will be restricted to right-in/right-out operations; and
 - iii. Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Conditions Applicable to Dwelling, Single Family, Detached only:

- 7. All homes shall include either crawl space foundations or stem wall foundations. Any stem wall foundations shall have a brick or stone veneer on all sides facing a public street and shall be at least twelve inches (12") in height.
- 8. The minimum building square footage shall be 2,000 square feet.

Conditions Applicable to Dwellings, Single Family, Attached (townhomes) only:

- 9. No Dwelling, Single Family, Attached (townhome) building shall exceed six (6) dwellings.
- 10. The minimum building square footage for townhomes shall be 1,200 square feet.

Conditions Applicable to the NC-CZ District only:

- 11. All uses permitted in the Neighborhood Center Mixed-Use district shall be permitted within the NC-CZ except Dwellings, Multiple Family (apartments) shall only be permitted in buildings with commercial uses located on the ground floor.

These zoning conditions have been voluntarily offered by the property owner. All property owners must sign each condition page. This page may be photocopied if additional space is needed.

Signature: _____

Print Name: Dana Bright

Date:

Signature: _____

Print Name: Randy Bright

Date:

Signature: _____

Print Name: Giny Wheeler

Date:

Signature: _____

Print Name: Stephen Wheeler

Date:

Signature: _____

Print Name: Leigh Fowler

Date:

Signature: _____

Print Name: James Robert Fowler III

Date:

5109 MITCHELL MILL RD

REZONING PLAN

ROLESVILLE, NORTH CAROLINA 27587
WAKE COUNTY

Revision
Date of
10/19/2022

OWNER:

JAMES FOWLER, JILL BRIGHT
7400 FOWLER RD
ZEBULON, NC 27597

DEVELOPER:

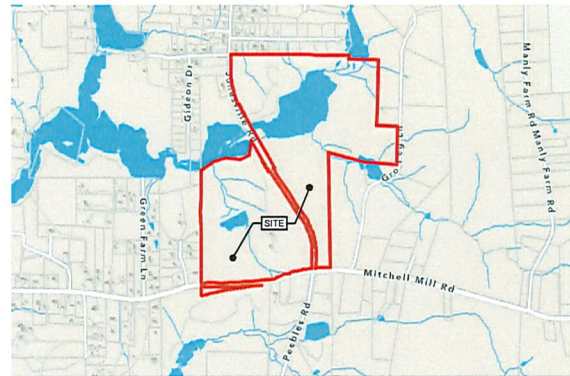
HOPPER COMMUNITIES, INC
1616 CLEVELAND AVE
CHARLOTTE, NC 28203

CIVIL ENGINEER:

TIMMONS GROUP
PATRICK BARBEAU, P.E.
5410 TRINITY ROAD; SUITE 102
RALEIGH, NC 27607
PH: (919) 866-4512
PATRICK.BARBEAU@TIMMONS.COM

BUFFER/WETLAND:

SOIL AND ENVIRONMENTAL CONSULTANTS, PA
STEVEN BALL, RF, PWS
8412 FALLS OF NEUSE RD SUITE 104
RALEIGH, NC 27615
PH: (919) 846-5900
SBALL@SANDEC.COM



VICINITY MAP
NTS

Sheet List Table	
Sheet Number	Sheet Title
CVR	COVER SHEET
	CONCEPTUAL MASTER PLAN



KNOW WHAT'S BELOW.
CALL 811 BEFORE YOU DIG.



HOPPER
COMMUNITIES

PRELIMINARY
NOT FOR
CONSTRUCTION

THIS DOCUMENT IS THE PROPERTY OF TIMMONS GROUP. IT IS TO BE USED ONLY FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED HEREIN. IT IS NOT TO BE REPRODUCED, COPIED, OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF TIMMONS GROUP.

YOUR VISION ACHIEVED THROUGH Ours.

DATE
07/01/2022

DESIGNED BY
P. BARBEAU

CHECKED BY
P. BARBEAU

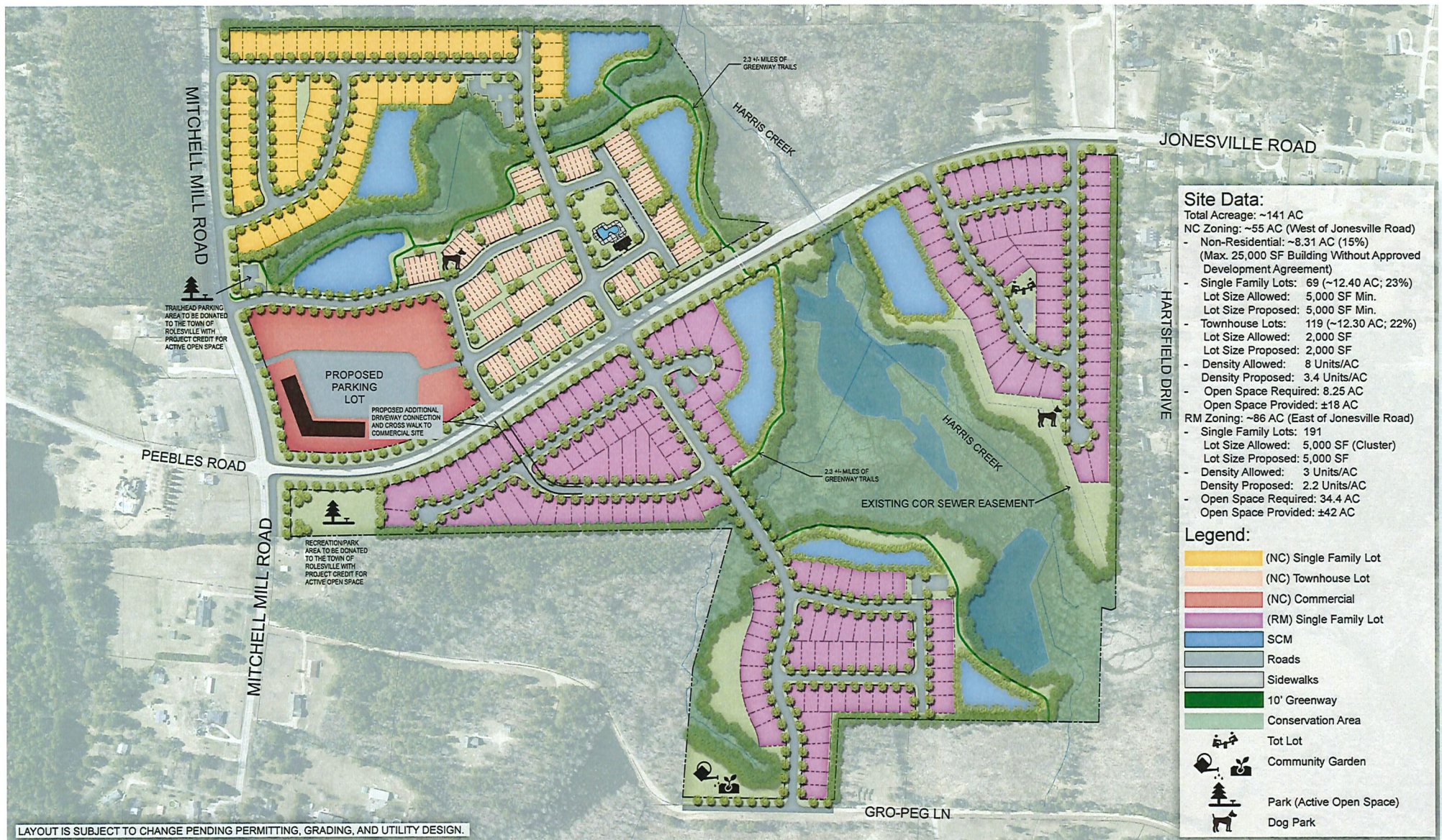
SCALE
AS SHOWN

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652
5109 MITCHELL MILL RD
ROLESVILLE - WAKE COUNTY - NORTH CAROLINA
COVER SHEET

JOB NO.
47342
SHEET NO.
C0.0

PRELIMINARY - NOT RELEASED FOR CONSTRUCTION

Exhibit 1 (Page 2 of 2)



5109 MITCHELL MILL ROAD - ROLESVILLE, NC
Conceptual Master Plan - October 18, 2022

SCALE 1"=150'



ATTACHMENT 4 - NEIGHBORHOOD MEETING DOCUMENTS

OWNER	ADDR1	ADDR2
JONES, CHARLES ALFONSO JONES, ALLIE V	3800 JONESVILLE RD	WAKE FOREST NC 27587-8180
WALKER, ALESHIA FERRELL WALKER, AARON	5012 HARTSFIELD DR	WAKE FOREST NC 27587-9638
JONES, ALICIA BROWN JONES, CARL T	5028 HARTSFIELD DR	WAKE FOREST NC 27587-9638
HONEYCUTT, CURTIS L HONEYCUTT, CHARITY M	5100 MITCHELL MILL RD	WAKE FOREST NC 27587-7247
HONEYCUTT, TODD KENDALL	5104 MITCHELL MILL RD	WAKE FOREST NC 27587-7247
CARLE, SCOTT CARLE, THERESA	PO BOX 371	WAKE FOREST NC 27588-0371
CHRIST HOLINESS CHURCH NUMBER 1 C/O WILLIAM WHITFIELD	5016 HARTSFIELD DR	WAKE FOREST NC 27587-9638
HARTSFIELD, ROZELIA J HEIRS C/O HATTIE SMITH	2450 MINERAL SPRINGS RD	BOYDTON VA 23917-4404
BASS, KAREN E	1601 BASS RD	WENDELL NC 27591-6403
CHEN, PING	10030 GREEN LEVEL CHURCH RD STE 802	CARY NC 27519-8195
BRADSHAW, PHETIS JONES	PO BOX 203	ROLESVILLE NC 27571-0203
MILLER, BERNARD	3516 WOOD DUCK LN	WAKE FOREST NC 27587-6873
TOUTLOFF, KENNETH S TOUTLOFF, BILLIE ANNE	3512 WOOD DUCK LN	WAKE FOREST NC 27587-6873
CHRIST HOLINESS CHURCH	5016 HARTSFIELD DR	WAKE FOREST NC 27587-9638
FERRELL, BENJAMIN C/O JESSE FERRELL	248 CALIFORNIA AVE	PROVIDENCE RI 02905-2815
ALSTON, HENRY ALSTON, MARIE F	3741 JONESVILLE RD	WAKE FOREST NC 27587-8179
MT CALVARY HOLINESS CHURCH OF WAKE CO INC	3921 JONESVILLE RD	WAKE FOREST NC 27587-8183
GOODNIGHT, CECIL L GOODNIGHT, JUDY J	1201 ROLESVILLE RD	WAKE FOREST NC 27587-6957
CHRIST HOLINESS CHURCH # 1 C/O WILLIAM WHITFIELD	5016 HARTSFIELD DR	WAKE FOREST NC 27587-9638
FOWLER, JAMES ROBERT III BRIGHT, JILL F	7400 FOWLER RD	ZEBULON NC 27597-8318
HOLDEN, MARCIE L	3524 WOOD DUCK LN	WAKE FOREST NC 27587-6873
KULAWIAK, MEGAN	3533 WOOD DUCK LN	WAKE FOREST NC 27587-6874
GREENE, JOE L	6415 HAWTHORNE ST	HYATTSVILLE MD 20785-1711
WILLIAMS, JAMES K	5044 HARTSFIELD DR	WAKE FOREST NC 27587-9638
PERRY, HEATHER MARIE	3500 WOOD DUCK LN	WAKE FOREST NC 27587-6873
ELIAS, ABAHOR ELIAS, SUSAN	5918 BIG NANCE DR	RALEIGH NC 27616-5795
GHOLSON, CHRISTOPHER GHOLSON, KELLY GAITHER	3440 PEEBLES RD	RALEIGH NC 27616-8802
BEACHUM, JONATHAN ADAM	3803 JONESVILLE RD	WAKE FOREST NC 27587-8181
GRO PEG PROPERTIES LLC	481 AIRPORT RD	LOUISBURG NC 27549-6806
UNDERHILL, GROVER ARCHIE JR	5229 MITCHELL MILL RD	WAKE FOREST NC 27587-7249
RS RENTAL II LLC	31 HUDSON YARDS	NEW YORK NY 10001-2170
UNIVERSAL CHURCH OF PRAYER &	4912 UNIVERSAL DR	WAKE FOREST NC 27587-6356

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4140 Parklake Ave, Suite 200
Raleigh, NC 27612
T: 919.329.3800 F: 919.329.3799
nelsonmullins.com

June 6, 2022

Dear Sir or Madam:

You are invited to attend a virtual neighborhood information meeting on Monday, June 20th at 6:00 p.m. The purpose of this meeting is to discuss the proposed zoning of the approximately 55± acres of property located west of Jonesville Road and the approximately 86± acres of property located east of Jonesville Road in Rolesville, North Carolina. Attached please find a map of the subject properties.

The subject property is currently zoned R-30 by Wake County. We propose to bring the properties into the Town of Rolesville and zone them NC-CZ and RM-CZ to allow for the construction of mixed-use residential neighborhood. The Town of Rolesville Planning Board and the Board of Commissioners will discuss the proposed zoning at a future date for public hearing.

You can access the meeting from your computer, tablet or smartphone at: <https://www.zoom.us/join> The Meeting ID is 872 7589 3223 and the passcode is 150583.

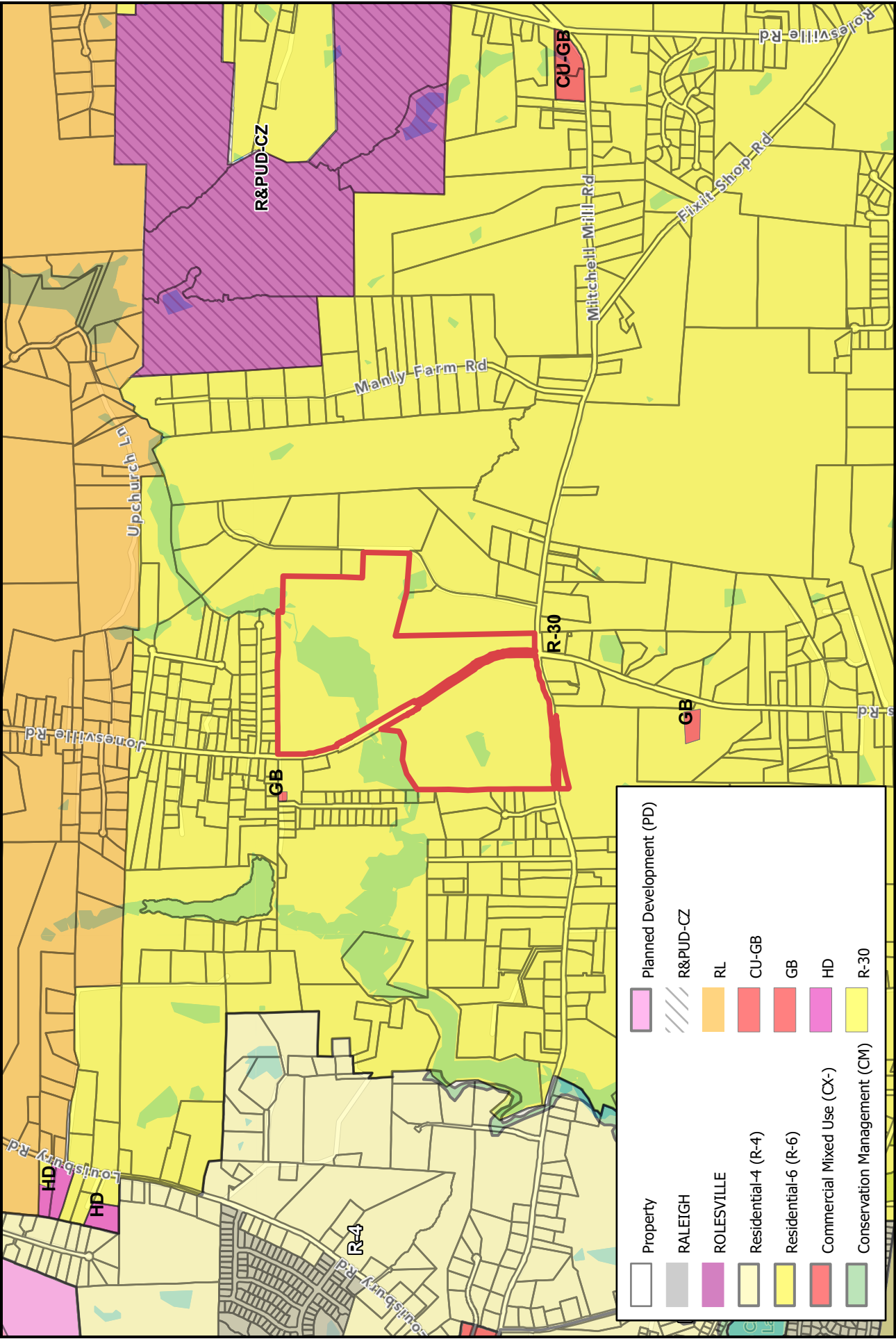
Alternatively, you can also dial in using your telephone to United States: 1-646-558-8656 and entering Meeting ID: 87275893223# and entering the Passcode 150583# when prompted to do so.

Please join us to discuss the proposal in more detail. In the interim, please do not hesitate to contact me with questions at 919.329.3884 or at beth.trahos@nelsonmullins.com.

