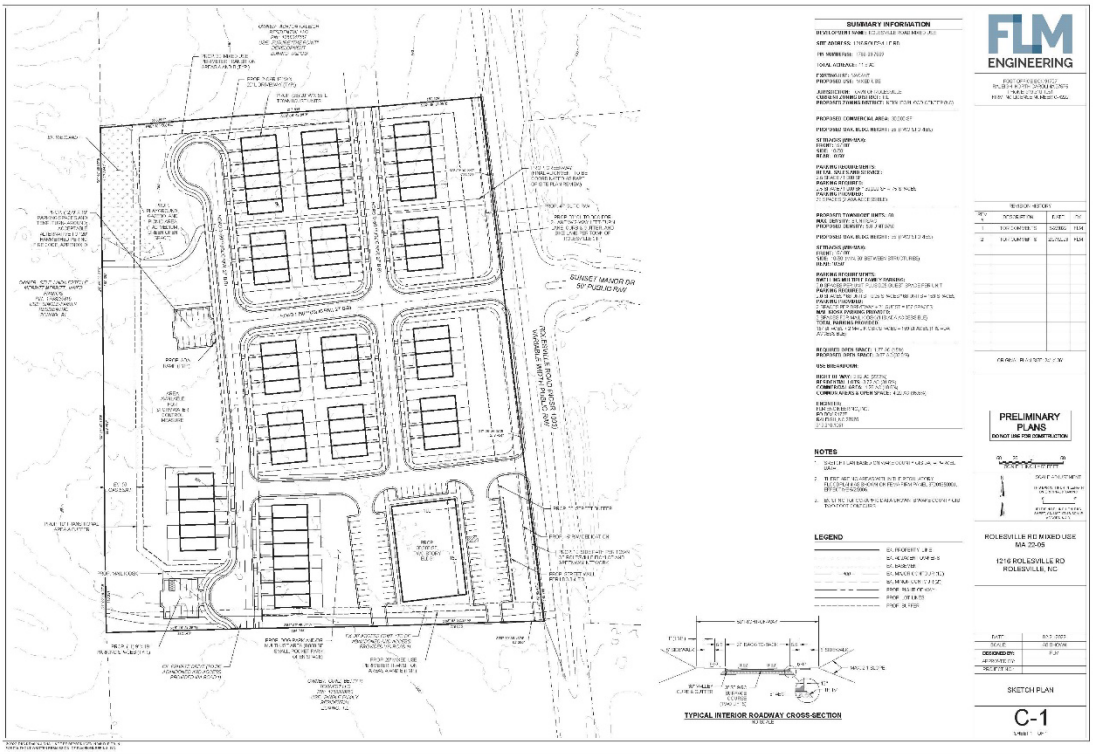
Memo

To: Rolesville Planning Board
From: Michael Elabarger, Senior Planner
Date: April 24, 2023
Re: 1216 Rolesville Road - Map Amendment (Rezoning) Application MA 22-05

Background

The Town of Rolesville Planning Department received a Map Amendment (Rezoning) application (Attachment 1) in February 2022 for an 11.781 acre tract located at 1216 Rolesville Road, being Wake County PIN 1768337689. The applicant, Optimal Development LLC, is requesting to change the zoning from the Town's Land Development Ordinance (LDO) Residential Low Density (RL) District to the mixed-use District of Neighborhood Center as a Conditional Zoning (NC-CZ) District. A set of Conditions of Approval and a Concept Plan are included (see Attachments 2 and 3). In April 2023, an associated Voluntary Annexation Petition (ANX 23-02) was submitted and is being processed as the property is not currently in the Town corporate limts.



Concept Plan for 1216 Rolesville Road

Request

The Applicant is requesting to rezone the property to Neighborhood Center - Conditional Zoning (NC-CZ) District to create a Townhome (single-family attached) residential neighborhood with a commercial node at the southeast corner of the site fronting Rolesville Road. Per the Concept Plan (Attachment 3) the development proposes a playground/gazebo/picnic amenity, a dog-park /multi-use area, public Greenway from Rolesville Road to the western site boundary,and a 10' Sidepath paralleling Rolesville Road. The Neighborhood Commercial (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. As a "Conditional District", it 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 several Transportation improvements to Rolesville Road per the TIA (detailed further in this memo).

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

1. General Compliance with the concept Plan, which includes a maximum dwelling unit count of 68 single-family Attached (townhome) units and shown amenities.
2. NC DOT Internal Protected Stem (IPS) further discussion for driveway access to Rolesville Road (as shown it cannot be built).
3. Townhome architectural detail commitments.
4. Transportation improvements per the TIA recommendations.

Applicant Justification

The Applicant provided the following written justification statement for the rezoning request – please see page 3 of Attachment 1, Application.

Rezoning Justification

The subject parcel is currently within the Town of Rolesville's jurisdiction and is zoned RL, Residential Low Density. The parcel is within the Town of Rolesville's Future Land Use Plan (2017) and designated as Mixed Use Neighborhood. The map amendment application for Neighborhood Center Mixed-Use (NC) is requested for the establishment of a zoning district that will allow for development that is suburban in nature with a limited commercial component that will be compatible with nearby residential and other uses. The Point development proposes to bring a mix of residential uses immediately adjacent to the subject property, and Rolesville High School is across Rolesville Road from the property to the northeast. Thus, the map amendment will be in harmony with surrounding developments and the Future Land Use Plan. Adequate public infrastructure exists in the area, and the site will be developed according to the Town of Rolesville's Land Development Ordinance, which will ensure that the proposed uses do not adversely affect adjoining uses.

Neighborhood Meeting

The Applicant held an on-line neighborhood meeting on July 25, 2022 at 5:30 PM; 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 as *Mixed Use Neighborhood*, which is described as "***neighborhoods with a mix of uses that offer residents the ability to live, shop, work, and play, in one community. The design and scale of the development encourages active living through a comprehensive and interconnected network of walkable streets that often support multiple modes of transportation***."

Transportation and Traffic

The project proposes development on the west side of Rolesville Road (aka State Road 1003) with approximately 830 feet of frontage. The scope of the project – 68 dwelling units and 30,000 SF of non-residential uses – met the LDO thresholds for requiring a Traffic Impact Analysis (TIA), and this was performed by Ramey Kemp Associates during early 2023 (see Attachments 5 and 6). The study contemplated a project of 68 single-family attached lots and 30,000 square feet of general retail space. Driveway connections studied were one (1) full movement connection to Rolesville Road aligning with Sunset Manor Drive and one (1) right-in/right-out (RIRO) connection to Rolesville Road approximately 275 feet to the south of the full movement connection. A local public street (stub, see Road 2 in Concept Plan) connection to the north to The Point townhome development is also proposed.

Per the Town of Rolesville's Community Transportation Plan (CTP, 2021), the Thoroughfare recommendations for the existing major roadway near this site are:

- Rolesville Road -- a Two-lane (2) facility with center Two-way Left Turn lane , curb and gutter, Bike Lanes, and sidewalks.

Per the Town of Rolesville's Greenway Plan, 10' Sidepath is required along the Rolesville Road frontage; this takes the place of the Sidewalk along this frontage.

The developer is responsible for full **Frontage Improvements** along the entire property's frontage to one-half of the ultimate Section (described above).

The TIA resulted in these general trip generations from the project (excerpted from TIA):

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 Attached Housing (215)	68 DU	468	7	23	30	22	15	37
Retail (<40 KSF) (822)	30 KSF	1,496	36	23	59	85	85	170
Total Trips		**1,964**	**43**	**46**	**89**	**107**	**100**	**207**
*Internal Capture (15% PM)**			-	-	-	*-15*	*-15*	*-30*
Total External Trips			**43**	**46**	**89**	**92**	**85**	**177**
Pass-By Trips: Shopping Center (34% PM)			-	-	-	*-26*	*-26*	*-52*
Total Primary Trips			**43**	**46**	**89**	**66**	**59**	**125**

*Utilizing methodology contained in the NCHRP Report 684.

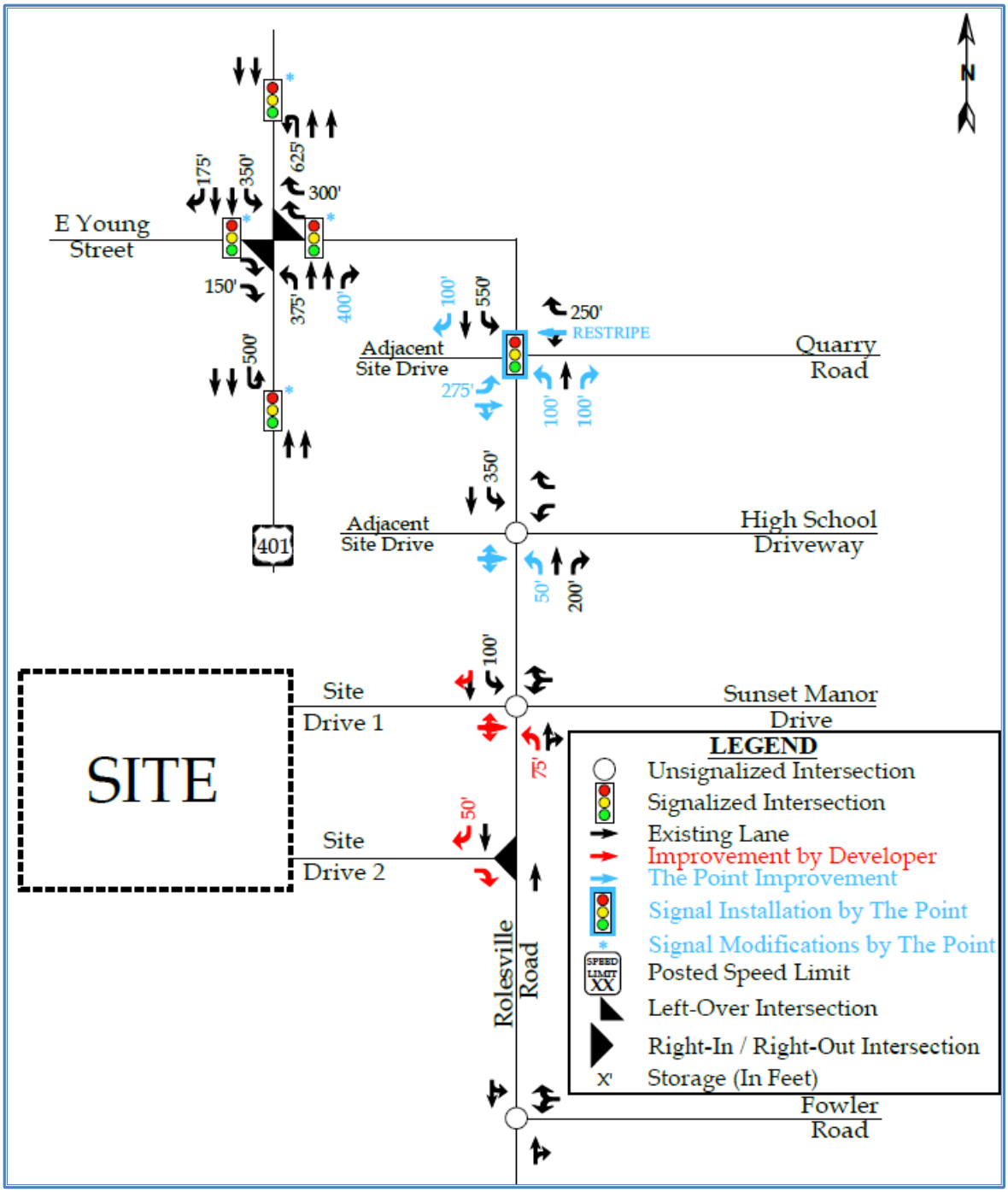
Based on the proposed layout studied in the TIA, the North Site Drive 1 is to be full-access, allowing north-bound left-turns out of the project onto Rolesville Road, as well as allowing north-bound movements from Rolesville Road to left-turn into the property. The southern Site Drive 2 would be restricted to Right-in (from southbound Rolesville Road) and Right-out (onto southbound Rolesville Road).

The TIA Recommended 4 distinct improvements which are generally described as:

1. **Rolesville Road and Sunset Manor Drive / Site Drive 1**:
    a. Construct eastbound approach with one ingress lane and one egress lane striped as a shared left-through-right turn lane. Provide Stop control for the eastbound approach.
    b. Construct an exclusive northbound left-turn lane with a minimum of 75 feet of storage and appropriate taper.

2. **Rolesville Road and Site Drive 2**:
    a. Construct eastbound approach with one ingress lane and one egress lane striped as a right-turn lane. Provide Stop control for the eastbound approach.
    b. Construct an exclusive southbound right-turn lane with a minimum of 50 feet of storage and appropriate taper.

Below is an excerpt from the TIA identifying the various ‘Site Access’ points. North is up.



Staff Analysis

Below is an overview of the review of this application for compliance; at this first stage of development there are some requirements that cannot be demonstrated until later stages of the development process, all of which are Administrative and implemented by Staff. The proposed Concept Plan (Attachment 3) is part of the Conditions (Attachment 2) 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.

Neighborhood Center District (LDO Section 3.4.3.)
The entire property (~11.8 acres) is proposed for this NC District.

LDO	Standard	Analysis	Complies/Does not Comply
3.4.E.2	Building Placement – Table 3.4.3.	No dimensions of building to ROW/property line shown.	Inconclusive – TBD at Preliminary Subdivision.
3.4.E.3	Streetwalls	Concept Plan notes a Street Wall	Complies.
Table 3.4.3.	Density – max. 8 d.u. / acre	11.8 ac / 68 d.u. = 5.8 du/ac	Complies.
Table 3.4.3.	Frontage – 25% of non-residential building	Concept Plan shows no compliance.	Does not comply.
3.4.3.C. – Minimum Size	75% of the NC district land area (Maximum) may be residential use.	11.8 ac x .75 = 8.85 acres. Concept Plan assigns 10.54 acres to Uses not being "Commercial"	Does not comply – exceeds the maximum, but may require recalculation.
3.4.3.D.1 – Mixture of Uses	15% of the NC district (minimum) for non-residential uses*.	11.8 ac x .15 = 1.77 acres. Concept Plan assigns 1.26 acres to 'Commercial use'	Does not comply – exceeds the minimum, but may require recalculation.
There are many other NC District standards that cannot be determined for lack of specificity of Concept Plan, which is appropriate at this stage – these standards shall have compliance demonstrated at Subdivision, Site Development Plan, or Building Permit review.			

**LDO 3.4.3.D.2 clarifies that open space, buffers, drainage, etc. shall not be 'non-residential' for purposes of 3.4.3.D. compliance.*

Finally, the NC District has a 'timing of development' requirement for the Non-residential uses (Section 3.4.3.D.4.) This requires at least 25% of non-residential square footage to achieve Building Permit issuance by the time that 50% of residential units achieve Buildng 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. In the proposed development, no more than 34 townhome units can achieve Building Permit issuance before 30,000 x .25 = 7,500 SF of non-residential space achieves Building Permit issuance. Implementation of this will occur at the time of Building Permit submittal/issuance, which is the last step of the development process.

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. What the project, and therefore the TIA, do not account for is access to the larger land-tract (PIN 1768236815) that sits adjacent to the west. Based on the known aspect of The Point not providing direct/through access to this parcel, and the subject tract also not providing such access, this tract and those further to the west then rely solely on PIN 1768328863

to gain access to Rolesville Road. These future connection possibilities, limited as they are, are concern for the greater functionality of access in this vicinity of the Town.

Consistency

The applicant's request for a Neighbhorhood Center (NC) district, conditioned to a project for up to 68 residential dwelling units and 30,000 square feet of non-residential development is consistent with the Town of Rolesville's Comprehensive Plan Future Lane Use category of Mixed Use Neighborhood.

Development Review

The Technical Review Committee (TRC) reviewed three submittal 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. If the rezoning and annexation are approved, the project will next process a Major Preliminary Subdivision Plat, then Construction Infrastructure Drawings, and finally Final Subdivision Plats to demonstrate compliance with the LDO and other development regulations of the TRC organizations. The non-residential components will process Site Development Plans for more specific LDO requirement compliance, and then Building Permits as required. The townhome buildings and certain other site items will process Building Permits prior to their construction.

Staff Recommendation

Based on consistency with the Comprehensive Plan and mitigation of expected impacts, Staff recommends approval of MA 22-05, 1216 Rolesville Road. Any lack of compliance observed on the concept plan is not approved via this Rezoning request; compliance will be required at the further stages of development application reviews.

Proposed Motion

Motion to recommend (approval or denial) of rezoning request of MA 22-05, 1216 Rolesville Road.

Attachments

	Description	Date
1	Application	Received February 2022
2	Conditions of Approval	Dated 04-17-2023
3	Concept Plan	Revised dated 02-27-2023
4	Neighborhood Meeting documents	July 2022
5	Traffic Impact Analysis (TIA) Final report	dated February 20, 2023
6	Traffic Impact Analysis (TIA) NCDOT Report	
7	Vicinity Map	2022
8	Future Land Use Map	2017 Comprehensive Plan
9	Existing Zoning Map	2021
10	Boundary-Legal Description	

ATTACHMENT 1 - APPLICATION

MA 22-05

Case No. _____

Date _____

Map Amendment Application

Contact Information

Property Owner OPTIMAL DEVELOPMENT LLC

Address 924 EVENING SNOW ST City/State/Zip WAKE FOREST NC 27587-3968

Phone 610-295-3699 Email Shaar@myoptimalequity.com

Developer Same

Contact Name _____

Address _____ City/State/Zip _____

Phone _____ Email _____

Property Information

Address 1216 Rolesville Rd

Wake County PIN(s) 1768-33-7689

Current Zoning District RL Requested Zoning District NC

Total Acreage 11.78

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 _____

STATE OF NORTH CAROLINA

COUNTY OF WAKE

I, a Notary Public, do hereby certify that ROBERT SHAAR *personally appeared before me this day and acknowledged the due execution of the foregoing instrument. This the* 13th *day of* OCTOBER *20* 21 .

My commission expires FEB 15, 2022.

Signature _____ Seal

Travis Barkley
NOTARY PUBLIC
Wake County, NC
My Commission Expires February 15, 2022

Rolesville
Genuine Community • Capital Connection
Est. 1837

Map Amendment Application

Rezoning Justification

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Rolesville
Genuine Community • Capital Connection
Est. 1837

Map Amendment Application

Property Owner Information

Wake County PIN	Property Owner	Mailing Address	Zip Code
1768068057	ASHTON RALEIGH RESIDENTIAL LLC	5711 SIX FORKS RD STE 300, RALEIGH, NC	27609
1768236815	SELF, LINDA ESTELLE MERRITT MERRITT, JAMES FRANCIS	6411 MATCHETT RD, BELLE ISLE FL	32809
1768328863	GUNZ, BETTY R TEXWEST LLC	1409 MARYLAND AVE, CHARLOTTE NC	28209

ATTACHMENT 2 - PROPOSED CONDITIONS OF APPROVAL

1216 Rolesville Rd MA 22-05

Conditions of Approval

Revised April 17, 2023

1. General compliance with the concept plan is a condition of the rezoning request. Significant deviations from the concept plan shall require a rezoning amendment unless the administrator finds the modification to be minor and in keeping with the spirit and intent of the concept plan.

