Apex Town Council Meeting

Tuesday, September 17, 2019

Lance Olive, Mayor
Nicole L. Dozier, Mayor Pro Tempore
William S. Jensen, Wesley M. Moyer, Audra M. Killingsworth, and Brett D. Gantt, Council Members
Drew Havens, Town Manager
David Hughes, Assistant Town Manager
Shawn Purvis, Assistant Town Manager
Donna B. Hosch, MMC, NCCMC, Town Clerk
Laurie L. Hohe, Town Attorney

The Regular Meeting of the Apex Town Council scheduled for Tuesday, September 17, 2019, at 7:00 PM will be held in the Council Chamber of Apex Town Hall, 73 Hunter Street. The meeting will adjourn when all business is concluded or at 11:00 p.m., whichever comes first.

COMMENCEMENT

Call to Order : Invocation : Pledge of Allegiance

PRESENTATIONS

PR1 Mayor Lance Olive

Presentation of Proclamation for the Peak City International Film Day Festival

REGULAR MEETING AGENDA

Mayor Olive will call for additional Agenda items from Council or Staff and set the Agenda prior to taking action

CONSENT AGENDA

All Consent Agenda items are considered routine, to be enacted by one motion with the adoption of the Consent Agenda, and without discussion. If a Council Member requests discussion of an item, the item may be removed from the Consent Agenda and considered separately. The Mayor will present the Consent Agenda to be set prior to taking action on the following items:

CN1 Donna Hosch, Town Clerk

Motion to approve Minutes of the Joint Conversational Meeting of July 30, 2019 between Apex Town Council and Wake County Board of Commissioners

CN2 Donna Hosch, Town Clerk

Motion to approve the Apex Tax Report dated 08/06/19

CN3 Drew Havens, Town Manager

Motion to adopt an ordinance to amend Chapter 2 of the Code of Ordinances of the Town of Apex to create the Apex Environmental Advisory Board.

CN4 Steve Adams, Real Estate and Public Utilities

Motion to approve temporary Encroachment Agreement between the Town of Apex and Colonial Pipeline Company.

CN5 Russell Dalton, Senior Transportation Engineer and Angela Reincke, Parks and Greenways Planner

Motion to approve and authorize the Town Manager to execute the Design Build Project Agreement with the North Carolina Department of Transportation for NC 540 enhancements (Project R-2721) and approve corresponding Capital Project Ordinance Amendment 3.

CN6 Amanda Bunce, Current Planning Manager

Motion to approve Findings of Fact, Conclusions of Law, and Decision approving the Sweetwater Phases 9A2 and 9B Mixed Use Major Site Plan

CN7 Shannon Cox, Long Range Planning Manager

Motion to approve and authorize the Town Manager to execute the Agreement for Provision of Transit Planning Services with the Town of Cary for the Apex Circulator Study.

CN8 Dianne Khin, Planning Director

Motion to adopt a Resolution Directing the Town Clerk to Investigate Petition Received, to accept the Certificate of Sufficiency by the Town Clerk, and to adopt a Resolution Setting Date of Public Hearing on the Question of Annexation – Apex Town Council's intent to annex Teresa Allen (single-family) property containing 3.175 acres located at 1001 Greenlea Drive, Annexation #669 into the Town's corporate limits.

CN9 Vance Holloman, Finance Officer

Motion to approve Capital Project Ordinance Amendment No. 2 and Budget Ordinance Amendment No. 3 to appropriate funds for the construction and equipping of the Electric Department's new Operations Center and Warehouse

PUBLIC FORUM

Public Forum allows the public an opportunity to address the Town Council. The speaker is requested not to address an item that appears as a Public Hearing scheduled on the Regular Agenda. The Mayor will recognize

those who would like to speak at the appropriate time. Large groups are asked to select a representative to speak for the entire group. Comments must be limited to 3 minutes to allow others the opportunity to speak.

PUBLIC HEARINGS

PH1 Sarah Rayfield, Senior Planner

Public Hearing and possible motion regarding an amendment to the 2045 Land Use Map and Rezoning Case #19CZ02. The applicant, Kaplan Residential, seeks to amend the 2045 Land Use Map from Medium Density Residential to High Density Residential and to rezone approximately ±17.4376 acres, for the properties located at 0, 7208, & 7208B Morris Acres Road (PINs 0732289587, 0732382530, & 0732382709), from Rural Residential (RR) to Planned Unit Development-Conditional Zoning (PUD-CZ.)

PH2 Liz Loftin, Senior Planner

Public Hearing and possible motion to approve Rezoning Application #19CZ17, Woodbury PUD Amendment.

The applicant, Pulte Home Company, LLC, seeks to rezone approximately 42 acres located at 2564, 2567, 2556, 2552, 2548, 2544, 2540, 2536, 2532, 2528, 2516, 2527, 2531, 2545 Collection Court; 2552, 2536, 2531, 2547 Kylewynd Place; 2532, 2528, 2524, 2520, 2516, 2512, 2508, 2504, 2500, 2501, 2505, 2511, 2515, 2519, 2523, 2527, 2531, 2535, 2539, 2543 Impulsion Drive; 2701 Old US Highway 1 (portion of) from Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01) to Planned Unit Development-Conditional Zoning (PUD-CZ) in order to update an architectural standard.

PH3 Shannon Cox, Long Range Planning Manager

Public hearing and possible motion regarding proposed amendments to the Bicycle, Pedestrian, and Equestrian Plan map of the Comprehensive Transportation Plan and the Comprehensive Bike Network map of the Comprehensive Bicycle Plan.

PH4 Amanda Bunce, Current Planning Manager

Public Hearing and possible motion meeting regarding amendments to the Unified Development Ordinance related to the size of menu board signs.

PH5 Amanda Bunce, Current Planning Manager

Public Hearing and possible motion meeting regarding various amendments to the Unified Development Ordinance.

OLD BUSINESS

UNFINISHED BUSINESS

NEW BUSINESS

CLOSED SESSION

Governing Body

Possible motion to go into Closed Session to discuss personnel

WORK SESSION

ADJOURNMENT

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for consideration by the Apex Town Council

Item Type: PRESENTATION

Meeting Date: September 17, 2019

Item Details

Presenter(s): Mayor Lance Olive

Department(s): Governing Body

Requested Motion

Presentation of Proclamation for the Peak City International Film Day Festival

Approval Recommended?

N/A

Item Details

Mayor Olive will present this Proclamation to Demers

Attachments

- Proclamation

PROCLAMATION

From the Office of the Mayor

Peak City International Film Festival Day - 2019

WHEREAS, The Peak City International Film Festival - Take 5 is an international film, TV, music video and media production competition for producers of family - friendly content; and

WHEREAS, the 5th annual Peak City International Film Festival will be held in the Town of Apex, North Carolina , from September 20 to September 21, 2019; and

WHEREAS, the Peak City International Film Festival seeks to motivate the cultivate talent and business skills of producers and directors, providing a festival to convey the passion of storytelling through the motion picture arts and sciences; and

WHEREAS, the Peak City International Film Festival allows stories and music for family members of various ages in TV, Film, Documentaries, as well as, Music Videos - both feature and short productions - to inspire us and to provide networking opportunities for those in development, production and distribution;

NOW, THEREFORE, I, Lance Olive, Mayor of the Town of Apex, North Carolina, do hereby proclaim September 21, 2019 as

PEAK CITY INTERNATIONAL FILM FESTIVAL DAY

and urge all citizens to participate in this event.

IN WITNESS THEREOF, I have hereunto set my hand and caused the Seal of the Town of Apex, North Carolina, to be affixed this the 17th day of September 2019

_____

Lance Olive, Mayor

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for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Donna Hosch, Town Clerk

Department(s): Administration

Requested Motion

Motion to approve Minutes of the Joint Conversational Meeting of July 30, 2019 between Apex Town Council and Wake County Board of Commissioners

Approval Recommended?

Administration recommends approval.

Item Details

Attachments

- Minutes

Joint Conversational Meeting of the Apex Town Council and Wake County Board of Commissioners

Tuesday, July 30, 2019

Lance Olive, Mayor
Nicole L. Dozier, Mayor Pro Tempore
William S. Jensen, Wesley M. Moyer, Audra M. Killingsworth, and Brett D. Gantt, Council Members
Drew Havens, Town Manager
David Hughes, Assistant Town Manager
Shawn Purvis, Assistant Town Manager
Donna B. Hosch, MMC, NCCMC, Town Clerk
Laurie L. Hohe, Town Attorney

This Special Joint Conversational Meeting scheduled for Tuesday, July 30, 2019, at 6:00 p.m. was held at the Halle Cultural Arts Center, 237 N. Salem Street

In attendance for the Town of Apex were Mayor Lance Olive and Mayor Pro Tem Nicole L. Dozier and Council Members William S. Jensen, Wesley M. Moyer, Audra M. Killingsworth, and Brett D. Gantt
Also in attendance for Apex were Town Manager Drew Havens, Assistant Town Manager Shawn Purvis, and Town Clerk Donna B. Hosch
In attendance for Wake County were Commissioners Vickie Adamson, Matt Calabria, Susan Evans, and James West
Also in attendance were County Manager David Ellis, Assistant County Managers Chris Dillon and Denise Foreman, County Clerk Denise Hogan, and Communications Manager Kelly Stratton

COMMENCEMENT

Mayor Olive called the meeting to order.

Conversation ensued between Council and Commissioners on density issues, permitting issues, new development for schools, employment, encouragement of a living wage, and business practices. Thoughts were given as to what each entity would want to see new and what each would want to see improved in the respective municipalities. There was discussion as to how each could work together to possibly make these types of things happen.

ADJOURNMENT

Mayor Olive thanked everyone in attendance and adjourned the meeting.

_____
Donna B. Hosch, MMC, NCCMC
Town Clerk

ATTEST:

_____
Lance Olive, Mayor

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for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Donna Hosch, Town Clerk

Department(s): Administration

Requested Motion

Motion to approve the Apex Tax Report dated 08/06/19

Approval Recommended?

Administration recommends approval.

Item Details

The Wake County Board of Commissioners, in regular session on September 3, 2019, approved and accepted the Apex Tax Report dated 08/06/19.

Attachments

- Tax Report

Approved by: Jessica Rhem

Tax Committee Meeting: 08/15/2019

Board of Commissioners Meeting: 09/03/2019

TO: Wake County Board of Commissioners and Town Board of Apex

FOR: Consideration of Requests for Tax Relief Exclusions

Item #	Taxpayer(s)	Description Jurisdiction	Account # / Year For Payment Status	Value Appealed	Appeal/Request Type	Recommendation
15689	BOLIN, SEAN BOLIN, JENNIFER 304 HICKORY VIEW LN APEX NC 27502-6599	304 HICKORY VIEW LN APEX	0000249695 2019 Not Paid	$45,000	Exclusion Veterans Relief 105-277.1C	Granted for good cause shown
15809	CLAYTON PROPERTIES GROUP INC 441 WESTERN LN IRMO SC 29063-9230	2301 SWANSEA LN APEX	0000448203 2019 Not Paid	$92,000	Exclusion Builder's Inventory 105-277.1D	Denied

This List Requires Board Action

Tax Committee Members: Natasha Baldwin, City Of Raleigh
Kim Lorbacher, Wake County Finance
Jessica Murphy-Rhem, Town Of Cary

MsDK

Marcus Kinrade,Tax Administrator

Tax Committee Meeting: 08/15/2019

Board of Commissioners Meeting: 09/03/2019

TO: Wake County Board of Commissioners and Town Board of Apex

FOR: Consideration of Requests for Adjustments, Rebates, and/or Refunds of Penalties

Approved by: Jessica R

The Wake County Tax Committee has approved the following policy to recommend relief of the late listing and/or vehicle penalties when at least one of the following conditions apply:

Relief Codes

1. New to North Carolina
2. First time listing
3. Previous year listing on time
4. Omitted item(s) from listing Current/previous listing on time
5. Military Deployment