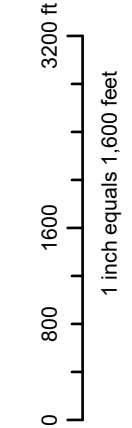
Very truly yours,

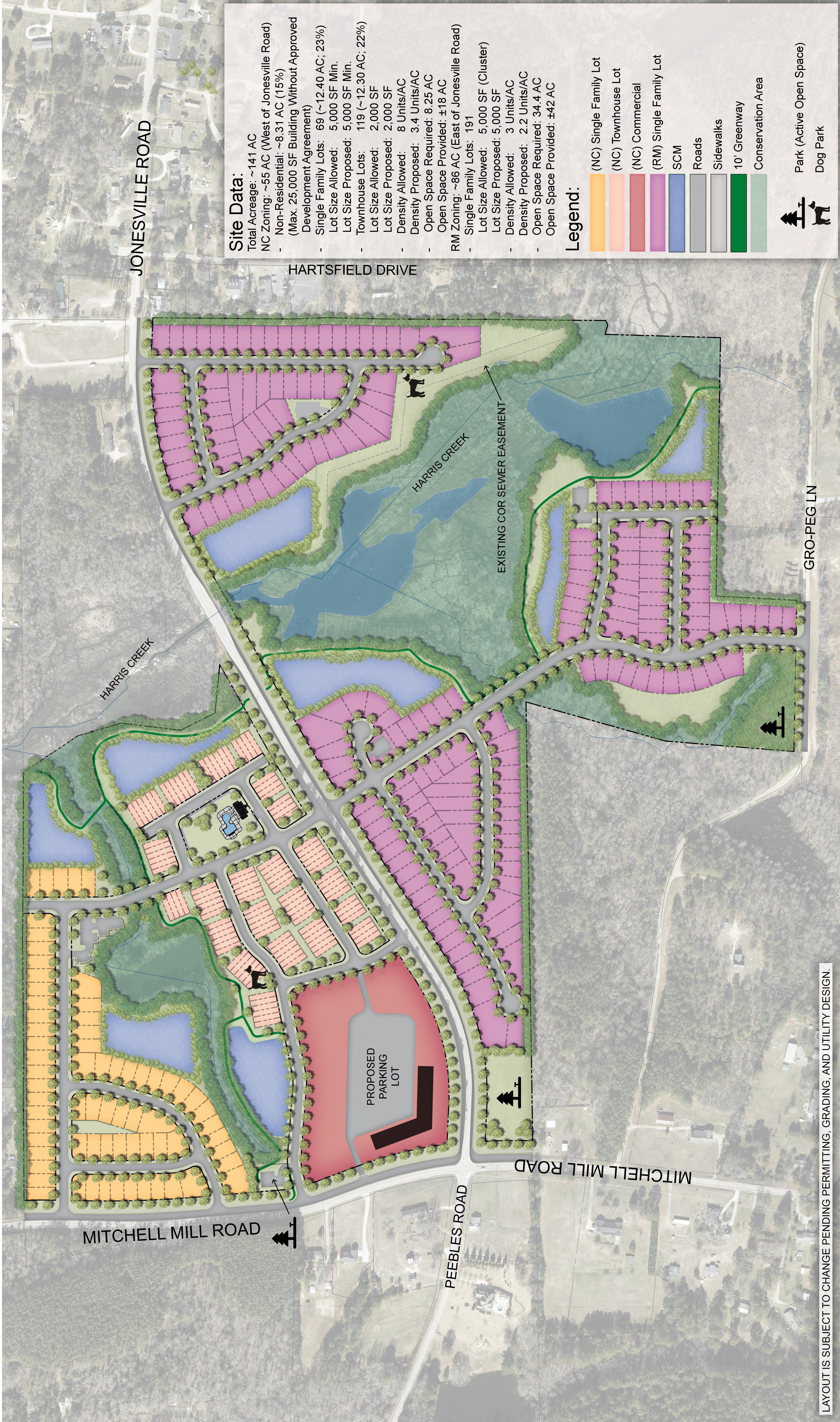


Elizabeth C. Trahos



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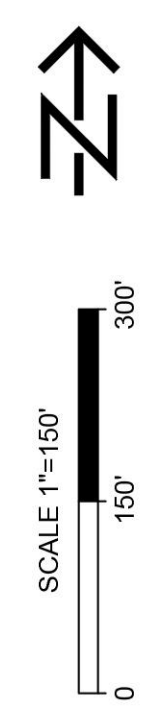
Site Data:
Total Acreage: ~141 AC
NC Zoning: ~55 AC (West of Jonesville Road)
- Non-Residential: ~8.31 AC (15%)
 (Max. 25,000 SF Building Without Approved Development Agreement)
- Single Family Lots: 69 (~12.40 AC; 23%)
 Lot Size Allowed: 5,000 SF Min.
 Lot Size Proposed: 5,000 SF Min.
- Townhouse Lots: 119 (~12.30 AC; 22%)
 Lot Size Allowed: 2,000 SF
 Lot Size Proposed: 2,000 SF
- Density Allowed: 8 Units/AC
 Density Proposed: 3.4 Units/AC
- Open Space Required: 8.25 AC
 Open Space Provided: ±18 AC
RM Zoning: ~86 AC (East of Jonesville Road)
- Single Family Lots: 191
 Lot Size Allowed: 5,000 SF (Cluster)
 Lot Size Proposed: 5,000 SF
- Density Allowed: 3 Units/AC
 Density Proposed: 2.2 Units/AC
- Open Space Required: 34.4 AC
 Open Space Provided: ±42 AC

Legend:

- (NC) Single Family Lot
- (NC) Townhouse Lot
- (NC) Commercial
- (RM) Single Family Lot
- SCM
- Roads
- Sidewalks
- 10' Greenway
- Conservation Area



LAYOUT IS SUBJECT TO CHANGE PENDING PERMITTING, GRADING, AND UTILITY DESIGN.



-Z->

Neighborhood Meeting

A neighborhood meeting was held virtually on June 20, 2022 beginning at 6:00 p.m. Attached as **Exhibit A** is a copy of the neighborhood meeting notice, including the attachments. A copy of the mailing list for the meeting notice is attached as **Exhibit B**. The following members of the applicant team and attendees were present, as identified in the virtual meeting sign in process:

Applicant Team:

Beth Trahos, Nelson Mullins
Bill Harrell, Hopper Communities
Patrick Barbeau, Timmons
Steve and Giny Wheeler, Landowners

Attendees:

None

Ms. Trahos opened the meeting at 6. There was no one from the public in attendance. Ms. Trahos kept the meeting line open until 7:15. No one else joined the meeting. As a result, no presentation was made.

The meeting was adjourned at 7:15 p.m.

EXHIBIT A



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beth.trahos@nelsonmullins.com

NELSON MULLINS RILEY & SCARBOROUGH LLP
ATTORNEYS AND COUNSELORS AT LAW

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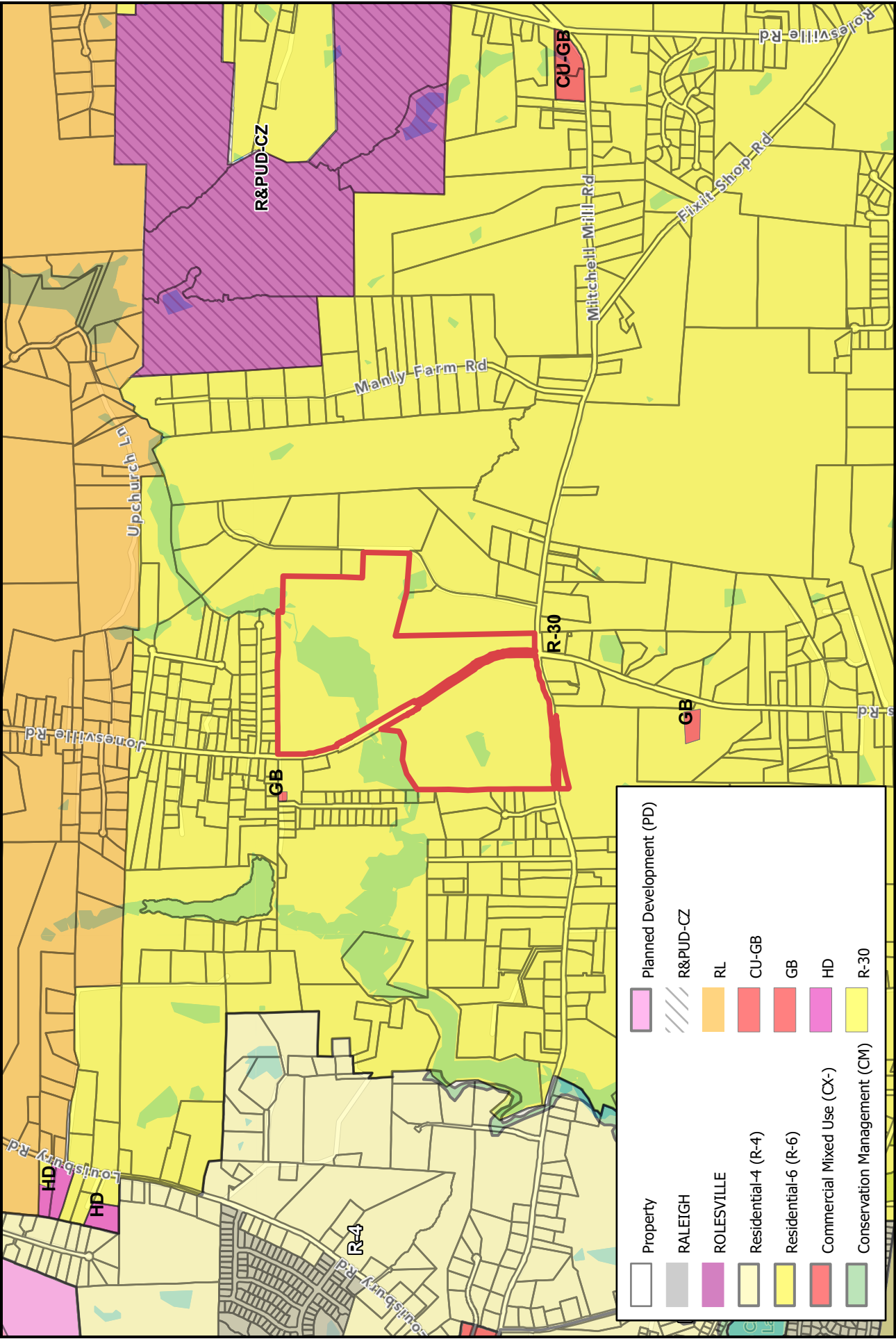
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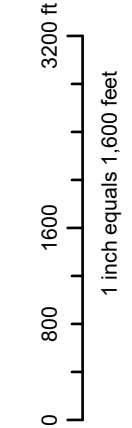
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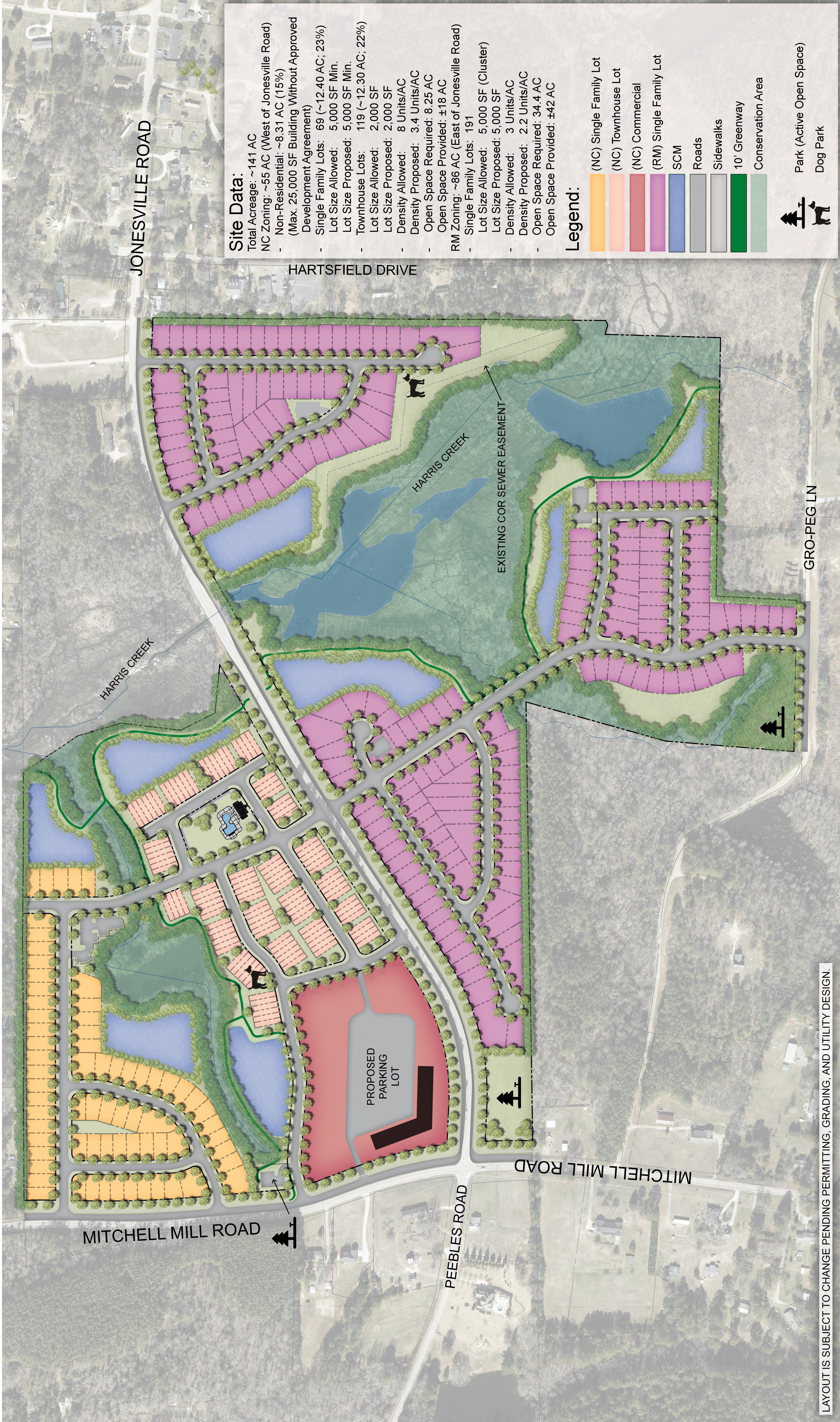
A handwritten signature in blue ink, appearing to read 'Beth', with a long, sweeping horizontal line extending to the right.

Elizabeth C. Trahos



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- 10' Greenway
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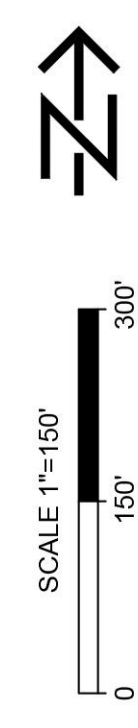


EXHIBIT B

OWNER

JONES, CHARLES ALFONSO JONES, ALLIE V
WALKER, ALESHIA FERRELL WALKER, AARON
JONES, ALICIA BROWN JONES, CARL T
HONEYCUTT, CURTIS L HONEYCUTT, CHARITY M
HONEYCUTT, TODD KENDALL
CARLE, SCOTT CARLE, THERESA
CHRIST HOLINESS CHURCH NUMBER 1 C/O WILIAM WHITFIELD
HARTSFIELD, ROZELIA J HEIRS C/O HATTIE SMITH
BASS, KAREN E
CHEN, PING
BRADSHER, PHETIS JONES
MILLER, BERNARD
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MT CALVARY HOLINESS CHURCH OF WAKE CO INC
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PERRY, HEATHER MARIE
ELIAS, ABAHOR ELIAS, SUSAN
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BEACHUM, JONATHAN ADAM
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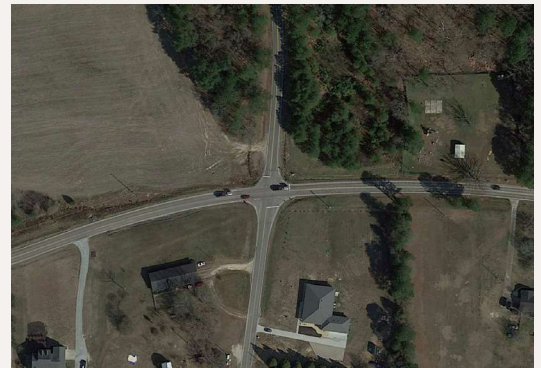
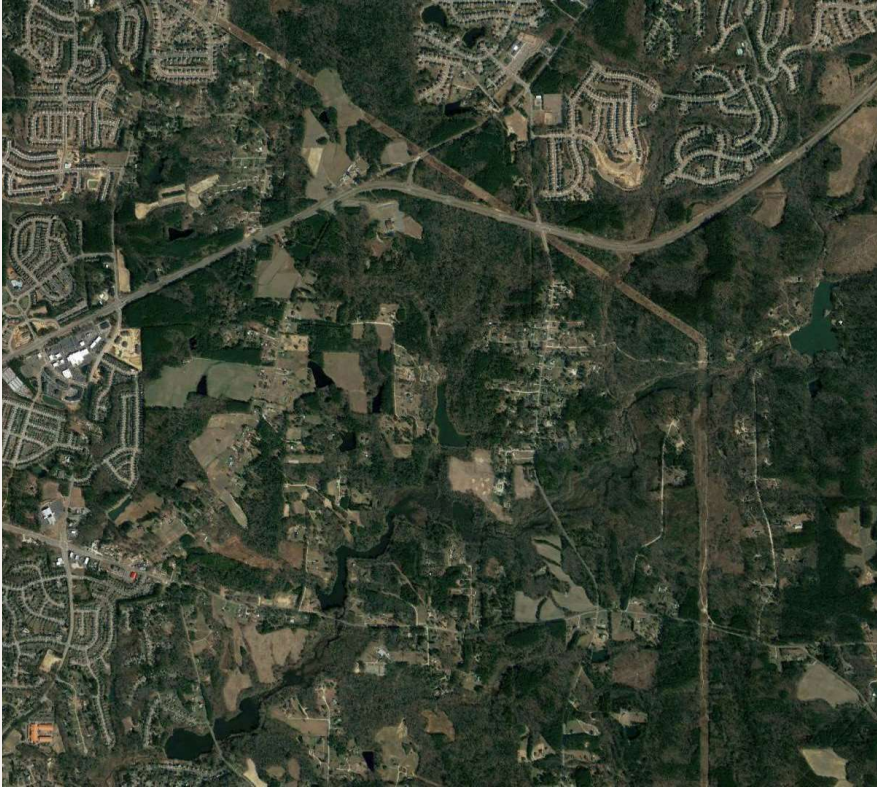
ADDR1

3800 JONESVILLE RD
5012 HARTSFIELD DR
5028 HARTSFIELD DR
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PO BOX 371
5016 HARTSFIELD DR
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1601 BASS RD
10030 GREEN LEVEL CHURCH RD STE 802
PO BOX 203
3516 WOOD DUCK LN
3512 WOOD DUCK LN
5016 HARTSFIELD DR
248 CALIFORNIA AVE
3741 JONESVILLE RD
3921 JONESVILLE RD
1201 ROLESVILLE RD
5016 HARTSFIELD DR
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3533 WOOD DUCK LN
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5229 MITCHELL MILL RD
31 HUDSON YARDS
4912 UNIVERSAL DR

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WAKE FOREST NC 27587-8181
LOUISBURG NC 27549-6806
WAKE FOREST NC 27587-7249
NEW YORK NY 10001-2170
WAKE FOREST NC 27587-6356

RAMEY KEMP ASSOCIATES
TOGETHER WE ARE LIMITLESS



5109 Mitchell Mill Road
Traffic Impact Analysis
Rolesville, North Carolina

TRAFFIC IMPACT ANALYSIS

FOR

5109 MITCHELL MILL ROAD

LOCATED

IN

ROLESVILLE, NORTH CAROLINA

Prepared For:
Town of Rolesville
502 Southtown Circle
Rolesville, NC 27571

Prepared By:
Infrastructure Consulting Services, Inc.
dba

Ramey Kemp Associates
5808 Faringdon Place
Raleigh, NC 27609
License #F-1489



AUGUST 2022

RKA Project No. 20498 - 004

Prepared By: TF

Reviewed By: CH

TRAFFIC IMPACT ANALYSIS
5109 MITCHELL MILL ROAD
ROLESVILLE, NORTH CAROLINA

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed 5109 Mitchell Mill Road development in accordance with the Town of Rolesville (Town) Land Development Ordinance (LDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The proposed development is expected to be completed in 2028 and is to be separated into two (2) tracts on both sides of Jonesville Road, north of Mitchell Mill Road in Rolesville, North Carolina. The eastern tract is expected to consist of 195 single-family homes and the western tract of development is expected to consist of 69 single-family homes, 129 townhomes, and 50,000 square feet (sq. ft.) of general retail space. Site access is proposed via four (4) full-movement driveway connections along Jonesville Road, three (3) right-in/right-out (RIRO) driveway connections along Mitchell Mill Road, and one (1) full-movement driveway connection along Mitchell Mill Road. One of the site driveway connections along Jonesville Road will be aligned to provide access to both the eastern and western tracts of the proposed development.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2021 Existing Traffic Conditions
- 2028 No-Build Traffic Conditions
- 2028 Build Traffic Conditions

2. Existing Traffic Conditions

The study area for the TIA was determined through coordination with the Town of Rolesville (Town) and NCDOT and consists of the following existing intersections:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersections listed above, in November of 2021 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, while schools were in session for in-person learning:

Weekday AM and PM traffic volumes were balanced between study intersections, where appropriate.

3. Site Trip Generation

The proposed development is assumed to consist of 264 single-family homes, 129 townhomes, and 50,000 sq. ft. of general retail space. Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the *ITE Trip Generation Manual*, 10th Edition. Table E-1, on the following page, provides a summary of the trip generation potential for the site.

Table E-1: Site Trip Generation

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)			Weekday PM Peak Hour Trips (vph)		
			Enter	Exit	Total	Enter	Exit	Total
Single-Family Home (210)	264 DU	2,540	48	144	192	163	95	258
Multi-Family Home (Low-Rise) (220)	129 DU	934	14	47	61	47	27	74
Shopping Center (820)	50 KSF	3,752	110	67	177	156	169	325
Total Trips		7,226	172	258	430	366	291	657
<i>Internal Capture (1% AM, 15% PM)*</i>			-2	-2	-4	-35	-35	-70
Total External Trips			170	256	426	331	256	587
<i>Pass-By Trips: Shopping Center (34% PM)</i>			-	-	-	-47	-47	-94
Total Primary Trips			170	256	426	284	209	493

**Utilizing methodology contained in the NCHRP Report 684.

4. Future Traffic Conditions

Through coordination with the Town and NCDOT, it was determined that an annual growth rate of 2% would be used to generate 2028 projected weekday AM and PM peak hour traffic volumes.