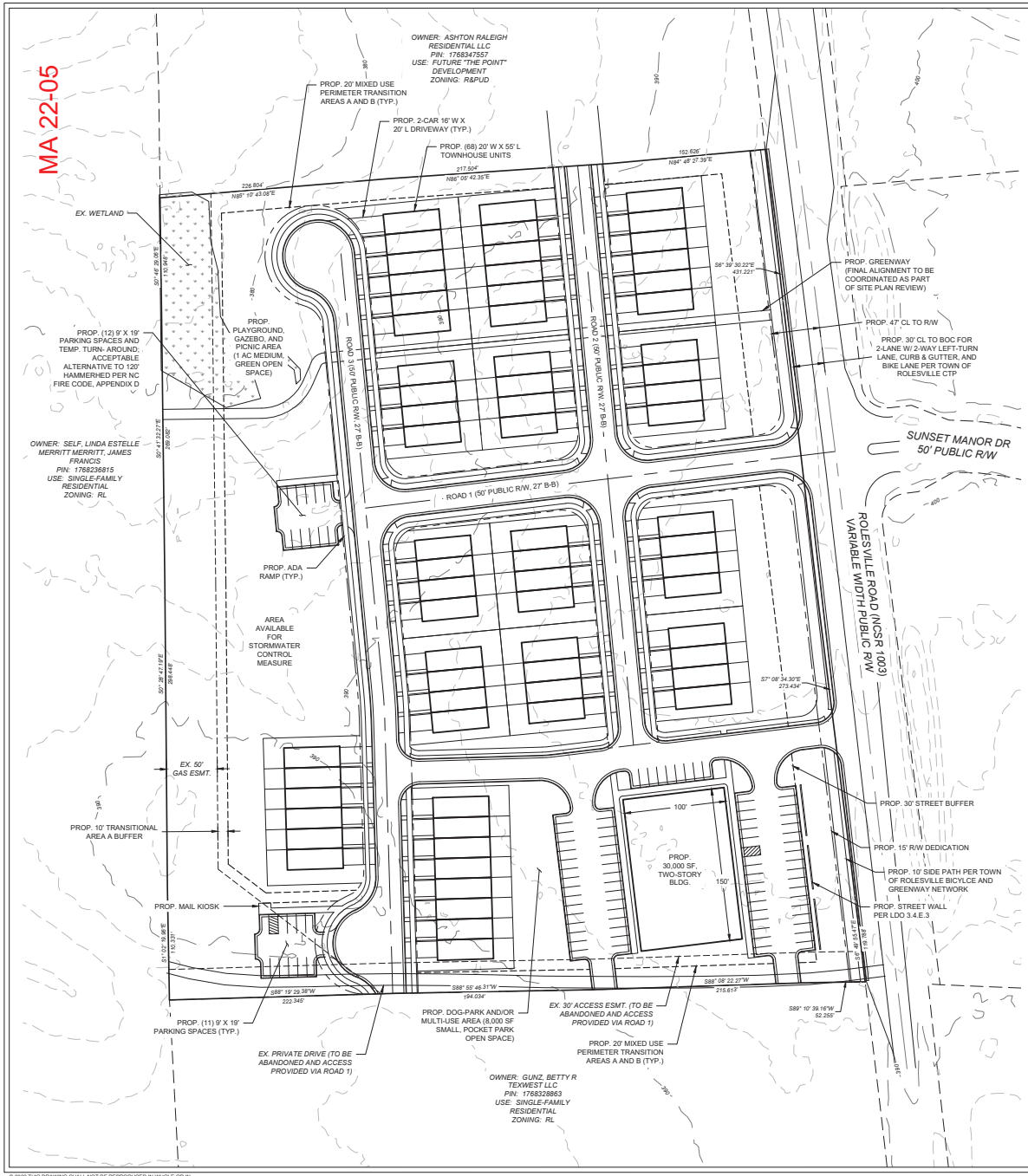
2. The developer shall work with the North Carolina Department of Transportation (NCDOT) during the Site Plan approval process to address the Internal Protected Stem (IPS) requirement.

3. The townhomes shall adhere to the following architectural conditions:
    a. All elevations of the units visible to public rights-of-way shall have trim around the windows.
    b. Front elevations of townhouse units visible from public rights-of-way, shall contain at least three of the following:
        - Bay Window
        - Recessed Window
        - Decorative Window
        - Decorative Shake
        - Porch or Stoop
    c. Eaves, front, and rear shall project at least 12 inches from the wall of the structure. Side eaves shall be a minimum of 4-inches. Eaves will be allowed to encroach setbacks as allowed in the LDO.
    d. A varied color palette shall be utilized on buildings throughout the development. Each building to include a minimum of three-color families for siding and shall include varied trim, shutter, and accent colors complimenting the siding color.
    e. Poured concrete foundations, monolithic slabs, concrete block foundations, or smooth- faced concrete masonry unit foundations shall be covered by decks, stoops, or be clad in face brick, stone, or some other masonry material imitating these materials visible from the public right-of-way.
    f. Roof lines to match architectural building style. Townhouse rooflines cannot be a single mass; it must be broken up horizontally and vertically. The maximum number of continuous units within a building without a break is two. The main roofline will provide a minimum 6:12 pitch and a maximum of 12:12.
    g. Front stoops or porches, if provided, shall be a minimum of 4' in depth.

4. The developer shall construct offsite road improvements as recommended by NCDOT in their *1216 Rolesville Road Traffic Impact Analysis Review Report* dated March 21, 2023.

ATTACHMENT 3 - CONCEPT PLAN

MA 22-05



SUMMARY INFORMATION

DEVELOPMENT NAME: ROLESVILLE ROAD MIXED USE

SITE ADDRESS: 1216 ROLESVILLE RD

PIN NUMBER(S): 1768-33-7689

TOTAL ACREAGE: 11.8 AC

EXISTING USE: VACANT
PROPOSED USE: MIXED USE

JURISDICTION: TOWN OF ROLESVILLE
CURRENT ZONING DISTRICT: RL
PROPOSED ZONING DISTRICT: NEIGHBORHOOD CENTER (NC)

PROPOSED COMMERCIAL AREA: 30,000 SF

PROPOSED MAX. BLDG. HEIGHT: 35' (TWO STORIES)

SETBACKS (MIN/MAX):
FRONT: 15'/100'
SIDE: 10'/50'
REAR: 10'/50'

PARKING REQUIREMENTS:
RETAIL SALES AND SERVICE:
2.5 SPACE / 1,000 SF
PARKING REQUIRED:
2.5 SPACE / 1,000 SF * 30,000 SF = 75 SPACES
PARKING PROVIDED:
76 SPACES (2 ADA ACCESSIBLE)

PROPOSED TOWNHOME UNITS: 68
MAX. DENSITY: 8 UNITS/AC
PROPOSED DENSITY: 5.8 UNITS/AC

PROPOSED MAX. BLDG. HEIGHT: 35' (TWO STORIES)

SETBACKS (MIN/MAX):
FRONT: 15'/100'
SIDE: 10'/50' (MIN. 30' BETWEEN STRUCTURES)
REAR: 10'/50'

PARKING REQUIREMENTS:
DWELLING MULTIPLE FAMILY PARKING:
2.0 SPACES PER UNIT PLUS 0.25 GUEST SPACE PER UNIT
PARKING REQUIRED:
2.0 SPACES * 68 UNITS + 0.25 SPACES * 68 UNITS = 153 SPACES
PARKING PROVIDED:
2 SPACES PER DRIVEWAY + 21 GUEST = 157 SPACES
MAIL KIOSK PARKING PROVIDED:
2 SPACES FOR MAIL KIOSK (1 IS ADA ACCESSIBLE)
TOTAL PARKING PROVIDED:
157 SPACES + 2 MAIL KIOSK SPACES = 159 SPACES (1 IS ADA ACCESSIBLE)

REQUIRED OPEN SPACE: 1.77 AC (15%)
PROPOSED OPEN SPACE: 3.87 AC (32.8%)

USE BREAKDOWN:

RIGHT-OF-WAY: 2.62 AC (22.2%)
RESIDENTIAL LOTS: 3.72 AC (31.5%)
COMMERCIAL AREA: 1.26 AC (10.6%)
COMMON AREAS & OPEN SPACE: 4.20 AC (35.6%)

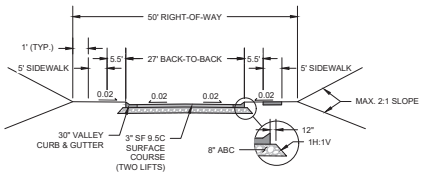
ENGINEER:
FLM ENGINEERING, INC.
PO BOX 91727
RALEIGH, NC 27675
919.610.1051

NOTES

1. SKETCH PLAN BASED ON WAKE COUNTY GIS DATA PARCEL DATA.
2. THERE ARE NO AREAS WITHIN THE REGULATORY FLOODPLAIN AS SHOWN ON FEMA FIRM PANEL 3720185000J, EFFECTIVE 5/2/2006.
3. EXISTING TOPOGRAPHIC DATA SHOWN IS WAKE COUNTY GIS TWO-FOOT CONTOURS.

LEGEND

- EX. PROPERTY LINE
- EX. ADJACENT OWNERS
- EX. EASEMENT
- 400 EX. MAJOR CONTOUR (10')
- EX. MINOR CONTOUR (2')
- PROP. RIGHT-OF-WAY
- PROP. LOT LINES
- PROP. BUFFER



TYPICAL INTERIOR ROADWAY CROSS-SECTION
NO SCALE

FLM ENGINEERING

POST OFFICE BOX 91727
RALEIGH, NORTH CAROLINA 27675
PHONE: 919.610.1051
FIRM NC LICENSE NUMBER C-4222

REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
1	TOR COMMENTS	5/2/2022	FLM
2	TOR COMMENTS	2/27/2023	FLM

ORIGINAL PLAN SIZE: 24" X 36"

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

50 25 0 50
SCALE: 1 INCH = 50 FEET

N

SCALE ADJUSTMENT
THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING
0 1"
IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

ROLESVILLE RD MIXED USE
MA 22-05

1216 ROLESVILLE RD
ROLESVILLE, NC

DATE:	02-21-2022
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	
PROJECT NO.:	

SKETCH PLAN

C-1

SHEET 1 OF 1

Neighborhood Meeting SIGN UP SHEET

1216 Forestville Road

July 25/2022 at 5 :30 PM

NO.	Owner's name	Address	PHONE	EMAIL
01				
02				
03				
04				
05				
06				
07				
08				
09				
10				

No show

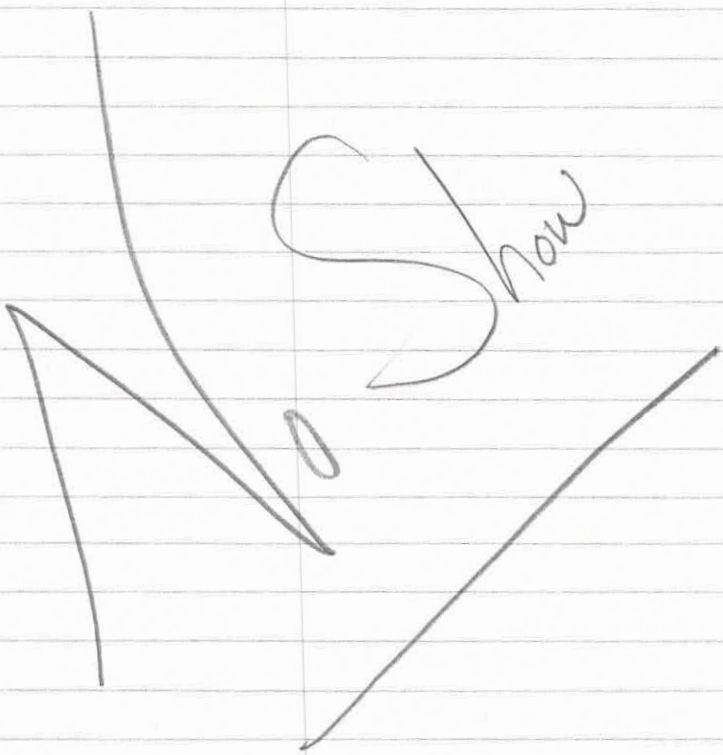
SUBJECT

Sign Sheet.

DATE

Neighboon Hood MEETING 6/6/2022 - 1021 FORESTVILLE Road

RE: 1216 Rolesville Rd



OptimalEQUITY CORP
MyOptimalEquity.com

July 11, 2022

Re: Neighborhood Meeting Regarding plans for 1216 Rolesville Road Rolesville NC 27571

Dear Property Owners,

Optimal Equity Group will hold a Neighborhood meeting on Monday July 25 at 5:30PM on a site plans near property you own.

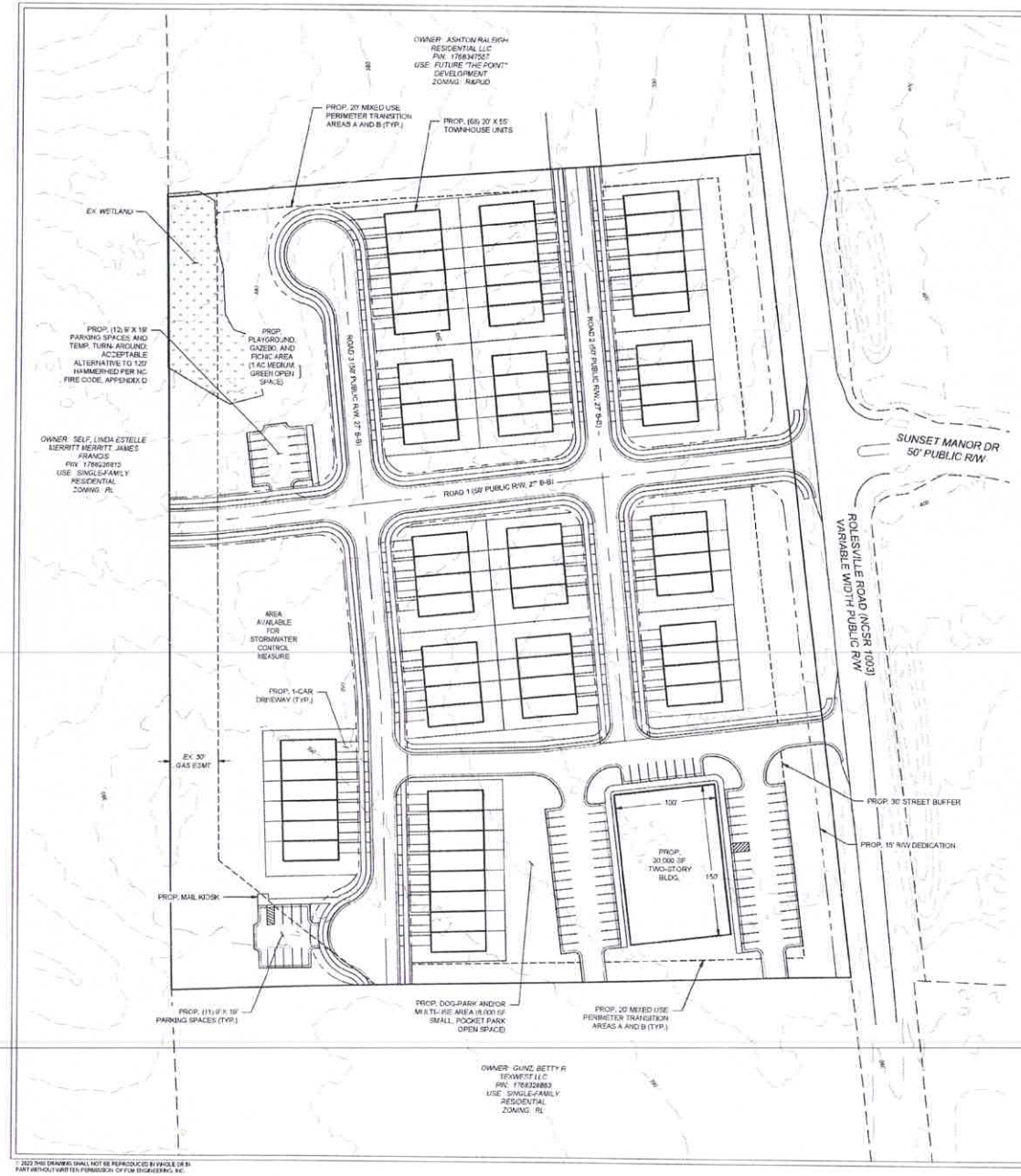
Details are as follow:

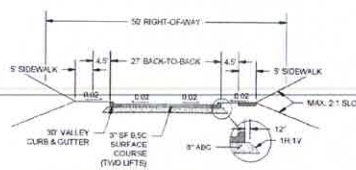
Property: 1216 Rolesville Road Rolesville NC 27571
Applicant: Optimal Development LLC
Location: 1021 Forestville Road Wake Forest NC 27587
Wake County Pin 1768-33-7689
Request Rezoning RL to GC
Meeting Date and Time : Monday July 25, 2022 at 5:30 PM
Meeting Location : 1021 Forestville Road, 2nd Floor Conference Room in the Optimal Equity Executive Suites

Best Regards,

Robert Shaar

610.295.3699
Shaar@Myoptimalequity.com
WWW.Myoptimalequity.com
919.939.3078





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PROPOSED MAX. BLDG. HEIGHT: 35' (TWO STORIES)

SETBACKS (MIN/MAX):
FRONT: 15'/100'
SIDE: 10'/50'
REAR: 12'/50'

PARKING REQUIREMENTS:
RETAIL SALES AND SERVICE
2.5 SPACE / 1,000 SF
PARKING REQUIRED:
2.5 SPACE / 1,000 SF * 30,000 SF = 75 SPACES
PARKING PROVIDED:
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PROPOSED TOWNHOME UNITS: 68
MAX. DENSITY: 8 UNITS/AC
PROPOSED DENSITY: 5.8 UNITS/AC

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PARKING PROVIDED:
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MAIL KIOSK PARKING PROVIDED:
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50 25 0 50
SCALE: 1 INCH = 50 FEET

SCALE ADJUSTMENT
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IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

ROLESVILLE RD MIXED USE

1216 ROLESVILLE RD
ROLESVILLE, NC

DATE	02-21-2022
SCALE	AS SHOWN
DESIGNED BY	FLM
APPROVED BY	
PROJECT NO.	

SKETCH PLAN

C-1
SHEET 1 OF 1

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2. GUNZ BETTY R TEXWEST LLC	11409 MARYLAND AVE CHARLOTTE NC 28209-1527				
3. LINDA ESTELLE MERRITT MERRITT JAMES FRANCIS	6411 MATCHETT RD BELLE ISLE FL 32809-5151				
4. ASHTON RALEIGH RESIDENTIAL LLC	4025 LAKE BOONE TRL STE 200 Raleigh NC 27607-3087				
5. JEFFERSON JOSEPH JEFFERSON SONIA R	6405 SUNSET MANOR Rolesville NC 27571				LA
6. Wake Count Board of Education	RE SERVICES DIRECTOR 1551 ROCK QUARRY ROAD RALEIGH NC 27610				

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224 E. Holding Ave
Wake Forest NC 27587

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Wake Forest, NC, 27587

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JUL 13, 22
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2. GUNZ BETTY R TEXWEST LLC ✓	11409 MARYLAND AVE CHARLOTTE NC 28209-1527				
3. LINDA ESTELLE MERRITT MERRITT JAMES FRANCIS ✓	6411 MATCHETT RD BELLE ISLE FL 32809-5151				
4. ASHTON RALEIGH RESIDENTIAL LLC ✓	4025 LAKE BOONE TRL STE 200 Raleigh NC 27607-3087				
5. JEFFERSON JOSEPH JEFFERSON SONIA R ✓	6405 SUNSET MANOR ~~Rolesville NC 27571~~ WAKE FOREST NC 27587				
6. Wake Count Board of Education ✓	RE SERVICES DIRECTOR 1551 ROCK QUARRY ROAD RALEIGH NC 27610				

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1.	GOODNIGHT JUDY JONES	1201 ROLESVILLE Rolesville NC 27571				
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PS Form **3665**, January 2017 (Page 2 of 2) PSN 7530-17-000-5549

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5. JEFFERSON JOSEPH JEFFERSON SONIA R	6405 SUNSET MANOR Rolesville NC 27571				LA
6. Wake Count Board of Education	RE SERVICES DIRECTOR 1551 ROCK QUARRY ROAD RALEIGH NC 27610				

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2.					
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6.					