Item #	Taxpayer(s)	Description Jurisdiction	Account # / Year For Payment Status	Late List Appealed	Appeal/Request Type	Recommendation	Relief Code
15743	ASCENDIUM EDUCATION SOLUTIONS INC 2501 INTERNATIONAL LN MADISON WI 53704-3121	BUSINESS PERSONAL PROPERTY APEX	0006872555 2019 Not Paid	$1.81	Late List Penalty	Relief	

This List Requires Board Action

Tax Committee Members: Natasha Baldwin, City Of Raleigh
Kim Lorbacher, Wake County Finance
Jessica Murphy-Rhem, Town Of Cary

MDK

Marcus Kinrade, Tax Administrator

WAKE COUNTY
NORTH CAROLINA

Wake County Revenue Department

Rebate Details

07/01/2019 - 07/31/2019

APEX

DATE	TIME	PAGE
08/06/2019	2:41:54 PM	1

REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER
BUSINESS ACCOUNTS											
733302	5.98	0.00	0.60	0.00	6.58	07/24/2019	0006877581	2019	2019	000000	CROHNSNOMORE FOUNDATION
730636	206.84	0.00	0.00	0.00	206.84	07/10/2019	0006155807	2019	2019	006000	WELLS FARGO VENDOR FINANCIAL SERV LLC
SUBTOTALS FOR BUSINESS ACCOUNTS	**212.82**	**0.00**	**0.60**	**0.00**	**213.42**		**2 Properties Rebated**				
BUSINESS REAL ESTATE ACCOUNTS											
733457	4.07	0.00	0.00	0.00	4.07	07/26/2019	0000427777	2019	2019	000000	TRACE II HOMEOWNERS ASSOCIATION INC
SUBTOTALS FOR BUSINESS REAL ESTATE ACCOUNTS	**4.07**	**0.00**	**0.00**	**0.00**	**4.07**		**1 Properties Rebated**				
DMV ACCOUNTS											
730640	9.32	4.58	0.00	0.00	13.90	07/10/2019	0509394001	2008	2008	000000	SNELLING, ENGLISH TWANNA
SUBTOTALS FOR DMV ACCOUNTS	**9.32**	**4.58**	**0.00**	**0.00**	**13.90**		**1 Properties Rebated**				

INDIVIDUAL PROPERTY ACCOUNTS

REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER
730780	13.28	0.00	0.00	0.00	13.28	07/11/2019	0006880336	2019	2018	000000	BANNER, LETRICE DENEAN
730801	42.71	20.00	0.00	0.00	62.71	07/11/2019	0006880362	2019	2018	000000	WILSON, CANDACE SECOYAR
730803	15.25	0.00	0.00	0.00	15.25	07/11/2019	0006880364	2019	2018	000000	SHEPHERD, SAGE EDWARD
730854	52.37	20.00	0.00	0.00	72.37	07/11/2019	0006880417	2019	2018	000000	WEBB, DANIEL THOMAS
730907	50.06	0.00	0.00	0.00	50.06	07/11/2019	0006880477	2019	2018	000000	ASHE, MONET NICOLE
730964	23.05	20.00	0.00	0.00	43.05	07/11/2019	0006880547	2019	2018	000000	BENNETT, JEFFERY RANDY
731043	30.14	20.00	0.00	0.00	50.14	07/11/2019	0006880640	2019	2018	000000	WIDEMOND, JERMELL DEVON
731057	43.66	20.00	0.00	0.00	63.66	07/11/2019	0006880656	2019	2018	000000	DARK, SARINA
731078	8.21	0.00	0.00	0.00	8.21	07/11/2019	0006880681	2019	2018	000000	CFE INC
731092	22.25	20.00	0.00	0.00	42.25	07/11/2019	0006880696	2019	2018	000000	HART, JUSTIN EDGAR
731153	10.35	0.00	0.00	0.00	10.35	07/11/2019	0006880768	2019	2018	000000	GUERRA, SANTOS RUIZ
731192	24.19	20.00	0.00	0.00	44.19	07/11/2019	0006880809	2019	2018	000000	ANSPAUGH, DOUGLAS DAY
731209	10.10	0.00	0.00	0.00	10.10	07/11/2019	0006880826	2019	2018	000000	KRISHNAMURTHY, RAMESH
731261	30.75	20.00	0.00	0.00	50.75	07/11/2019	0006880883	2019	2018	000000	KUCERA, KEVIN MICHAEL
731304	271.50	20.00	0.00	0.00	291.50	07/11/2019	0006880931	2019	2018	000000	FAGERMAN, ERIC KENNETH
731393	17.30	20.00	0.00	0.00	37.30	07/11/2019	0006881034	2019	2018	000000	JOHNSON, DARRYL LIN
731454	4.41	20.00	0.00	0.00	24.41	07/11/2019	0006881103	2019	2018	000000	FRANK, HOWARD LEROY
731504	8.51	0.00	0.00	0.00	8.51	07/11/2019	0006881156	2019	2018	000000	MCGAFFIN, ROBERT WILLIAM
731539	101.42	20.00	0.00	0.00	121.42	07/11/2019	0006881194	2019	2018	000000	LYNCH, KIMBERLY LYNNE
731578	185.25	20.00	0.00	0.00	205.25	07/11/2019	0006881234	2019	2018	000000	GENTRY, DUDLEY KEANE
731628	8.52	0.00	0.00	0.00	8.52	07/11/2019	0006881287	2019	2018	000000	TURNER, AMBRESA NICOLE
731635	81.23	20.00	0.00	0.00	101.23	07/11/2019	0006881294	2019	2018	000000	STROBUSH, LUCAS JAMES
731641	5.53	0.00	0.00	0.00	5.53	07/11/2019	0006881300	2019	2018	000000	ANDERSON, STEVEN DOUGLAS
731764	23.71	0.00	0.00	0.00	23.71	07/11/2019	0006881440	2019	2018	000000	PAINE, PHILIP WILLIAM
731773	22.93	0.00	0.00	0.00	22.93	07/11/2019	0006881449	2019	2018	000000	DANCY, TAYON WILLIAMS
731855	3.38	0.00	0.00	0.00	3.38	07/11/2019	0006881536	2019	2018	000000	REID, ROBERT WAYNE
731873	26.71	0.00	0.00	0.00	26.71	07/11/2019	0006881556	2019	2018	000000	HEALY, MATTHEW DENNIS
731885	26.20	0.00	0.00	0.00	26.20	07/11/2019	0006881568	2019	2018	000000	IRWIN, DANIEL JAY

REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER
INDIVIDUAL PROPERTY ACCOUNTS											
731933	23.35	20.00	0.00	0.00	43.35	07/11/2019	0006881624	2019	2018	000000	WARNER, KYLE ANDREW
732008	37.86	20.00	0.00	0.00	57.86	07/11/2019	0006881704	2019	2018	000000	HUGHES, ROBERT LLEWELLYN
732018	9.94	20.00	0.00	0.00	29.94	07/11/2019	0006881714	2019	2018	000000	FRIDLEY, DARIN LOWELL
732062	162.08	20.00	0.00	0.00	182.08	07/11/2019	0006881761	2019	2018	000000	MARCINKIEWICZ, JUSTIN MATTHEW
732069	73.81	20.00	0.00	0.00	93.81	07/11/2019	0006881768	2019	2018	000000	FLOYD, TRACY
732108	55.30	0.00	0.00	0.00	55.30	07/11/2019	0006881807	2019	2018	000000	DE SOUZA, CLAUDIO EDUARDO
732183	98.49	0.00	0.00	0.00	98.49	07/11/2019	0006881891	2019	2018	000000	DIALLO, ABDOUL AZIZ
732194	5.17	20.00	0.00	0.00	25.17	07/11/2019	0006881902	2019	2018	000000	BRUCKSTEIN, JOSHUA LLOYD
732230	103.97	20.00	0.00	0.00	123.97	07/11/2019	0006881940	2019	2018	000000	HAYMAN, MICHAEL DONALD
732264	50.37	0.00	0.00	0.00	50.37	07/11/2019	0006881977	2019	2018	000000	GRINDLEY, ERIC SCOTT
730763	7.06	0.00	0.00	0.00	7.06	07/11/2019	0006880319	2019	2018	000000	PUREFOY, CRYSTAL NICOLE
730536	17.87	0.00	0.00	0.00	17.87	07/09/2019	0006871747	2019	2018	000000	SIMPSON, SHERIKA SHURMAINE
730430	33.90	20.00	0.00	0.00	53.90	07/08/2019	0006874376	2019	2018	000000	BENDER, KELLIE SMALLING
733837	1.22	0.00	0.00	0.00	1.22	07/30/2019	0006800728	2019	2019	000000	ROGERS, ERIC DAVID
730429	68.75	20.00	0.00	0.00	88.75	07/08/2019	0006874527	2019	2018	000000	BENDER, JARED ANDREW
733482	3.59	20.00	0.00	0.00	23.59	07/25/2019	0006871418	2019	2018	000000	FURMANSKI, CYNTHIA ADELE KLUBNIK
733478	19.15	0.00	0.00	0.00	19.15	07/25/2019	0006871418	2019	2018	000000	FURMANSKI, CYNTHIA ADELE KLUBNIK
733283	35.00	0.00	0.00	0.00	35.00	07/24/2019	0006883245	2019	2018	000000	KNAPP, LAUREN FELLMETH
SUBTOTALS FOR INDIVIDUAL PROPERTY ACCOUNTS	**1,969.85**	**480.00**	**0.00**	**0.00**	**2,449.85**		**46**	**Properties Rebated**			

REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER
INDIVIDUAL REAL ESTATE ACCOUNTS											
733822	32.47	0.00	0.00	0.00	32.47	07/30/2019	0000457257	2019	2019	000000	KENNEDY, JAMES DAVID
733285	258.48	0.00	0.00	0.00	258.48	07/24/2019	0000451141	2019	2019	000000	KAMATH, UJVAL
733451	122.76	0.00	0.00	0.00	122.76	07/26/2019	0000297488	2019	2019	000000	PIKE, JEFFREY GRAY
733281	119.43	0.00	0.00	0.00	119.43	07/24/2019	0000054093	2019	2019	000000	KEARNS, MARK A
733720	44.54	0.00	0.00	0.00	44.54	07/30/2019	0000448370	2019	2019	000000	ALLGOOD, ALESA
SUBTOTALS FOR INDIVIDUAL REAL ESTATE ACCOUNTS	**577.68**	**0.00**	**0.00**	**0.00**	**577.68**	**5**	**Properties Rebated**				
WILDLIFE BOAT ACCOUNTS											
733446	50.92	0.00	0.00	0.00	50.92	07/25/2019	0004194658	2019	2019	000000	MORGAN, JAMES BROWNING
SUBTOTALS FOR WILDLIFE BOAT ACCOUNTS	**50.92**	**0.00**	**0.00**	**0.00**	**50.92**	**1**	**Properties Rebated**				
TOTAL REBATED FOR APEX	**2,824.66**	**484.58**	**0.60**	**0.00**	**3,309.84**	**56**	**Properties Rebated for City**				

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for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Drew Havens, Town Manager

Department(s): Administration

Requested Motion

Motion to adopt an ordinance to amend Chapter 2 of the Code of Ordinances of the Town of Apex to create the Apex Environmental Advisory Board.

Approval Recommended?

Yes

Item Details

This ordinance follows the direction of the Town Council to create an Environmental Advisory Board and reflects Council's guidance received at their meeting on August 6, 2019. There will be changes to the UDO required to ensure this Board's duties are noted there as well. Those changes were approved by the Planning Board at their meeting on September 9, 2019 and will be the subject of a Public Hearing before the Town Council on September 17, 2019.

Attachments

- Ordinance

ORDINANCE NO. 2019-0917-26

AN ORDINANCE TO AMEND CHAPTER 2 OF THE CODE OF ORDINANCES OF THE TOWN OF APEX

NOW, THEREFORE, BE IT ORDAINED by the Town Council of the Town of Apex as follows:

Section 1. Chapter 2 of the Code of Ordinances of the Town of Apex is hereby amended by the addition of a new Article IV to read as follows:

ARTICLE IV. – APEX ENVIRONMENTAL ADVISORY BOARD

Sec. 2-58 – Apex Environmental Advisory Board – created; members.

(a) *Created*. There is hereby created an Apex Environmental Advisory Board for the town.