The following adjacent developments were identified to be considered under future conditions:

- Cobblestone Crossing Mixed-Use
- Young Street PUD
- Wheeler Tract
- Louisbury Road Assemblage
- Kalas / Watkins Family Property

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for 2021 existing, 2028 no-build, and 2028 build conditions. Refer to Section 7 of the TIA for the capacity analysis summary performed at each study intersection.

6. Recommendations

Based on the findings of this study, specific geometric and traffic control improvements have been identified at the study intersections. The improvements are summarized below and are illustrated in Figure E-1.

Recommended Improvements by Developer

Required Frontage Improvements per Rolesville Community Transportation Plan

- Widen Jonesville Road along the site frontage between Site Access 1 and Mitchell Mill Road to this roadway's ultimate section (2-lane w/ TWLTL).
- Widen one-half section of Mitchell Mill Road along the site frontage to this roadway's ultimate section (4-lane median divided).

US 401 Bypass and Jonesville Road

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

US 401 Bypass and Eastern U-Turn Location

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

Mitchell Mill Road and Jonesville Road / Peebles Road

- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct an eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

Jonesville Road and Site Access 1

- Construct the westbound approach (Site Access 1) with one ingress lane and one egress lane.
- Provide stop-control for the westbound approach (Site Access 1).
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 2

- Construct the westbound approach (Site Access 2) with one ingress lane and one egress lane.
- Provide stop-control for the westbound approach (Site Access 2).
- Construct a northbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 3

- Construct the eastbound and westbound approaches (Site Access 3) with one ingress lane and one egress lane.
- Provide stop-control for the eastbound and westbound approaches (Site Access 3).
- Construct a northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a northbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 4

- Construct the eastbound approach (Site Access 4) with one ingress lane and one egress lane.
- Provide stop-control for the eastbound approach (Site Access 4).
- Construct a northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 5

- Construct the southbound approach (Site Access 5) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 5). This proposed intersection will be restricted to right-in/right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 6

- Construct the southbound approach (Site Access 6) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 6). This proposed intersection will be restricted to right-in/right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 7

- Construct the southbound approach (Site Access 7) with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 7)
- Construct an exclusive eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 8

- Construct the southbound approach (Site Access 8) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 8). This proposed intersection will be restricted to right-in/right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

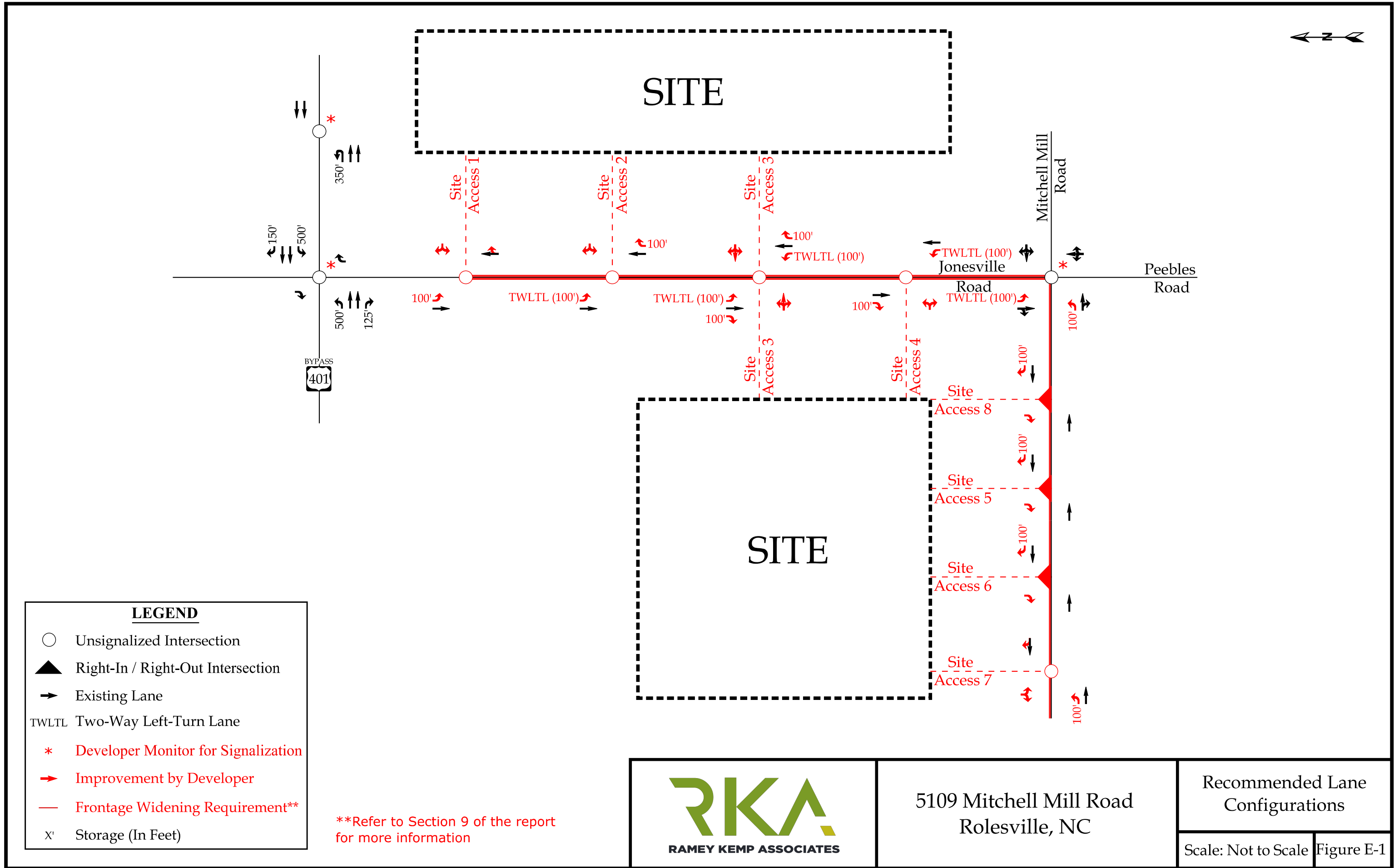


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TRAFFIC IMPACT ANALYSIS
5109 MITCHELL MILL ROAD
ROLESVILLE, NORTH CAROLINA

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed 5109 Mitchell Mill Road development in Rolesville, North Carolina. The proposed development, anticipated to be completed in 2028, is separated into two (2) tracts on both sides of Jonesville Road, north of Mitchell Mill Road. The purpose of this study is to determine the potential impacts to the surrounding transportation system created by traffic generated by the proposed development, as well as recommend improvements to mitigate the impacts.

The eastern tract is expected to consist of 195 single-family homes and the western tract of development is expected to consist of 69 single-family homes, 129 townhomes, and 50,000 square feet (sq. ft.) of general retail.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2021 Existing Traffic Conditions
- 2028 No-Build Traffic Conditions
- 2028 Build Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located along both sides of Jonesville Road, north of Mitchell Mill Road in Rolesville, North Carolina. Refer to Figure 1 for the site location map.

The study area for the TIA was determined through coordination with the North Carolina Department of Transportation (NCDOT) and the Town of Rolesville (Town) and consists of the following existing intersections:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location

- Mitchell Mill Road and Jonesville Road / Peebles Road

Refer to Appendix A for the approved scoping documentation.

1.2. Proposed Land Use and Site Access

The site is to be located along both sides of Jonesville Road, north of Mitchell Mill Road. The proposed development, anticipated to be completed in 2028, is assumed to consist of the following uses:

- 264 single-family homes
- 129 townhomes
- 50,000 sq. ft. of general retail

Site access is proposed via four (4) full-movement driveway connections along Jonesville Road, three (3) right-in/right-out (RIRO) driveway connections along Mitchell Mill Road, and one (1) full-movement driveway connection along Mitchell Mill Road. One of the site driveway connections along Jonesville Road will be aligned to provide access to both the eastern and western tracts of the proposed development. Refer to Figure 2 for a copy of the preliminary site plan.

1.3. Adjacent Land Uses

The proposed development is located in an area consisting primarily of undeveloped land and residential development.

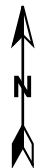
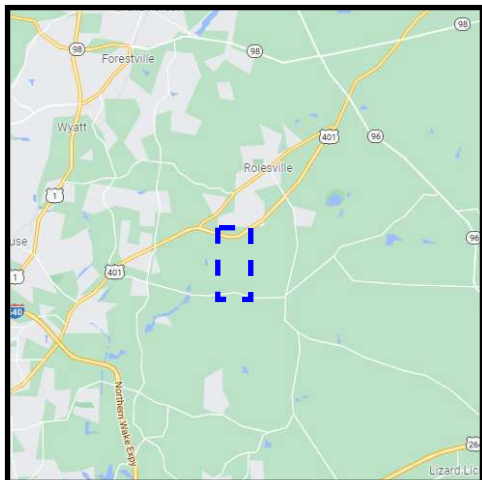
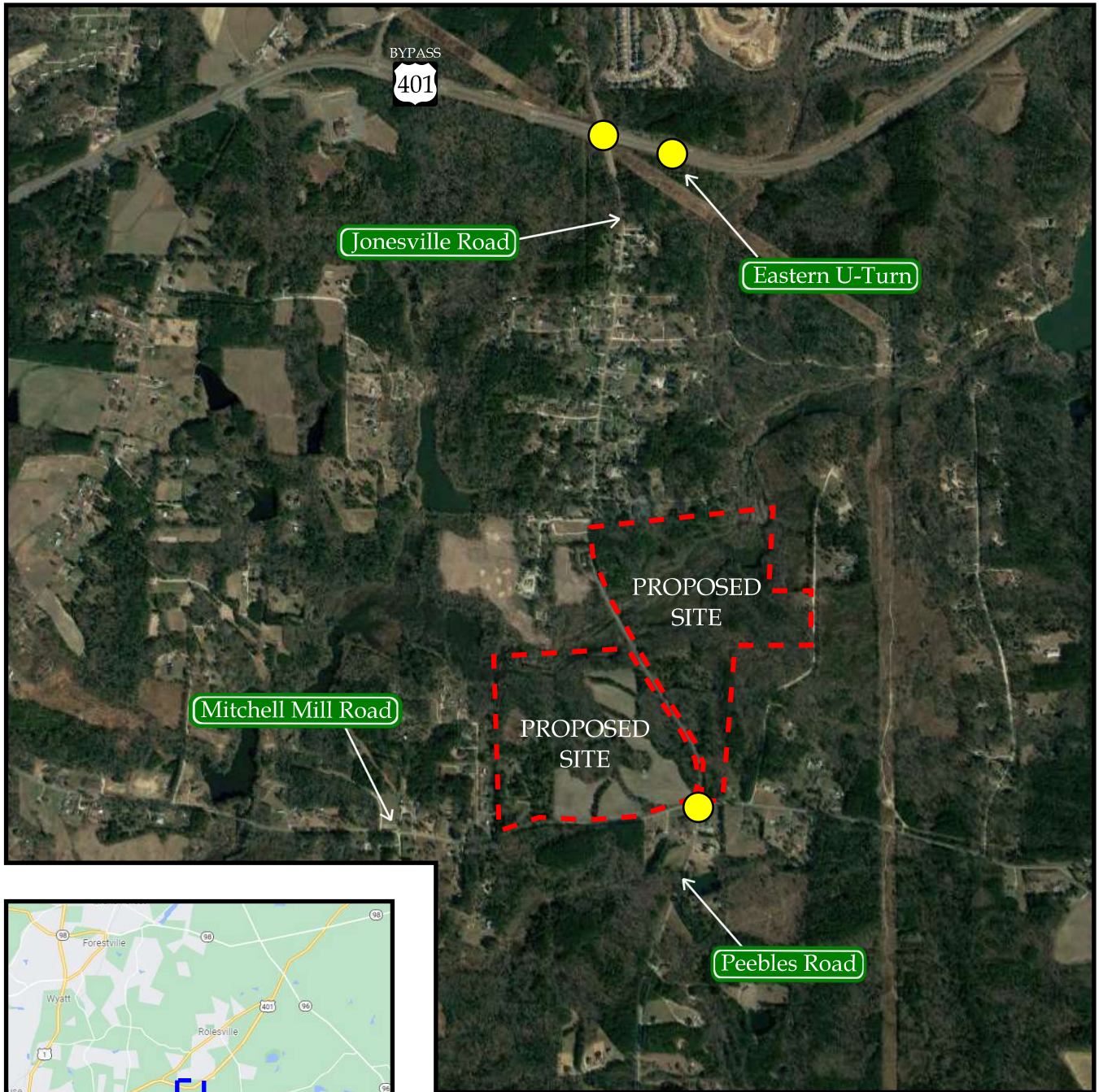
1.4. Existing Roadways

Existing lane configurations (number of traffic lanes on each intersection approach), lane widths, storage capacities, and other intersection and roadway information within the study area are shown in Figure 3. Table 1 provides a summary of this information, as well.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross-Section	Speed Limit	Maintained By	2019 AADT (vpd)
US 401 Bypass		4-lane divided	55 mph	NCDOT	17,500
Jonesville Road	SR 2226	2-lane undivided	35 mph / 45 mph	NCDOT	2,170*
Mitchell Mill Road	SR 2224	2-lane undivided	45 mph	NCDOT	4,000
Peebles Road	SR 2929	2-lane undivided	45 mph	NCDOT	1,670*

*ADT based on 2021 existing traffic volumes and assuming the weekday PM peak hour volume is 10% of the average daily traffic.



LEGEND

-  Proposed Site Location
-  Study Intersection
-  Study Area

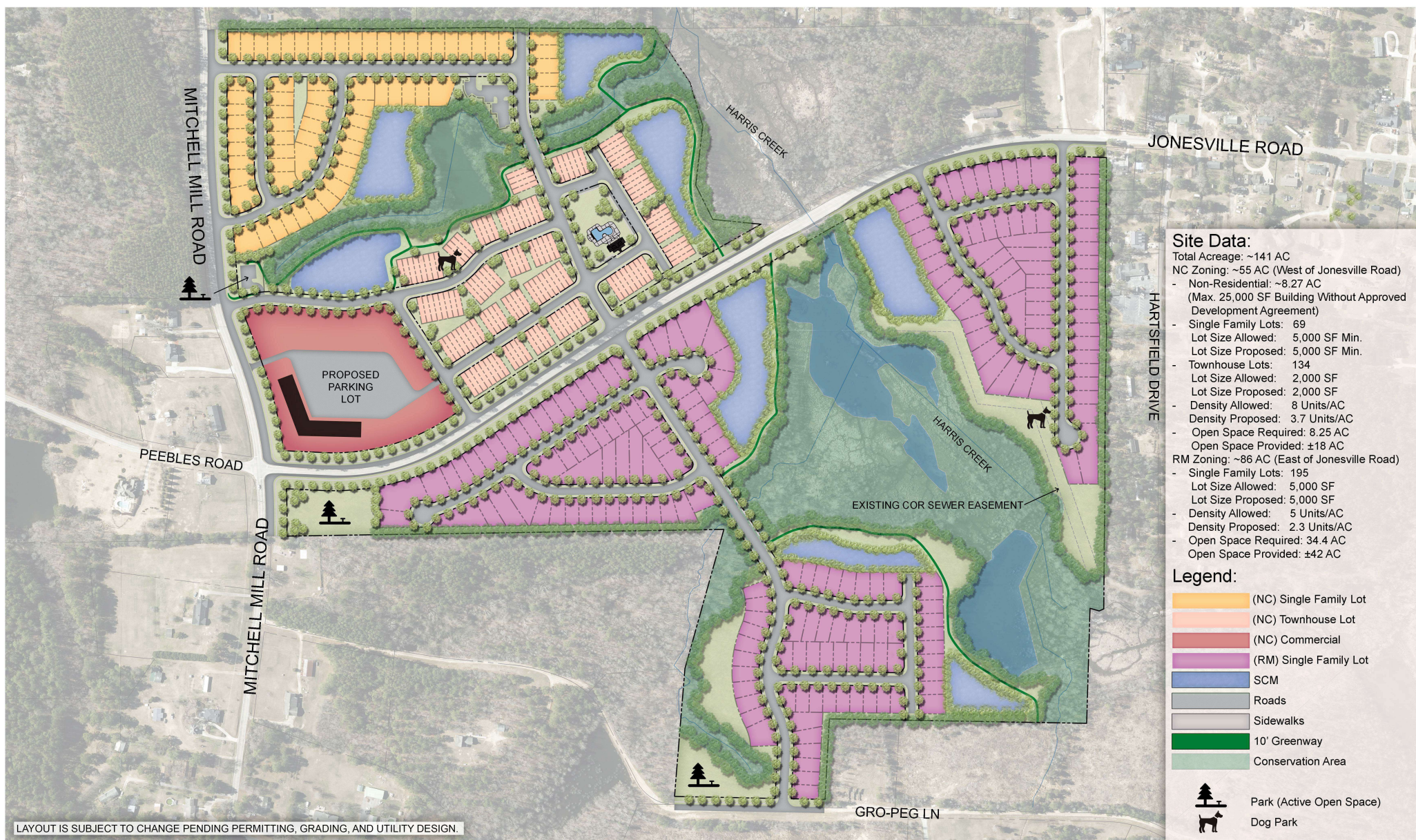


5109 Mitchell Mill Road
Rolesville, NC

Site Location Map

Scale: Not to Scale

Figure 1

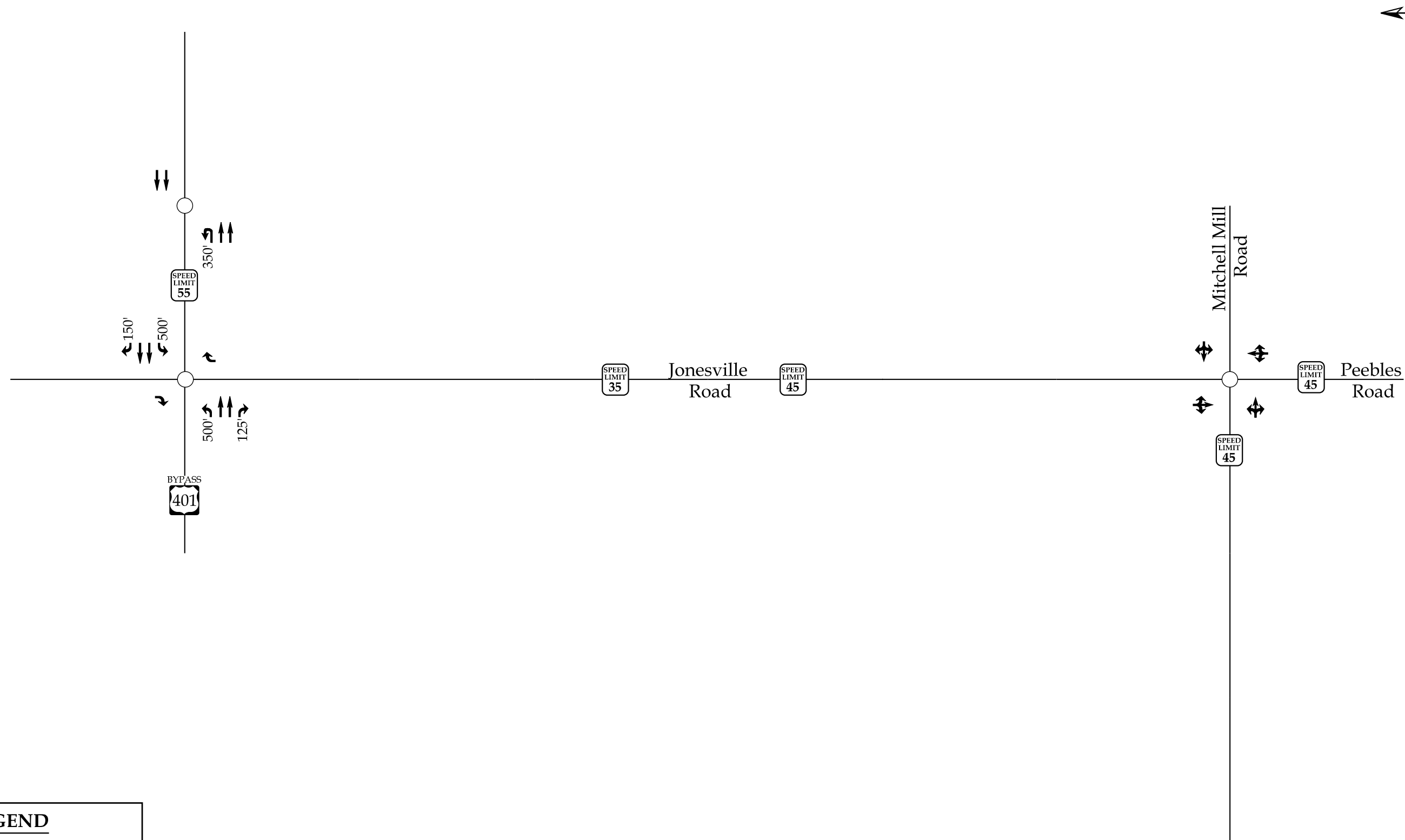


5109 MITCHELL MILL ROAD - ROLESVILLE, NC
 Conceptual Master Plan - February 23, 2022

SCALE 1"=150'