Angelique Harris

From: Avery Kolatch
Sent: Thursday, May 19, 2022 4:22 PM
To: Angelique Harris
Subject: 1216 Rolesville

Owner
HASSOUNEH HANI YAHYA HASSOUNEH RUTH HEIDI
Address
6412 SUNSET MANOR
Parcel ID
0366746

Owner
GUNZ BETTY R TEXWEST LLC
Address
1224 ROLESVILLE
Parcel ID
0105864
Mailing Address 1
1409 MARYLAND AVE
CHARLOTTE NC 28209-1527

Owner
SELF LINDA ESTELLE MERRITT MERRITT JAMES FRANCIS
Address
6200 EMILY
Parcel ID
0046995
Mailing Address 1
6411 MATCHETT RD
BELLE ISLE FL 32809-5151

Owner
ASHTON RALEIGH RESIDENTIAL LLC
Address
0 E YOUNG
Parcel ID
0491960
Mailing Address 1
4025 LAKE BOONE TRL STE 200
RALEIGH NC 27607-3087

Owner
JEFFERSON JOSEPH JEFFERSON SONIA R
Address
6405 SUNSET MANOR

Parcel ID
0366709

Owner
WAKE CNTY BOARD OF EDUCATION
Address
1099 E YOUNG
Parcel ID
0060540
RE SERVICES DIRECTOR
1551 ROCK QUARRY RD

Owner
GOODNIGHT JUDY JONES
Address
1201 ROLESVILLE
Parcel ID
0036622

Avery Z. Kolatch

Director of Business Development

Optimal Equity Corp.

917-952-3118

1021 Forestville Rd.

Wake Forest NC 27857

https://myoptimalequity.com/

TRAFFIC IMPACT ANALYSIS

FOR

1216 Rolesville Road

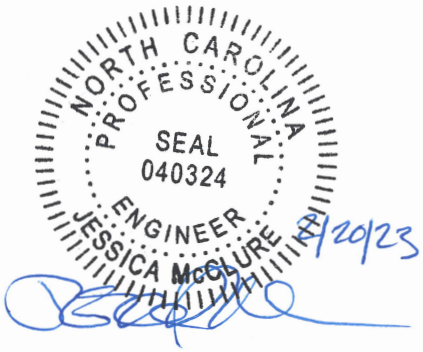
LOCATED

IN

ROLESVILLE, NC

Prepared For:
The Town of Rolesville

Prepared By:
Infrastructure Consulting Services, Inc.
dba
Ramey Kemp Associates
5808 Faringdon Place
Raleigh, NC 27609
License #F-1489



FEBRUARY 2023

RKA Project No. 20498-007

Prepared By: MM

Reviewed By: JM

TRAFFIC IMPACT ANALYSIS
1216 ROLESVILLE ROAD
ROLESVILLE, NORTH CAROLINA

EXECUTIVE SUMMARY

1. Development Overview

A Traffic Impact Analysis (TIA) was conducted for the proposed development in accordance with the Town of Rolesville (Town) Land Development Ordinance (LDO) and North Carolina Department of Transportation (NCDOT) capacity analysis guidelines. The development is proposed be located at 1216 Rolesville Road in Rolesville, North Carolina. The proposed development is anticipated to be completed in 2028 and is expected to consist of 68 single-family attached homes and 30,000 square feet (sq. ft.) of retail development. Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right-out driveway located approximately 275 feet (ft) to the south. A stub connection to the planned The Point development is also proposed.

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

- 2022 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 and NCDOT and consists of the following existing intersections:

- US 401 and E Young Street (Signalized)
- US 401 and U-Turn North of E Young Street (Signalized)
- US 401 and U-Turn South of E Young Street (Signalized)
- E Young Street and Quarry Road (Unsignalized)
- E Young Street and Rolesville High School Driveway (Unsignalized)

- Rolesville Road and Sunset Manor Drive (Unsignalized)
- Rolesville Road and Fowler Road (Unsignalized)

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersection listed above, in September 2022 and January 2023 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 68 single-family attached homes and 30,000 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*, 11th Edition. Table E-1 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 Attached Housing (215)	68 DU	468	7	23	30	22	15	37
Retail (<40 KSF) (822)	30 KSF	1,496	36	23	59	85	85	170
Total Trips		**1,964**	**43**	**46**	**89**	**107**	**100**	**207**
*Internal Capture (15% PM)**			-	-	-	*-15*	*-15*	*-30*
Total External Trips			**43**	**46**	**89**	**92**	**85**	**177**
Pass-By Trips: Shopping Center (34% PM)			-	-	-	*-26*	*-26*	*-52*
Total Primary Trips			**43**	**46**	**89**	**66**	**59**	**125**

*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:

- The Point (Young Street PUD)
- Kalas Falls
- Preserve at Moody Falls
- Rolesville Crossing (Wheeler Tract)
- Tucker Wilkins

5. Capacity Analysis Summary

The analysis considered weekday AM and PM peak hour traffic for 2022 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 and are recommended to accommodate future traffic conditions. The improvements are summarized below and are illustrated in Figure E-1.

Improvements per Rolesville Community Transportation Plan

Per the current Rolesville Community Transportation (CTP), E Young Street/Rolesville Road is planned to be a two-lane facility with a center turn lane, curb and gutter, bike lanes, and sidewalks.

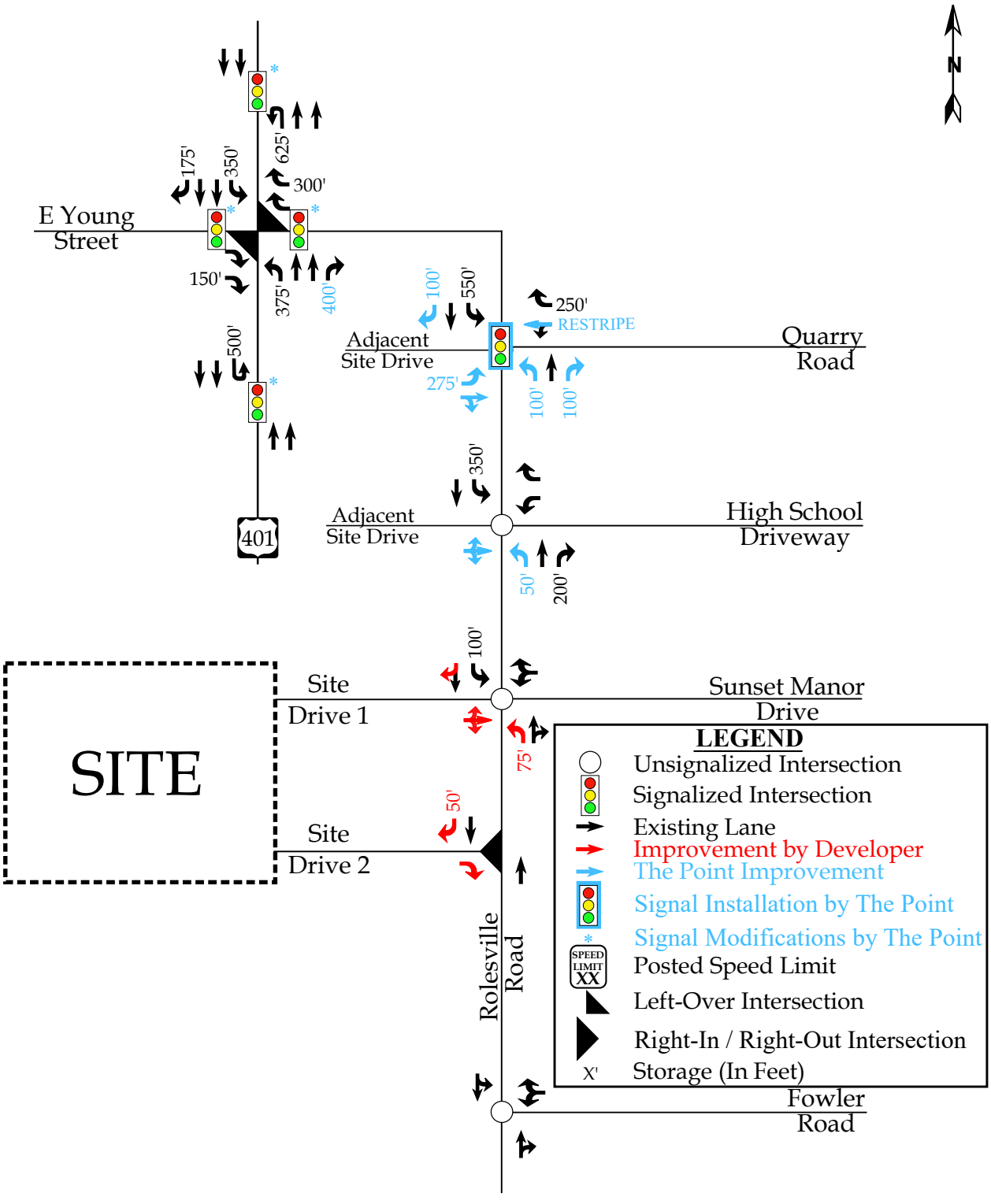
Recommended Improvements by Developer

<u>Rolesville Road and Sunset Manor Drive/Site Drive 1</u>

- Construct eastbound approach with one ingress lane and one egress lane striped as a shared left-through-right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive northbound left turn lane with a minimum of 75 feet of storage and appropriate taper.

Rolesville Road and Site Drive 2

- Construct eastbound approach with one ingress lane and one egress lane striped as a right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive southbound right turn lane with a minimum of 50 feet of storage and appropriate taper.



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Recommended Lane Configurations

Scale: Not to Scale

Figure E-1

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TECHNICAL APPENDIX

TRAFFIC IMPACT ANALYSIS
1216 ROLESVILLE ROAD
ROLESVILLE, NORTH CAROLINA

1. INTRODUCTION

The contents of this report present the findings of the Traffic Impact Analysis (TIA) conducted for the proposed development to be located at 1216 Rolesville Road in Rolesville, North Carolina. 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 proposed development is anticipated to be completed in 2028 and is assumed to consist of the following uses:

- 68 units Single-Family Attached Housing
- 30,000 square feet (sq. ft.) retail

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

- 2022 Existing Traffic Conditions
- 2028 (build-out year plus one) No-Build Traffic Conditions
- 2028 (build-out year plus one) Build Traffic Conditions

1.1. Site Location and Study Area

The development is proposed to be located at 1216 Rolesville 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 intersections:

- US 401 and E Young Street (Signalized)
- US 401 and U-Turn North of E Young Street (Signalized)
- US 401 and U-Turn South of E Young Street (Signalized)
- E Young Street and Quarry Road (Unsignalized)
- E Young Street and Rolesville High School Driveway (Unsignalized)
- Rolesville Road and Sunset Manor Drive/Site Drive 1 (Unsignalized)
- Rolesville Road and Fowler Road (Unsignalized)
- Rolesville Road and Site Drive 2 (Proposed unsignalized)

Refer to Appendix A for the approved scoping documentation.

1.2. Proposed Land Use and Site Access

The proposed development is to be located on the west side of Rolesville Road, across from Sunset Manor Drive, at 1216 Rolesville Road in Rolesville, North Carolina. The development is anticipated to be completed in 2028 and is anticipated to consist of the following uses:

- 68 units Single-Family Attached Housing (LUC 215)
- 30,000 sq. ft. retail (LUC 822)

Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right-out (RIRO) driveway located approximately 275 feet (ft) to the south. A stub connection to the planned The Point development is also proposed.

Refer to the attached site location map and preliminary site plan.

1.3. Adjacent Land Uses

The proposed development is located in an area consisting primarily of farms, undeveloped land, and residential development. The southern portion of The Point development is currently under construction. According to the 2019 TIA prepared for The Point, the development is expected to build out by 2025. A stub connection is proposed to connect The Point to the north side of the proposed development. To be conservative, the connection was not considered in this study.

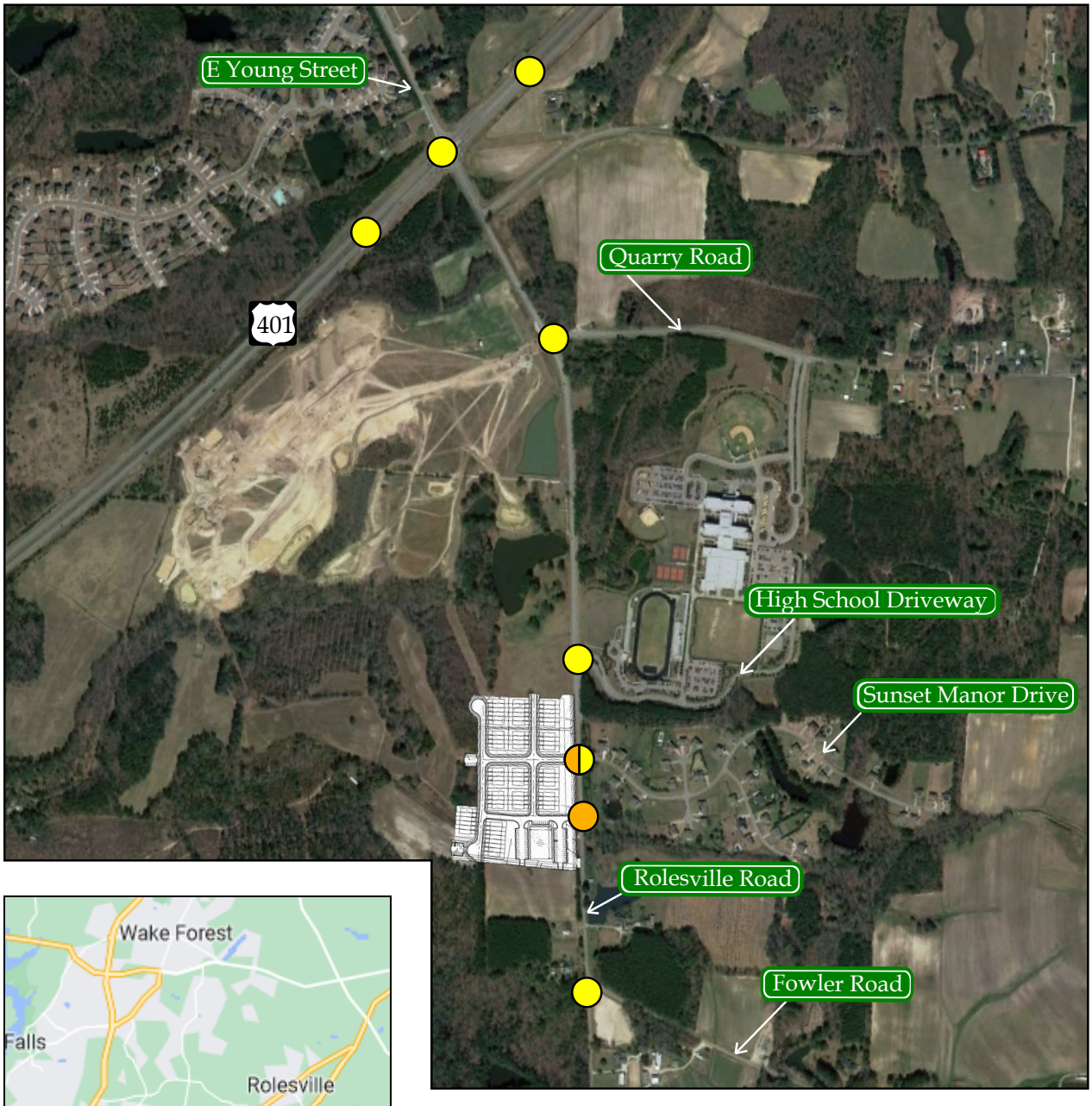
1.4. Existing Roadways

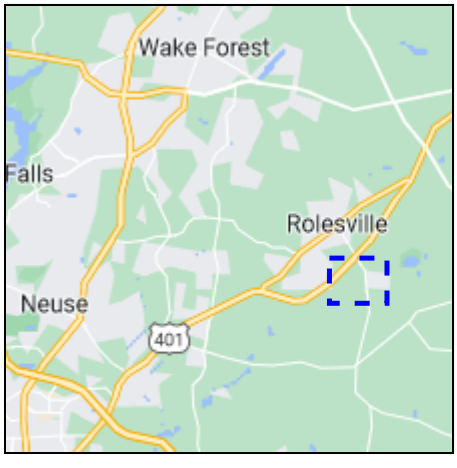
Existing lane configurations (number of traffic lanes on each intersection approach), storage capacities, and other intersection and roadway information within the study area are shown in Figure 3. Table 1 provides a summary of roadway information.

Table 1: Existing Roadway Inventory

Road Name	Route Number	Typical Cross Section	Speed Limit	2021 AADT (vpd)
Louisburg Rd	US 401	4-lane divided	55 mph	18,500
E Young Street/Rolesville Road	SR 1003	2-lane undivided	45 mph	5,400
Quarry Road	SR 2305	2-lane undivided	45 mph	1,100
Sunset Manor Drive	SR 5471	2-lane undivided	25 mph	310*
Fowler Road	SR 2308	2-lane undivided	45 mph	1,300

*2022 AADT estimated assuming PM peak hour traffic represents 10% of daily traffic volume.



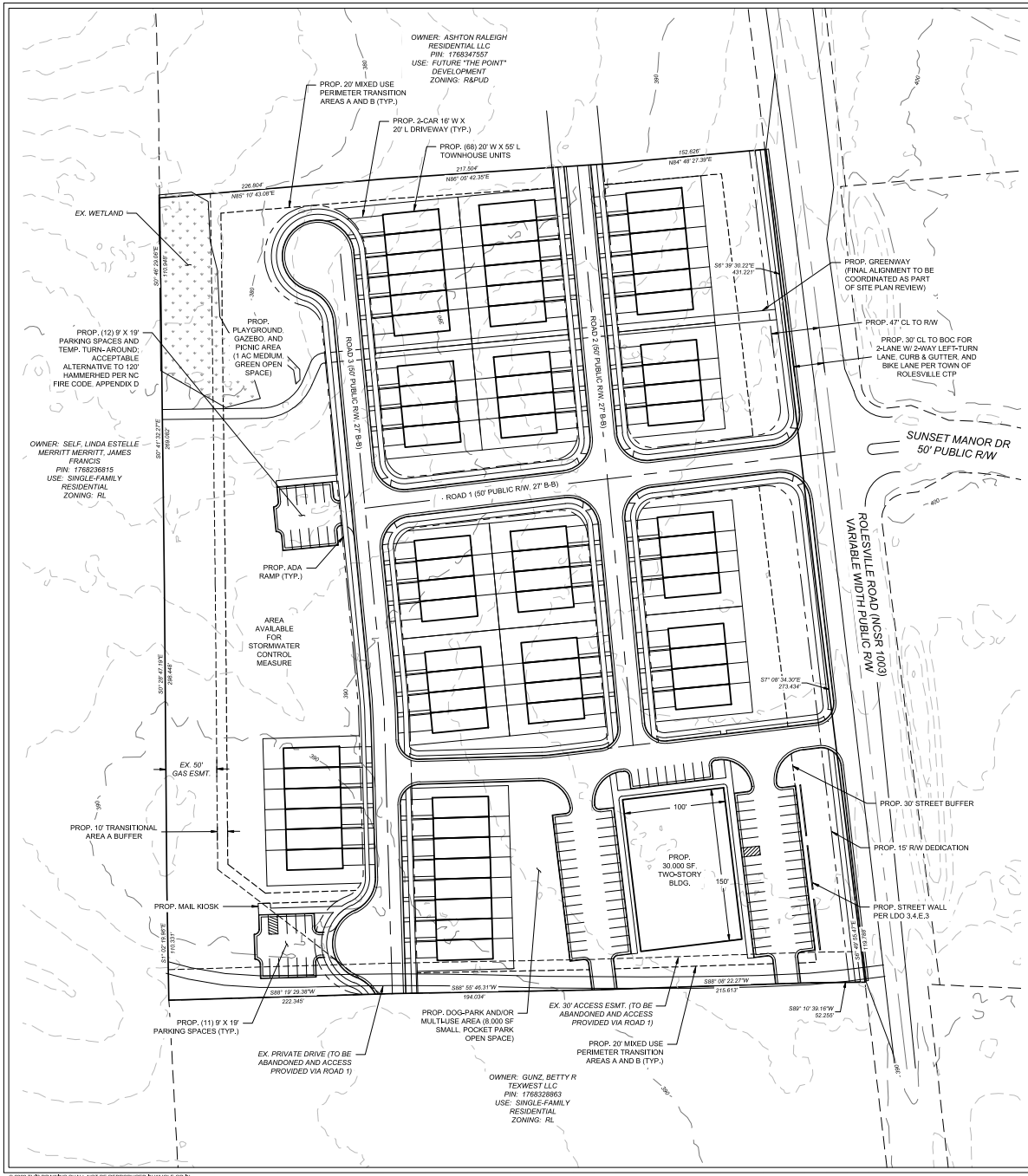


N

LEGEND

- Existing Study Intersection
- Proposed Site Access
- Study Area

RKA RAMEY KEMP ASSOCIATES	1216 Rolesville Road Rolesville, NC	Site Location Map Scale: Not to Scale | Figure 1