(b) *Membership*. The Apex Environmental Advisory Board shall consist of nine members all of whom shall be appointed at large by the Town Council. Membership shall be restricted to residents and citizens of the town except that one member shall be a resident of the town's established extra-territorial jurisdiction. One member, who is a citizen of the town, shall be affiliated with the development community (developer's engineer, developer, etc.).

(c) *Appointment*. Initially, members of the Apex Environmental Advisory Board shall be recommended by the Mayor and appointed by the Town Council for terms of one, two, or three years as follows:

Three members: one-year terms

Three members: two-year terms

Three members: three-year terms

(d) *Terms*. Following their initial appointment term, members of the Apex Environmental Advisory Board shall serve three-year terms. Terms shall end on June 30th. Vacancies shall be filled in the same manner as original appointments, except that such appointments shall be only for the length of the unexpired term.

Sec. 2-59 – Same – Meetings; chair; vice-chair; secretary.

The Apex Environmental Advisory Board shall hold meetings at such times and places as it shall determine and shall adopt rules and regulations governing its procedure. The Mayor shall recommend and the Town Council shall select from the membership Board members to serve as the chair and vice-chair of the Board. Appointment shall be for a term of one year. A member of Town staff, as designated by the Town Manager shall serve as the non-voting secretary to the Board and record and distribute minutes of all meetings.

Sec. 2-60 – Same – Attendance of Board members at meetings.

If a Apex Environmental Advisory Board member, whose absences are not excused in the manner set out hereinafter, misses more than three consecutive regular meetings or a total of four such meetings during the year such Board member loses the status as a member of the Board. In such cases, the chair will immediately request the Mayor and Town Council to fill the vacancy. Absences due to sickness, death or other such obligatory emergencies shall be regarded as excused absences and shall not affect the members' status on the Board. However, in the event of long illness, or other such causes for prolonged absence, the member may be replaced.

Sec. 2-61 – Same – Duties; powers.

The charge of the Apex Environmental Advisory Board will be to assist the Apex Town Council in strengthening environmentally responsible practices that protect, promote and nurture our community and the natural world through advice and program support.

The Apex Environmental Advisory Board shall have the following powers and duties:

(1) Advise the Environmental Committee of the Apex Town Council regarding suggested changes to town policy or ordinance related to the environment and the Planning Committee of the Apex Town Council regarding suggested changes to town policy or ordinance related to the impacts of development upon the environment.

(2) Review, with applicants, during the pre-application phase of a proposal, all requests for rezoning and recommend zoning conditions to the applicant and Town Council that will mitigate anticipated impact to the natural environment as a result of the project under consideration.

(3) Advocate for managing environmental resources in a way that reflects the community's values.

(4) Acknowledge, review, and mitigate effects of climate change by recommending incentives for:
    (a) Maintaining and acknowledging the natural terrain, to the extent reasonable and practicable.
    (b) Maintaining and encouraging native plant and wildlife species.
    (c) Utilizing environmentally responsible building practices.
    (d) Improving the bicycle and pedestrian environment.
    (e) Improving water quality.
    (f) Consideration for the visual aesthetics as it pertains to the natural environment.
    (g) Preserving and/or improving shade/tree canopy.

(5) Maintain and improve current environmental protections.

(6) Identify Apex resources for further protection (i.e. natural heritage areas).

(7) Support the town's efforts to:
    (a) Improve efficiency within town facilities.
    (b) Reduce waste.
    (c) Reduce town's carbon footprint.
    (d) Reach the Town's goal of achieving 100% clean energy by 2050.

(8) Act as a proactive vehicle for community feedback on environmental issues (i.e. surveys, crowd sourcing, social media, public forums, newspaper articles).

Section 2. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed. If any part of this ordinance shall be adjudged invalid, such adjudication shall apply only to such part so adjudged and the remainder of the ordinance shall be deemed valid and effective.

Section 3. This ordinance shall be effective upon enactment.

Introduced by Council Member _____

Seconded by Council Member _____

Attest:

_____
Donna B. Hosch, MMC, NCCMC
Town Clerk

TOWN OF APEX, NORTH CAROLINA

_____
Lance Olive
Mayor

Approved As To Form:

_____
Laurie L. Hohe,
Town Attorney

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Steve Adams, Real Estate and Public Utilities

Department(s): Administration

Requested Motion

Motion to approve temporary Encroachment Agreement between the Town of Apex and Colonial Pipeline Company.

Approval Recommended?

Yes

Item Details

The Town is extending Burma Drive south from Pinnacle Park to Jack1 LLC property known as Cash Corporate Center, which the Town has an option to purchase. The extension will cross a 50 foot easement owned by Colonial Pipeline Company containing one 16-inch and two 8-inch petroleum pipelines. A temporary crossing pad will be installed first prior to future road extension. The encroachment agreement will be temporary so that work may begin but a permanent and recorded encroachment agreement must be executed prior to the expiration of this one-year encroachment agreement.

Attachments

- Temporary Encroachment Agreement

ROW-F02

Colonial Pipeline Company

Encroachment Agreement

Colonial Pipeline Company
411 Gallimore Dairy Rd. Bldg. A
Greensboro, NC 27409
336-931-6039

Encroachment No.: SMA-806-293-2019-23
Date: 5/23/19
Encroaching Party:

Town of Apex
73 Hunter St.
Apex NC 27502
919 249 3342

Re: Encroachment Agreement – CPC Loc. 806, Tract No. 293, Map 806038S, Lines No. 22, 23 and 24 Station No.s 3859+33+/- , 3852+73+/- and 3857+54+/- respectively at proposed Burma Dr. extension in Wake County, North Carolina.

Colonial Pipeline Company presents no objection to your proposed temporary crossing pad encroaching upon Colonial's 16 inch and two 8 inch petroleum products pipelines within a 50 foot easement, approved by Colonial's Representative, subject to the following conditions:

1. Notify State utilities protection center (NC811), in accordance with local, State and Federal laws. Colonial will not inspect or approve any work, until a locate notice (Dial 811) has been issued. Notify **Steve Anderson** by cell phone at **(919) 227 6805** at least three (3) working days prior to any construction, subsequent maintenance, or repair, so that Colonial may provide a representative on the site. If he cannot be reached, then notify **Tom West** at **(336) 931-6039**.

2. No excavation or construction is permitted over Colonial's pipeline(s) or within its right of way without a Colonial representative being present. The location of the pipeline(s) shall be identified prior to the beginning of any mechanical excavation work. If the location of the pipeline(s) is not known, only hand excavation will be allowed. Based on circumstances at the encroachment site, Colonial's representative has the authority to determine the extent of hand excavation required. However, absent special permission from Colonial's Representative, no mechanized ditching or excavation shall be allowed within five (5) feet of the extremities of the pipelines. **IN ANY EVENT, ALL EXCAVATION WITHIN TWO (2) FEET OF THE PIPELINE(S) MUST BE ACCOMPLISHED BY HAND**. Where hand excavation is required, the encroaching party must provide adequate manpower to perform that work. Subgrading, grading, and placement of fill

over Colonial's pipeline(s) will require the approval of Colonial's field representative as to method and extent.

3. Full access must be maintained to the pipeline(s) at all times. Stockpiling of fill, including spoil, or topsoil over the pipeline(s), is not permitted, unless approved by the Colonial representative.

4. Underground utilities (i.e. storm drains, water lines, telephone, electric, etc.) may cross the easement, providing they maintain a minimum vertical clearance of twenty four (24) inches, **except where horizontal directional drilling methods are used, then sixty (60) inches will be required** over or under Colonial's pipeline(s), and cross at as near a perpendicular angle as practical. Septic drain fields and or sewage drains used for percolation are not permissible inside the pipeline easement. All utility crossings of Colonial's pipeline(s) and respective easements must be constructed of galvanized steel, ductile iron double wrapped with poly wrap, reinforced concrete, or schedule 80 PVC for the entire width of the right of way being crossed.

5. Blasting within the immediate vicinity of Colonial's right of way shall be conditionally allowed. The contractor, planning blasting within 200 feet (6l m) of a pipeline or when scaled distance values at the pipeline are less than 50, must give advance notification of proposed blasting and submit a completed blasting plan (Form 3005), to be approved by Colonial, prior to the commencement of any blasting operations. A Colonial inspector is required to be on site to observe all drilling, loading, and blasting operations. The contractor shall provide in-progress seismic readings and blasting reports as required in Colonial Standard ES-13-108. All blasting operations must meet the requirements of this standard as well as Occupational Health and Safety regulations contained in CFR Title 29, Part 1926, Subpart U – Blasting and Use of Explosives.

6. Any erosion control measures required for your development including temporary diversion dikes, sediment traps, silt fences, gravel outlets, and emergency spillways that may influence or contribute to the degradation of Colonial's right of way will require the approval of Colonial's field representative as to equipment and method. Under no circumstances shall water be impounded on the pipeline(s) right of way.

7. Upon request of the encroaching party, landowner or their agents, Colonial will determine the approximate location of its pipeline(s) and right of way limits; however, in doing so, Colonial makes no warranty as to the accuracy of the locations and measurements given. Colonial also cannot provide assurance that its permanent line markers are positioned directly over its pipeline(s).

8. Original vegetation on Colonial's right of way shall not be disturbed except in areas of approved construction and approved equipment crossings. Highly visible plastic fence or other approved temporary barricade will be required at contractor's expense along Colonial's easement boundaries if Colonial's field representative deems it necessary; to ensure that contractor traffic does not travel over the pipeline(s).
9. Permanent structures are not permitted on the right of way except as agreed herein or agreed in writing by Colonial's field representative. Manholes, junction boxes, valve boxes, fire hydrants, service meters, storm drain inlets, and utility poles are considered permanent structures. No fences or temporary structures shall be allowed in the right of way without the express approval

of Colonial's representative. Temporary structures include such items as signs, trailers, temporary power poles, etc.

10. Heavy equipment shall not be permitted to operate over the pipeline(s) unless earth padding has been provided to protect the pipeline from vibrating. Temporary equipment crossings over the pipeline(s) are permitted with six (6) vertical feet of cover over the pipeline(s) at selected locations as approved by Colonial's field representative. Depth of pipe as determined by test holes will determine amount of temporary fill required. Colored sheets of plastic shall be placed under the temporary fill at original grade so that original grade will not be disturbed when temporary fill is removed. No equipment or vehicles may be parked on the right of way. No material may be stored on the right of way.

11. The encroaching party acknowledges that Colonial's pipelines utilize impressed electrical current ("cathodic protection") for the protection of the steel. Only Colonial personnel will correct any loss of this protection caused by the encroaching party. The cost to correct this damage will be paid by the encroaching party. Further, encroaching party recognizes there may be some risk of damage to your facilities because they are in close proximity to said cathodic protection system and, therefore, any damages to encroaching party's facilities resulting from Colonial's impressed electric current shall be encroaching party's responsibility.

12. Only low growing ornamental type shrubbery with a maximum expected height of four (4) feet shall be allowed within the right of way. In addition, no pipeline marker shall be obscured from public view.

13. Relocation or removal of Colonial's pipeline markers shall not be permitted without the approval of a Colonial representative. Pipeline markers made unusable or damaged shall be repaired or replaced at the encroaching party's expense.

14. Parallel occupancy of the pipeline's easement with road right of way, or utilities is not permitted. Crossing shall be as near as a perpendicular angle to the easement as practical.

15. All proposed roadways, driveways and parking areas should maintain a minimum of five feet (5') and a maximum of eleven feet (11') from top of pipe to top road surface and three (3) feet minimum vertical cover in open drainage or road ditches. Colonial's Engineering may increase these minimum requirements as determined by a stress analysis of the pipe, and other variable conditions and factors. Colonial may consider concrete protection slabs, per Colonial's specifications as an option, to be installed to protect the pipeline(s).