Figure 2



5109 Mitchell Mill Road
Rolesville, NC

2021 Existing
Lane Configurations

Scale: Not to Scale

Figure 3

2. 2021 EXISTING PEAK HOUR CONDITIONS

2.1. 2021 Existing Peak Hour Traffic Volumes

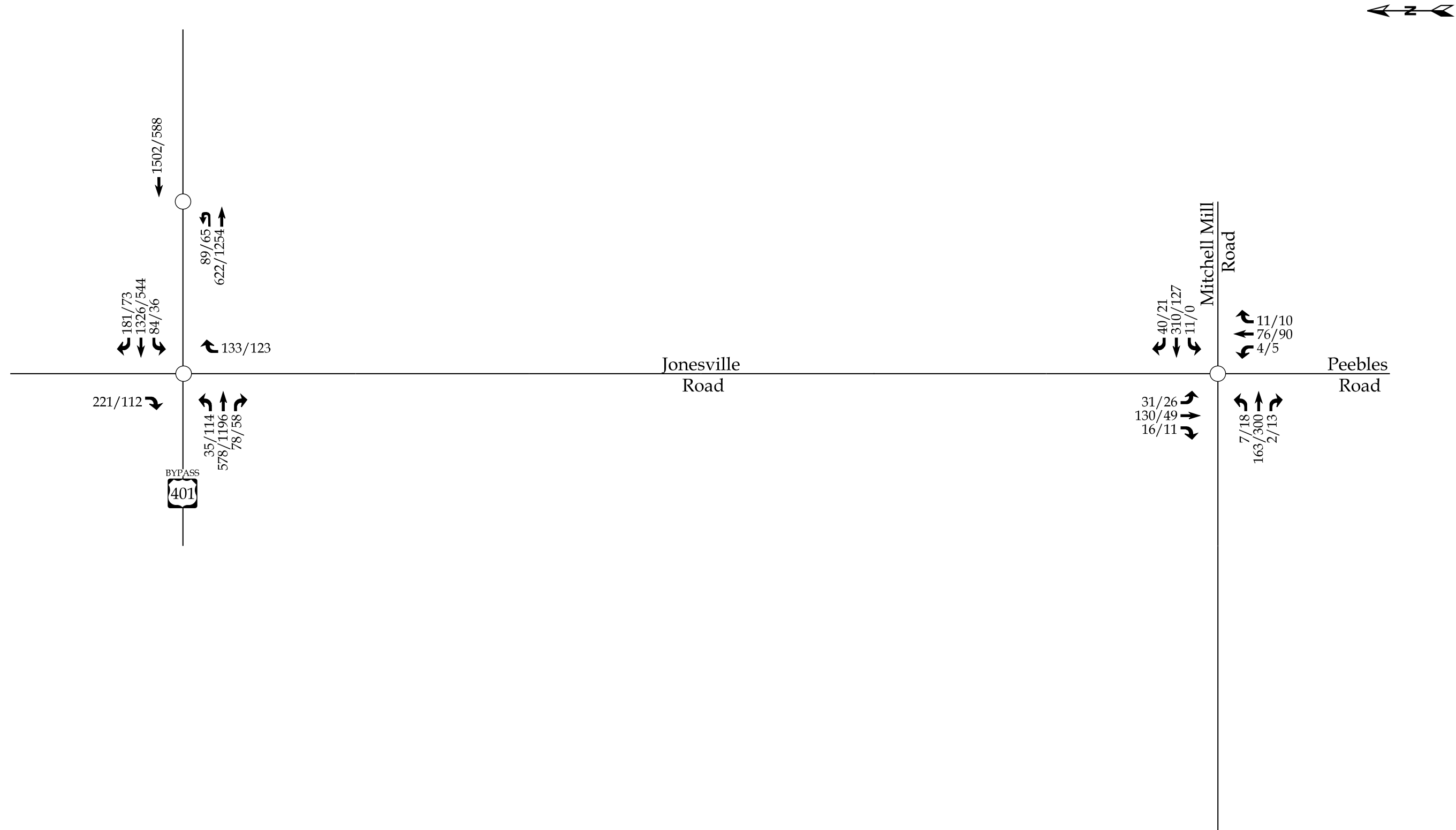
Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersections listed below, in November of 2021 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, while schools were in session for in-person learning:

- US 401 Bypass and Jonesville Road
- US 401 Bypass and Eastern U-Turn Location
- Mitchell Mill Road and Jonesville Road / Peebles Road

Weekday AM and PM traffic volumes were balanced between study intersections, where appropriate. Refer to Figure 4 for 2021 existing weekday AM and PM peak hour traffic volumes. A copy of the count data is located in Appendix B of this report.

2.2. Analysis of 2021 Existing Peak Hour Traffic Conditions

The 2021 existing weekday AM and PM peak hour traffic volumes were analyzed to determine the current levels of service at the study intersections under existing roadway conditions. The results of the analysis are presented in Section 7 of this report.



LEGEND

○ Unsignalized Intersection

x / y → Weekday AM / PM Peak Hour Traffic

 RAMEY KEMP ASSOCIATES	5109 Mitchell Mill Road Rolesville, NC	2021 Existing Peak Hour Traffic	
		Scale: Not to Scale	Figure 4

3. 2028 NO-BUILD PEAK HOUR CONDITIONS

In order to account for growth of traffic and subsequent traffic conditions at a future year, no-build traffic projections are needed. No-build traffic is the component of traffic due to the growth of the community and surrounding area that is anticipated to occur regardless of whether or not the proposed development is constructed. No-build traffic is comprised of existing traffic growth within the study area and additional traffic created as a result of adjacent approved developments.

3.1. Ambient Traffic Growth

Through coordination with the Town and NCDOT, it was determined that an annual growth rate of 2% would be used to generate 2028 projected weekday AM and PM peak hour traffic volumes. Refer to Figure 5 for 2028 projected peak hour traffic.

3.2. Adjacent Development Traffic

Through coordination with the Town and NCDOT, the following adjacent developments were identified to be included as an approved adjacent development in this study:

- Cobblestone Crossing Mixed-Use
- Young Street PUD
- Wheeler Tract
- Louisbury Road Assemblage
- Kalas / Watkins Family Property

Table 2, on the following page, provides a summary of the adjacent developments.

Table 2: Adjacent Development Information

Development Name	Location	Build-Out Year	Land Use / Intensity	TIA Performed
Cobblestone Crossing Mixed-Use	Northwest quadrant of the intersection of Main Street and Young Street	2023	180 multi-family homes 18,200 sq. ft. municipal flex space 50,000 sq. ft. general retail	March 2021 by RKA
Young Street PUD	Along both sides of US 401 Bypass west of Young Street	2025	96 single-family homes 525 single-family homes 320 multi-family homes 122,800 sq. ft. general retail	June 2019 by Kimley Horn
Wheeler Tract	Northeast quadrant of the intersection of Rolesville Road and Mitchell Mill Road	2026	233 single-family homes 125 multi-family homes	June 2019 by RKA
Louisbury Road Assemblage	West of Louisbury Road and south of Stells Road	2025	152 single-family homes	May 2020 by RKA
Kalas / Watkins Family Property	Along the west side of Rolesville Road, north of Mitchell Mill Road	2025	439 single-family homes 96 multi-family homes	August 2019 by Stantec

It should be noted that the adjacent developments were approved, during scoping, by the Town and NCDOT. Adjacent development trips are shown in Figure 6. Adjacent development information can be found in Appendix C.

3.3. Future Roadway Improvements

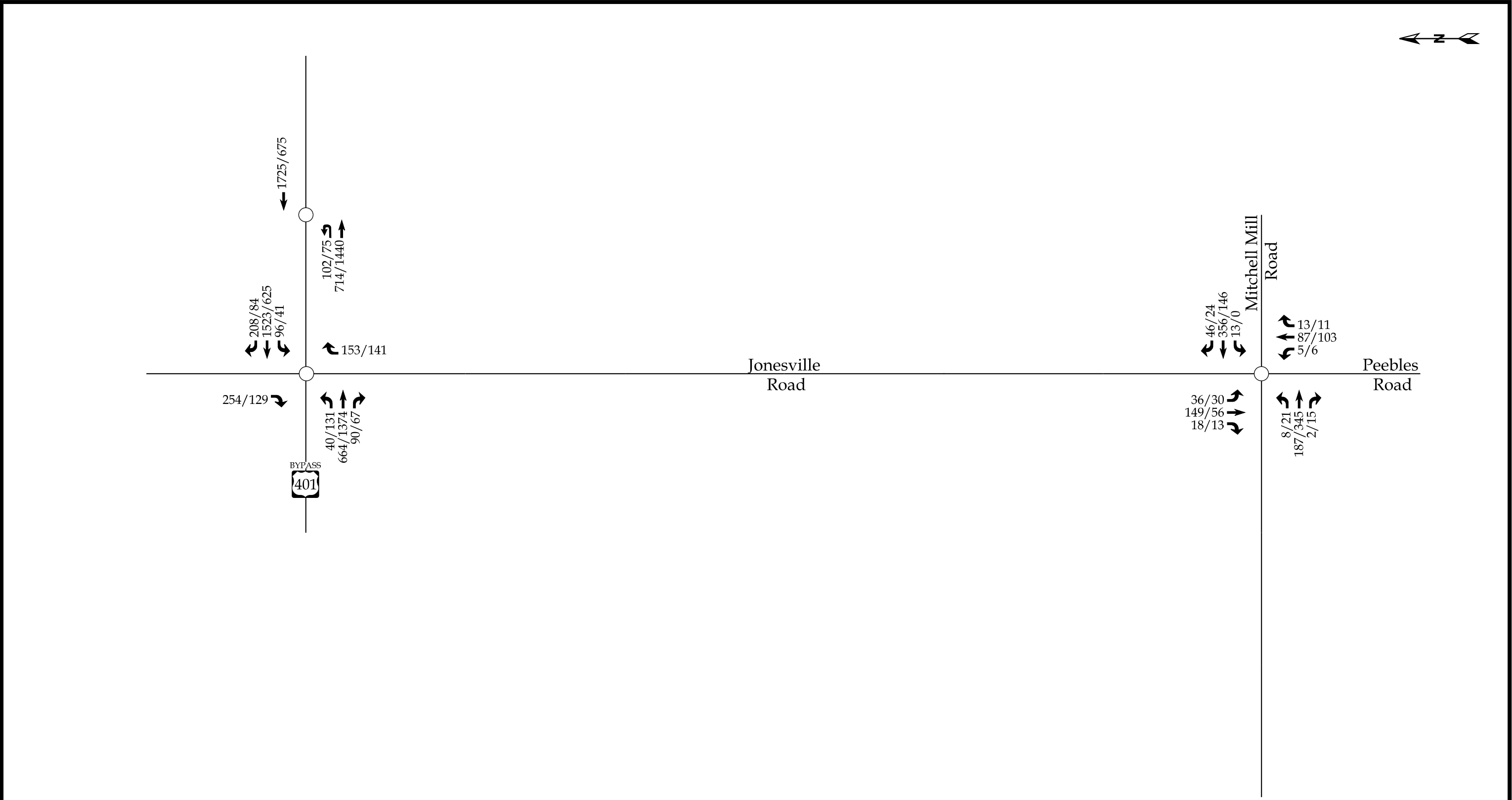
Based on coordination with the NCDOT and the Town, it was determined there were no future roadway improvements to consider under future conditions with this study. It should be noted that per the Rolesville Community Transportation Plan (dated May 2021), the ultimate cross-section of Jonesville Road is identified as a 2-lane roadway with a center two-way-left-turn-lane (TWLTL) and Mitchell Mill Road is identified as a 4-lane median-divided roadway.

3.4. 2028 No-Build Peak Hour Traffic Volumes

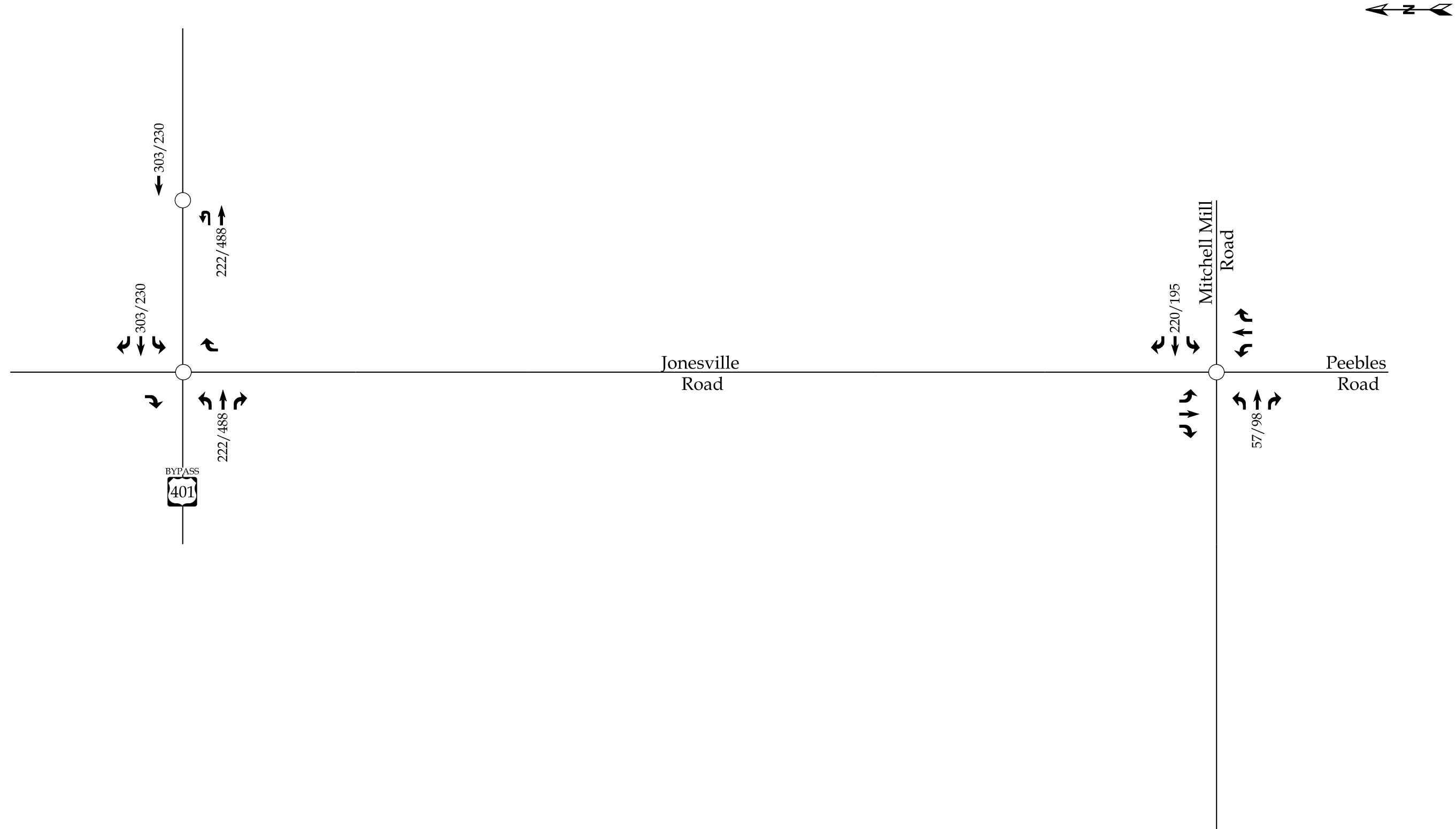
The 2028 no-build traffic volumes were determined by projecting the 2021 existing peak hour traffic to the year 2028, and adding the adjacent development trips. Refer to Figure 7 for an illustration of the 2028 no-build peak hour traffic volumes at the study intersections.

3.5. Analysis of 2028 No-Build Peak Hour Traffic Conditions

The 2028 no-build AM and PM peak hour traffic volumes at the study intersections were analyzed with existing geometric roadway conditions and traffic control. The analysis results are presented in Section 7 of this report.



 RAMEY KEMP ASSOCIATES	5109 Mitchell Mill Road Rolesville, NC	2028 Projected Peak Hour Traffic	
		Scale: Not to Scale	Figure 5



LEGEND

- Unsignalized Intersection
- x / y → Weekday AM / PM Peak Hour Adjacent Development Trips

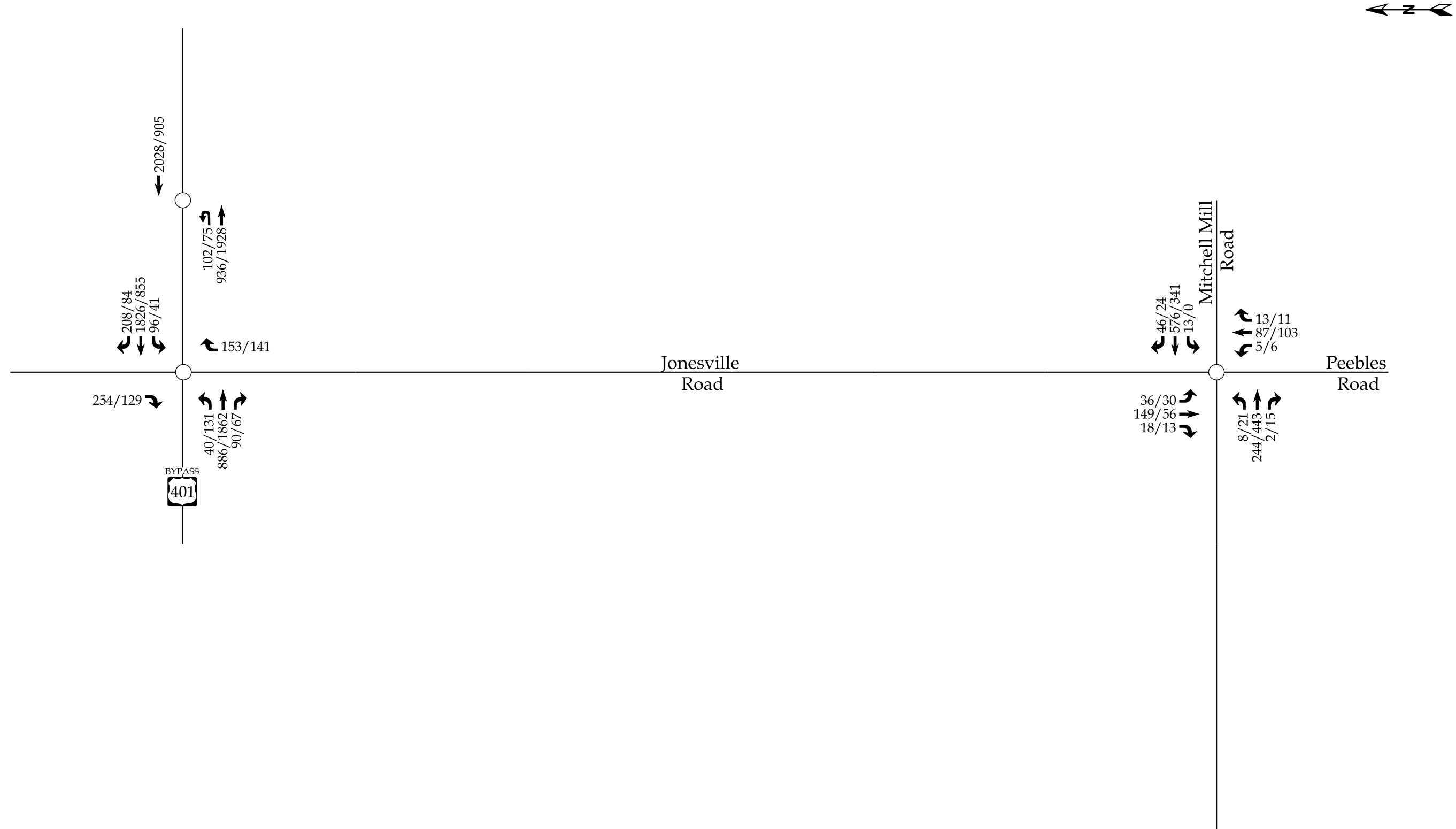


5109 Mitchell Mill Road
Rolesville, NC

Peak Hour Adjacent
Development Trips

Scale: Not to Scale

Figure 6



LEGEND

○

Unsignalized Intersection

x / y →

Weekday AM / PM Peak Hour Traffic

<div><div>RKA</div><div>RAMEY KEMP ASSOCIATES</div></div>	5109 Mitchell Mill Road Rolesville, NC	2028 No-Build Peak Hour Traffic	
		Scale: Not to Scale	Figure 7

4. SITE TRIP GENERATION AND DISTRIBUTION

4.1. Trip Generation

The proposed development is assumed to consist of 264 single-family homes, 129 townhomes, and 50,000 sq. ft. of general retail space. Average weekday daily, AM peak hour, and PM peak hour trips for the proposed development were estimated using methodology contained within the *ITE Trip Generation Manual*, 10th Edition. Table 3 provides a summary of the trip generation potential for the site.