SUMMARY INFORMATION

DEVELOPMENT NAME: ROLESVILLE ROAD MIXED USE

SITE ADDRESS: 1216 ROLESVILLE RD

PIN NUMBER(S): 1768-33-7689

TOTAL ACREAGE: 11.8 AC

EXISTING USE: VACANT
PROPOSED USE: MIXED USE

JURISDICTION: TOWN OF ROLESVILLE
CURRENT ZONING DISTRICT: RL
PROPOSED ZONING DISTRICT: NEIGHBORHOOD CENTER (NC)

PROPOSED COMMERCIAL AREA: 30,000 SF

PROPOSED MAX. BLDG. HEIGHT: 35' (TWO STORIES)

SETBACKS (MIN/MAX):
FRONT: 15'/100'
SIDE: 10'/50'
REAR: 10'/50'

PARKING REQUIREMENTS:
RETAIL SALES AND SERVICE:
2.5 SPACE / 1,000 SF
PARKING REQUIRED:
2.5 SPACE / 1,000 SF * 30,000 SF = 75 SPACES
PARKING PROVIDED:
76 SPACES (2 ADA ACCESSIBLE)

PROPOSED TOWNHOME UNITS: 68
MAX. DENSITY: 8 UNITS/AC
PROPOSED DENSITY: 5.8 UNITS/AC

PROPOSED MAX. BLDG. HEIGHT: 35' (TWO STORIES)

SETBACKS (MIN/MAX):
FRONT: 15'/100'
SIDE: 10'/50' (MIN. 30' BETWEEN STRUCTURES)
REAR: 10'/50'

PARKING REQUIREMENTS:
DWELLING MULTIPLE FAMILY PARKING:
2.0 SPACES PER UNIT PLUS 0.25 GUEST SPACE PER UNIT
PARKING REQUIRED:
2.0 SPACES * 68 UNITS + 0.25 SPACES * 68 UNITS = 153 SPACES
PARKING PROVIDED:
2 SPACES PER DRIVEWAY + 21 GUEST = 157 SPACES
MAIL KIOSK PARKING PROVIDED:
2 SPACES FOR MAIL KIOSK (1 IS ADA ACCESSIBLE)
TOTAL PARKING PROVIDED:
157 SPACES + 2 MAIL KIOSK SPACES = 159 SPACES (1 IS ADA ACCESSIBLE)

REQUIRED OPEN SPACE: 1.77 AC (15%)
PROPOSED OPEN SPACE: 3.87 AC (32.8%)

USE BREAKDOWN:

RIGHT-OF-WAY: 2.62 AC (22.2%)
RESIDENTIAL LOTS: 3.72 AC (31.5%)
COMMERCIAL AREA: 1.26 AC (10.6%)
COMMON AREAS & OPEN SPACE: 4.20 AC (35.6%)

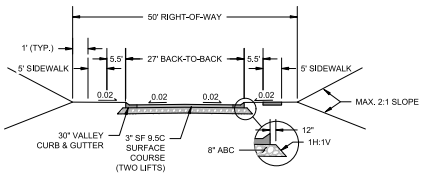
ENGINEER:
FLM ENGINEERING, INC.
PO BOX 91727
RALEIGH, NC 27675
919.610.1051

NOTES

1. SKETCH PLAN BASED ON WAKE COUNTY GIS DATA PARCEL DATA.
2. THERE ARE NO AREAS WITHIN THE REGULATORY FLOODPLAIN AS SHOWN ON FEMA FIRM PANEL 3720185000J. EFFECTIVE 5/2/2006.
3. EXISTING TOPOGRAPHIC DATA SHOWN IS WAKE COUNTY GIS TWO-FOOT CONTOURS.

LEGEND

- EX. PROPERTY LINE
- EX. ADJACENT OWNERS
- EX. EASEMENT
- 400 EX. MAJOR CONTOUR (10')
- EX. MINOR CONTOUR (2')
- PROP. RIGHT-OF-WAY
- PROP. LOT LINES
- PROP. BUFFER



TYPICAL INTERIOR ROADWAY CROSS-SECTION
NO SCALE

FLM ENGINEERING
POST OFFICE BOX 91727
RALEIGH, NORTH CAROLINA 27675
PHONE: 919.610.1051
FIRM NC LICENSE NUMBER C-4222

REVISION HISTORY

REV #	DESCRIPTION	DATE	BY
1	TOR COMMENTS	5/2/2022	FLM
2	ELIMINATE WESTERN STUB ROAD	7/12/2022	FLM

ORIGINAL PLAN SIZE: 24" X 36"

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

50 25 0 50
SCALE: 1 INCH = 50 FEET

N

SCALE ADJUSTMENT
THIS BAR IS 1 INCH IN LENGTH ON ORIGINAL DRAWING
0 1"
IF IT IS NOT 1 INCH ON THIS SHEET, ADJUST YOUR SCALE ACCORDINGLY

ROLESVILLE RD MIXED USE
MA 22-05

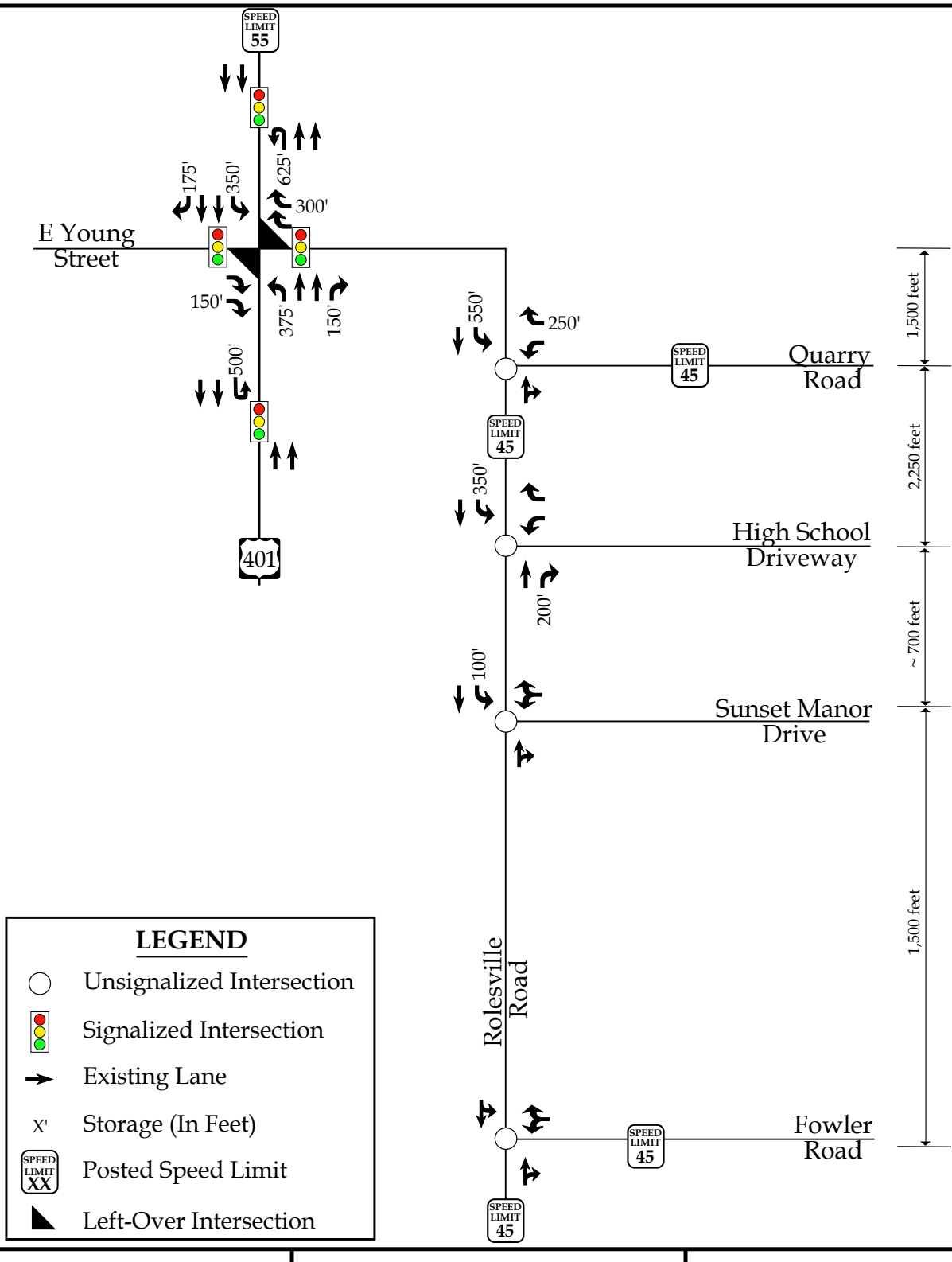
1216 ROLESVILLE RD
ROLESVILLE, NC

DATE:	02-21-2022
SCALE:	AS SHOWN
DESIGNED BY:	FLM
APPROVED BY:	
PROJECT NO.:	

SKETCH PLAN

C-1

SHEET 1 OF 1



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

2022 Existing Lane Configurations

Scale: Not to Scale

Figure 3

2. 2022 EXISTING PEAK HOUR CONDITIONS

2.1. 2022 Existing Peak Hour Traffic Volumes

Existing peak hour traffic volumes were determined based on traffic counts conducted at the study intersections listed below, in September of 2022 and January 2023 during typical weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods, which schools were in session:

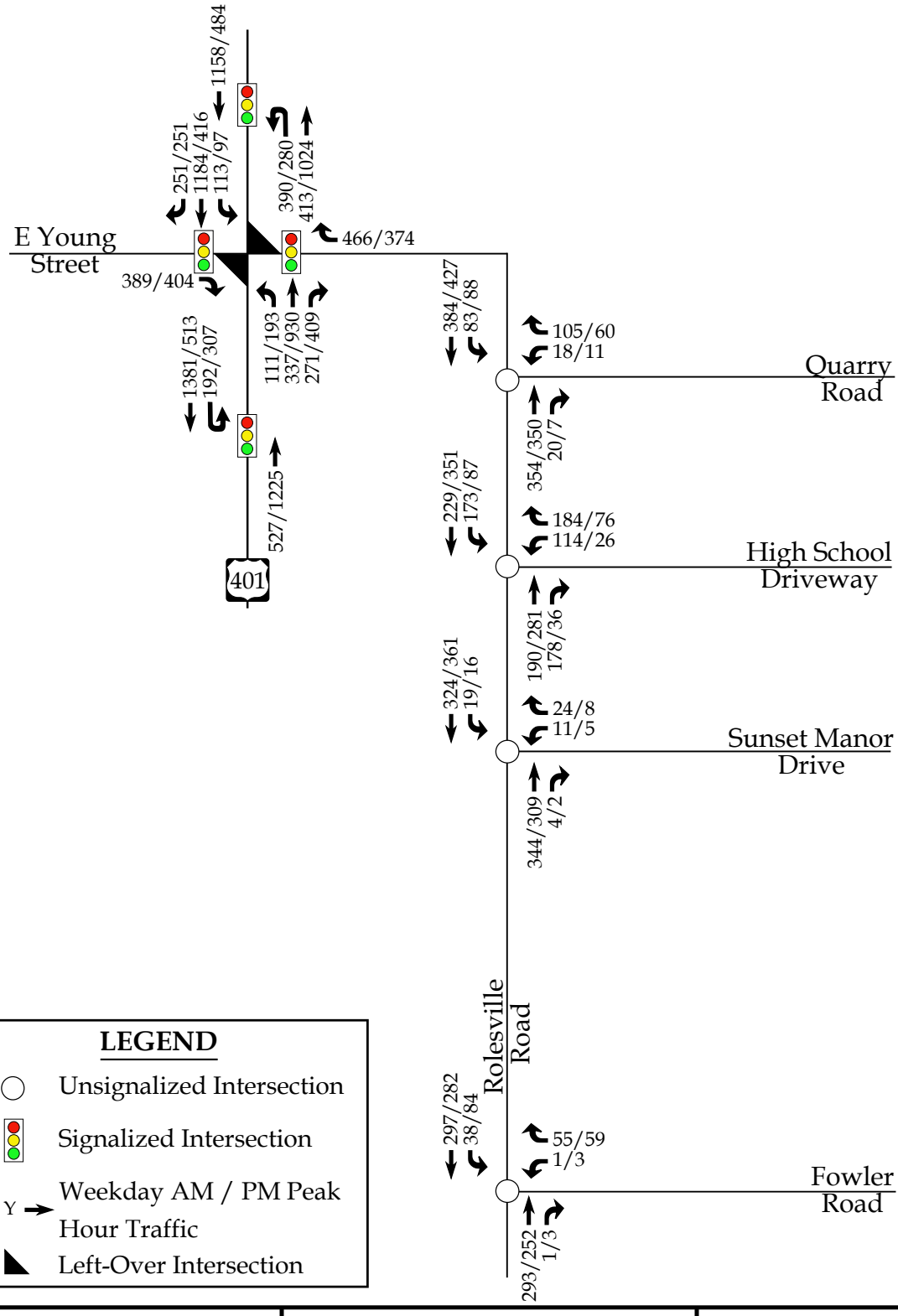
- US 401 and E Young Street
- US 401 and U-Turn North of E Young Street
- US 401 and U-Turn South of E Young Street
- E Young Street and Quarry Road
- E Young Street and Rolesville High School Driveway
- Rolesville Road and Sunset Manor Drive
- Rolesville Road and Fowler Road

Existing traffic volumes were balanced between study intersections, where appropriate. Refer to Figure 4 for 2022 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 2022 Existing Peak Hour Traffic Conditions

The 2022 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.

Signal information was obtained from NCDOT is included in Appendix C. The results of the analysis are presented in Section 7 of this report.



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

2022 Existing
Peak Hour Traffic

Scale: Not to Scale

Figure 4

Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

3. 2028 NO-BUILD PEAK HOUR CONDITIONS

In order to account for growth of traffic and subsequent traffic conditions at a future year traffic projections are needed. Projected traffic is the component of traffic due to the growth of the community and surrounding area that is anticipated to occur regardless of whether 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 nearby 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 the 2028 projected weekday AM and PM peak hour traffic volumes.

3.2. Approved Development Traffic

Based on coordination with the NCDOT and the Town, it was determined the following approved developments are expected to build out prior to 2028 and should be included in the determination of future traffic volumes:

- The Point – 96 single family detached homes north of US 401 and 525 single-family detached homes, 320 multi-family units, and 122,800 sq. ft. of retail development south of US 401. Trips for this development were taken from the 2019 TIA prepared for the development.
- Kalas Falls – 215 single-family homes on the west side of Rolesville Road between Mitchell Mill Road and Fowler Road. Trips for this development were taken from the 2019 TIA prepared for Kalas Falls.
- Preserve at Moody Falls – 82 single-family detached homes on the west side of Rolesville Road south of existing intersection of Rolesville Road and Amazon Trail. Since a TIA was not required for this development, trips for the 82 homes were generated and assigned to the roadway network according to the same distribution as Kalas Falls trips.

- Rolesville Crossing (Wheeler Tract) – 233 single-family detached homes and 125 multi-family townhomes in the northeast quadrant of the intersection of Rolesville Road and Mitchell Mill Road. Trips for this development were taken from the 2019 TIA prepared for the development.
- Tucker Wilkins – 27 single-family detached homes and 64 multi-family units on the west side of Rolesville Road north of Mitchell Mill Road. Since a TIA was not required for this development, trips for the 91 residential units were generated and assigned to the roadway network according to the same distribution as Kalas Falls trips.

Approved development information is provided in Appendix D. Refer to Figure 6 for the total weekday AM and PM peak hour approved development trips.

3.3. Future Roadway Improvements

The following improvements are anticipated to be made by The Point and are considered in the analysis of future conditions:

US 401

- Coordinate the traffic signals at the intersections of US 401 at E Young Street and the superstreet u-turn locations to the north and south.

US 401 and E Young Street

- Extend the storage of the existing northbound right turn lane on US 401 to provide 400 feet of storage.

E Young Street and Quarry Road/North Point Site Driveway

- Construct a northbound left turn lane on E Young Street with 100 feet of storage.
- Construct a southbound right turn lane on E Young Street with 100 feet of storage.
- Construct a northbound right turn lane on E Young Street with 100 feet of storage.
- Restripe the existing westbound left turn lane on Quarry Road to a shared left-through lane.
- Provide an exclusive left turn lane with 275 feet of storage and a shared through-right lane on the North Point Site Driveway.
- Install a traffic signal when warranted.

E Young Street and Rolesville High School Driveway/South North Point Site Driveway

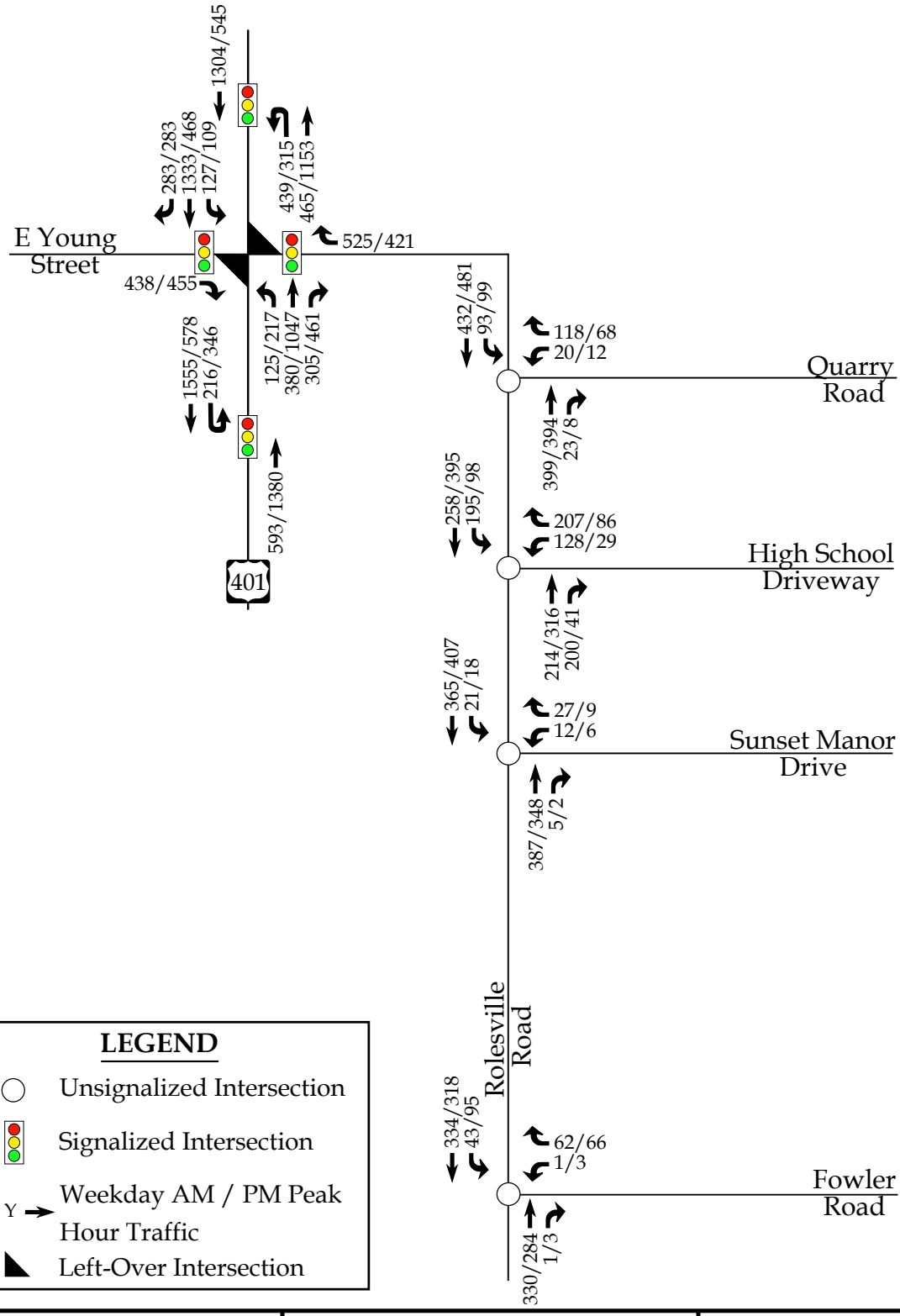
- Construct a northbound left turn lane on E Young Street with 50 feet of storage.
- Provide one egress lane on the South Site Driveway.