16. Any and all pipeline(s) within the proposed road, parking, or railway area, will be excavated and visually inspected, with the possible reapplication of pipeline coatings applied, by a Colonial contractor, at the full expense of the encroaching party. Colonial requires that the pipeline coating system be evaluated for suitability of service in relation to the proposed encroachment. Should Colonial deem that the coating system is insufficient due to increased soil stresses or other factors, Colonial will, at the developer's expense, upgrade the pipeline coating to accommodate the proposed encroachment. Colonial will backfill the inspected area to its standard, and will not be held responsible for compaction. (NOTE: A Pipeline Accommodation Agreement for

reimbursement to Colonial shall be executed between Colonial and the encroaching party prior to such adjustment.)

17. Cover above the pipeline(s) shall be a minimum of four (4) feet, and in general a maximum of six (6) feet, unless approved by the Right of Way Coordinator.

18. The burning of trash, debris, etc. shall not be permitted within Colonial's right of way.

19. Should any damage occur to the herein permitted encroaching party's facilities, as a result of Colonial exercising any of its rights at any time, Colonial will not be responsible for said damage; and any expense or monetary cost involved in the repair of said damages will be borne by owners of said damaged encroaching party's facilities.

20. Encroaching party agrees to defend and hold Colonial Pipeline Company harmless from all loss, cost, or other expense, including personal property and bodily injuries, whether occurring to it or to Colonial, or the respective employees, agents and servants of either, or to third parties, which are proximately caused by or arise from the encroaching party's installation, maintenance, or repair of the herein permitted works, with the exception of claims due to the sole negligence of Colonial Pipeline Company.

21. This approval is granted only to the extent of and with no actual or implied diminishment of Colonial's rights and interests and without either express or implied warranty.

22. If fences are constructed, they shall be constructed with gates sufficiently large enough to allow Colonial's personnel and equipment the right of ingress and egress. Fence posts shall be installed at least five (5) feet to the side of any pipeline, with the approval of the field representative.

23. If the approximate location of the pipeline(s) is required, steel prod bars, shovels, and electrical sending devices may be used by Colonial's field personnel only. It should be noted that these methods are only approximate and can be misleading. The exact location of the pipeline(s) can best be found with test pitting.

24. If test pitting is required to determine the exact location, and elevation, of the pipeline(s), the Encroaching party agrees to notify the undersigned at least two (2) working days in advance, so that he may provide a Colonial field representative to be at the site. This representative must be present during the test pitting for the protection of the pipeline(s), and for the common verification of its location. All costs for this test pitting, and for the Colonial representative, will be borne by the encroaching party. Any engineering based on Colonial or other design criteria stemming from the amount or location of this test pit data is the responsibility of the encroaching party.

25. Colonial reserves the right to open, cut, excavate and dig across the proposed road, railway, sidewalks, avenues, utility lines, or any other encroachment herein granted by this agreement, and in any such event, Colonial shall not be liable for the restoration of same, or the payment of any damages to the encroaching party.

26. Excavation or grading which might result in erosion or which could render the right of way inaccessible shall not be permitted unless the encroaching party agrees to restore the area and

provide protection to Colonial's pipeline(s). Any erosion control measures within the right of way including diversion dikes, sediment traps, silt fences, gravel outlets, and emergency spillways will require approval of the Colonial representative, as to equipment and method.

27. If construction on the aforementioned project is not initiated within one calendar year of the date of this letter of agreement, then Colonial Pipeline shall have the right to reconsider the conditions and privileges herein granted, and have full right to alter same, dependant upon current protocol.

28. The encroaching party agrees that all work on Colonial's right of way shall be performed in a Workmanlike manner and in compliance with all applicable government and industry standards and codes.

29. Upon failure of the encroaching party, owner or his agents to comply with any of the Terms of this Agreement, Colonial will provide Encroaching Party with advance written notice of any intent to revoke this Agreement in its entirety, prevent same from continuing any activity in violation of the terms of this Agreement or its rights under its easements and prior agreements and make any necessary repairs or adjustments to its pipeline(s) or right of way with its own or contract forces at the expense of the party requesting the encroachment.

30. Colonial Pipeline Company will have the option of installing video surveillance camera(s) to provide continuous monitoring of its facilities.

31. Notwithstanding anything to the contrary in this Agreement, Encroaching Party is not allowed to perform the encroaching activities contemplated hereunder without first paying Colonial for any Accommodation Work necessary to be performed by Colonial to protect its pipeline(s) and rights of way from those encroaching activities. Additionally, if such Accommodation Work is required, the encroaching activities will not be initiated until said Accommodation Work is completed. Said Accommodation Work and estimate therefore should have been outlined in detail in previous correspondence to Encroaching Party. If such previous correspondence has not been received, Encroaching Party is required to request same.

32. Should your project be ongoing in close proximity to Colonial's pipeline(s) for an extended period of time, it will be necessary for a Colonial representative to be on-site for a significant duration. Accordingly, since such extended inspection time is outside the scope of Colonial's normal operations, you will be billed for that representative's time. Colonial's policy is to bill for any inspection time in excess of a total of 10 hours (cumulative for that project) and for any evening, weekend or holiday time.

33. This agreement approves only the work specified above all utility encroachments will need to be approved by the local inspector for Colonial Pipeline Company.

34. The following special conditions shall apply, and be required for this project.

    a. <u>In addition to the stipulations in paragraph 15, should it be necessary to work over the pipelines with less than 36 inches of cover the equipment used will be restricted to that authorized or approved by Colonial Pipeline Company's representatives.</u>

b. No light poles, lighting structures or power poles are allowed within Colonial's right-of-way.
c. In addition, only remote or hand operated compaction equipment may be used at anytime.
d. If the crossing involves Horizontal Directional Drilling (HDD), a walk over method and wire grid method will be used to track the progress of the drilling head.
e. As stipulated in paragraph 4 Directional Drilling must maintain a minimum vertical separation of sixty (60) inches under Colonial's pipeline and requires approval from management.
f. Where the proposed pipeline will be crossing Colonial's existing pipelines using Auger Bore or Horizontal Directional Drilling (HDD) the encroaching party will be required to excavate an inspection pit on the leading edge of said pipeline as directed by Colonial's Representative.
g. The contractor performing the encroachment may be required to vacumn excavate inspection pot holes atop the petroleum pipelines by Colonial's field representative immediately prior to beginning the Auger Bore.

Please signify acceptance of the above conditions by a proper official in the space provided below, and return to the Right of Way Coordinator's office. Colonial Pipeline will notify you to proceed with your project upon receipt of the signed original.

Sincerely,



Stephen M Anderson
Colonial Pipeline Representative

SMA-806-293-2019-23
ACCEPTED AND AGREED TO THIS _____ DAY OF _____ 20__.

_____
(signature)

BY: _____
(name, typed or printed)

TITLE: _____
(typed or printed)

Original: Right of Way Department

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Russell Dalton, Senior Transportation Engineer and Angela Reincke, Parks and Greenways Planner

Department(s): Public Works & Transportation, Parks, Recreation and Cultural Resources

Requested Motion

Motion to approve and authorize the Town Manager to execute the Design Build Project Agreement with the North Carolina Department of Transportation for NC 540 enhancements (Project R-2721) and approve corresponding Capital Project Ordinance Amendment 3.

Approval Recommended?

Yes

Item Details

Transportation Improvement Program (TIP) project R-2721 will extend NC 540 east of the NC 55 Bypass crossing over E Williams St and crossing under Sunset Lake Road with construction beginning in 2020. This project will provide enhancements the Town requests based on a municipal agreement with a required cost share. Transportation enhancements include: sidewalk under NC 540 along E Williams St, extra width for future bicycle lanes on Sunset Lake Road within the scope of the project, and an 8' sidewalk on the north side of the Sunset Lake Rd Bridge over NC 540. The Middle Creek Greenway enhancements include construction related to extending the bridge crossing Middle Creek to allow for a future open air greenway connection under the bridge and construction of a portion of the greenway under the bridge within the right of way. This will allow the Town to eventually complete a connection to the Holly Springs Greenway at Sunset Lake Road. Staff will come back to Council with the required encroachment agreement with NCDOT after the exact location is determined. The Middle Creek Greenway was part of the 2017 Parks Bond.

The funding for Middle Creek Greenway has already been allocated in the Recreation Capital Project Fund and $120,000 of the transportation funding was allocated in the Street Improvements Capital

Project Fund. The Capital Project Ordinance Amendment allocates the remaining funding ($60,100) from interest earned on the account.

Attachments

- NCDOT Agreement
- Cost Exhibit
- Capital Project Ordinance Amendment 3

NORTH CAROLINA

WAKE COUNTY

TRANSPORTATION IMPROVEMENT PROJECT – MUNICIPAL AGREEMENT WITH BETTERMENTS

DATE: 9/4/2019

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

TIP #: R-2721A

AND

WBS Elements: 37673.3.TA2

TOWN OF APEX

THIS MUNICIPAL AGREEMENT is made and entered into on the last date executed below, by and between the North Carolina Department of Transportation, an agency of the State of North Carolina, hereinafter referred to as the "Department" and the Town of Apex, a local government entity, hereinafter referred to as the "Municipality".

W I T N E S S E T H:

WHEREAS, the Department has plans to make certain street and highway constructions and improvements within the Municipality to be included in Design Build Project R-2721A in Wake County; and,

WHEREAS, the Department and the Municipality have agreed that the municipal limits, as of the date of the awarding of the contract for the construction of the above-mentioned project, are to be used in determining the duties, responsibilities, rights and legal obligations of the parties hereto for the purposes of this Agreement; and,

WHEREAS, this Agreement is made under the authority granted to the Department by the North Carolina General Assembly, including but not limited to, the following legislation: General Statutes of North Carolina (NCGS), Section 136-66.1, Section 160A-296 and 297, Section 136-18, and Section 20-169, to participate in the planning and construction of a Project approved by the Board of Transportation for the safe and efficient utilization of transportation systems for the public good; and,

WHEREAS, the parties to this Agreement have approved the construction of said Project with cost participation and responsibilities for the Project as hereinafter set out.

NOW, THEREFORE, the parties hereto, each in consideration of the promises and undertakings of the other as herein provided, do hereby covenant and agree, each with the other, as follows:

SCOPE OF THE PROJECT

1. The Project consists of constructing NC 540 from NC 55 bypass to east of SR 1152 (Holly Springs Road) on a new location in Apex.

2. At the request of the Municipality, Betterments will be included: the construction of 5' sidewalk along the east side of -Y2- (East Williams St); the construction of 5' sidewalk along the north side of -Y3- (Sunset Lake Rd), an 8' sidewalk along the north side of the bridge on -Y3-, and the inclusion of wide outside lane on the bridge; and lengthening of the mainline NC 540 bridges over Middle Creek and the paving of a concrete trail under the bridge per the project RFP.

PLANNING AND DESIGN

3. The Department shall prepare the environmental and/or planning document, and obtain any environmental permits needed to construct the Project, and prepare the Project plans and specifications needed to construct the Project. All work shall be done in accordance with departmental standards, specifications, policies and procedures.

RIGHT OF WAY

4. The Department shall be responsible for acquiring any needed right of way required for the Project. Acquisition of right of way shall be accomplished in accordance with the policies and procedures set forth in the North Carolina Right of Way Manual.

5. It is understood by both parties that all work for the betterments shall be performed within the existing right of way. However, should it become necessary, the Municipality, at no expense or liability whatsoever to the Department, shall provide any needed right of way and or construction easements for the construction of the betterments, and remove from said rights of way all obstructions and encroachments of any kind or character. Acquisition of any needed right of way shall be performed in accordance with the following state and federal policies and procedures, “Right of Way Acquisition Policy and Land Acquisition Policy, contained in the Federal-Aid Policy Guide, Part 712, Subpart B”, and the North Carolina Right of Way Manual (Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970). The Department shall be indemnified and held harmless from any and all damages and claims for damages associated with the acquisition of any construction easements and/or right of way.

UTILITIES

RESPONSIBILITIES

6. The Municipality shall be responsible for the relocation and adjustment of all municipally-owned utilities in conflict with the Project and shall exercise any rights that it may have under any franchise to effect all necessary changes, adjustments, and relocations of communications and electric power lines; underground cables, gas lines, and, and other pipelines or conduits; or any privately- or publicly-owned utilities. If applicable, the Department will reimburse the Municipality in accordance with NCGS 136-27.1. A separate utility agreement may be prepared to address these costs and payment terms.