Table 3: Trip Generation Summary

Land Use (ITE Code)	Intensity	Daily Traffic (vpd)	Weekday AM Peak Hour Trips (vph)			Weekday PM Peak Hour Trips (vph)		
			Enter	Exit	Total	Enter	Exit	Total
Single-Family Home (210)	264 DU	2,540	48	144	192	163	95	258
Multi-Family Home (Low-Rise) (220)	129 DU	934	14	47	61	47	27	74
Shopping Center (820)	50 KSF	3,752	110	67	177	156	169	325
Total Trips		7,226	172	258	430	366	291	657
<i>Internal Capture (1% AM, 15% PM)*</i>			-2	-2	-4	-35	-35	-70
Total External Trips			170	256	426	331	256	587
<i>Pass-By Trips: Shopping Center (34% PM)</i>			-	-	-	-47	-47	-94
Total Primary Trips			170	256	426	284	209	493

*Utilizing methodology contained in the NCHRP Report 684.

It is estimated that the proposed development will generate approximately 7,226 total site trips on the roadway network during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 430 trips (172 entering and 258 exiting) will occur during the weekday AM peak hour and 657 trips (366 entering and 291 exiting) will occur during the weekday PM peak hour.

Internal capture of trips between the retail and residential land uses was considered in this study. Internal capture is the consideration for trips that will be made within the site between

different land uses, so the vehicle technically never leaves the internal site but can still be considered as a trip to that specific land use. However, since the site is split into two (2) tracts on either side of Jonesville Road, internal capture was only considered for the land uses in the western tract. Based on NCHRP Report 684 methodology, weekday AM and PM peak hour internal capture rates of 1% and 15%, respectively, were applied to the trips generated from the western tract only. The internal capture reductions are expected to account for approximately 4 trips (2 entering and 2 exiting) during the weekday AM peak hour and 70 trips (35 entering and 35 exiting) during the weekday PM peak hour.

Pass-by trips were also be taken into consideration in this study. Pass-by trips are made by the traffic already using the adjacent roadway, entering the site as an intermediate stop on their way to another destination. Pass-by percentages are applied to site trips after adjustments for internal capture. Pass-by trips are expected to account for approximately 94 trips (47 entering and 47 exiting) during the weekday PM peak hour. It should be noted that the pass-by trips were balanced, as it is likely that these trips would enter and exit in the same hour.

The total primary site trips are the calculated site trips after the reduction for internal capture and pass-by trips. Primary site trips are expected to generate approximately 426 trips (170 entering and 256 exiting) during the weekday AM peak hour and 493 trips (284 entering and 209 exiting) during the weekday PM peak hour.

4.2. Site Trip Distribution and Assignment

Trip distribution percentages used in assigning site traffic for this development were estimated based on a combination of existing traffic patterns, population centers adjacent to the study area, and engineering judgment.

It is estimated that the residential site trips will be regionally distributed as follows:

- 40% to/from the west via US 401 Bypass
- 20% to/from the east via US 401 Bypass
- 10% to/from the south via Peebles Road

- 25% to/from the west via Mitchell Mill Road
- 5% to/from the east via Mitchell Mill Road

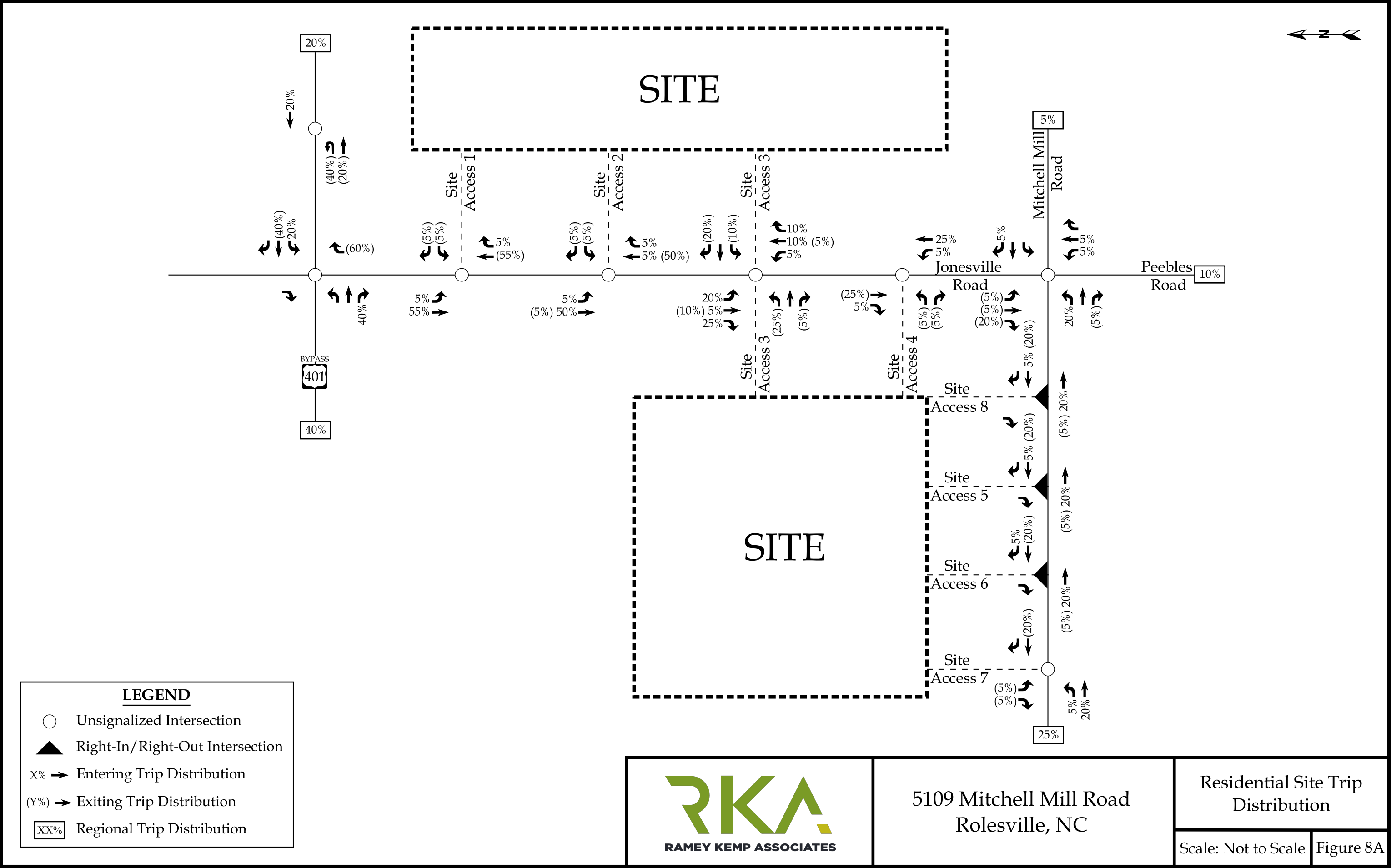
It is estimated that the commercial site trips will be regionally distributed as follows:

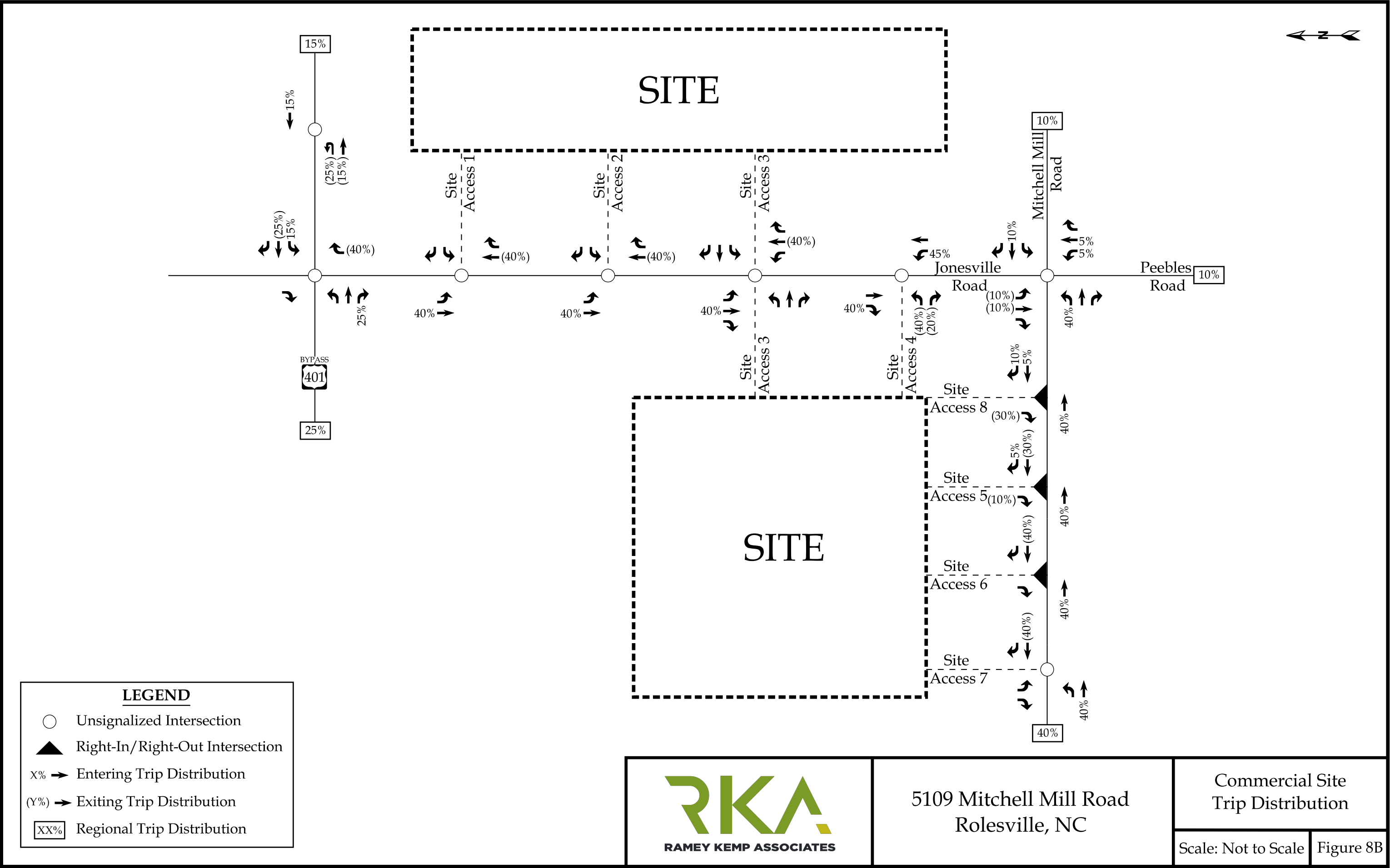
- 25% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the south via Peebles Road
- 40% to/from the west via Mitchell Mill Road
- 10% to/from the east via Mitchell Mill Road

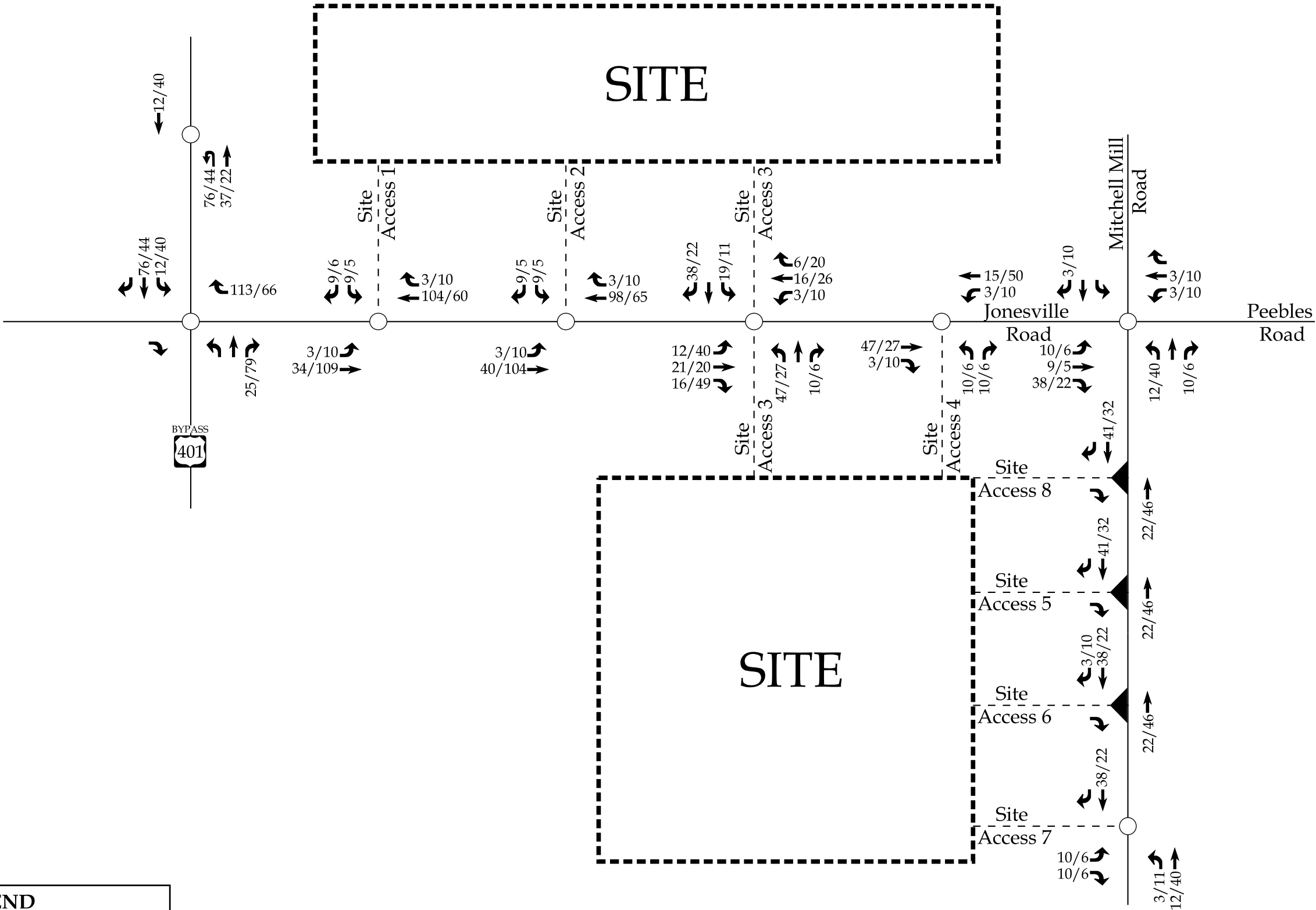
The residential site trip distribution is shown in Figure 8A and the commercial site trip distribution is shown in Figure 8B. Refer to Figures 9A and 9B for the residential site trip assignment and commercial site trip assignment, respectively.

The pass-by site trips were distributed based on existing traffic patterns with consideration given to the proposed driveway access and site layout. Refer to Figure 10 for the pass-by site trip distribution. Pass-by site trips are shown in Figure 11.

The total site trips were determined by adding the primary site trips and the pass-by site trips. Refer to Figure 12 for the total peak hour site trips at the study intersections.