3.4. 2028 No-Build Peak Hour Traffic Volumes

The 2028 no-build traffic volumes were determined by adding the total adjacent development trips (Figure 6) to the 2028 projected traffic volumes (Figure 5). 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 were analyzed with the same roadway conditions and traffic control as under existing conditions. Approved development improvements noted in Section 3.3 of this report were included in the analysis. Capacity analysis results are presented in Section 7 of this report.



RAMEY KEMP ASSOCIATES

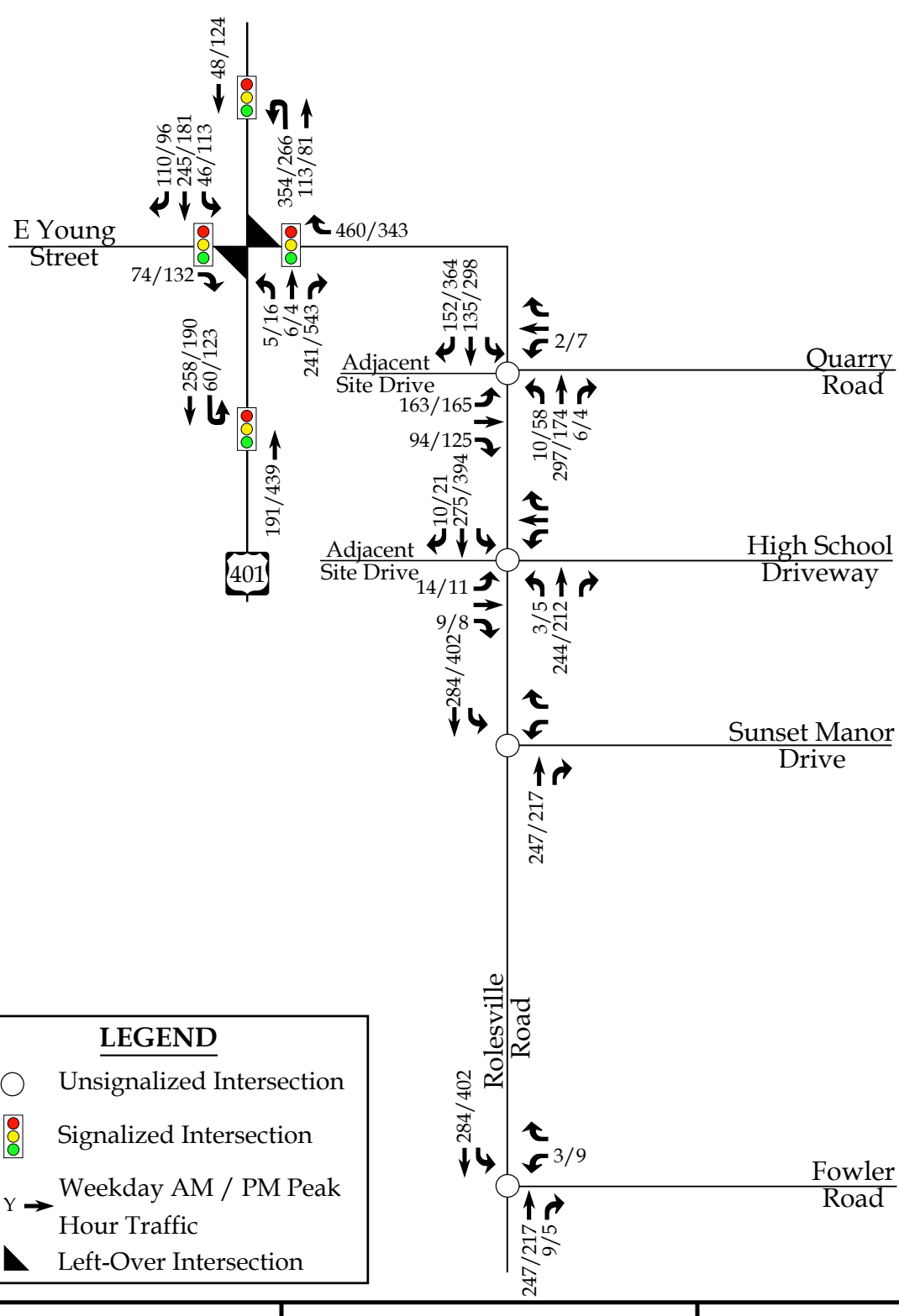
1216 Rolesville Road
Rolesville, NC

2028 Projected Peak Hour Traffic

Scale: Not to Scale

Figure 5

Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.



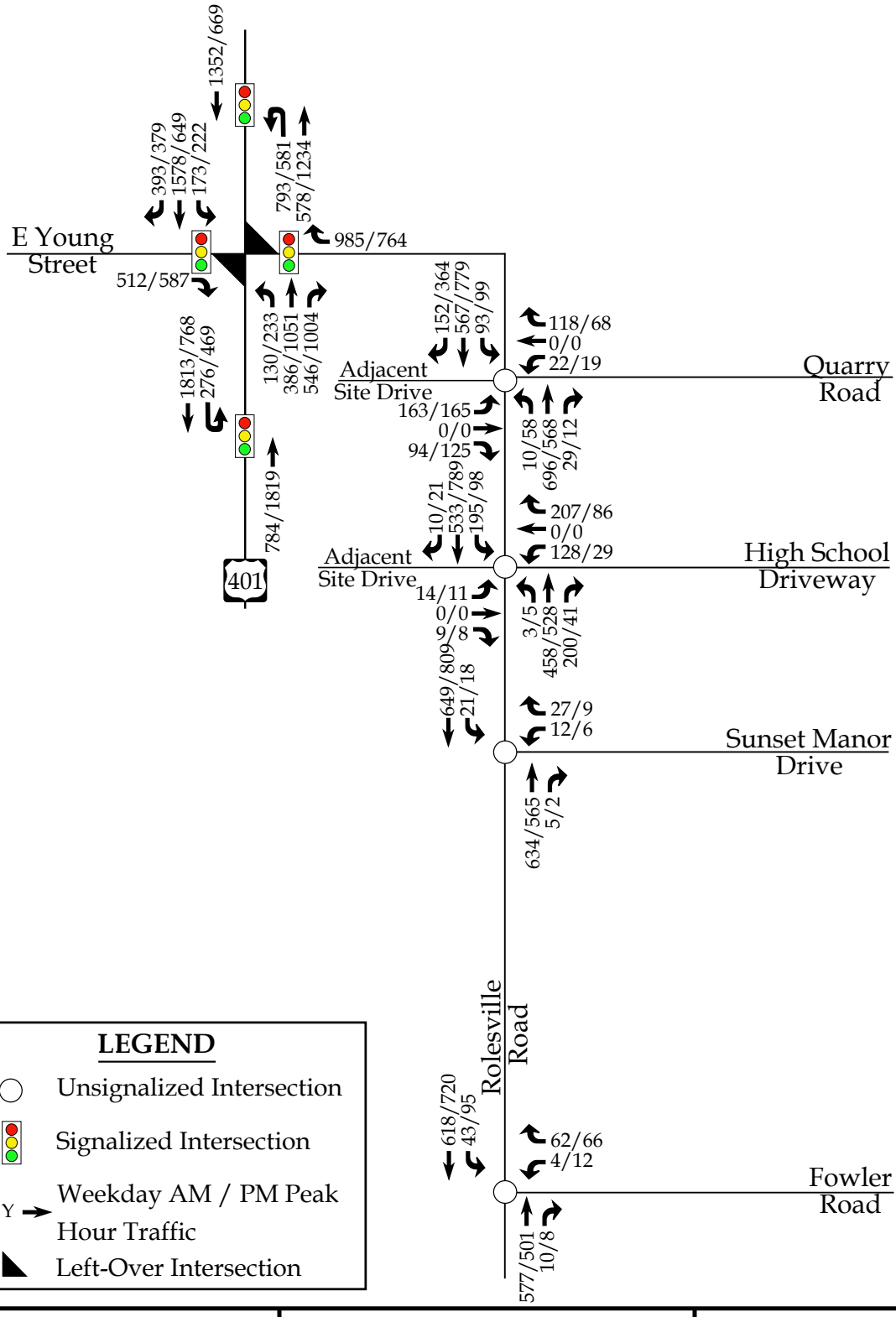
RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Adjacent Development Trips

Scale: Not to Scale

Figure 6



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

2028 No-Build
Peak Hour Traffic

Scale: Not to Scale | Figure 7

Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

4. SITE TRIP GENERATION AND DISTRIBUTION

4.1. Trip Generation

The proposed development is expected to consist of 68 townhomes and 30,000 sf of 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*, 11th Edition. Table 2 provides a summary of the trip generation potential for the site.

Table 2: 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 Attached Housing (215)	68 DU	468	7	23	30	22	15	37
Retail (<40 KSF) (822)	30 KSF	1,496	36	23	59	85	85	170
Total Trips		**1,964**	**43**	**46**	**89**	**107**	**100**	**207**
*Internal Capture (15% PM)**			-	-	-	*-15*	*-15*	*-30*
Total External Trips			**43**	**46**	**89**	**92**	**85**	**177**
Pass-By Trips: Shopping Center (34% PM)			-	-	-	*-26*	*-26*	*-52*
Total Primary Trips			**43**	**46**	**89**	**66**	**59**	**125**

*Utilizing methodology contained in the NCHRP Report 684.

It is estimated that the proposed development will generate 1,964 total site trips during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 89 trips (43 entering and 46 exiting) will occur during the weekday AM peak hour and 207 trips (107 entering and 100 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. Based on NCHRP Report 684 methodology, a weekday PM peak hour internal capture rate of 15% was applied to the trips generated from the development. The internal capture reductions are expected to account for approximately

30 trips (15 entering and 15 exiting) during the weekday PM peak hour. NCHRP internal capture reports are provided in Appendix C.

Pass-by trips were also taken into consideration. Pass-by trips are expected to account for approximately 52 trips (26 entering and 26 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 trips are the calculated site trips after the reduction for internal capture and pass-by trips. Primary site trips are expected to account for approximately 89 trips (43 entering and 46 exiting) during the weekday AM peak hour and 125 trips (66 entering and 59 exiting) during the weekday PM peak hour.

4.2. Site Trip Distribution and Assignment

Site trips are distributed based on existing traffic patterns, location of population centers adjacent to the study area, and engineering judgment. A summary of the overall distributions is below.

Residential

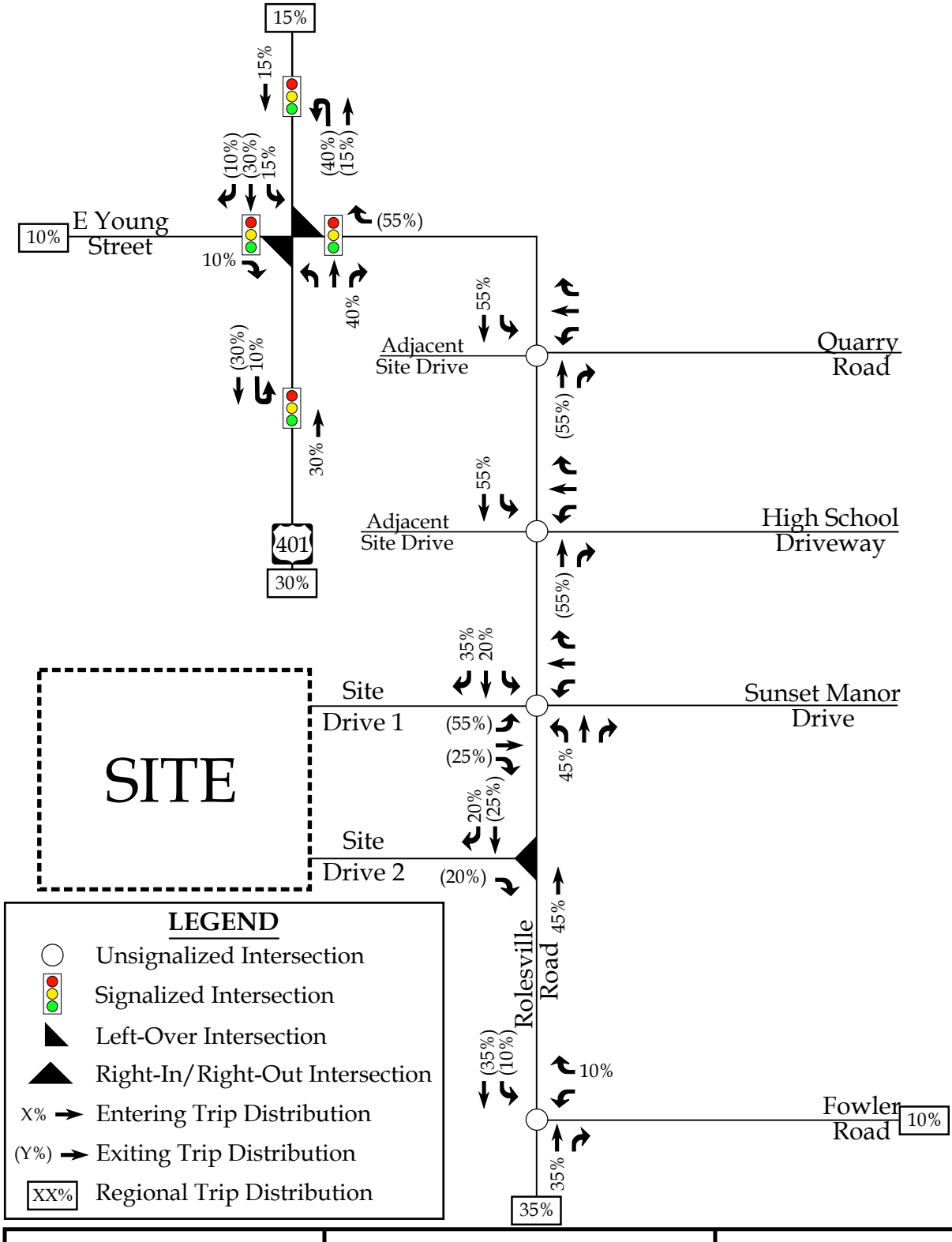
- 35% to/from the south via Rolesville Road
- 30% to/from the west via US 401 Bypass
- 15% to/from the east via US 401 Bypass
- 10% to/from the east via Fowler Road
- 10% to/from the north via E Young Street

Retail

- 25% to/from the south via Rolesville Road
- 20% to/from the east via US 401 Bypass
- 20% to/from the north via E Young Street
- 15% to/from the west via US 401 Bypass
- 10% to/from the east via Fowler Road
- 10% to/from the east via Quarry Road

Refer to Figure 8a for the residential site trip distribution, Figure 8b for the primary retail trip distribution, and Figure 8c for the pass-by retail trip distribution. Residential site trip

assignment is shown in Figure 9a, primary retail site trip assignment is shown in Figure 9b, and pass-by retail trip assignment is shown in Figure 9c. Total weekday AM and PM peak hour site trips are shown in Figure 10.



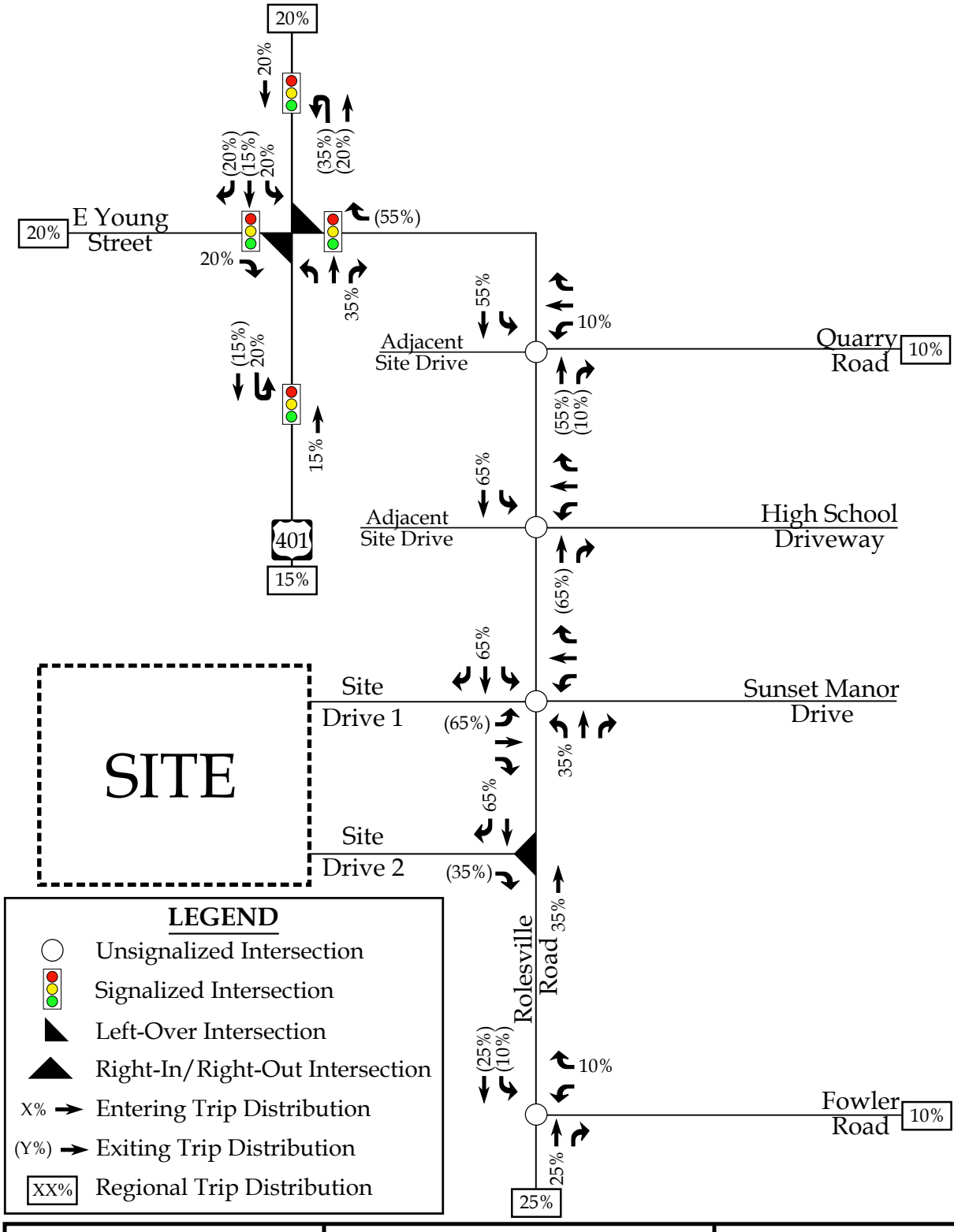
RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Residential Site Trip Distribution