UTILITY RELOCATION BY DEPARTMENT

7. If the Municipality requests the Department to include the relocation and/or adjustment of municipally owned utilities in its construction contract provisions, and the Department agrees, then a separate utility agreement will be prepared to state the cost estimate and the reimbursement terms. The Municipality shall reimburse the Department all or a portion of the costs associated with said relocation, in accordance with NCGS 136-27.1. Reimbursement will be based on final project plans and actual costs of relocation.

CONSTRUCTION

8. The Project Construction contract will be executed as a Lump Sum contract with no breakdown of construction quantities and associated costs. The Municipality shall pay $513,235 for the Betterments described in section 2. Both parties understand that there will be no adjustment to this Lump Sum amount. The Municipality shall participate in the Betterment cost as follows:

    A. Reimbursement to the Department shall be made in one final payment within sixty days of invoicing by the Department. A late payment penalty and interest shall be charged on any unpaid balance due in accordance with NCGS § 147-86.23.

    B. In the event the Municipality fails for any reason to pay the Department in accordance with the provisions for payment herein above provided, NCGS § 136-41.3 authorizes the Department to withhold so much of the Municipality's share of funds allocated to said Municipality by NCGS § 136-41.1 until such time as the Department has received payment in full under the reimbursement terms set forth in this Agreement.

MAINTENANCE

9. Upon completion of the Project:

   A. The Department shall be responsible for all traffic operating controls and devices which shall be established, enforced, and installed and maintained in accordance with the North Carolina General Statutes, the latest edition of the Manual on Uniform Traffic Control Devices for Streets and Highways, the latest edition of the "Policy on Street and Driveway Access to North Carolina Highways", and departmental criteria.

   B. The improvement(s) shall be a part of the State Highway System and owned and maintained by the Department.

10. The Municipality, at no expense to the Department, shall assume all maintenance responsibilities for the Betterments and release the Department from all liability relating to such maintenance.

ADDITIONAL PROVISIONS

11. It is the policy of the Department not to enter into any agreement with another party that has been debarred by any government agency (Federal or State). The Municipality certifies, by signature of this agreement, that neither it nor its agents or contractors are presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from participation in this transaction by any Federal or State Department or Agency.

12. To the extent authorized by state and federal claims statutes, each party shall be responsible for its respective actions under the terms of this agreement and save harmless the other party from any claims arising as a result of such actions.

13. All terms of this Agreement are subject to available departmental funding and fiscal constraints.

14. This Agreement contains the entire agreement between the parties and there are no understandings or agreements, verbal or otherwise, regarding this Agreement except as expressly set forth herein.

15. The parties hereby acknowledge that the individual executing the Agreement on their behalf is authorized to execute this Agreement on their behalf and to bind the respective entities to the terms contained herein and that he has read this Agreement, conferred with his attorney, and fully understands its contents.

16. A copy or facsimile copy of the signature of any party shall be deemed an original with each fully executed copy of the Agreement as binding as an original, and the parties agree that this Agreement can be executed in counterparts, as duplicate originals, with facsimile signatures sufficient to evidence an agreement to be bound by the terms of the Agreement.

17. By Executive Order 24, issued by Governor Perdue, and N.C. G.S.§ 133-32, it is unlawful for any vendor or contractor (i.e. architect, bidder, contractor, construction manager, design professional, engineer, landlord, offeror, seller, subcontractor, supplier, or vendor), to make gifts or to give favors to any State employee of the Governor's Cabinet Agencies (i.e., Administration, Commerce, Environmental Quality, Health and Human Services, Information Technology, Military and Veterans Affairs, Natural and Cultural Resources, Public Safety, Revenue, Transportation, and the Office of the Governor).

IT IS UNDERSTOOD AND AGREED upon that the approval of the Project by the Department is subject to the conditions of this Agreement.

IN WITNESS WHEREOF, this Agreement has been executed, in duplicate, the day and year heretofore set out, on the part of the Department and the Municipality by authority duly given.

L.S. ATTEST: TOWN OF APEX

BY: _____ BY: _____

TITLE: _____ TITLE: _____

DATE: _____ DATE: _____

N.C.G.S. § 133-32 and Executive Order 24 prohibit the offer to, or acceptance by, any State Employee of any gift from anyone with a contract with the State, or from any person seeking to do business with the State. By execution of any response in this procurement, you attest, for your entire organization and its employees or agents, that you are not aware that any such gift has been offered, accepted, or promised by any employees of your organization.

Approved by the Town of Apex as attested to by the signature of _____

on _____(Date)

This Agreement has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

BY: _____
(FINANCE OFFICER)

(SEAL)

Federal Tax Identification Number

_____

Remittance Address:
Town of Apex

_____

_____

DEPARTMENT OF TRANSPORTATION

BY: _____
(CHIEF ENGINEER)

DATE: _____

APPROVED BY BOARD OF TRANSPORTATION ITEM O: _____ (Date)

R-2721A Apex Betterments

Betterment Item		Betterment Cost
-Y2- Sidewalk	$	5,574.63
-Y3- Sidewalk (5')	$	30,102.98
-Y3- Bridge Sidewalk (3' additional)	$	5,017.16
-Y3- Bridge Deck for sidewalk (3' additional)	$	122,958.00
-Y3- Bridge Shared lane (1' additional)	$	16,394.40
Middle Creek Greenway Bridge and trail	$	333,187.78
APEX TOTAL	$	513,234.94
SAY	**$**	**513,235**

TIP No. **R-2721A** | **R/W** | County: **WAKE**

Route: Complete 540

From: West of NC55 Bypass to East of SR 1389 (Pierce Olive Rd)

Typical Section

CONSTR. COST $13,937

APEX - MUNICIPAL AGREEMENT ESTIMATE

SIDEWALK (-Y2-) EAST WILLIAMS ST.

Prepared By: HW Lochner and MJ Kneis — Date 8/12/2019

Requested By: — Date

Line Item	Des	Sec No.	Description	Quantity	Unit	*Unit Price	Amount
			Sidewalk				
			4" Concrete Sidewalk (East Williams St)	250	SY	$ 38.78	$ 9,695.00
			Misc. & Mob (10% Str & Utilities)		LS		
			Misc. & Mob (25% Rdwy)		LS		$ 2,423.75

Lgth **4.5 Mi.**

Contract Cost	$ 12,118.75
E. & C. 15%	$ 1,817.81
Construction Cost	$ 13,936.56

** Unit Price From NCDOT 2018 Bid Averages*

Apex share 40% **$ 5,574.63**

TIP No. **R-2721A** | **R/W** | County: **WAKE**

Route: Complete 540

From: West of NC55 Bypass to East of SR 1389 (Pierce Olive Rd)

Typical Section

CONSTR. COST $80,275

APEX - MUNICIPAL AGREEMENT ESTIMATE

SIDEWALK (-Y3-) SUNSET LAKE ROAD.

Prepared By: HW Lochner and MJ Kneis — Date 8/12/2019

Requested By: — Date

Line Item	Des	Sec No.	Description	Quantity	Unit	*Unit Price	Amount
			Sidewalk				
			4" Concrete Sidewalk (Sunset Lake Road)	1,350	SY	$ 38.78	$ 52,353.00
			Misc. & Mob (10% Str & Utilities)		LS		
			Misc. & Mob (25% Rdwy)		LS		$ 13,088.25
			Contract Cost				$ 65,441.25
			E. & C. 15%				$ 9,816.19
			Construction Cost				$ 75,257.44
						Cost Share 40%	**$ 30,102.98**
			4" Concrete Sidewalk (Sunset Lake Road) Extra Width	90	SY	$ 38.78	$ 3,490.20
			Misc. & Mob (10% Str & Utilities)		LS		
			Misc. & Mob (25% Rdwy)		LS		$ 872.55

Lgth

Contract Cost	$ 4,362.75
E. & C. 15%	$ 654.41
100% Construction Cost	**$ 5,017.16**

TOTAL APEX SHARE **$ 35,120.14**

** Unit Price From NCDOT 2018 Bid Averages*

TIP No. **R-2721A** | **R/W** | County: **WAKE**

Route Complete 540

From West of NC55 Bypass to East of SR 1389 (Pierce Olive Rd)

Typical Section

CONSTR. COST
$666,376

APEX - MUNICIPAL AGREEMENT ESTIMATE
Greenway (Culvert & Pavement)

Prepared By: HW Lochner Date 1/4/2019

Requested By: Date

Line Item	Des	Sec No.	Description	Quantity	Unit	*Unit Price	Amount
			Greenway Culverts				
			Middle Creek Greenway				
			1 @ 14'x10' -L- Sta 79+72 Fill= 6.5' Skew=90°	236	LF	$ 1,920.00	$ 453,120.00
			Greenway Relocation				
			Middle Creek Greenway				
			10' Greenway -L- Sta 79+72	0.07	MI	$ 926,000.00	$ 64,820.00
			Misc. & Mob (10% Str & Utilities)		LS		$ 45,312.00
			Misc. & Mob (25% Rdwy)		LS		$ 16,205.00

Lgth **4.5 Mi.**

Contract Cost ……	$ 579,457.00
E. & C. 15% ……	$ 86,918.55
Construction Cost ……	**$ 666,375.55**

** Unit Price From NCDOT 2018 Bid Averages*

50% Cost share regardless of bridge or culvert, per RDR **$ 333,187.78**

TIP No. **R-2721A** | **R/W** | County: **WAKE**

Route: Complete 540

From: West of NC55 Bypass to East of SR 1389 (Pierce Olive Rd)

Typical Section

CONSTR. COST
$163,944

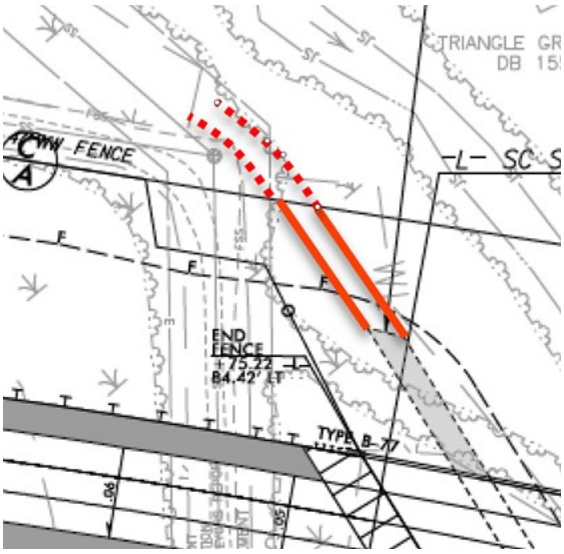
APEX - MUNICIPAL AGREEMENT ESTIMATE
STRUCTURE -BETTERMENT (-Y3-) Sunset Lake Road

Prepared By: HW Lochner and MJ Kneis Date 8/12/2019

Requested By: Date

Line Item	Des	Sec No.	Description	Quantity	Unit	*Unit Price	Amount
							$ -
			Structure Betterments for Bike Lane Accommodations				
			Y3 (Sunset Lake Road) over L(540) (Complex)	270.00	SF	$ 120.00	$ 32,400.00
			Misc. & Mob (10% Str & Utilities)		LS		$ 3,240.00
			Misc. & Mob (25% Rdwy)		LS		
Lgth			**Contract Cost**				$ 35,640.00
			E. & C. 15%				$ 5,346.00
			Construction Cost				$ 40,986.00
			40% Cost Share				**$ 16,394.40**
			Structure Betterments for Extra Width Sidewalk Accommodations				
			Y3 (Sunset Lake Road) over L(540) (Complex)	810.00	SF	$ 120.00	$ 97,200.00
			Misc. & Mob (10% Str & Utilities)		LS		$ 9,720.00
			Misc. & Mob (25% Rdwy)		LS		
Lgth			**Contract Cost**				$ 106,920.00
			E. & C. 15%				$ 16,038.00
			100% Cost Share				**$ 122,958.00**
			TOTAL APEX SHARE				**$ 139,352.40**