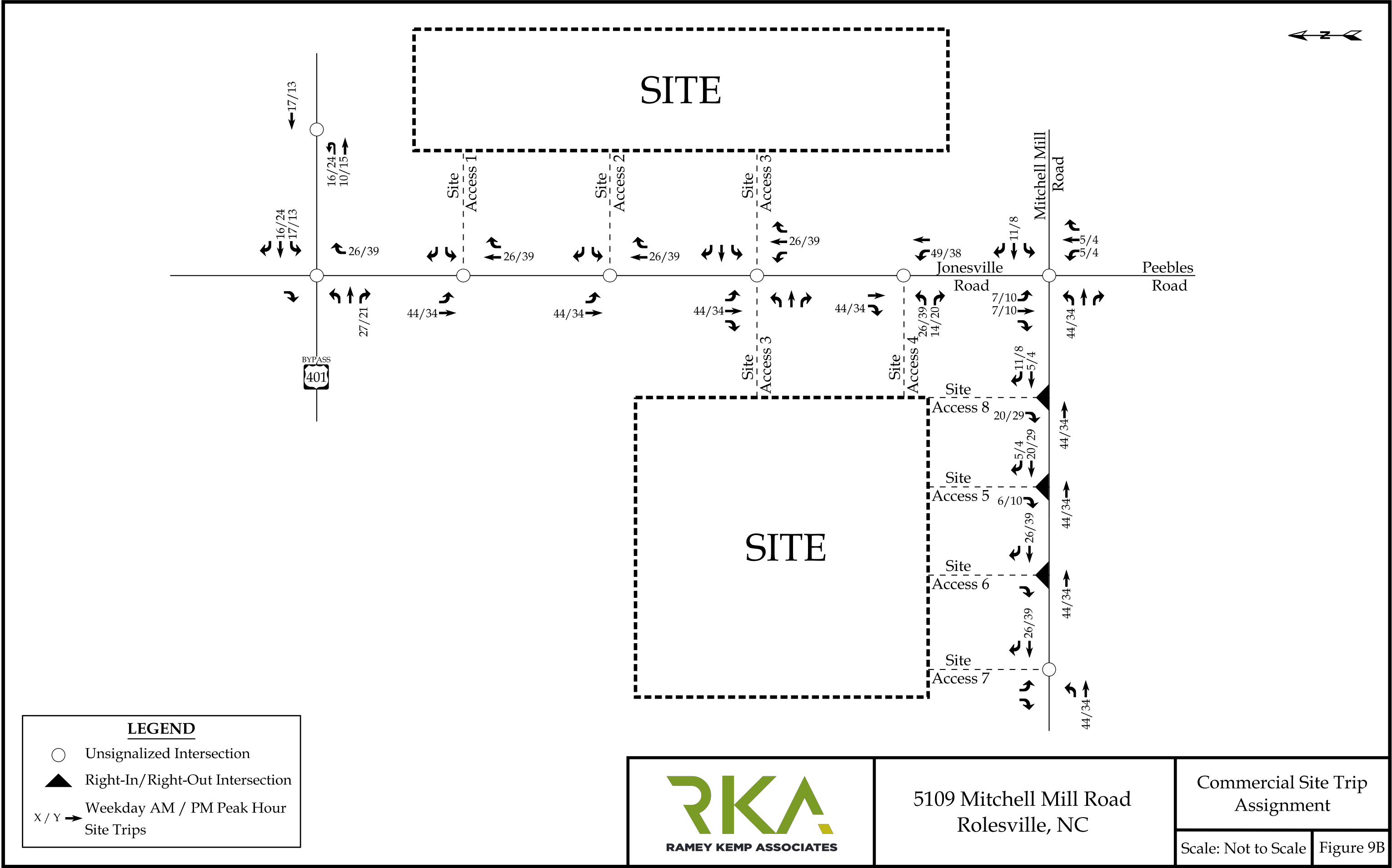


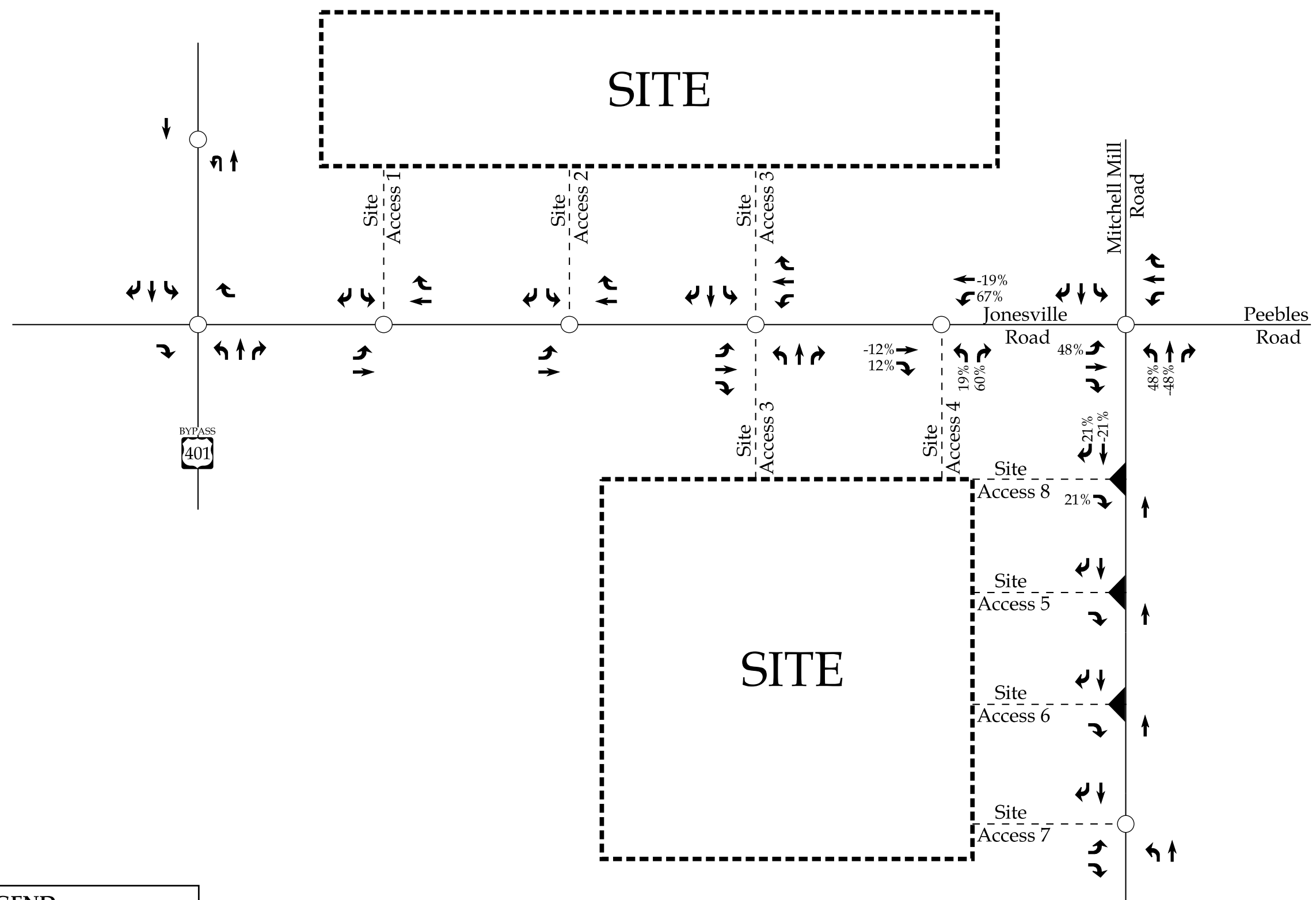


LEGEND

- Unsignalized Intersection
- ▲ Right-In/Right-Out Intersection
- x / y → Weekday AM / PM Peak Hour Site Trips

 RAMEY KEMP ASSOCIATES	5109 Mitchell Mill Road Rolesville, NC	Residential Site Trip Assignment	
		Scale: Not to Scale	Figure 9A





LEGEND

○

Unsignalized Intersection

▲

Right-In/Right-Out Intersection

X% →

Weekday PM Pass-By Trip Distribution

RKA

RAMEY KEMP ASSOCIATES

5109 Mitchell Mill Road

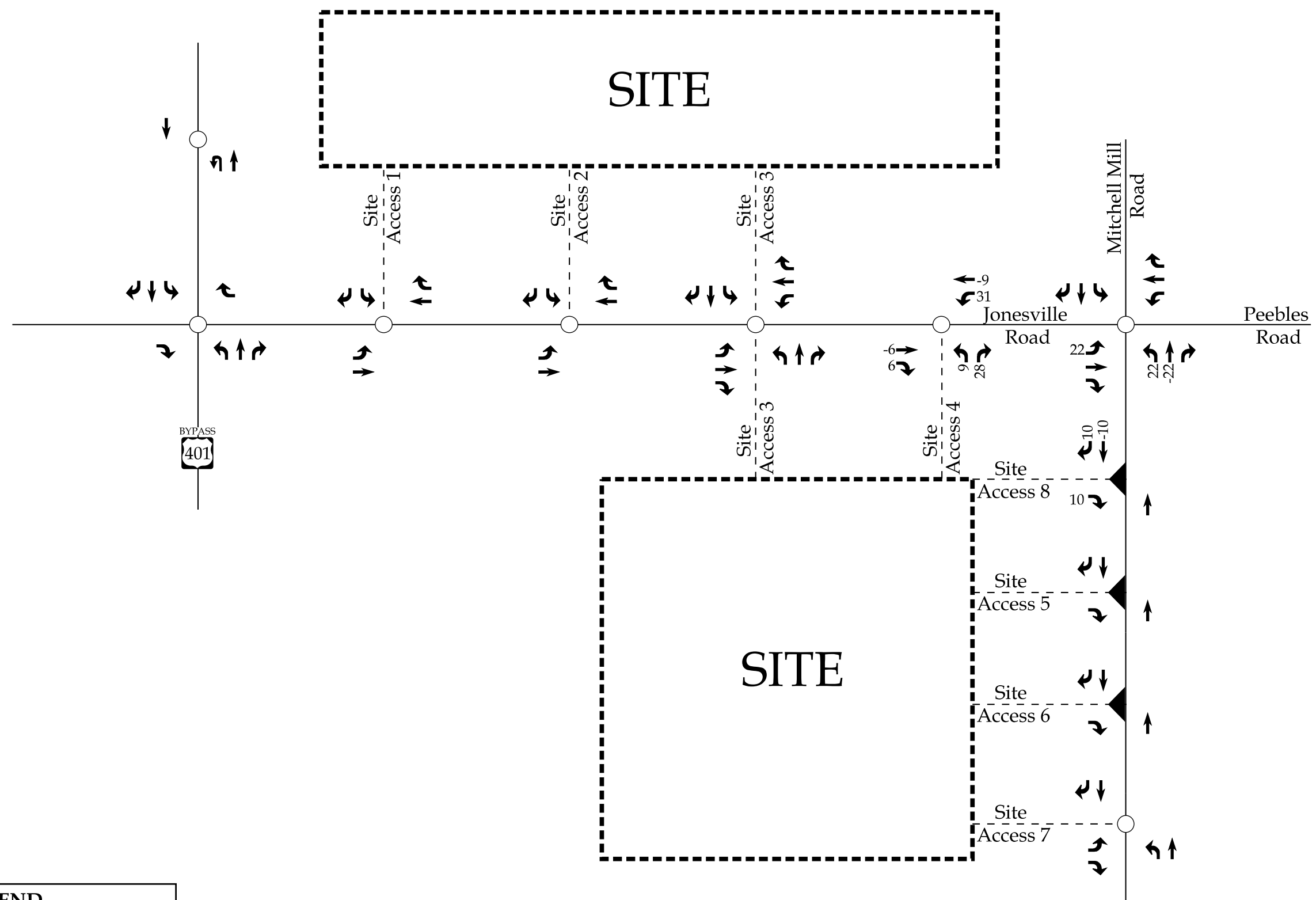
Rolesville, NC

Pass-By Site

Trip Distribution

Scale: Not to Scale

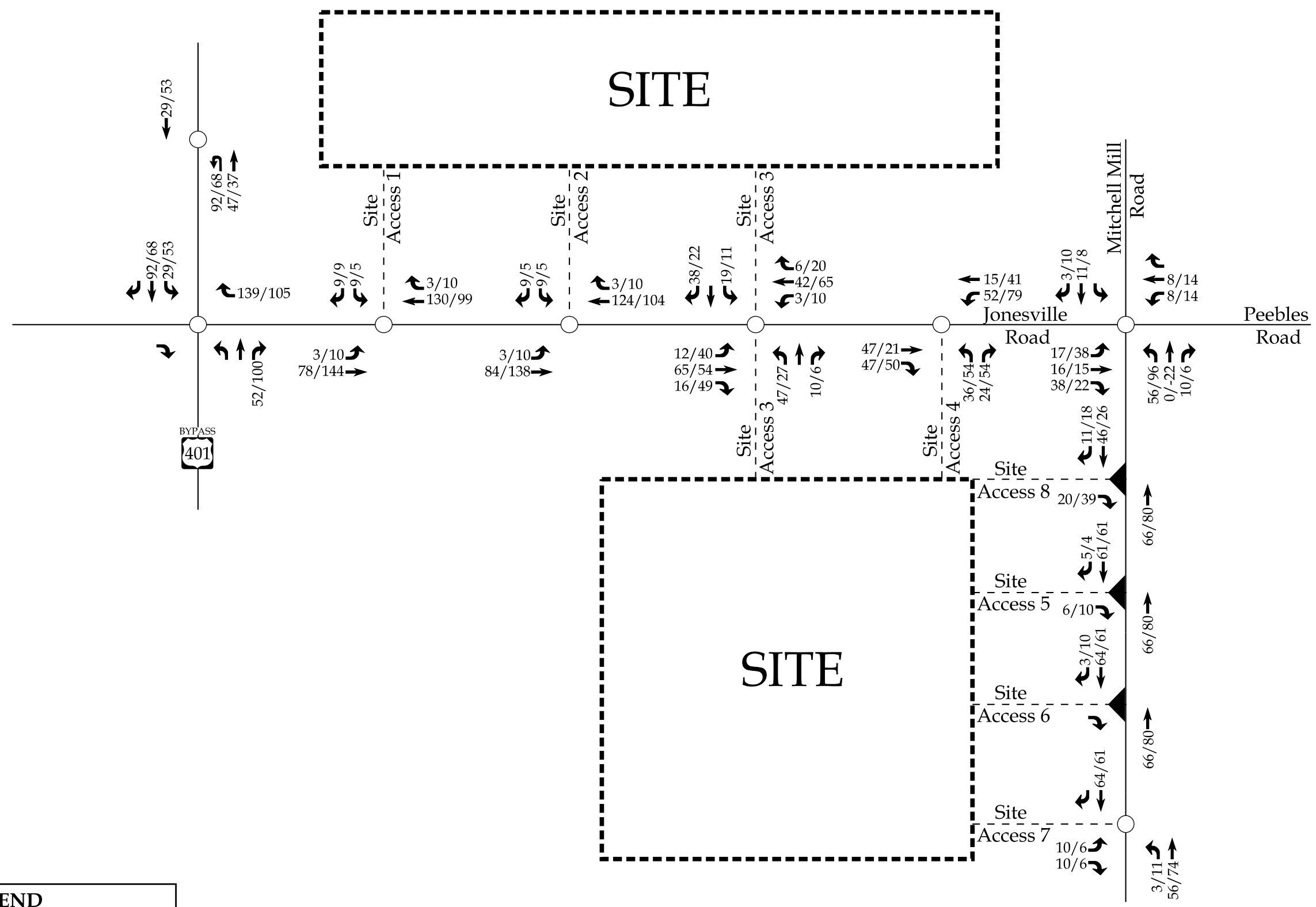
Figure 10



LEGEND

- Unsignalized Intersection
- ▲ Right-In/Right-Out Intersection
- x / y → Weekday PM Peak Hour Pass-By Trips

 RAMEY KEMP ASSOCIATES	5109 Mitchell Mill Road Rolesville, NC	Pass-By Site Trip Assignment	
		Scale: Not to Scale	Figure 11



5109 Mitchell Mill Road
Rolesville, NC

Total Site Trip
Assignment

Scale: Not to Scale Figure 12

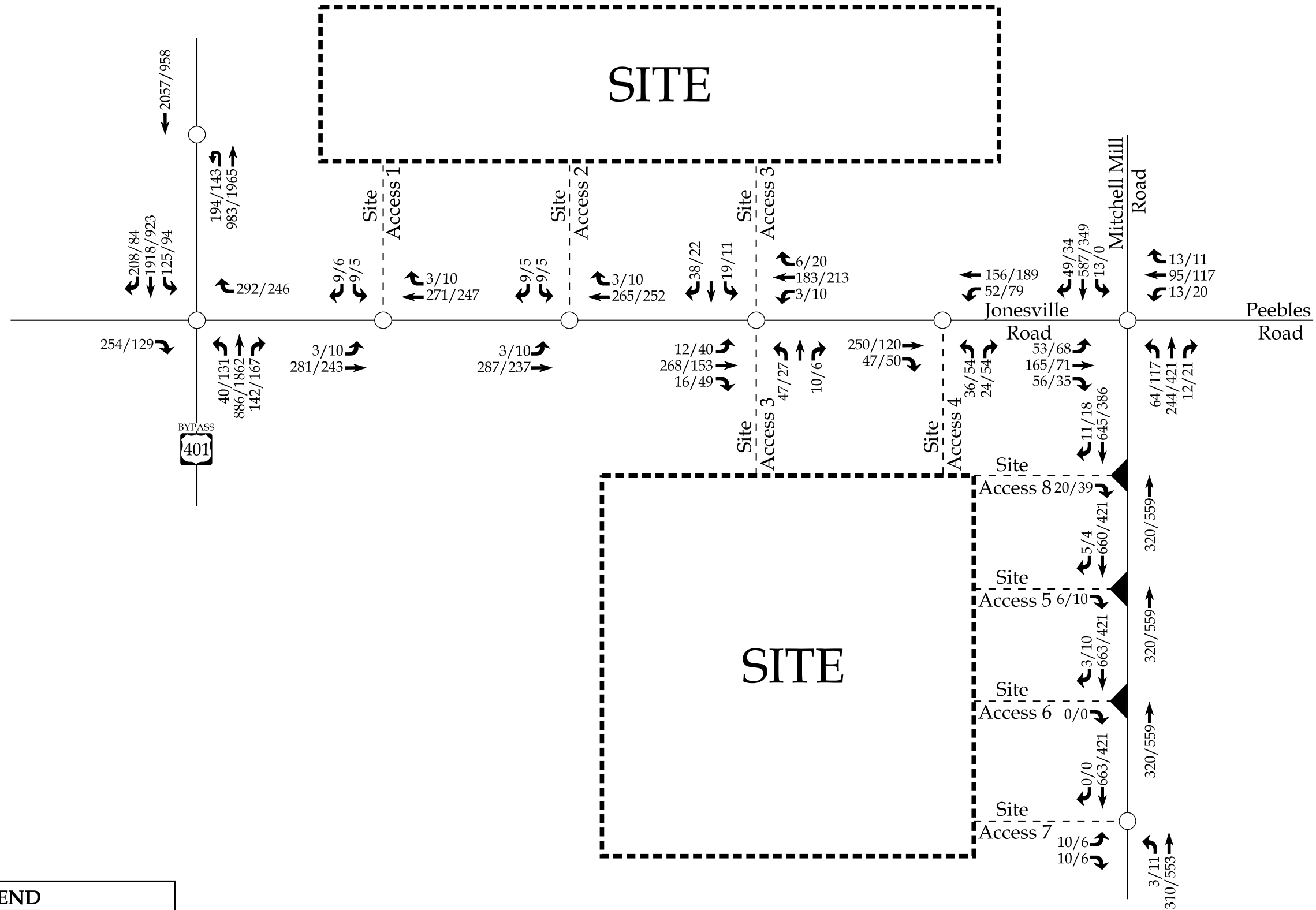
5. 2028 BUILD TRAFFIC CONDITIONS

5.1. 2028 Build Peak Hour Traffic Volumes

To estimate traffic conditions with the site fully built-out, the total site trips were added to the 2028 no-build traffic volumes to determine the 2028 build traffic volumes. Refer to Figure 13 for an illustration of the 2028 build peak hour traffic volumes with the proposed site fully developed.

5.2. Analysis of 2028 Build Peak Hour Traffic Conditions

Study intersections were analyzed with the 2028 build traffic volumes using the same methodology previously discussed for existing and no-build traffic conditions. Intersections were analyzed with improvements necessary to accommodate future traffic volumes. The results of the capacity analysis for each intersection are presented in Section 7 of this report.



LEGEND

- Unsignalized Intersection
 ▲ Right-In/Right-Out Intersection
 X / Y → Weekday AM / PM Peak Hour Traffic



5109 Mitchell Mill Road
Rolesville, NC

2028 Build
Peak Hour Traffic

Scale: Not to Scale Figure 13

6. TRAFFIC ANALYSIS PROCEDURE

Study intersections were analyzed using the methodology outlined in the *Highway Capacity Manual* (HCM), 6th Edition published by the Transportation Research Board. Capacity and level of service are the design criteria for this traffic study. A computer software package, Synchro (Version 10.3), was used to complete the analyses for most of the study area intersections. Please note that the unsignalized capacity analysis does not provide an overall level of service for an intersection; only delay for an approach with a conflicting movement.

The HCM defines capacity as “the maximum hourly rate at which persons or vehicles can reasonably be expected to traverse a point or uniform section of a lane or roadway during a given time period under prevailing roadway, traffic, and control conditions.” Level of service (LOS) is a term used to represent different driving conditions, and is defined as a “qualitative measure describing operational conditions within a traffic stream, and their perception by motorists and/or passengers.” Level of service varies from Level “A” representing free flow, to Level “F” where breakdown conditions are evident. Refer to Table 4 for HCM levels of service and related average control delay per vehicle for both signalized and unsignalized intersections. Control delay as defined by the HCM includes “initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay”. An average control delay of 50 seconds at a signalized intersection results in LOS “D” operation at the intersection.

Table 4: Highway Capacity Manual – Levels-of-Service and Delay

UNSIGNALIZED INTERSECTION		SIGNALIZED INTERSECTION	
LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)	LEVEL OF SERVICE	AVERAGE CONTROL DELAY PER VEHICLE (SECONDS)
A	0-10	A	0-10
B	10-15	B	10-20
C	15-25	C	20-35
D	25-35	D	35-55
E	35-50	E	55-80
F	>50	F	>80

6.1. Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to Town LDO and NCDOT Congestions Management Guidelines.

7. CAPACITY ANALYSIS

7.1. US 401 Bypass and Jonesville Road

The existing unsignalized intersection of US 401 Bypass Road and Jonesville Road was analyzed under 2021 existing, 2028 no-build, and 2028 build traffic conditions with the lane configurations and traffic control shown in Table 5. Refer to Table 5 for a summary of the analysis results. Refer to Appendix D for the Synchro capacity analysis reports.