Scale: Not to Scale

Figure 8a



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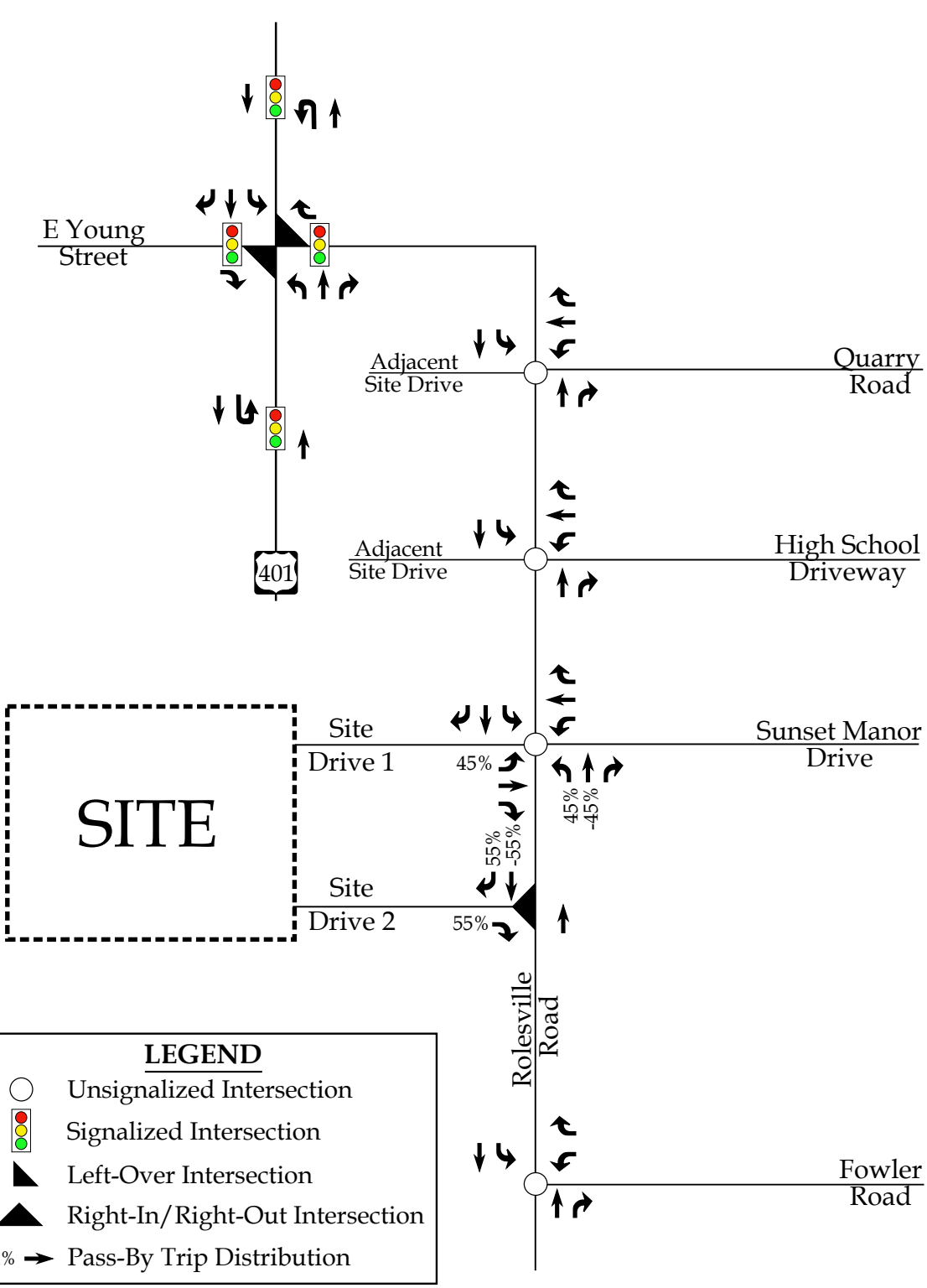
1216 Rolesville Road
Rolesville, NC

Retail Site
Trip Distribution

Scale: Not to Scale

Figure 8b



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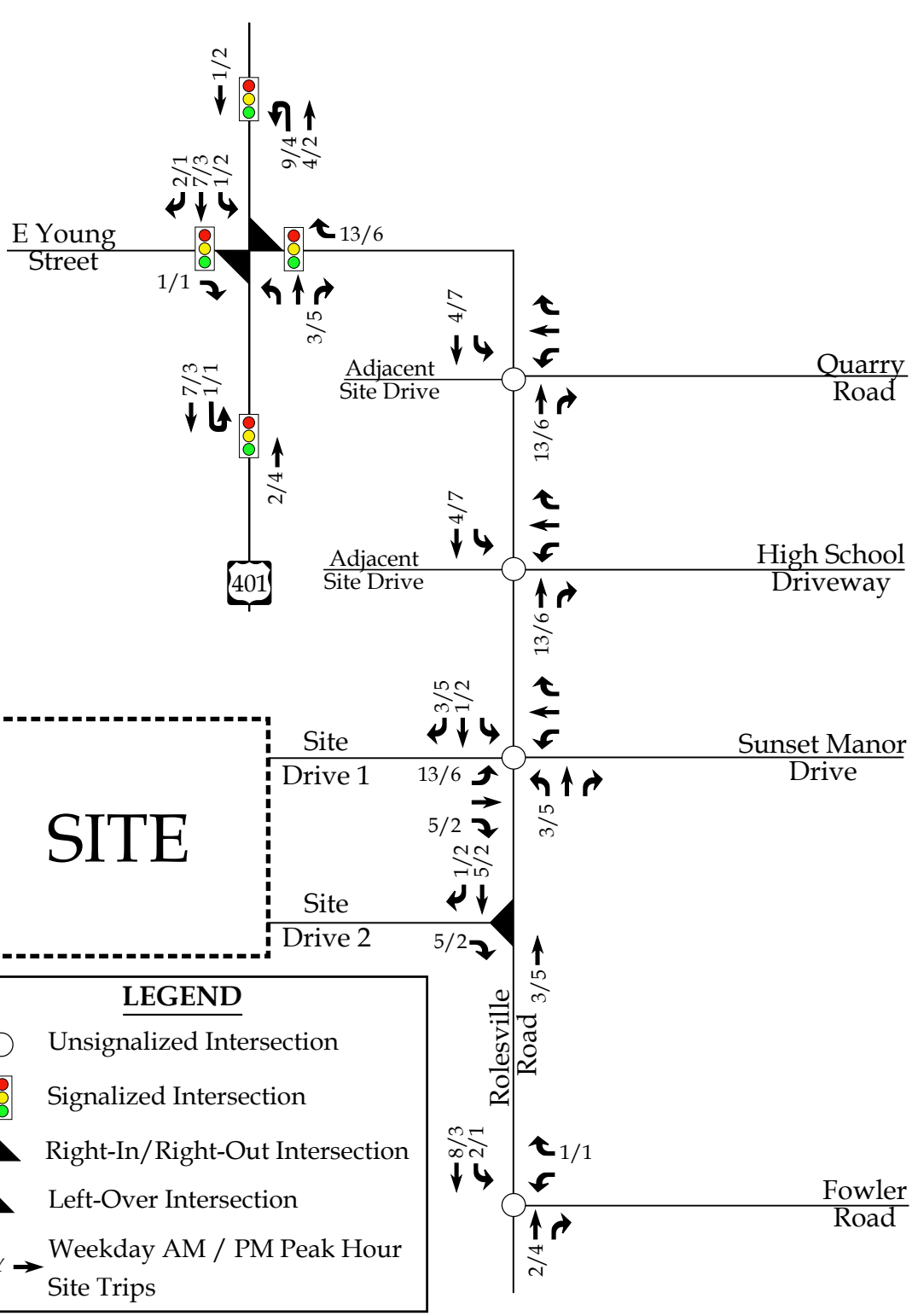
1216 Rolesville Road
Rolesville, NC

Pass-By Site Trip Distribution

Scale: Not to Scale | Figure 8c



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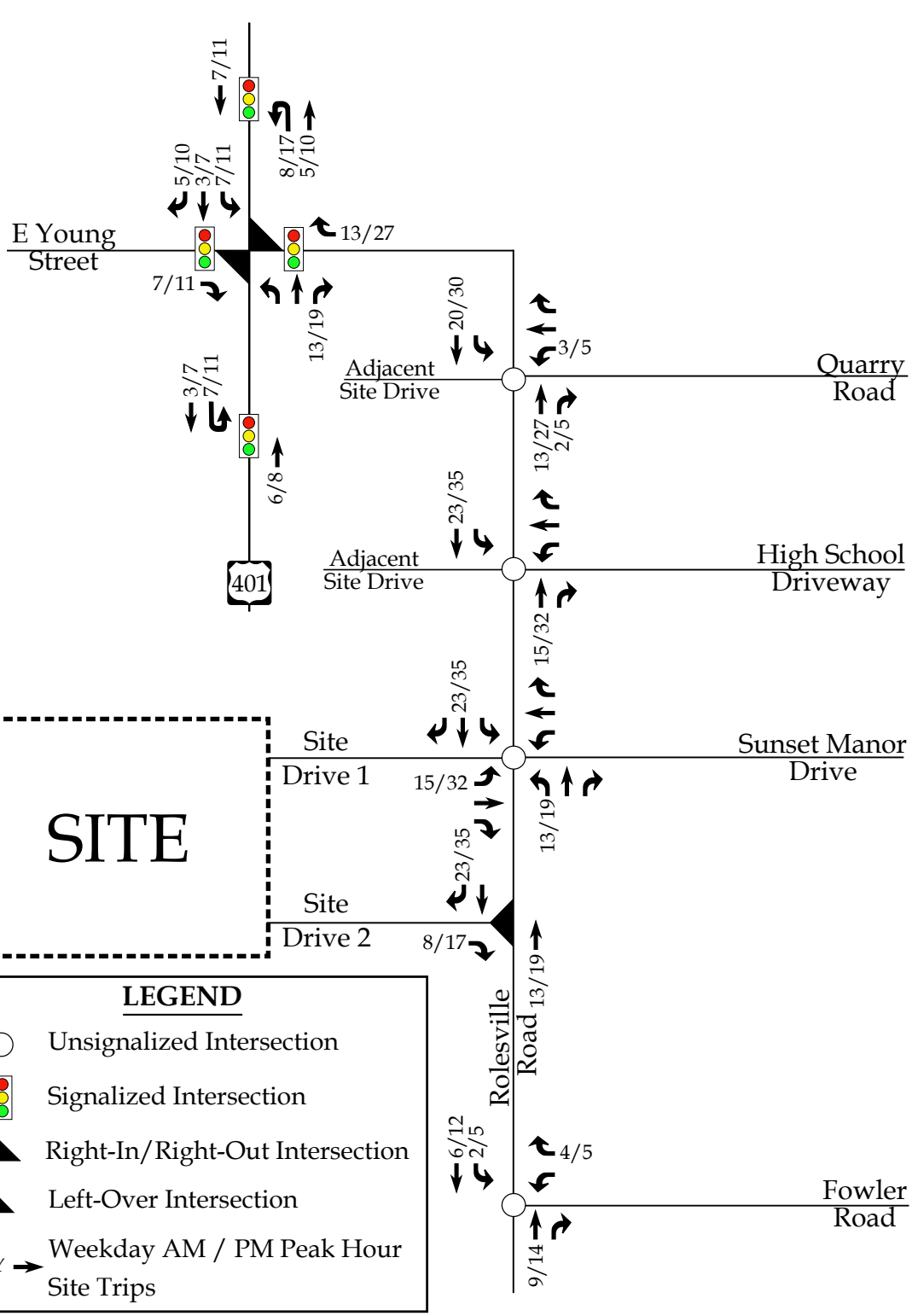
1216 Rolesville Road
Rolesville, NC

Residential Site Trip Assignment

Scale: Not to Scale

Figure 9a



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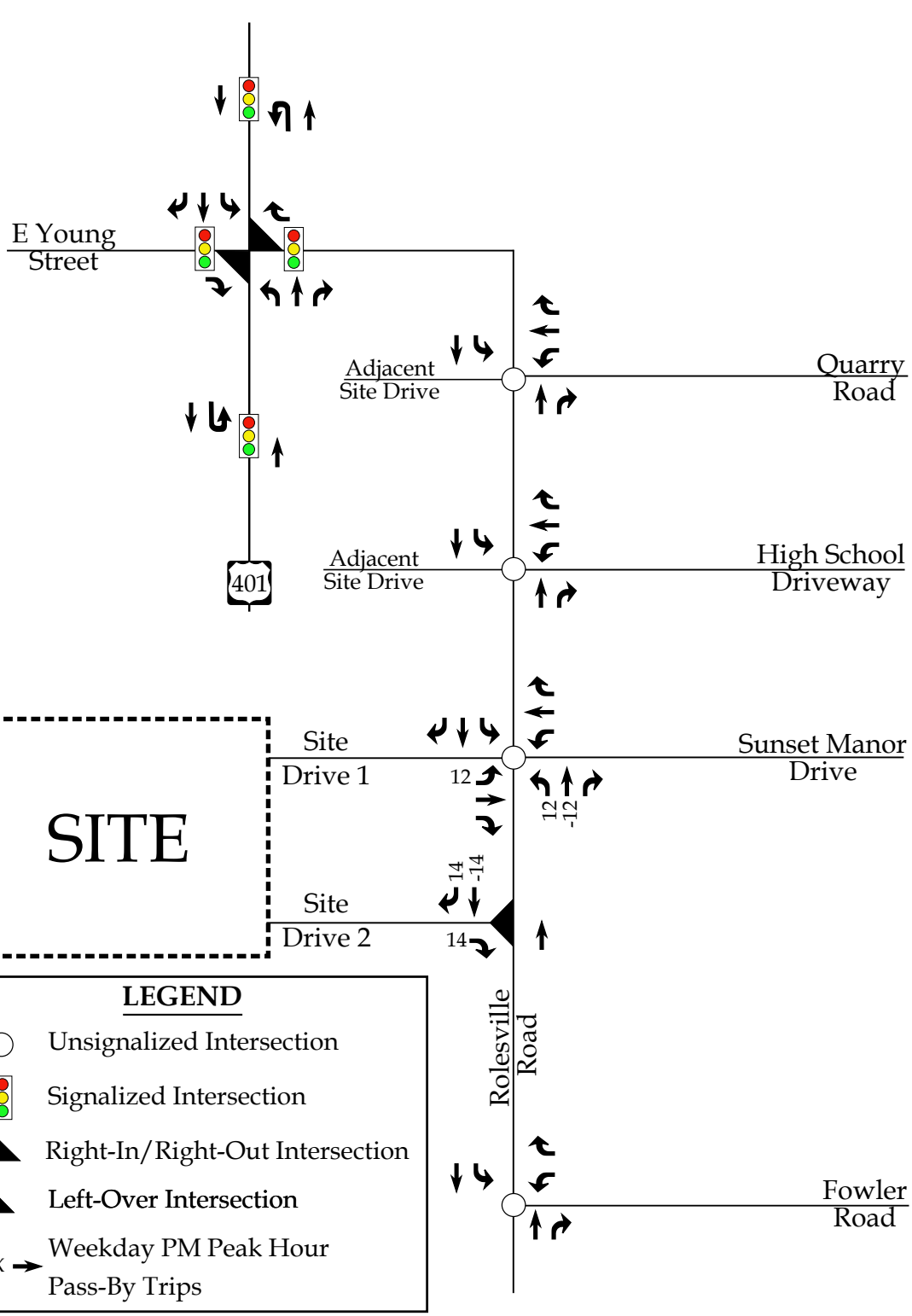
1216 Rolesville Road
Rolesville, NC

Retail Site
Trip Assignment

Scale: Not to Scale

Figure 9b



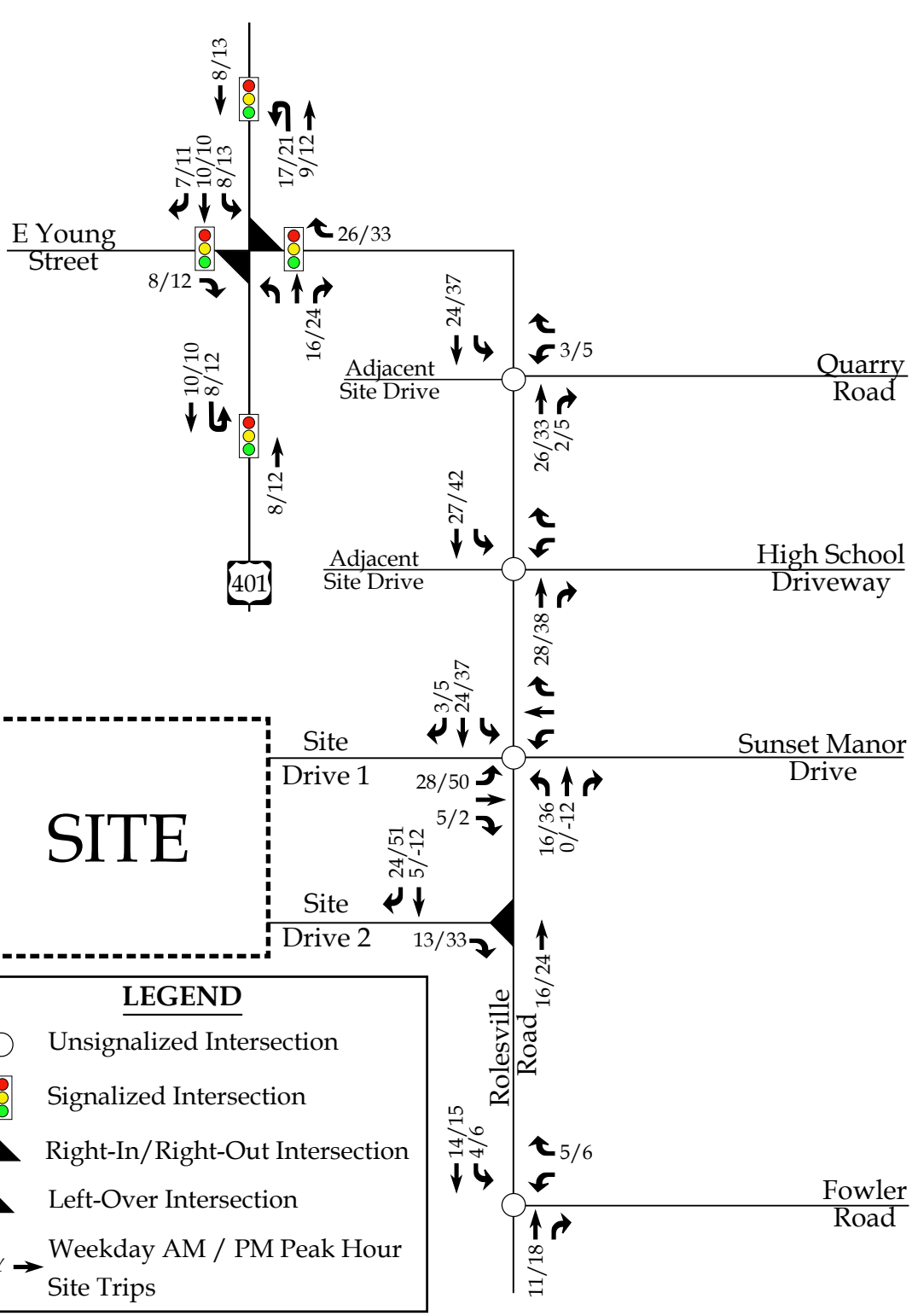
RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Pass-By Site Trip Assignment