** Unit Price From NCDOT 2018 Bid Averages*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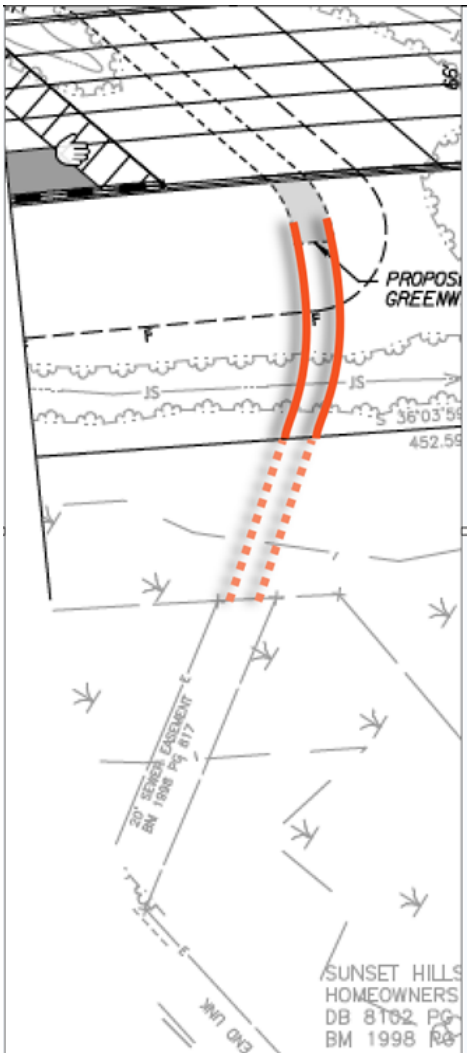
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Town of Apex

CAPITAL PROJECT ORDINANCE AMENDMENT 2020-03

63 - Street Improvements Capital Project Fund

BE IT ORDAINED, by the Council of the Town of Apex that the Capital Projects Ordinance previously entitled "Street Improvements Capital Project Fund" be amended as follows:

Section 1. The revenues anticipated for the projects are:

63 - Interest Earned	$60,100
Total Revenues	**$60,100**

Section 2. The expenditures anticipated are:

NC 540 Roadway Enhancements (R-2721)	$60,100
Total Expenditures	**$60,100**

Section 3. Within five (5) days after adoption, copies of this Amendment shall be filed with the Finance Officer and Town Clerk.

Adopted this the 17th day of September, 2019.

Attest:

Lance Olive, Mayor

Donna B. Hosch, Town Clerk

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Amanda Bunce, Current Planning Manager

Department(s): Planning

Requested Motion

Motion to approve Findings of Fact, Conclusions of Law, and Decision approving the Sweetwater Phases 9A2 and 9B Mixed Use Major Site Plan

Approval Recommended?

Planning Department recommends approval.

Item Details

On September 3rd, 2019, Town Council unanimously approved a mixed use Major Site Plan for Sweetwater Phases 9A2 and 9B.

Attachments

- Findings of Fact, Conclusions of Law, and Decision.

BEFORE THE TOWN COUNCIL OF THE TOWN OF APEX
MAJOR SITE PLAN FOR SWEETWATER PHASES 9A2 AND 9B MIXED USE

FINDINGS OF FACT

Based on the competent and material evidence in the record, the Town Council makes the following findings of fact:

1. Mitch Craig, CE Group, Inc./Ed Kalikow, KEP Apex, LLC, applicant/owner (the "Applicant"), submitted a completed application for a Major Site Plan on the 1st day of March, 2019.

2. Pursuant to G.S. §160A-384, and 2.2.11.E of the Unified Development Ordinance, the Planning Director caused proper notice to be given (by publication and posting), of a public hearing on the Major Site Plan for Sweetwater Phases 9A2 and 9B before the Town Council on the 6th day of August 2019. The Apex Town Council continued the hearing to September 3rd.

3. Pursuant to G.S. §160A-384, and 2.2.11.E of the Unified Development Ordinance, the Planning Director caused proper notice to be given (by publication and posting), of a public hearing on the Major Site Plan for Sweetwater Phases 9A2 and 9B before the Town Council on the 3rd day of September 2019.

4. The Apex Town Council held a public hearing, including an evidentiary hearing, on the 3rd day of September 2019.

5. All persons who desired to present evidence relevant to the Major Site Plan for Sweetwater Phases 9A2 and 9B were allowed the opportunity to present evidence at the public hearing before the Apex Town Council.

6. The Applicant proposes five (5) buildings that include 230 upper-story apartments and 105,739 sf of office, retail, & restaurant uses. The development also includes two (2) parking structures and a community event lawn. Area has been reserved on Lot 3 for a future building to be proposed at a later date.

7. The Applicant established by competent sworn testimony all matters stated in the application and staff report for the proposed Major Site Plan and established that the proposed major site plan is in compliance with the standards provided in the UDO.

CONCLUSIONS OF LAW

In light of the findings of fact, the Town Council makes the following conclusions of law:

1. The Applicant submitted a completed application for the Major Site Plan Sweetwater Phases 9A2 and 9B;

2. The matters stated in the application are established by competent and substantial evidence;

3. The development proposed in the site plan and its general location is compatible with the character of surrounding land uses;

4. The development and uses in the site plan comply with Sec. 4.4 *Supplemental Standards*;

5. The development proposed in the site plan and its general layout and design comply with all appropriate standards in Article 8: *General Development Standards*;

6. The site plan does not propose anything that would be inconsistent with the requirements of Sec. 8.1.4 *Slope Protection Standards;*

7. The development proposed in the site plan conforms to the requirements of Sec. 7.4 *Dedication of ROW for Thoroughfare Streets and Highways;*

8. The development proposed in the site plan conforms to the requirements of Sec. 7.5 *Required Improvements;*

9. The development proposed in the site plan does not propose anything that will have a significant adverse impact on public facilities and services, including roads, potable water and wastewater facilities, parks, police, fire, and EMS facilities;

10. The development proposed in the site plan and its general layout and design comply with all other relevant standards of this Ordinance;

11. The application and site plan meet the standards for Major Site Plans stated in UDO Sec. 2.3.6.E.2;

12. The Applicant is entitled in law and in fact to the approval of the Major Site Plan for Sweetwater Phases 9A2 and 9B.

DECISION

The Apex Town Council hereby approves the Major Site Plan for Sweetwater Phases 9A2 and 9B.

These Findings of Fact, Conclusions of Law and Decision, shall constitute written documentation of Town Council's approval of the Major Site Plan for Sweetwater Phases 9A2 and 9B.

THE TOWN OF APEX

By: _____
Lance Olive
Mayor

(Corporate Seal)

ATTEST:

_____
Donna B. Hosch, CMC, NCCMC, Town Clerk

STATE OF NORTH CAROLINA
COUNTY OF WAKE

I, a Notary Public of the County and State aforesaid, certify that Donna B. Hosch, personally came before me this day and acknowledged that she is Town Clerk of the Town of Apex, a North Carolina Municipal Corporation, and that by authority duly given and as the act of the corporation, the foregoing instrument was signed in its name by its Mayor, sealed with its corporate seal and attested by her as its Town Clerk.

Witness my hand and official stamp or seal, this _____ day _____, 2019.

_____ My Commission Expires: _____
[*Signature of Notary Public*]

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Shannon Cox, Long Range Planning Manager

Department(s): Planning Department

Requested Motion

Motion to approve and authorize the Town Manager to execute the Agreement for Provision of Transit Planning Services with the Town of Cary for the Apex Circulator Study.

Approval Recommended?

The Planning Department recommends approval.

Item Details

The Town of Apex adopted budget includes funding for an implementation study of the highest-priority local bus circulator route identified in Advance Apex: The 2045 Transportation Plan. The Planning Department applied for and was awarded matching funding through the Wake Transit Community Funding Area Program to complete this study. In July, 2019, the Town Council approved a Special Funding Agreement with the Capital Area Metropolitan Planning Organization and GoTriangle to establish the terms and responsibilities for the award of Wake Transit Funds. The purpose of this Agreement of Provision of Transit Planning Services is to establish the terms and responsibilities of a partnership with the Town of Cary to provide transit planning services to carry out the bus circulator study.

Attachments

- Agreement for Provision of Transit Planning Services
- Apex Circulator Study Scope of Services

STATE OF NORTH CAROLINA

COUNTY OF WAKE

AGREEMENT FOR PROVISION OF TRANSIT PLANNING SERVICES

This Agreement for Provision of Transit Planning Services **("Agreement")** is made and entered into this ___ day of _____, 2019, by and between the Town of Cary (**"Cary"**) and the Town of Apex (**"Apex"**), both municipal corporations organized and existing under the laws of the State of North Carolina. Apex and Cary are sometimes hereinafter referred to collectively as the "Parties."

W I T N E S S E T H

WHEREAS, an extensive community driven process was used to develop a strategic transit vision document that set forth an enhanced public transit plan for Wake County, referred to as the "Wake County Transit Plan" ("Wake Transit Plan"), and this plan was adopted by the GoTriangle Board of Trustees on May 25, 2016, the Capital Area Metropolitan Planning Organization's ("CAMPO") Executive Board on May 18, 2016, and the Wake County Board of Commissioners on June 6, 2016; and

WHEREAS, the Western Wake Comprehensive Operations Analysis, completed as an implementation item of the Wake Transit Plan, and the Town of Apex's long range transportation plan, *Advance Apex: The 2045 Plan*, recommend the creation of a new "Apex Circulator" bus route, intended to provide bus service to the areas with the highest propensity to use transit in Apex; and

WHEREAS, Cary, as operator of the GoCary transit system, has expertise in transit planning services such as those needed to create the Apex Circulator bus route; and

WHEREAS, this Agreement is authorized by N.C.G.S. § 160A-20.1.

NOW, THEREFORE, in consideration of the foregoing, the Parties do hereby agree as follows:

1. RECITALS; PURPOSE. The recitals are incorporated into this Agreement. The Purpose of this Agreement is for Cary to provide technical assistance to Apex to refine an operating plan, specifically identify capital funding needs, complete targeted outreach to the potential area of service, quantify capital and operating costs, develop a potential municipal agreement for service between the Town of Apex and Town of Cary, and prepare a Community Funding Area application for capital and operating expenses for a proposed Apex Circulator bus route (the "Services"), as more particularly described in Exhibit A attached hereto and incorporated herein by reference.

2. COMPENSATION. Apex shall pay to Cary the total sum of $19,250.68 for provision of Services. Payment shall be made within thirty (30) days of receipt of an invoice from Cary; invoices shall be submitted at least quarterly.

3. DURATION AND TERM OF AGREEMENT. This Agreement shall become effective on the date of the full execution of this Agreement ("Effective Date") and shall terminate on February 28, 2020 or upon Cary's completion of Services, whichever occurs sooner. The Parties may extend the term of this Agreement by a separate written instrument executed by both Parties.

4. TERMINATION. Either Cary or Apex may terminate this Agreement by notice to the other party at any time as follows:

(a) If the other party is in breach of any material obligation hereunder, by causes and reasons within its control, and has not cured such breach within thirty (30) days after notice requesting cure of the breach, provided, however, that if the breach is not capable of being cured within thirty (30) days of such written notice, the Agreement may not be terminated so long as the breaching party commences and is taking commercially reasonable actions to cure such breach as promptly as practicable.

(b) Either party may terminate this Agreement for its own convenience at any time by giving ten (10) days written notice to all Parties. If the Agreement is terminated by either party for convenience, Cary will be paid for the portion of its Services provided up to the effective date of termination.

5. NO JOINT AGENCY AND NO PERSONNEL. No joint agency is established by this Agreement, and this Agreement does not create a partnership, joint venture, other joint endeavor, joint ownership, joint operations, or personnel sharing of any kind. No joint personnel are needed by the Parties to carry out this Agreement; this Agreement does not provide for the appointment of any personnel joint or otherwise.

6. AMENDMENT. This Agreement may be amended at any time by the mutual written consent of both Parties.

7. E-VERIFY REQUIREMENTS. Both parties, and any subcontractors hired by either party for purposes of fulfilling any obligations under this Agreement, will comply with the requirements of Article 2 of Chapter 64 of the North Carolina General Statutes, "Verification of Work Authorization," and will provide documentation or sign affidavits or any other documents requested by either party demonstrating such compliance.