Table 5: Analysis Summary of US 401 Bypass and Jonesville Road

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2021 Existing	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- C ¹ B ²	N/A	-- E ¹ C ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- D ²	N/A	C ¹ -- B ²	N/A
2028 No-Build	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- D ¹ C ²	N/A	-- F ¹ E ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- F ²	N/A	E ¹ -- B ²	N/A
2028 Build	EB WB* NB	2 TH, 1 RT 1 LT 1 RT	-- E ¹ C ²	N/A	-- F ¹ F ²	N/A
	EB** WB SB	1 LT 2 TH, 1 RT 1 RT	F ¹ -- F ²	N/A	F ¹ -- B ²	N/A

*Synchro analyzed the WB left-turns as SB through movements due to the nature of the superstreet and synchro limitations.

**Synchro analyzed the EB left-turns as NB through movements due to the nature of the superstreet and synchro limitations.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2021 existing traffic conditions indicates that the major-street left-turn movements and minor-street approaches are expected to operate at LOS D or better with the

exception of the eastbound left-turn movement during the weekday AM peak hour (LOS F) and the westbound left-turn movement during the weekday PM peak hour (LOS E).

Under 2028 no-build and 2028 build traffic conditions, the major-street left-turn movements are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the westbound left-turn movement during the weekday AM peak hour (LOS D) under 2028 no-build traffic conditions. The minor-street approaches are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the northbound approach during the weekday AM peak hour (LOS C) and the southbound approach during the weekday PM peak hour (LOS B) under 2028 no-build and 2028 build traffic conditions. It should be noted that the proposed development is expected to account for approximately 15% and 11% of the overall traffic at the southern portion of this intersection during the weekday AM and PM peak hours, respectively.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the *Manual on Uniform Traffic Control Devices* (MUTCD) and within the *Guidelines for Signalization of Intersections with Two or Three Approaches Final Report*, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for both the weekday AM and PM peak hours under 2028 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the northbound right-turn movement demand is expected to exceed capacity during the weekday PM peak hour under 2028 no-build and 2028 build traffic conditions. Refer to Appendix P for a copy of the MUTCD warrants and the ITRE 95th percentile queue length calculations.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the northbound right-turn and westbound left-turn movements at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.2. US 401 Bypass and Eastern U-Turn Location

The existing unsignalized intersection of US 401 Bypass and Eastern U-Turn Location was analyzed under 2021 existing, 2028 no-build, and 2028 build traffic conditions with the lane configurations and traffic control shown in Table 6. Refer to Table 6 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports.

Table 6: Analysis Summary of US 401 Bypass and Eastern U-Turn Location

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2021 Existing	EB* WB	1 UT 2 TH	C ¹ --	N/A	B ¹ --	N/A
2028 No-Build	EB* WB	1 UT 2 TH	E ¹ --	N/A	B ¹ --	N/A
2028 Build	EB* WB	1 UT 2 TH	F ¹ --	N/A	C ¹ --	N/A

*Synchro analyzed the EB left-turns as NB left-turn movements due to the nature of the superstreet and synchro limitations.

1. Level of service for major-street u-turn movement.

Capacity analysis of 2021 existing and 2028 no-build traffic conditions indicates that the major-street u-turn movement is expected to operate at LOS C or better during the weekday AM and PM peak hours, with the exception of the weekday AM peak hour under 2028 no-build conditions (LOS E).

Under 2028 build traffic conditions, the major-street u-turn movement is expected to operate at LOS F during the weekday AM peak hour and at LOS C during the weekday PM peak hour. It should be noted that the proposed development is expected to account for approximately 5% and 11% of the overall traffic at this intersection during the weekday AM and PM peak hours, respectively. These levels-of-service are not uncommon for stop-controlled u-turn movements with heavy mainline traffic volumes.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the *Manual on Uniform Traffic Control Devices* (MUTCD) and within the *Guidelines for Signalization of Intersections with Two or Three Approaches Final Report*, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for both the weekday AM and PM peak hours under 2028 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the eastbound u-turn movement demand is expected to exceed capacity during the weekday AM peak hour under 2028 no-build and 2028 build traffic conditions. Refer to Appendix P for a copy of the MUTCD warrants and the ITRE 95th percentile queue length calculations.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the eastbound u-turn movement at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.3. Mitchell Mill Road and Jonesville Road / Peebles Road

The existing unsignalized intersection of Mitchell Mill Road and Jonesville Road / Peebles Road was analyzed under 2021 existing, 2028 no-build, and 2028 build traffic conditions with the lane configurations and traffic control shown in Table 7. Refer to Table 7 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports.

Table 7: Analysis Summary of Mitchell Mill Road and Jonesville Road / Peebles Road

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2021 Existing	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	B ¹ B ¹ A ¹ B ¹	B (12)	B ¹ A ¹ A ¹ A ¹	B (11)
2028 No-Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	C ¹ F ¹ B ¹ C ¹	F (55)	D ¹ C ¹ B ¹ B ¹	C (20)
2028 Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT-TH-RT	C ¹ F ¹ C ¹ C ¹	F (86)	F ¹ D ¹ C ¹ C ¹	F (52)
2028 Build - Improved	EB WB NB SB	1 LT, 1 TH-RT 1 LT-TH-RT 1 LT-TH-RT 1 LT, 1 TH-RT	C ¹ F ¹ C ¹ C ¹	F (107)	E ¹ E ¹ C ¹ B ¹	D (35)

Improvements by the developer are shown in bold.

1. Level of service for all-way stop controlled approach.

Capacity analysis of 2021 existing and 2028 no-build traffic conditions indicates that the intersection is expected to operate at an overall LOS C or better during the weekday AM and PM peak hours, with the exception of the weekday AM peak hour under 2028 no-build traffic conditions (LOS F). Under 2028 build traffic conditions, this intersection is expected to operate at an overall LOS F during the weekday AM and PM peak hours. It should be noted that the

proposed development is expected to account for approximately 12% and 16% of the overall traffic at this intersection during the weekday AM and PM peak hours, respectively.

Turn lanes were considered at this intersection in order to mitigate the proportional impact that the proposed site traffic is expected to have at this intersection and to improve overall operations. Exclusive left-turn lanes are recommended by the developer on the eastbound and southbound approaches. With these improvements, the intersection is expected to operate at an overall LOS F during the weekday AM peak hour and at an overall LOS D during the weekday PM peak hour.

It should be noted that the westbound approach and overall intersection delays are expected to increase during the weekday AM peak hour as a result of the recommended improvements to the southbound and eastbound approaches. Mitigation was considered for the westbound approach due to the anticipated impact traffic on this approach is expected to have on the overall intersection operations under future traffic conditions. However, due to the vast majority of traffic on the westbound approach continuing through this intersection on Mitchell Mill Road, no feasible improvements other than signalization would be expected to decrease delays for the westbound approach.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels-of-service. The peak hour warrant (warrant 3) from the *Manual on Uniform Traffic Control Devices* (MUTCD) was considered. Based on a review of the peak hour signal warrant at this intersection, the intersection is expected to meet the peak hour warrant for both the weekday AM and PM peak hours under 2028 no-build and 2028 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Refer to Appendix P for a copy of the MUTCD warrants.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

7.4. Jonesville Road and Site Access 1

The proposed unsignalized intersection of Jonesville Road and Site Access 1 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix G for the synchro capacity analysis reports.

Table 8: Analysis Summary of Jonesville Road and Site Access 1

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	WB	1 LT-RT	B ²	N/A	B ²	N/A
	NB	1 TH-RT	--		--	
	SB	1 LT, 1 TH	A ¹		A ¹	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the major-street left-turn movement is expected to operate at LOS A during the weekday AM and PM peak hours. The minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

Right and left-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and a left-turn lane is recommended on the southbound approach (Jonesville Road). Based on the estimated low volume of right-turn movements into the proposed development at this intersection, an exclusive right-turn lane is not recommended. Refer to Appendix O for a copy of the turn lane warrants.

7.5. Jonesville Road and Site Access 2

The proposed unsignalized intersection of Jonesville Road and Site Access 2 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 9. Refer to Table 9 for a summary of the analysis results. Refer to Appendix H for the synchro capacity analysis reports.

Table 9: Analysis Summary of Jonesville Road and Site Access 2

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	WB	1 LT-RT	B ²	N/A	B ²	N/A
	NB	1 TH, 1 RT	--		--	
	SB	1 LT, 1 TH	A ¹		A ¹	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the major-street left-turn movement is expected to operate at LOS A during the weekday AM and PM peak hours. The minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

Right and left-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and a left-turn lane is recommended on the southbound approach (Jonesville Road). Based on coordination with NCDOT a right-turn lane is also recommended on the northbound approach (Jonesville Road). Refer to Appendix O for a copy of the turn lane warrants.

7.6. Jonesville Road and Site Access 3

The proposed unsignalized intersection of Jonesville Road and Site Access 3 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 10. Refer to Table 10 for a summary of the analysis results. Refer to Appendix I for the synchro capacity analysis reports.

Table 10: Analysis Summary of Jonesville Road and Site Access 3

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB	1 LT-TH-RT	B ²	N/A	B ²	N/A
	WB	1 LT-TH-RT	B ²		B ²	
	NB	1 LT, 1 TH, 1 RT	A ¹		A ¹	
	SB	1 LT, 1 TH, 1 RT	A ¹		A ¹	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the major-street left-turn movements are expected to operate at LOS A during the weekday AM and PM peak hours. The minor-street approaches are expected to operate at LOS B during the weekday AM and PM peak hours.

Right and left-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and both are recommended on the southbound and northbound approaches (Jonesville Road). Refer to Appendix O for a copy of the turn lane warrants.

7.7. Jonesville Road and Site Access 4

The proposed unsignalized intersection of Jonesville Road and Site Access 4 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 11. Refer to Table 11 for a summary of the analysis results. Refer to Appendix J for the synchro capacity analysis reports.

Table 11: Analysis Summary of Jonesville Road and Site Access 4

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB	1 LT-RT	B ²	N/A	B ²	N/A
	NB	1 LT, 1 TH	A ¹		A ¹	
	SB	1 TH, 1 RT	--		--	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the major-street left-turn movement is expected to operate at LOS A during the weekday AM and PM peak hours. The minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

Right and left-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and are recommended on the southbound and northbound approaches (Jonesville Road), respectively. Refer to Appendix O for a copy of the turn lane warrants.

7.8. Mitchell Mill Road and Site Access 5

The proposed unsignalized intersection of Mitchell Mill Road and Site Access 5 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 12. Refer to Table 12 for a summary of the analysis results. Refer to Appendix K for the synchro capacity analysis reports.

Table 12: Analysis Summary of Mitchell Mill Road and Site Access 5

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB	1 TH	--	N/A	--	N/A
	WB	1 TH, 1 RT	--		--	
	SB	1 RT	B ¹		B ¹	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

A right-turn lane was considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and is recommended on the westbound approach (Mitchell Mill Road). Refer to Appendix O for a copy of the turn lane warrants.

7.9. Mitchell Mill Road and Site Access 6

The proposed unsignalized intersection of Mitchell Mill Road and Site Access 6 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 13. Refer to Table 13 for a summary of the analysis results. Refer to Appendix L for the synchro capacity analysis reports.

Table 13: Analysis Summary of Mitchell Mill Road and Site Access 6

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB WB SB	1 TH 1 TH-RT 1 RT	-- -- B ¹	N/A	-- -- B ¹	N/A

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

A right-turn lane was considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on coordination with NCDOT, an exclusive right-turn lane is recommended on the westbound approach (Mitchell Mill Road). Refer to Appendix O for a copy of the turn lane warrants.

7.10. Mitchell Mill Road and Site Access 7

The proposed unsignalized intersection of Mitchell Mill Road and Site Access 7 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 14. Refer to Table 14 for a summary of the analysis results. Refer to Appendix M for the synchro capacity analysis reports.

Table 14: Analysis Summary of Mitchell Mill Road and Site Access 7

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB WB SB	1 LT, 1 TH 1 TH-RT 1 LT-RT	A ¹ -- C ²	N/A	A ¹ -- C ²	N/A

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the major-street left-turn movement is expected to operate at LOS A during the weekday AM and PM peak hours. The minor-street approach is expected to operate at LOS C during the weekday AM and PM peak hours.

Right and left-turn lanes were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways* and an exclusive left-turn lane is recommended on eastbound approach (Mitchell Mill Road). Based on the estimated low volume of right-turn movements into the proposed development at this intersection, an exclusive right-turn lane is not recommended. Refer to Appendix O for a copy of the turn lane warrants.

7.11. Mitchell Mill Road and Site Access 8

The proposed unsignalized intersection of Mitchell Mill Road and Site Access 8 was analyzed under 2028 build traffic conditions with the lane configurations and traffic control shown in Table 15. Refer to Table 15 for a summary of the analysis results. Refer to Appendix N for the synchro capacity analysis reports.

Table 15: Analysis Summary of Jonesville Road and Site Access 8

ANALYSIS SCENARIO	APPROACH	LANE CONFIGURATIONS	WEEKDAY AM PEAK HOUR LEVEL OF SERVICE		WEEKDAY PM PEAK HOUR LEVEL OF SERVICE	
			Approach	Overall (seconds)	Approach	Overall (seconds)
2028 Build	EB	1 TH	--	N/A	--	N/A
	WB	1 TH, 1 RT	--		--	
	SB	1 RT	B ¹		B ¹	

Improvements to lane configurations by the developer are shown in bold.

1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Capacity analysis of 2028 build traffic conditions indicates that the minor-street approach is expected to operate at LOS B during the weekday AM and PM peak hours.

A right-turn lane was considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on coordination with NCDOT, an exclusive right-turn lane is recommended on the westbound approach (Mitchell Mill Road). Refer to Appendix O for a copy of the turn lane warrants.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the proposed 5109 Mitchell Mill Road development located along both sides of Jonesville Road, north of Mitchell Mill Road in Rolesville, North Carolina. The proposed development is separated into two (2) tracts on both sides of Jonesville Road. The eastern tract is expected to consist of 195 single-family homes and the western tract of development is expected to consist of 69 single-family homes, 129 townhomes, and 50,000 square feet (sq. ft) of general retail. Site access is proposed via four (4) full-movement driveway connections along Jonesville Road, three (3) RIRO driveway connections along Mitchell Mill Road, and one (1) full-movement driveway connection along Mitchell Mill Road. One of the site driveway connections along Jonesville Road will be aligned to provide access to both the eastern and western tracts of the proposed development.

The study analyzes traffic conditions during the weekday AM and PM peak hours for the following scenarios:

- 2021 Existing Traffic Conditions
- 2028 No-Build Traffic Conditions
- 2028 Build Traffic Conditions

Trip Generation

It is estimated that the proposed development will generate approximately 426 primary trips (170 entering and 256 exiting) during the weekday AM peak hour and 493 primary trips (284 entering and 209 exiting) during the weekday PM peak hour.

Rolesville Community Transportation Plan

Per the Rolesville Community Transportation Plan (CTP), the ultimate cross-section of Jonesville Road is identified as a 2-lane roadway with a center two-way-left-turn-lane (TWLTL) and Mitchell Mill Road is identified as a 4-lane median-divided roadway. It is recommended that the proposed development widen Jonesville Road and one-half section of Mitchell Mill Road along the site frontage in accordance with the Town's CTP.

Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to NCDOT Congestion Management Guidelines. Refer to section 6.1 of this report for a detailed description of any adjustments to these guidelines made throughout the analysis.

Intersection Capacity Analysis Summary

All the study area intersections (including the proposed site driveways) are expected to operate at acceptable levels-of-service under existing and future year conditions with the exception of the intersections listed below. A summary of the study area intersections that are expected to need improvements are as follows:

US 401 Bypass and Jonesville Road

Under 2028 no-build and 2028 build traffic conditions, the major-street left-turn movements are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the westbound left-turn movement during the weekday AM peak hour (LOS D) under 2028 no-build traffic conditions. The minor-street approaches are expected to operate at LOS E/F during the weekday AM and PM peak hours with the exception of the northbound approach during the weekday AM peak hour (LOS C) and the southbound approach during the weekday PM peak hour (LOS B) under 2028 no-build and 2028 build traffic conditions. It should be noted that the proposed development is expected to account for approximately 15% and 11% of the overall traffic at the southern portion of this intersection during the weekday AM and PM peak hours, respectively.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the *Manual on Uniform Traffic Control Devices* (MUTCD) and within the *Guidelines for Signalization of Intersections with Two or Three Approaches Final Report*, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for both the weekday AM and PM peak hours under 2028 build traffic conditions. It is not

expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the northbound right-turn movement demand is expected to exceed capacity during the weekday PM peak hour under 2028 no-build and 2028 build traffic conditions.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the northbound right-turn and westbound left-turn movements at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

US 401 Bypass and Eastern U-Turn Location

Under 2028 build traffic conditions, the major-street u-turn movement is expected to operate at LOS F during the weekday AM peak. It should be noted that the proposed development is expected to account for approximately 5% and 11% of the overall traffic at this intersection during the weekday AM and PM peak hours, respectively. These levels-of-service are not uncommon for stop-controlled u-turn movements with heavy mainline traffic volumes.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels of service. Weekday AM and PM peak hour traffic volumes were utilized in evaluating the potential need for signalization based on the guidelines contained within the *Manual on Uniform Traffic Control Devices* (MUTCD) and within the *Guidelines for Signalization of Intersections with Two or Three Approaches Final Report*, published by ITRE. Based on a review of signal warrants at this intersection, the peak hour warrant (warrant 3) from the MUTCD is expected to be met for both the weekday AM and PM peak hours under 2028 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not typically met for residential areas due to the distinct peak traffic periods for these types of development. Based on a review of ITRE 95th percentile queue length calculations, the eastbound u-turn movement demand is expected to exceed capacity during the weekday AM peak hour under 2028 no-build and 2028 build traffic conditions.

Based on the Town's LDO, improvements must be identified to maintain no-build levels-of-service under build traffic conditions or to limit the degradation to less than a five percent increase in total delay on any approach for those operating at failing levels-of-service under no-build traffic conditions. Therefore, additional turn-lanes were considered for the eastbound u-turn movement at this intersection to achieve acceptable operation per the Town's LDO. However, additional turn-lanes are not a realistic or practical improvement at an unsignalized intersection operating with superstreet configurations.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

Mitchell Mill Road and Jonesville Road / Peebles Road

Under 2028 build traffic conditions, this intersection is expected to operate at an overall LOS F during the weekday AM and PM peak hours. It should be noted that the proposed development is expected to account for approximately 12% and 16% of the overall traffic at this intersection during the weekday AM and PM peak hours, respectively.

Turn lanes were considered at this intersection in order to mitigate the proportional impact that the proposed site traffic is expected to have at this intersection and to improve overall operations. Exclusive left-turn lanes are recommended by the developer on the eastbound and southbound approaches. With these improvements, the intersection is expected to operate at an overall LOS F during the weekday AM peak hour and at an overall LOS D during the weekday PM peak hour.

It should be noted that the westbound approach and overall intersection delays are expected to increase during the weekday AM peak hour as a result of the recommended improvements to the southbound and eastbound approaches. Mitigation was considered for the westbound approach due to the anticipated impact traffic on this approach is expected to have on the overall intersection operations under future traffic conditions. However, due to the vast majority of traffic on the westbound approach continuing through this intersection on Mitchell Mill Road, no feasible improvements other than signalization would be expected to decrease delays for the westbound approach.

Due to the poor levels-of-service expected at this intersection, a traffic signal was considered under 2028 build traffic conditions to achieve acceptable levels-of-service. The peak hour warrant (warrant 3) from the *Manual on Uniform Traffic Control Devices* (MUTCD) was considered. Based on a review of the peak hour signal warrant at this intersection, the intersection is expected to meet the peak hour warrant for both the weekday AM and PM peak hours under 2028 no-build and 2028 build traffic conditions. It is not expected that this intersection would satisfy the MUTCD 8-hour (warrant 1) or 4-hour (warrant 2) warrants, which NCDOT favors for installation of a traffic signal. These longer period warrants are not

typically met for residential areas due to the distinct peak traffic periods for these types of development.