Scale: Not to Scale

Figure 9c



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Total Site Trip Assignment

Scale: Not to Scale | Figure 10

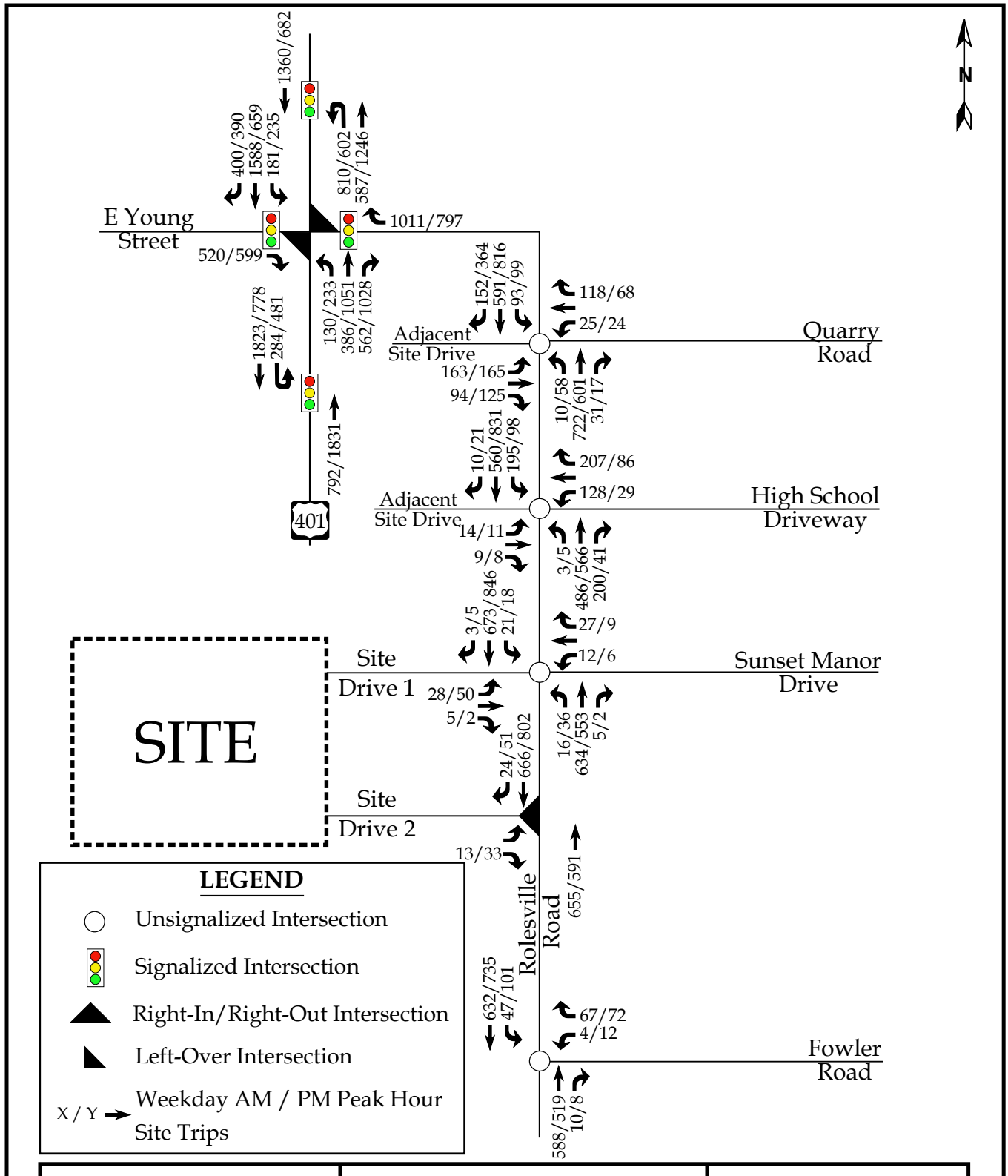
5. 2028 BUILD TRAFFIC CONDITIONS

5.1. 2028 Build Peak Hour Traffic Volumes

To estimate traffic conditions with the site fully built out, the total site trips (Figure 10) were added to the 2028 no-build traffic volumes (Figure 7) to determine the 2028 build traffic volumes. Refer to Figure 11 for 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. If necessary, intersections were analyzed with improvements to accommodate future site traffic volumes. The results of the capacity analysis for each intersection are presented in Section 7 of this report.



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

2028 Build
Peak Hour Traffic

Scale: Not to Scale | Figure 11

Note: Based on NCDOT Congestion Management guidelines, a volume of 4 vehicles per hour (vph) was analyzed for any movement with less than 4 vph.

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 11), was used to complete the analyses for 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 3 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 3: 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 the NCDOT Congestion Management Guidelines, with the exception of analysis permitting right turns on red. This adjustment was made to be consistent with the TIA that was prepared for The Point.

7. CAPACITY ANALYSIS

7.1. US 401 and E Young Street

The existing signalized intersection of US 401 and E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 4. Refer to Table 4 for a summary of the analysis results. Refer to Appendix E for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 4: Analysis Summary of US 401 and E Young Street

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)
2022 Existing (NB 401)	WB NB SB	2 RT 2 TH, 1 RT 1 LT	A A A	A (2)	A A A	A (6)
2022 Existing (SB 401)	EB NB SB	2 RT 1 LT 2 TH, 1 RT	B A A	A (9)	A A A	A (3)
2028 No-Build (NB 401)	WB NB SB	2 RT 2 TH, 1 RT 1 LT	A C A	B (11)	A C A	B (13)
2028 No-Build (SB 401)	EB NB SB	2 RT 1 LT 2 TH, 1 RT	D A A	B (14)	B A A	A (8)
2028 Build (NB 401)	WB NB SB	2 RT 2 TH, 1 RT 1 LT	A C A	B (12)	A C A	B (13)
2028 Build (SB 401)	EB NB SB	2 RT 1 LT 2 TH, 1 RT	D A A	B (14)	B A A	A (8)

Capacity analysis indicates the existing signalized intersections of US 401 NB at E Young Street and US 401 SB at E Young Street currently operate a LOS A during both the AM and PM peak hours.

Future year conditions were analyzed with the following approved development improvements:

- Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)
- Extend the storage of the existing northbound right turn lane on US 401 to provide 400 feet of storage. (The Point)

Capacity analysis indicates that the intersections are anticipated to operate at LOS B or better under no-build and build conditions.

7.2. US 401 SB and U-Turn North of E Young Street

The existing signalized intersection of US 401 and the u-turn location north of E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 5. Refer to Table 5 for a summary of the analysis results. Refer to Appendix F for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 5: Analysis Summary of US 401 SB and U-Turn North of E Young Street

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)
2022 Existing	NB SB	1 UT* 2 TH	A A	A (5)	A A	A (4)
2028 No-Build	NB SB	1 UT* 2 TH	A B	B (11)	A A	A (3)
2028 Build	NB SB	1 UT* 2 TH	A B	B (12)	A A	A (3)

*The northbound u-turn movement is analyzed as a westbound left turn movement in Synchro.

Capacity analysis indicates the existing signalized intersection of US 401 SB and the u-turn north of E Young Street currently operate a LOS A during both the AM and PM peak hours.

Future year conditions were analyzed with the following approved development improvements:

- Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)

Capacity analysis indicates that the intersections are anticipated to operate at LOS B or better under no-build and build conditions.

7.3. US 401 NB and U-Turn South of E Young Street

The existing signalized intersection of US 401 and the u-turn location south of E Young Street was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 6. Refer to Table 6 for a summary of the analysis results. Refer to Appendix G for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 6: Analysis Summary of US 401 NB and U-Turn South of E Young Street

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)
2022 Existing	NB SB	2 TH 1 UT*	A A	A (5)	A A	A (6)
2028 No-Build	NB SB	2 TH 1 UT*	A A	A (2)	A A	A (6)
2028 Build	NB SB	2 TH 1 UT*	A A	A (2)	A A	A (6)

*The southbound u-turn movement is analyzed as an eastbound left turn movement in Synchro.

Capacity analysis indicates the existing signalized intersection of US 401 NB and the u-turn south of E Young Street currently operate a LOS A during both the AM and PM peak hours.

Future year conditions were analyzed with the following approved development improvements:

- Coordinate the traffic signals at the intersection of US 401 at E Young Street and the superstreet u-turn locations. (The Point)

Capacity analysis indicates that the intersections are anticipated to continue to operate at LOS A under no-build and build conditions.

7.4. E Young Street and Quarry Road

The intersection of E Young Street and Quarry Road was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 7. Refer to Table 7 for a summary of the analysis results. Refer to Appendix H for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 7: Analysis Summary of E Young Street and Quarry 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)
2022 Existing	WB NB SB	1 LT, 1 RT 1 TH-RT 1 LT, 1 TH	B[2] -- A[1]	N/A	B[2] -- A[1]	N/A
2028 No-Build	EB WB NB SB	1 LT, 1 TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH, 1 RT	C B C B	C (23)	C B C B	B (19)
2028 Build	EB WB NB SB	1 LT, 1 TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH, 1 RT	D B C B	C (23)	C B C B	C (22)

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

Analysis indicates the westbound approach of Quarry Road currently operates at LOS B during both peak hours, while the southbound left turn movement on E Young Street operates at LOS A.

Future year conditions were analyzed with the following improvements by The Point:

- Construct a northbound left turn lane on E Young Street with 100 feet of storage.
- Construct a southbound right turn lane on E Young Street with 100 feet of storage.
- Construct a northbound right turn lane on E Young Street with 100 feet of storage.

- Restripe the existing westbound left turn lane on Quarry Road to a shared left-through lane.
- Provide an exclusive left turn lane with 275 feet of storage and a shared through-right lane on the North Point Site Driveway.
- Install a traffic signal when warranted.

Capacity analysis indicates the intersection is expected to operate at an overall LOS C during the AM peak hour and LOS B during the PM peak hour under no-build conditions. The intersection is anticipated to operate at LOS C or better under build conditions.

7.5. E Young Street and Rolesville High School Driveway

The existing unsignalized intersection of E Young Street and Rolesville High School Driveway was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 8. Refer to Table 8 for a summary of the analysis results. Refer to Appendix I for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 8: Analysis Summary of E Young Street and Rolesville H.S. Driveway

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)
2022 Existing	WB NB SB	1 LT, 1 RT 1 TH, 1 RT 1 LT, 1 TH	E[2] -- A[1]	N/A	B[2] -- A[1]	N/A
2028 No-Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH-RT	F[2] F[2] A[1] A[1]	N/A	F[2] E[2] A[1] A[1]	N/A
2028 Build	EB WB NB SB	1 LT-TH-RT 1 LT-TH, 1 RT 1 LT, 1 TH, 1 RT 1 LT, 1 TH-RT	F[2] F[2] A[1] B[1]	N/A	F[2] F[2] B[1] A[1]	N/A

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

Analysis indicates the westbound approach of Rolesville High School Driveway currently operates with moderate delays during the AM peak hour and short delays during the PM peak hour.

Future year conditions were analyzed with the following improvements by The Point:

- Construct a northbound left turn lane on E Young Street with 50 feet of storage.
- Construct South Site Driveway as eastbound approach and provide one egress lane.

Capacity analysis indicates the minor street approaches are anticipated to operate at LOS E or F during the AM and PM peak hours. It is typical for minor approaches intersecting major streets to experience poor levels of service during peak hours due to the volume of traffic along the mainline.

7.6. Rolesville Road and Sunset Manor Drive/Site Drive 1

The unsignalized intersection of Rolesville Road and Sunset Manor Drive/Site Drive 1 was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with lane configurations shown in Table 9. Refer to Table 9 for a summary of the analysis results. Refer to Appendix J for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 9: Analysis Summary of Rolesville Road and Sunset Manor Drive/Site Drive 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)
2022 Existing	WB NB SB	1 LT-RT 1 TH-RT 1 LT, 1 TH	B[2] -- A[1]	N/A	B[2] -- A[1]	N/A
2028 No-Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT, 1 TH	C[2] -- A[1]	N/A	C[2] -- A[1]	N/A
2028 Build	EB WB NB SB	**1 LT-TH-RT** 1 LT-**TH**-RT **1 LT**, 1 TH-RT 1 LT, 1 TH-**RT**	F[2] D[2] A[1] A[1]	N/A	F[2] E[2] B[1] A[1]	N/A

Recommended improvements by developer are shown in bold.
1. Level of service for major-street left-turn movement.
2. Level of service for minor-street approach.

Analysis indicates the westbound approach of Sunset Manor Drive currently operates at LOS C or better during the AM and PM peak hours and is expected to continue to do so under 2028 no-build traffic conditions.

Under 2028 build conditions, a northbound left turn lane and a southbound right turn lane were considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on anticipated 2028 build traffic volumes, a northbound left turn lane with 75 feet of storage is recommended. Refer to Appendix N for the turn lane warrant charts.

Analysis indicates the minor street approaches are expected to operate at LOS D or worse during the peak hours under 2028 build conditions. However, it is typical for minor approaches intersecting major streets to experience poor levels of service during peak hours due to the volume of traffic along the mainline. Queue lengths are expected to be short (approximately four vehicles or less). It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.

7.7. Rolesville Road and Fowler Road

The unsignalized intersection of Rolesville Road and Fowler Road was analyzed under 2022 existing, 2028 no-build, and 2028 build traffic conditions with existing lane configurations and traffic control, as shown in Table 10. Refer to Table 10 for a summary of the analysis results. Refer to Appendix K for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 10: Analysis Summary of Rolesville Road and Fowler 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)
2022 Existing	WB NB SB	1 LT-RT 1 LT-RT 1 LT-TH	B[2] -- A[1]	N/A	B[2] -- A[1]	N/A
2028 No-Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT-TH	C[2] -- A[1]	N/A	C[2] -- A[1]	N/A
2028 Build	WB NB SB	1 LT-RT 1 TH-RT 1 LT-TH	C[2] -- A[1]	N/A	C[2] -- A[1]	N/A

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

Analysis indicates the westbound approach of Fowler Road currently operates at LOS B during the AM and PM peak hour. Under 2028 no-build and 2028 build conditions, the westbound approach is anticipated to operate at LOS C during the peak hours.

7.8. Rolesville Road and Site Drive 2

The proposed right-in/right-out intersection of Rolesville Road and Site Drive 2 was analyzed under 2028 build traffic conditions with lane configurations and traffic control shown in Table 11. Refer to Table 11 for a summary of the analysis results. Refer to Appendix L for the Synchro capacity analysis reports and to Appendix M for the SimTraffic queuing reports.

Table 11: Analysis Summary of Rolesville Road and Site Drive 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	EB NB SB	**1 RT** 1 TH 1 TH, **1 RT**	B[1] -- --	N/A	C[1] -- --	N/A

Developer improvements shown in bold.
1. Level of service for minor-street approach.

Under 2028 build conditions, a southbound right turn lane was considered based on the NCDOT *Policy on Street and Driveway Access to North Carolina Highways*. Based on anticipated 2028 build traffic volumes, a southbound right turn lane with 50 feet of storage is recommended. Refer to Appendix N for the turn lane warrant charts.

Analysis indicates the eastbound approach of Site Drive 2 is anticipated to operate with short delays during both the AM and PM peak hour.

8. CONCLUSIONS

This Traffic Impact Analysis was conducted to determine the potential traffic impacts of the development proposed to be located at 1216 Rolesville Road in Rolesville, North Carolina. The proposed development is anticipated to be completed in 2028 and is expected to consist of the following uses:

- 68 units Single-Family Attached Housing (LUC 215)
- 30,000 sq. ft. retail (LUC 822)

Access to the development is proposed to be provided via one full-movement driveway connection to Rolesville Road aligning with Sunset Manor Drive and one right-in/right out driveway located approximately 275 feet to the south. A stub connection to the planned The Point development is also proposed.

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

- 2022 Existing Traffic Conditions
- 2028 (build-out year plus one) No-Build Traffic Conditions
- 2028 (build-out year plus one) Build Traffic Conditions

Trip Generation

It is estimated that the proposed development will generate 1,964 total site trips during a typical 24-hour weekday period. Of the daily traffic volume, it is anticipated that 89 trips (43 entering and 46 exiting) will occur during the weekday AM peak hour and 207 trips (107 entering and 100 exiting) will occur during the weekday PM peak hour.

The total primary trips are the calculated site trips after the reduction for internal capture and pass-by trips. Primary site trips are expected to account for approximately 89 trips (43 entering and 46 exiting) during the weekday AM peak hour and 125 trips (66 entering and 59 exiting) during the weekday PM peak hour.

Adjustments to Analysis Guidelines

Capacity analysis at all study intersections was completed according to the NCDOT Congestion Management Guidelines, with the exception of analysis permitting right turns on red. This adjustment was made to be consistent with the TIA that was prepared for The Point.

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:

E Young Street and Rolesville High School Driveway

Analysis indicates the minor street approaches of The Point South Site Driveway (EB) and Rolesville High School Driveway (WB) are expected to operate with long delays during the weekday AM peak hour and with moderate to long delays during the weekday PM peak hour. It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.

Rolesville Road and Sunset Manor Drive/Site Drive 1

Analysis indicates the minor street approaches of Site Drive 1 (EB) and Sunset Manor Drive (WB) are expected to operate with moderate to long delays during the weekday AM and PM peak hours. However, queue lengths are expected to be short (approximately four vehicles or less). It is not expected that 4-hour or 8-hour MUTCD traffic signal warrants would be met.

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 12 for an illustration of the recommended lane configuration for the proposed development.

Improvements per Rolesville Community Transportation Plan

Per the current Rolesville Community Transportation (CTP), E Young Street/Rolesville Road is planned to be a two-lane facility with a center turn lane, curb and gutter, bike lanes, and sidewalks. The developer is required to make accommodations for this future cross section along the property frontage.

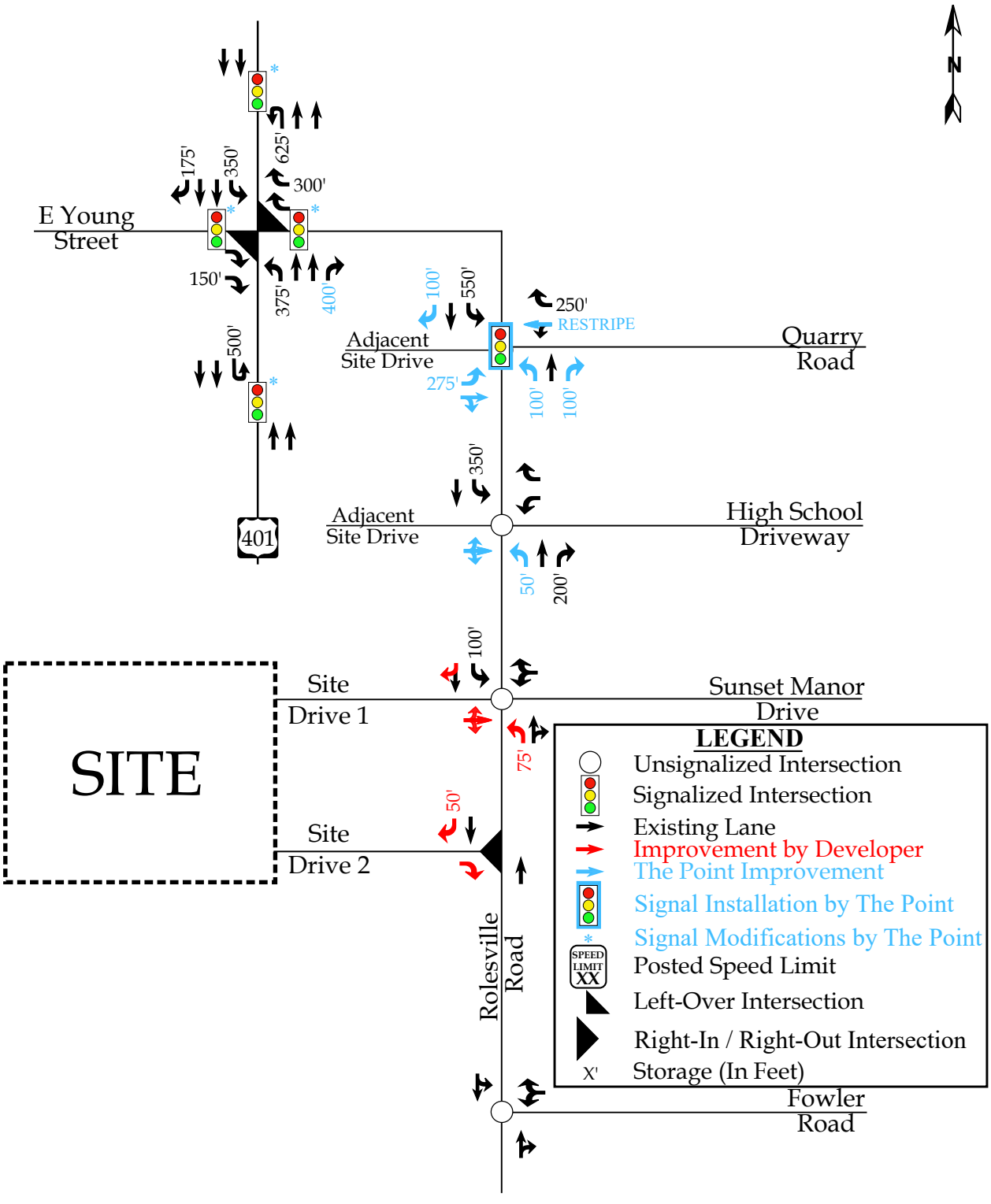
Recommended Improvements by Developer

Rolesville Road and Sunset Manor Drive/Site Drive 1

- Construct eastbound approach with one ingress lane and a minimum of one egress lane, striped as a shared left-through-right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive northbound left turn lane with a minimum of 75 feet of storage and appropriate taper.