8. NOTICE. All notices and other communications required or permitted by this Agreement shall be in writing and shall be given either by personal delivery, or deposited in the United States mail, postage prepaid, addressed as follows:

Town of Apex:
Attn: Shannon Cox
Planning Department
PO Box 250
Apex, NC 27502

Town of Cary:
Attn: Kelly Blazey
316 N. Academy Street
Cary, NC 27513

9. DISPUTE RESOLUTION; GOVERNING LAW; VENUE. In the event a dispute arises between the Parties regarding performance under this Agreement, the Parties agree to bargain in good faith towards a mutual resolution. If the Parties, after honest good faith negotiations, cannot reach a mutually agreeable resolution of the dispute, then a Party may adjudicate its dispute as allowed by North Carolina State Laws. This Agreement shall be governed by the laws of the State of North Carolina. Any and all suits or actions related to this Agreement shall be brought in Wake County, N.C.

10. NON-EXCLUSIVE REMEDIES/NO WAIVER. The selection of one or more remedies for breach shall not limit a Party's right to invoke any other remedy available under Agreement or by law. No delay, omission or forbearance to exercise any right, power or remedy accruing to a Party shall impair any such right, power or remedy or shall be construed to be a waiver of any breach hereof or default. Every right, power or remedy may be exercised from time-to-time and as often as deemed expedient.

11. NO THIRD PARTY BENEFICIARIES. There are no third party beneficiaries to Agreement.

12. NO WAIVER OF SOVEREIGN OR QUALIFIED IMMUNITY. Nothing in this Agreement shall be construed to mandate purchase of insurance by either town pursuant to N.C.G.S. 160A-485 or to in any way waive either towns' defense of sovereign or governmental immunity from any cause of action alleged or brought against any Party for any reason if otherwise available as a matter of law. No officer, agent or employee of either town shall be subject to any personal liability by reason of the execution of this Agreement or any other documents related to the transactions contemplated hereby. Such officers, agents, or employees shall be deemed to execute this Agreement in their official capacities only, and not in their individual capacities. This section shall not relieve any such officer, agent or employee from the performance of any official duty provided by law.

13. ANTI-HUMAN TRAFFICKING. Cary warrants and agrees that no labor supplied by Cary or Cary's subcontractors in the performance of this Agreement shall be obtained by means of deception, coercion, intimidation or force, or otherwise in violation of North Carolina law, specifically Article 10A, Subchapter 3 of Chapter 14 of the North Carolina General Statutes, Human Trafficking.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed by their duly authorized officials.

[SIGNATURES APPEAR ON THE NEXT TWO PAGES]

TOWN OF APEX, NORTH CAROLINA

By:_____
Drew Havens, Town Manager

Date:_____

Attest:

_____
Donna B. Hosch, Town Clerk, CMC

This instrument has been pre-audited in the manner required by the Local Government Budget and Fiscal Control Act.

_____
Vance Holloman, Town of Apex Finance Director

TOWN OF CARY, NORTH CAROLINA

By:_____
Danna Widmar, Director of Special Projects
Town Manager's Office

Date: _____

Exhibit A

Apex Circulator Study

Scope of Services

Project Team

- Kelly Blazey, Town of Cary
- Kevin Wyrauch, Town of Cary
- Shannon Cox, Town of Apex
- Jenna Shouse, Town of Apex
- Will Brown, Town of Apex

Project Description

The Town of Apex has contracted with Town of Cary to complete the planning process for the Town's priority circulator, as recommended in the Western Wake Comprehensive Operations Analysis and the Town of Apex's long range transportation plan, *Advance Apex: The 2045 Plan*. The proposed Apex Circulator is intended to provide bus service to the areas with the highest propensity to use transit in Apex, including the Beaver Creek Commons and Beaver Creek Crossings shopping centers, WakeMed Apex, Broadstone Station (Walmart), multi-family residences, Rex Rehabilitation and Nursing Care Center, and Cambridge Village of Apex, a senior living center. The proposed route alignment includes Beaver Creek Commons Drive, NC 55, Apex Peakway, Tingen Road, and James Street. The Apex Circulator is anticipated to provide 60-minute all-day service Monday-Saturday from 6:00am – 10:00pm and 60-minute all day service on Sunday from 7:00am – 9:00pm, as recommended in the Western Wake Comprehensive Operations Analysis. While the Western Wake Comprehensive Operations Analysis and Advance Apex have established the framework for this priority circulator, technical assistance is needed to: refine an operating plan, specifically identify capital funding needs, complete targeted outreach to the potential area of service, quantify capital and operating costs, develop a potential municipal agreement for service between the Town of Apex and Town of Cary, and prepare a Community Funding Area application for capital and operating expenses.

As a result of this technical assistance project, the Town of Apex will establish all relevant details necessary to implement the Apex Circulator and position the Town of Apex to apply for capital and operating funds through the Community Funding Area Program.

Each task will require coordination and involvement of both Town of Apex and Town of Cary staff; however, primary roles are identified throughout this scope. The Town of Apex will have final decision-making authority for every task and deliverable described below or that may arise during the course of this Agreement, even if such task or deliverable is described as being "developed," "determined," or the like, by the project team.

Project Schedule

Total Duration: 7 Months

Project Start: May 2019

Project Completion: December 2019

Task	Due Date
Project Administration	
Kick off – CAMPO	July 22
Kick off – Town of Cary	July 24
Status Call – CAMPO	September 16
Town of Cary invoice	October 7
Quarterly report	October 31
Town of Cary invoice	January 6
Quarterly report	January 31
Task 1 – Public Outreach	
Public Engagement Plan	May 27
Outreach event materials and online survey	June 10
Transit Committee Meeting #1 – project overview	July 10
Complete pop-up events	July 20
Close survey	August 2
Draft public input summary	July 24
Updated public input summary	August 9
Town Council Update #1 – project overview and public input summary	August 20
Transit Committee Meeting #2 – project recommendations	October 2
Town Council Update #2 – project recommendations	October 15
Transit Committee Meeting #3 – CFA application	December
Task 2 – Capital and Operations Plan	
Task 2.1 – Turn-by-turn Plan	August 16
Task 2.2 – Bus Stop Needs	August 16
Transit Committee review of Task 2.1 and 2.2 deliverables	*August 19-23*
Task 2.3 – Vehicle Information	September 6
Task 2.4 – Paratransit	September 6
Task 2.5 – Fare Structure	September 6
Transit Committee review of Tasks 2.3-2.5 recommendations	*September 9-13*
Task 3 – Marketing, Branding, and Customer Service Plan	
Task 3.1 – Branding	September 23
Task 3.2 – GPS Tracking and Mobile Applications	September 23
Task 3.3 – Marketing plan	September 23
Task 3.4 – Customer Service memo	September 23
Task 4 – Financial Plan	
Financial Plan	September 30
Task 5 – Community Funding Area Program Capital and Operations Application and Draft Agreement	
Capital and Operations funding application	December
Plan for future public engagement	December
Draft Capital and Operations Agreement	December

Project Administration

Project Management

The technical assistance project will be managed by Shannon Cox. Kevin Wyrauch and Jenna Shouse will substantially carry out each task. Will Brown will provide support for all mapping. Kelly Blazey will provide oversight and project management for the Town of Cary.

Team Meetings

The Town of Apex proposes bi-weekly conference calls with the project team to discuss study activities, report on progress, and plan future activities. In addition to these informal meetings, in-person meetings will be scheduled as needed. Kevin Wyrauch and Jenna Shouse will conduct site visits along the proposed route during Task 2.

Quarterly Reporting

The Town of Apex will provide quarterly reporting to CAMPO and GoTriangle per the "Special Operating Funding Agreement Community Funding Area Program – Planning, Wake Transit FY 2019." The Town of Cary will provide brief summary information to the Town of Apex regarding work performed by Town of Cary staff and any issues confronted to be incorporated in quarterly reports. The frequency of reporting will be determined at project kick-off.

Task 1 – Public Outreach

Town of Apex staff will develop a draft Public Engagement Plan for Town of Cary staff to review. The Public Engagement Plan will be shared with the Wake Transit Public Engagement and Communications Subcommittee for review. Town of Apex staff and the Apex Transit Advisory Committee will hold targeted outreach events along the proposed Apex Circulator. Town of Apex staff will release an online public survey to gather input from the community on the proposed Apex Circulator. An in-person Spanish translator will staff the outreach events in areas with populations with limited English proficiency. Town of Apex staff will coordinate with the Apex Transit Advisory Committee throughout the planning process. Two updates will be presented to the Town of Apex Town Council.

Deliverables:

- Public Engagement Plan
- Materials for public outreach events as outlined in the Public Engagement Plan
- Summary of each public outreach event
- Summary of online survey results
- Town Council presentations (2)
- Town of Apex Transit Committee meeting facilitation

Primary Roles:

- Town of Apex will be responsible for all public outreach throughout the study.
- Town of Cary will review the public engagement plan, assist with preparation of materials for and be present to assist with question at one Town Council presentation and one Town of Apex Transit Committee meeting.

Task 2 – Capital and Operations Plan

2.1 Turn-by-turn plan

The project team will review input gathered throughout the public engagement process and develop a turn-by-turn plan that meets the community's needs. Elements of this plan include: route alignment, schedule, stop locations, layover/recovery stop location, and a route for the start and end of each day of service.

2.1.1 Route Alignment

The project team will determine if the proposed route alignment in the Town's long range transportation plan, *Advance Apex: The 2045 Plan*, needs to be adjusted based on the input received throughout the public engagement process from public outreach event attendees, online survey respondents, and the Apex Transit Advisory Committee. Site visits will be conducted to ensure that the recommended route alignment is feasible within the recommended bus schedule.

2.1.2 Stop Locations and Schedule

The project team will review public input on bus stop locations and incorporate these suggestions into the recommended bus stop locations. Bus stop spacing will need to meet requirements based on guidance from Town of Cary staff. The project team will consider comments that GoTriangle submitted to NCDOT as part of U-2901B NC 55 Widening regarding bus stop and bus bay locations to serve GoTriangle Routes 305 and 311.

The project team will review public input on the bus schedule to determine service days, hours, and frequency. The project team will consider the recommended schedule in the Western Wake Comprehensive Operations Analysis. Members of the project team will conduct site visits along the recommended route to measure the total travel time and determine bus stop arrival and departure times. Total travel time will for account traffic delays, passenger stops, and a driver layover/recovery stop.

The following steps will be taken to schedule timely transfers between the Apex Circulator and regional transit services:

- Coordinate with GoTriangle on the details regarding the planned reduction in frequency of Route 311 (Apex to Regional Transit Center). In FY 20, GoTriangle will reduce the frequency of Route 311 to a total of 8 trips per day. The proposed changes include 3 northbound trips and 1 southbound trip during the AM Peak and 3 southbound trips and 1 northbound trip in the PM Peak.
- Coordinate with GoTriangle on the details regarding the planned service expansion and increase in frequency of Route 305 (Apex to Raleigh). In FY 21, GoTriangle will expand the frequency of Route 305 to all-day service with 30-minute service during the peak, hourly service during the midday, extended service in the evening, and all day hourly service on weekends. Route 305 will extend southwest into downtown Apex at an enhanced transfer center.
- Design the Apex Circulator schedule to allow for transfers to Route HSX Holly Springs-Apex-Cary Express service. In January 2020, GoCary is anticipated to begin service of Route HSX.

Bus stop location and bus schedule recommendations will be developed based on a review of public input and relevant plans, coordination with regional transit agencies, and field tests of multiple alternatives. The Apex Circulator schedule will be timed to align with regional transit services to ensure reliable access to regional destinations.