Based on the Town's LDO, it is recommended that this intersection be monitored for signalization and a full signal warrant analysis be conducted prior to the full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT. With signalization, it is expected that this intersection will operate at acceptable levels-of-service during the weekday AM and PM peak hours.

9. RECOMMENDATIONS

Based on the findings of this study, specific geometric improvements have been identified and are recommended to accommodate future traffic conditions. See a more detailed description of the recommended improvements below. Refer to Figure 14 for an illustration of the recommended lane configurations for the proposed development.

Recommended Improvements by Developer

Required Frontage Improvements per Rolesville Community Transportation Plan

- Widen Jonesville Road along the site frontage between Site Access 1 and Mitchell Mill Road to this roadway's ultimate section (2-lane w/ TWLTL).
- Widen one-half section of Mitchell Mill Road along the site frontage to this roadway's ultimate section (4-lane median divided).

US 401 Bypass and Jonesville Road

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

US 401 Bypass and Eastern U-Turn Location

- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

Mitchell Mill Road and Jonesville Road / Peebles Road

- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct an eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Conduct a full signal warrant analysis prior to full build-out of the proposed development and install a traffic signal if warranted and approved by the Town and NCDOT.

Jonesville Road and Site Access 1

- Construct the westbound approach (Site Access 1) with one ingress lane and one egress lane.
- Provide stop-control for the westbound approach (Site Access 1).
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 2

- Construct the westbound approach (Site Access 2) with one ingress lane and one egress lane.
- Provide stop-control for the westbound approach (Site Access 2).
- Construct a northbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 3

- Construct the eastbound and westbound approaches (Site Access 3) with one ingress lane and one egress lane.
- Provide stop-control for the eastbound and westbound approaches (Site Access 3).
- Construct a northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a northbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Jonesville Road and Site Access 4

- Construct the eastbound approach (Site Access 4) with one ingress lane and one egress lane.
- Provide stop-control for the eastbound approach (Site Access 4).
- Construct a northbound (Jonesville Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.
- Construct a southbound (Jonesville Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 5

- Construct the southbound approach (Site Access 5) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 5). This proposed intersection will be restricted to right-in/right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 6

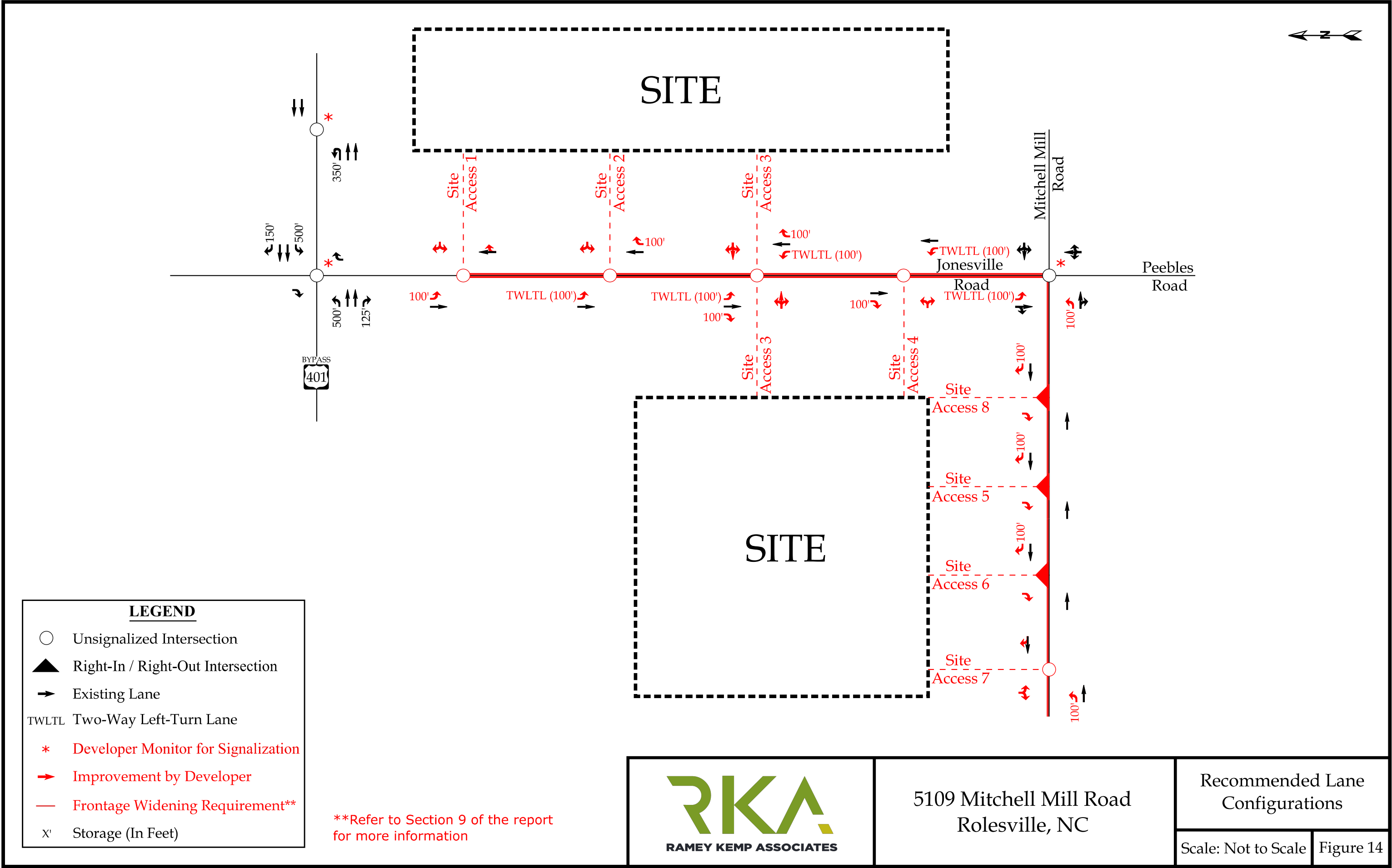
- Construct the southbound approach (Site Access 6) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 6). This proposed intersection will be restricted to right-in/right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 7

- Construct the southbound approach (Site Access 7) with one ingress lane and one egress lane.
- Provide stop-control for the southbound approach (Site Access 7)
- Construct an exclusive eastbound (Mitchell Mill Road) left-turn lane with at least 100 feet of storage and appropriate decel and taper.

Mitchell Mill Road and Site Access 8

- Construct the southbound approach (Site Access 8) with one ingress lane and one egress lane striped as an exclusive right-turn lane.
- Provide stop-control for the southbound approach (Site Access 8). This proposed intersection will be restricted to right-in/ right-out operations.
- Construct an exclusive westbound (Mitchell Mill Road) right-turn lane with at least 100 feet of storage and appropriate decel and taper.





STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

October 07, 2022

5109 Mitchell Mill Road

Traffic Impact Analysis Review Report Congestion Management Section

TIA Project: SC-2022-086R1
Division: 5
County: Wake



Nicholas C. Lineberger, P.E. Project Engineer
Daniel W. Collins, Project Design Engineer

Mailing Address:
NC DEPARTMENT OF TRANSPORTATION
TRANSPORTATION MOBILITY & SAFETY DIVISION
1561 MAIL SERVICE CENTER
RALEIGH, NC 27699-1561

Telephone: (919) 814-5000
Fax: (919) 771-2745
Customer Service: 1-877-368-4968

Website: www.ncdot.gov

Location:
750 N. GREENFIELD PARKWAY
GARNER, NC 27529

5109 Mitchell Mill Road

SC-2022-086

Rolesville

Wake County

Per your request, the Congestion Management Section (CMS) of the Transportation Mobility and Safety Division has completed a review of the subject site. The comments and recommendations contained in this review are based on data for background conditions presented in the Traffic Impact Analysis (TIA) and are subject to the approval of the local District Engineer's Office and appropriate local authorities.

Date Initially Received by CMS	09/09/22	Date of Site Plan	02/23/22
Date of Complete Information	09/09/22	Date of Sealed TIA	08/28/22

Proposed Development

The TIA assumes the development is to be completed by 2028 and consist of the following:

Land Use	Land Use Code	Size
Single-Family Detached Housing	210	264 d.u.
Multi-Family Housing (Low-Rise)	220	129 d.u.
Shopping Center	820	3,752 sq.ft.

Trip Generation - Unadjusted Volumes During a Typical Weekday

	IN	OUT	TOTAL
AM Peak Hour	172	258	430
PM Peak Hour	366	291	657
Daily Trips			7,226

General Reference

For reference to various documents applicable to this review please reference the following link: <https://connect.ncdot.gov/resources/safety/Pages/Congestion-Management.aspx>

Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact the Congestion Management Section.

Signalization

We defer to the District Engineer, the Division Traffic Engineer, and the Regional Traffic Engineer for final decisions regarding signalization.

ATTACHMENT 7

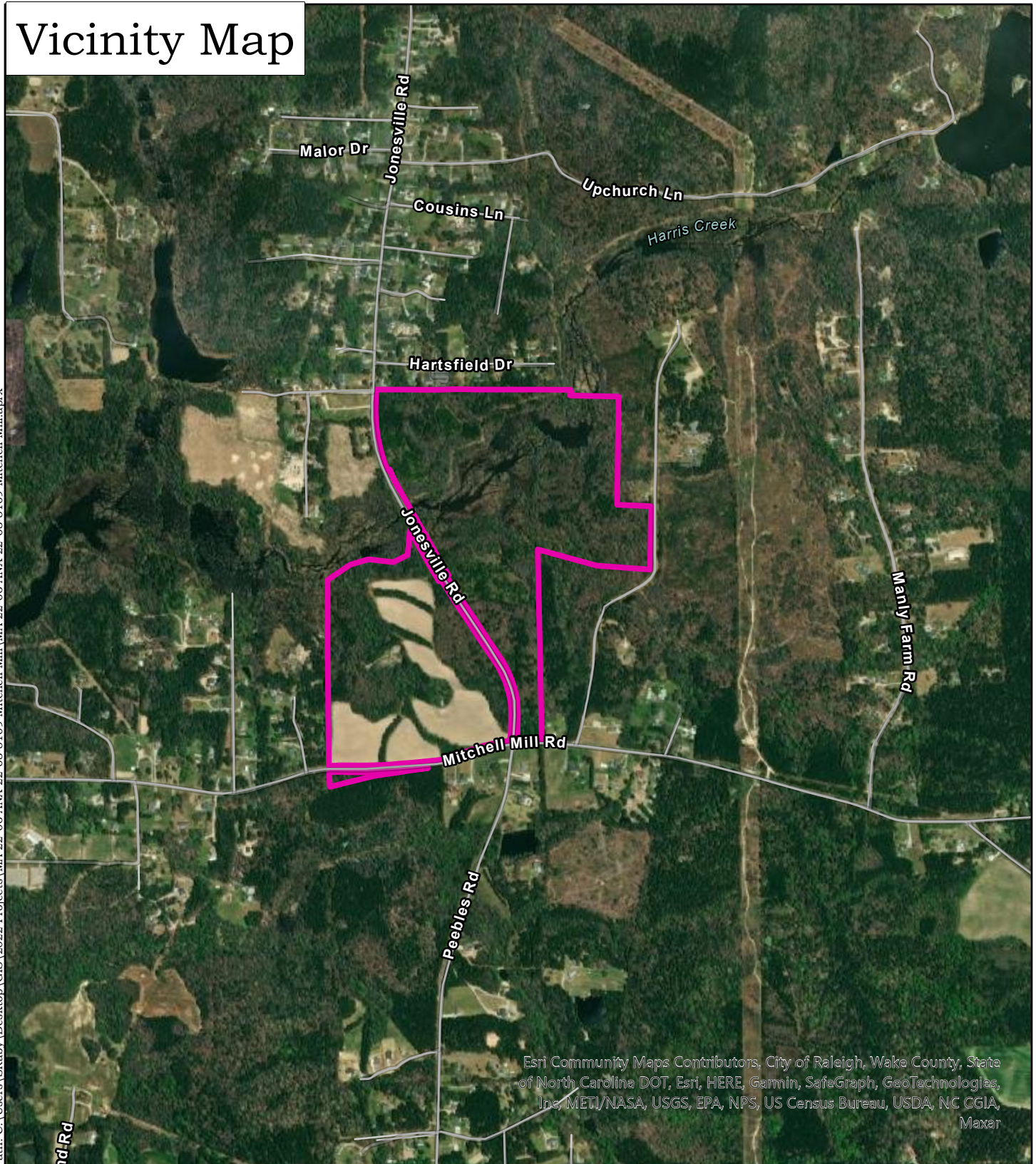


Case: MA 22-06 ANX 22-03 5109 Mitchell Mill
Address: 5109 Mitchell Mill
PIN 1757571035
Date: 04.19.2022

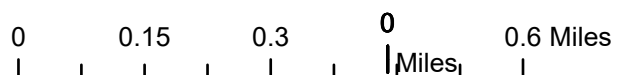
Vicinity Map

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Esri Community Maps Contributors, City of Raleigh, Wake County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA, NC CGIA, Maxar



ATTACHMENT 8



Case: MA 22-06 ANX 22-03 5109 Mitchell Mill
Address: 5109 Mitchell Mill
PIN 1757571035
Date: 04.19.2022

Zoning Map

Date Saved: 4/19/2022 11:17 AM

Path: C:\Users\SRaby\SRaby\GIS\2022 Projects\MA 22-06 ANX 22-03 5109 Mitchell Mill\MA 22-06 ANX 22-03 5109 Mitchell Mill.aprx

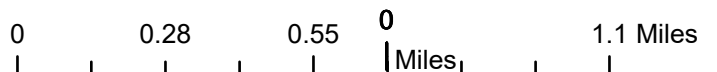
☒ Rolesville_Zoning_2021

Zoning Classification

RL
RM
RM-CZ
RH
RH-CZ
R&PUD
R&PUD-CZ
MH
OP
OP-CZ
GC
GC-CZ
TC
GI
GI-CZ

City of Raleigh, Wake County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA

410 ft



ATTACHMENT 9



Case: MA 22-06 ANX 22-03 5109 Mitchell Mill
Address: 5109 Mitchell Mill
PIN 1757571035
Date: 04.19.2022

Future Land Use Map

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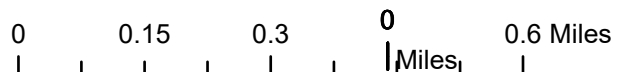
Path: C:\Users\SRaby\SRaby\GIS\2022 Projects\MA 22-06 ANX 22-03 5109 Mitchell Mill\MA 22-06 ANX 22-03 5109 Mitchell Mill.aprx

☒ RolesFULU03-13-2017

ROLU_CLASS

- Low Density Residential
- Medium Density Residential
- High Density Residential
- Town Center
- Mixed Use Neighborhood
- Commercial
- Business Park
- Industrial
- School
- Preserved Open Space
- Water Sewer Services

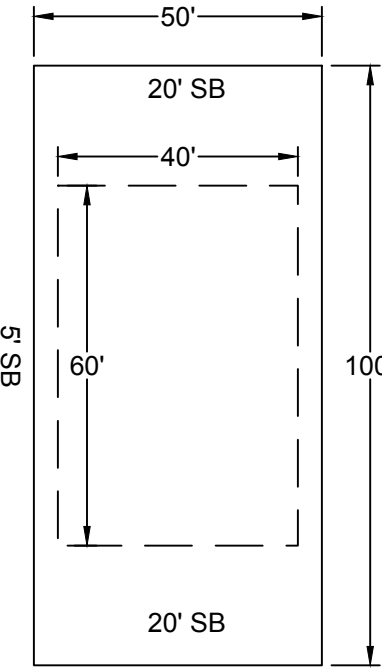
Esri Community Maps Contributors, City of Raleigh, Wake County, State of North Carolina DOT, Esri, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, US Census Bureau, USDA



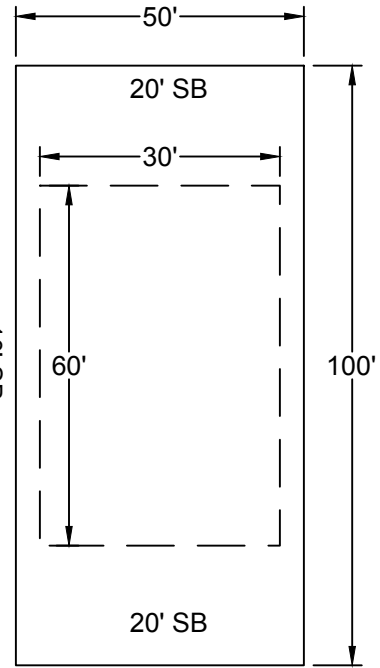


PROJECT SUMMARY		
TRACT	USE	UNITS
WEST (±55 ACRES)	NON-RESIDENTIAL	8.31 ACRES
	SINGLE FAMILY	69
	TOWNHOMES	119
EAST (±86 ACRES)	OPEN SPACE	±18 ACRES 2 SMALL, 1 MEDIUM ACTIVE OPEN SPACES
	RIGHT-OF-WAY	±10 ACRES
	SINGLE FAMILY	191
	OPEN SPACE	±42 ACRES 1 SMALL, 2 MEDIUM ACTIVE OPEN SPACES
	RIGHT-OF-WAY	±10 ACRES

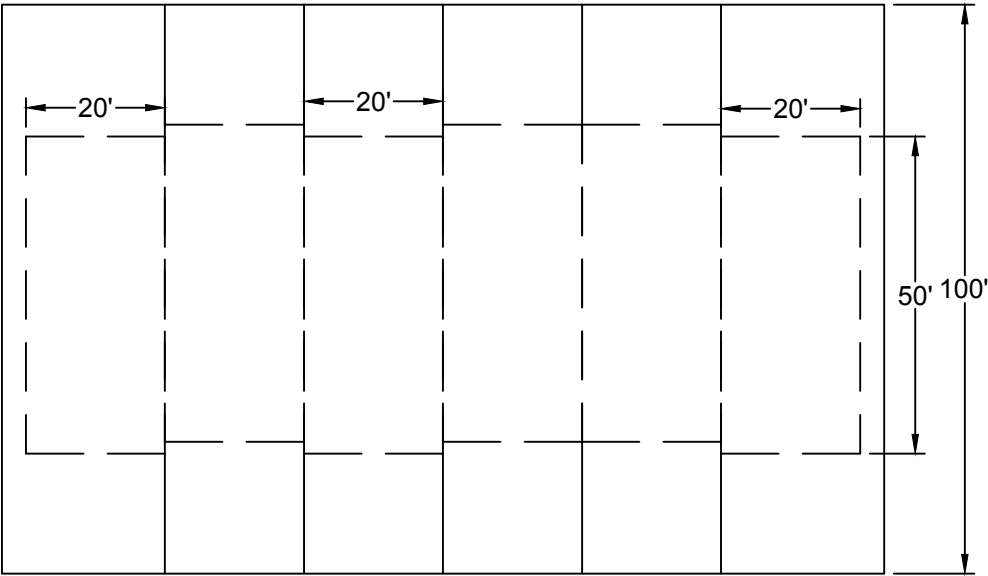
- PROJECT NOTES**
- 1 BOUNDARY AND TOPOGRAPHIC INFORMATION TAKEN FROM WAKE COUNTY GIS.
 - 2 THIS PLAN IS CONCEPTUAL IN NATURE AND HAS NOT BEEN REVIEWED BY ANY AGENCY.
 - 3 UNIT COUNT IS SUBJECT TO CHANGE PENDING WETLAND AND STREAM DETERMINATIONS, PERMITTING, GRADING, SEWER AND STORMWATER DESIGN.
 - 4 THIS SITE REQUIRES TOWN OF ROLESVILLE REZONING AND ANNEXATION. THIS LAYOUT ASSUMES A ROLESVILLE NC ZONING DISTRICT WEST OF JONESVILLE RD AND A CLUSTER RMD ZONING EAST OF JONESVILLE RD.



TYPICAL
CLUSTER LOT
DIMENSIONS



TYPICAL
NEIGHBORHOOD
CENTER LOT
DIMENSIONS



TYPICAL LOT DIMENSIONS
"TOWNHOUSES"