Rolesville Road and Site Drive 2

- Construct eastbound approach with one ingress lane and one egress lane striped as a right turn lane. Provide stop control for the eastbound approach.
- Construct an exclusive southbound right turn lane with a minimum of 50 feet of storage and appropriate taper.



RAMEY KEMP ASSOCIATES

1216 Rolesville Road
Rolesville, NC

Recommended Lane Configurations

Scale: Not to Scale

Figure 12

ATTACHMENT 6 - TIA NCDOT REPORT

STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

J. ERIC BOYETTE
SECRETARY

March 21, 2023

1216 Rolesville Road

Traffic Impact Analysis Review Report

Congestion Management Section

TIA Project: SC-2023-052
Division: 5
County: Wake

Nicholas C. Lineberger, P.E. Project Engineer
Madonna Saleh, Project Design Engineer

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

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

Website: www.ncdot.gov

Location:
750 N. GREENFIELD PARKWAY
GARNER, NC 27529

1216 Rolesville Road

SC-2023-052	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	02/21/23	Date of Site Plan	02/21/22
Date of Complete Information	02/21/23	Date of Sealed TIA	02/20/23

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 Attached Housing	215	68 DU
Retail	822	30 KSF

Trip Generation - Unadjusted Volumes During a Typical Weekday

	IN	OUT	TOTAL
AM Peak Hour	43	46	89
PM Peak Hour	107	100	207
Daily Trips			1,964

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*

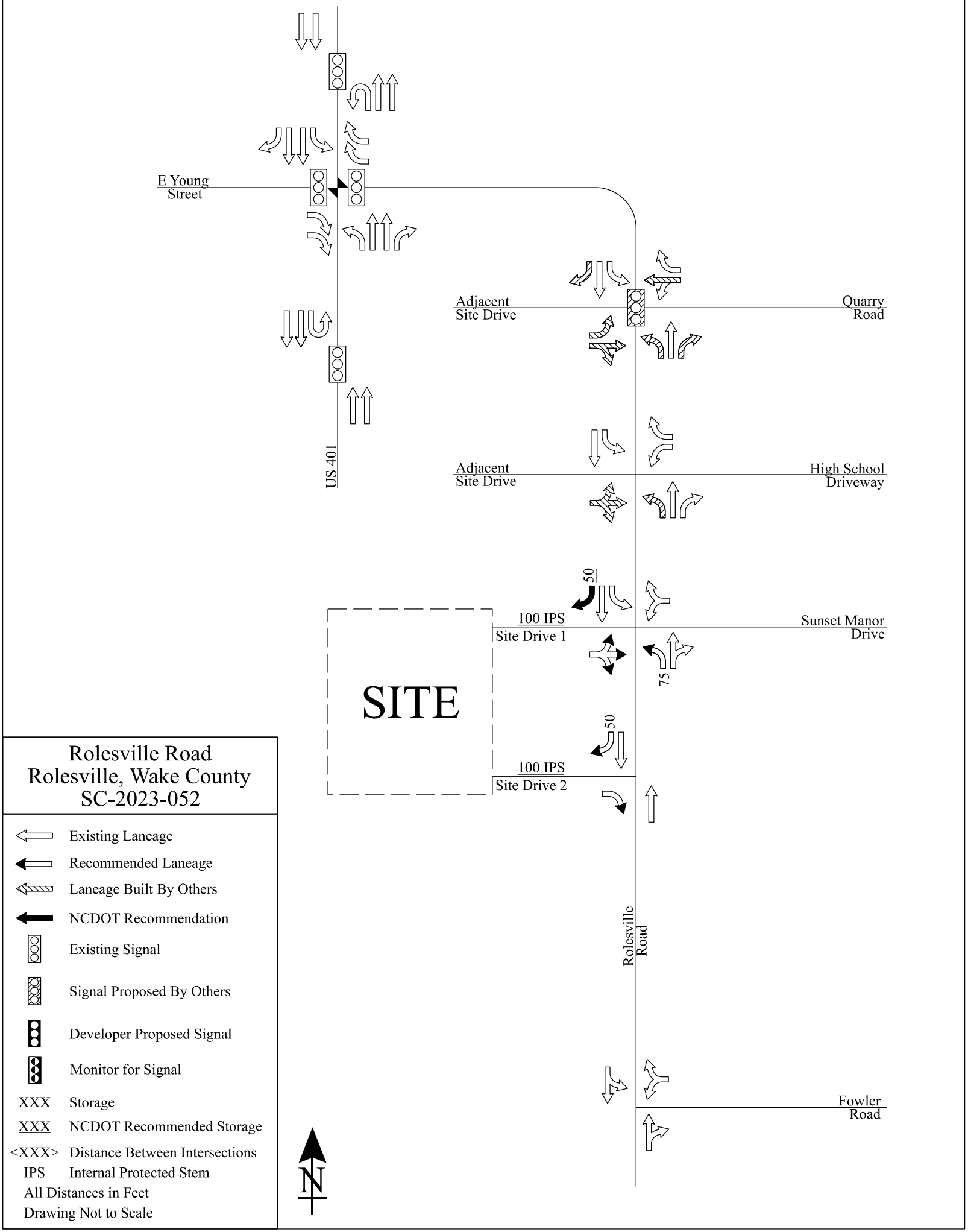
Once the driveway permit has been approved and issued, a copy of the final driveway permit requirements should be forwarded to this office. If we can provide further assistance, please contact the Congestion Management Section.

Improvements By Others

The analysis includes background improvements by others. If these improvements are not in place at the time of construction, the site should provide these improvements or analysis demonstrating mitigation is not necessary.

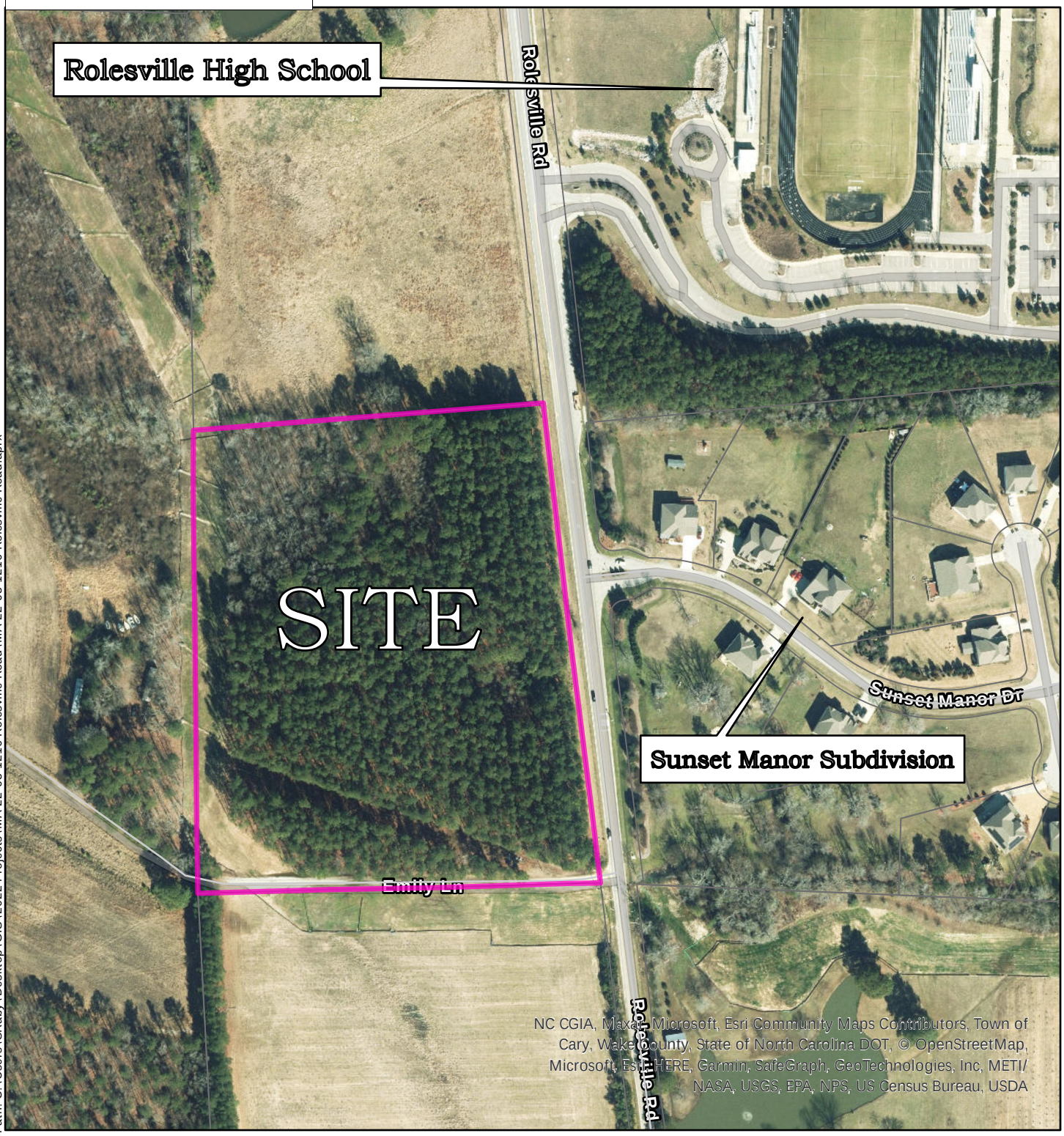
Signalization

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


E Young Street
US 401
Adjacent Site Drive
Quarry Road
Adjacent Site Drive
High School Driveway
50
100 IPS
Site Drive 1
Sunset Manor Drive
75
SITE
50
100 IPS
Site Drive 2
Rolesville Road
Fowler Road
Rolesville Road
Wake County
SC-2023-052
Existing Laneage
Recommended Laneage
Laneage Built By Others
NCDOT Recommendation
Existing Signal
Signal Proposed By Others
Developer Proposed Signal
Monitor for Signal
XXX Storage
XXX NCDOT Recommended Storage
<XXX> Distance Between Intersections
IPS Internal Protected Stem
All Distances in Feet
Drawing Not to Scale
N

Case: MA 22-05 1216 Rolesville Road
Address: 1216 Rolesville Road
PIN 1768337689
Date: 04.19.2022

Vicinity Map



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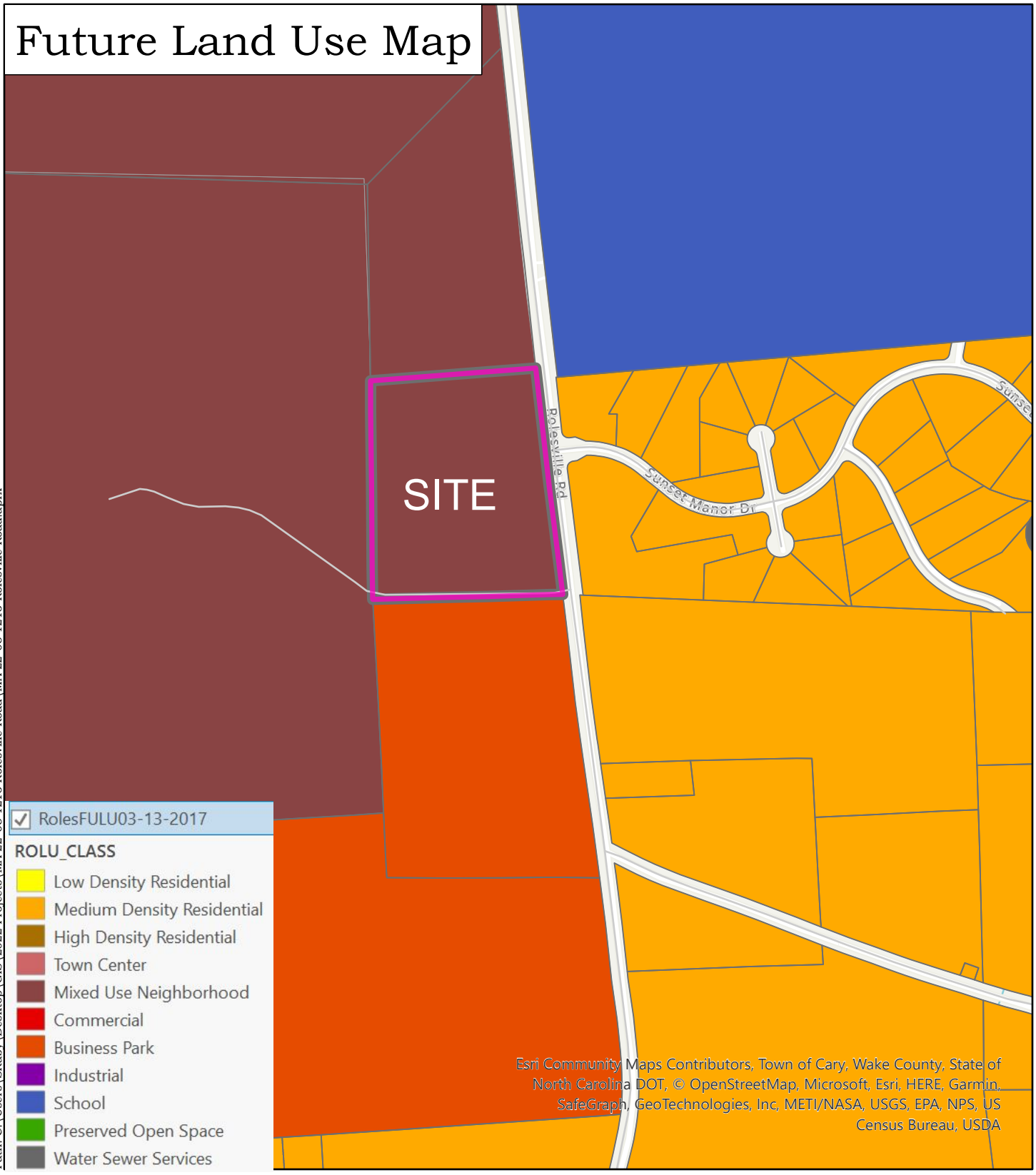
Case: MA 22-05 1216 Rolesville Road
Address: 1216 Rolesville Road
PIN 1768337689
Date: 04.19.2022

Future Land Use Map



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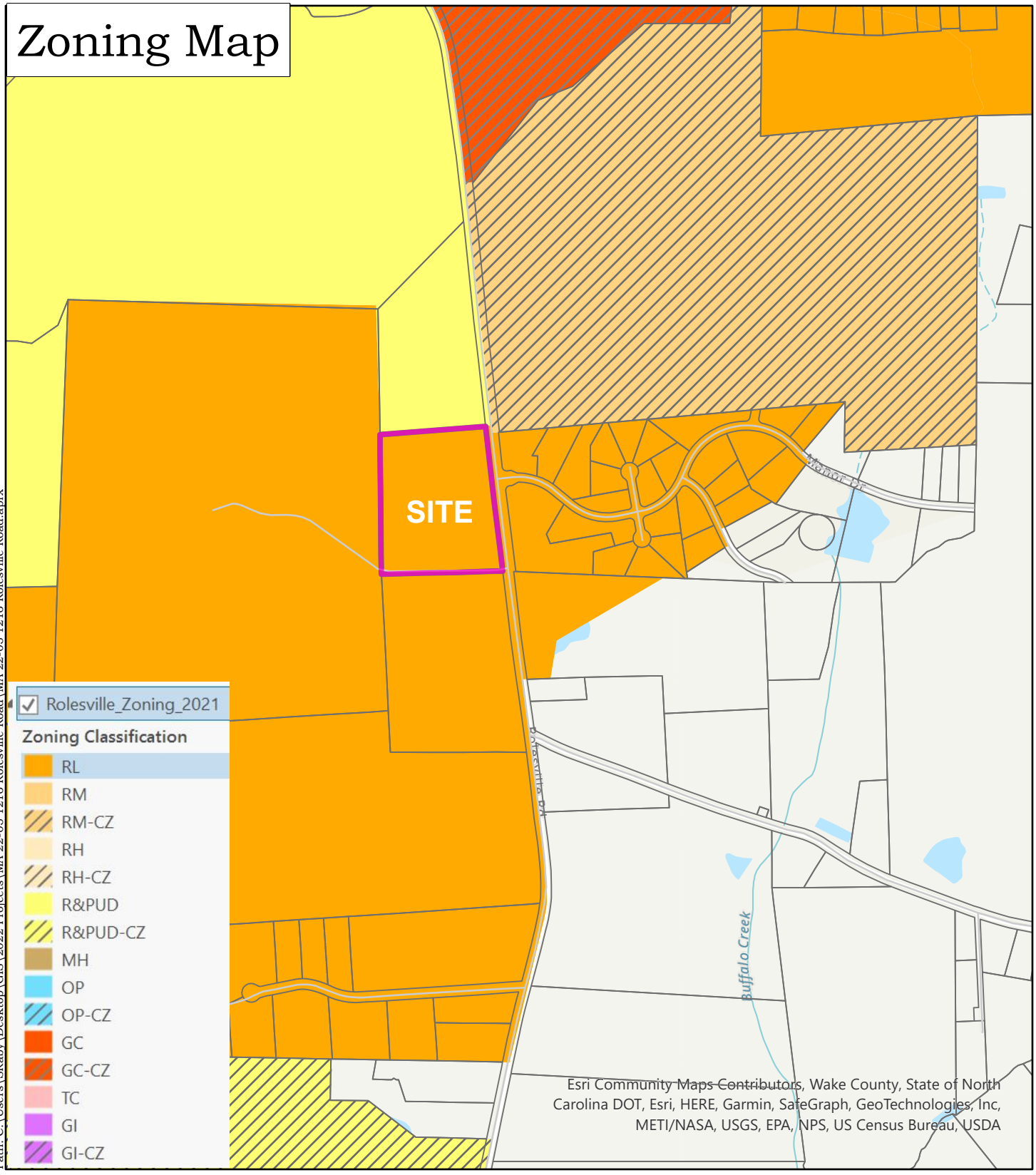
Case: MA 22-05 1216 Rolesville Road
Address: 1216 Rolesville Road
PIN 1768337689
Date: 04.19.2022

Zoning Map



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0 0.1 0.2 0 0.4 Miles
Miles

Date Saved: 4/20/2022 10:51 AM

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CAWTHORNE, MOSS & PANCIERA, PC
MICHAEL A. MOSS, PLS
333 S. WHITE STREET
WAKE FOREST, NC 27587
(919) 556-3148
MIKE@CMPPLS.COM

Legal Description

Beginning at an existing iron pipe, said existing iron pipe being located in the western right-of-way of Rolesville Road (N.C.S.R.#1003), said existing iron pipe being the common corner of parcel Pin#1768.03-32-8863 and subject lot, said existing iron pipe having NC Grid NAD 83/2011 coordinates N(y): 783,309.15’ E(x): 2,164,160.04’; Thence leaving right-of-way S 89°45'02" W a distance of 683.90' to an existing iron bar; Thence N 00°42'32" W a distance of 778.89' to a new iron pipe; Thence N 85°27'46" E a distance of 596.00' to an existing iron pipe, said existing iron pipe being located in the western right-of-way of Rolesville Road (N.C.S.R.#1003), said existing iron pipe being the common corner of parcel Pin#1768.09-06-8057 and subject lot; Thence along right-of-way S 06°53'13" E a distance of 828.98' to an existing iron pipe; Which is the point of beginning, Containing an area of 513,162 square feet, 11.781 acres.