Deliverables:

- Map of route alignment including routes for the start and end of each day of service
- Bus stop locations
- Layover/recovery stop location
- Bus schedule with bus arrival/departure times, regular hours of operation, holiday hours of operation, and timed transfers to regional routes

Primary Roles:

- Town of Apex
    - Prepare summary information from public input regarding route alignment, schedule, and stop locations
    - Prepare all route and stop mapping
    - Participate in field visits
    - Provide direction for route, stop, and schedule recommendations

- Town of Cary
    - Review summary information from public input
    - Provide recommendations and guidance regarding route alignment
    - Provide recommendations and guidance regarding stop locations
    - Provide recommendations and guidance regarding schedule
    - Lead coordination with GoTriangle and HSX routes

2.2 Bus Stop Needs

The project team will review the Apex Bus Stop Inventory to determine existing conditions at bus stops along the recommended route alignment. The project team will review public input on priority transit amenities and compare these priorities with existing conditions. Bus stop improvements will be prioritized at the enhanced transfer center, bus stops with high ridership projections, and bus stops in areas with a sizeable population of seniors and persons with disabilities. Land use and demographic characteristics will also be taken into consideration. Recommendations will include design specifications for bus stops with proposed amenities and associated cost estimates. The project team will determine if any right-of-way will need to be acquired at recommended bus stops.

The Wake Transit Bus Plan includes funding for an enhanced transfer center in Apex in FY 21. The proposed location of the enhanced transfer center is at the intersection of S Salem Street and NC 55. The bus stops at this transfer center would include on street bus stops with pull outs, large shelters with benches, lighting, and real-time passenger information.

Deliverables:

- Prioritized list of recommended improvements at each bus stop

- Design specifications for bus stop improvements and associated cost estimates
- Planning-level determination of right-of-way needs at bus stops based on aerial data and property owner records, including possible NCDOT encroachment.

Primary Roles:

- Town of Apex
    - Provide inventory of conditions and amenities and existing stops
    - Provide prioritized amenities at each recommended stop
    - Provide planning-level determination of anticipated easements or encroachment at each stop

- Town of Cary
    - Provide planning-level design guidelines and associated cost estimates for each stop based on available market information

2.3 Vehicle Information

The project team will develop recommendations for vehicle type, number of vehicles needed for service, vehicle specifications, and vehicle maintenance for the primary bus, back-up bus, and paratransit vehicles, if applicable. These recommendations will be based on public input and the proposed turn-by-turn plan.

Deliverables:

- Recommendations for vehicle type, number of vehicles, and vehicle specifications
- Vehicle maintenance plan

Primary Roles:

- Town of Apex
    - Provide summary information from public outreach to inform vehicle recommendations
- Town of Cary
    - Provide vehicle recommendations

2.4 Paratransit

The project team will identify capital and operations needs as well as the costs associated with paratransit service along the proposed Apex Circulator. The project team will review public input on ADA accommodations and compare costs to develop a recommendation for a service that meets ADA requirements. These requirements will be met through either a deviated fixed-route service or a separate, on-demand service.

Deliverables:

- Capital and operations needs to implement either a deviated fixed-route service or a separate, on-demand service
- Cost estimates for both types of service
- Recommendation for type of service to accommodate ADA requirements

Primary Roles:

- Town of Apex
    - Provide summary information from public outreach to inform paratransit recommendations
- Town of Cary
    - Provide alternatives, costs, and recommended approach for serving paratransit needs

2.5 Fare structure

The project team will review public input on willingness to pay a fare to use the proposed bus service. Based on public input, the project team will determine the potential impacts that a fare may have on ridership. The project team will determine a possible fare amount, a plan for collecting fares, and projected fare revenues. The project team will make a recommendation as to whether a fare will be charged.

Deliverables:

- Possible fare amount
- Plan for collecting fares
- Projected fare revenues
- Recommendation regarding whether a fare will be charged

Primary Roles:

- Town of Apex
    - Provide a summary of public input to inform fare recommendations
- Town of Cary
    - Provide guidance and recommendations regarding fare amount, collection, and projected revenues

Task 3 – Marketing, Branding, and Customer Service Plan

Task 3.1 Branding

The project team will develop a brand for the Apex Circulator and determine how branding will be displayed on the bus, including a plan for instances when the primary bus requires maintenance. The project team will also develop a branding plan for the recommended paratransit service if it is separate from the primary bus. The Apex Circulator brand will be vetted through the Apex Transit Advisory Committee and informed by the Town's concurrent Branding Study. The project team will consider installing a permanent wrap with the proposed Apex Circulator brand on a primary bus and using a branded magnet on a back-up bus when the primary bus is undergoing maintenance. The "Go" branding will be considered as it illustrates an integrated transit network among the various transit providers in the region.

Deliverables:

- Apex Circulator brand
- Brand display on primary bus

- Branding plan for a back-up bus
- Branding plan for paratransit service

Primary Roles:

- Town of Apex:
    - Provide brand preferences including colors, logo, name
- Town of Cary:
    - Provide options and costs for branding primary and back-up vehicles

Task 3.2 GPS Tracking and Mobile Applications

The project team will coordinate with regional transit application technologies and studies to determine how the Apex Circulator can be integrated with regional mobile applications and Google Maps to provide live updates. GPS tracking information will be integrated with other transit services in the region to allow customers to make bus transfers while on the go.

Deliverable:

- Plan to integrate Apex Circulator GPS tracking into regional mobile application and Google Maps

Primary Roles:

- Town of Apex
    - Participate in coordination with regional provider and study as needed
- Town of Cary
    - Lead coordination with regional provider and study

Task 3.3 Marketing

The project team will develop a marketing plan for the Apex Circulator identifying how the Town of Apex will share information about the new service and encourage ridership.

Deliverables:

- Marketing plan for the Apex Circulator

Primary Roles:

- Town of Apex
    - Lead development of Marketing Plan
- Town of Cary
    - Provide recommendations to inform Marketing Plan and review draft plan

Task 3.4 Customer Service

The project team will develop a communication plan to address customer questions and concerns regarding the Apex Circulator. Customer service for the Apex Circulator will likely be integrated into GoCary's existing customer service program.

Deliverable:

- Technical memorandum outlining a communication plan to address customer questions and concerns

Primary Roles:

- Town of Apex
    - Provide recommendations to inform customer service memorandum and review draft memo
- Town of Cary
    - Draft and revise customer service memorandum

Task 4 – Financial Plan

The project team will develop a financial plan including capital costs, operating costs, and possible fare revenues. Potential capital costs include: a primary bus, right-of-way for bus stop amenities, bus stop amenities, and paratransit vehicles. Potential operating costs include: GoCary's contracted hourly rate for bus operations, paratransit operations, vehicle maintenance, bus stop maintenance, GPS tracking, branding, marketing, customer service, and future public engagement. Town of Cary staff will project estimated annual ridership and possible fare revenues to include in the financial plan.

Deliverable:

- Financial plan including capital costs, operating costs, estimated ridership, and possible fare revenues

Primary Roles:

- Town of Apex
    - Provide input for and review draft financial plan
- Town of Cary
    - Draft and revise financial plan

Task 5 – Community Funding Area Program Capital and Operations Application and Draft Agreement

The project team will prepare an application for Wake Transit Plan Community Funding Area Program Capital and Operations funding application for the FY20 cycle to implement the Apex Circulator. This plan will include all of the required elements as outlined in the Community Funding Area Program Management Plan. The project team will develop a plan for future public engagement. The project team will prepare a draft capital and operations agreement.

Deliverables:

- Capital and Operations funding application
- Plan for future public engagement
- Draft Capital and Operations Agreement

Primary Roles:

- Town of Apex
    - Prepare draft application, public engagement plan and agreement
- Town of Cary
    - Provide recommendations to inform draft application, public engagement plan and agreement and review draft documents

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Dianne Khin, Planning Director

Department(s): Planning

Requested Motion

Motion to adopt a Resolution Directing the Town Clerk to Investigate Petition Received, to accept the Certificate of Sufficiency by the Town Clerk, and to adopt a Resolution Setting Date of Public Hearing on the Question of Annexation – Apex Town Council's intent to annex Teresa Allen (single-family) property containing 3.175 acres located at 1001 Greenlea Drive, Annexation #669 into the Town's corporate limits.

Approval Recommended?

Planning Department recommends approval.

Item Details

The Town Clerk certifies to the investigation of said annexation. Adoption of the Resolution authorizes the Town Clerk to advertise said public hearing by electronic means and on the Town of Apex's website. The Public Hearing would be scheduled for the October 1, 2019 Town Council meeting.

Attachments

- Annexation Petition
- Legal Description
- Vicinity Map
- Resolution Directing the Town Clerk to Investigate Petition
- Certificate of Sufficiency by the Town Clerk
- Resolution Setting Date of Public Hearing

RESOLUTION DIRECTING THE TOWN CLERK
TO INVESTIGATE PETITION RECEIVED UNDER G.S.§ 160A-31

Annexation Petition #669
1001 Greenlea Drive

WHEREAS, G.S. §160-A 31 provides that the sufficiency of the petition shall be investigated by the Town Clerk before further annexation proceedings may take place; and

WHEREAS, the Town Council of the Town of Apex deems it advisable to proceed in response to this request for annexation;

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Apex, that the Town Clerk is hereby directed to investigate the sufficiency of the above-described petition and to certify to the Town Council the result of her investigation.

This the 17th day of September 2019.

_____
Lance Olive
Mayor

ATTEST:

_____
Donna B. Hosch, MMC, NCCMC
Town Clerk

CERTIFICATE OF SUFFICIENCY BY THE TOWN CLERK

Annexation Petition #669
1001 Greenlea Drive

To: The Town Council of the Town of Apex, North Carolina

I, Donna B. Hosch, Town Clerk, do hereby certify that I have investigated the annexation petition attached hereto, and have found, as a fact, that said petition is signed by all owners of real property lying in the area described therein, in accordance with G.S.§ 160A-31, as amended.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Town of Apex, North Carolina this 17th day of September 2019.

_____
Donna B. Hosch, MMC, NCCMC
Town Clerk

(Seal)

RESOLUTION SETTING DATE OF PUBLIC HEARING
ON THE QUESTION OF ANNEXATION PURSUANT TO G.S.§ 160A-31 AS AMENDED

Annexation Petition #669
1001 Greenlea Drive

WHEREAS, a petition requesting annexation of the area described herein has been received; and

WHEREAS, the Town Council of Apex, North Carolina has by Resolution directed the Town Clerk to investigate the sufficiency thereof; and

WHEREAS, Certification by the Town Clerk as to the sufficiency of said petition has been made;

NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Apex, North Carolina that:

Section 1. A public hearing on the question of annexation of the area described herein will be held at the Apex Town Hall at 7:00 o'clock p.m. on the 1st day of October 2019.

Section 2. The area proposed for annexation is described as attached.

Section 3. Notice of said public hearing shall be published on the Town of Apex Website, www.apexnc.org, Public Notice, at least ten (10) days prior to the date of said public hearing.

This the 17th day of September 2019.

_____
Lance Olive, Mayor

ATTEST:

_____
Donna B. Hosch, MMC, NCCMC, Town Clerk

PETITION FOR VOLUNTARY ANNEXATION

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Application #: _____ Submittal Date: _____

Fee Paid $ _____ Check # _____

TO THE TOWN COUNCIL APEX, NORTH CAROLINA

1. We, the undersigned owners of real property, respectfully request that the area described in Part 4 below be annexed to the Town of Apex, Wake County, North Carolina.
2. The area to be annexed is ☐ contiguous, ☐ non-contiguous (satellite) to the Town of Apex, North Carolina and the boundaries are as contained in the metes and bounds description attached hereto.
3. If contiguous, this annexation will include all intervening rights-of-way for streets, railroads and other areas as stated in G.S. 160A-31(f), unless otherwise stated in the annexation amendment.

Owner Information

Teresa S Allen
Owner Name (Please Print)

Property PIN or Deed Book & Page #

919. 906. 1729
Phone

terralle@yahoo.com
E-mail Address

Owner Name (Please Print)

Property PIN or Deed Book & Page #

Phone

E-mail Address

Owner Name (Please Print)

Property PIN or Deed Book & Page #

Phone

E-mail Address

Surveyor Information

Surveyor: _____

Phone: _____ Fax: _____

E-mail Address: _____

Annexation Summary Chart

Total Acreage to be annexed: _____

Population of acreage to be annexed: _____

Existing # of housing units: _____

Zoning District*: _____

Reason for annexation: (select one)

Receive Town Services _____

Other (please specify) _____

*If the property to be annexed is not within the Town of Apex's Extraterritorial Jurisdiction, the applicant must also submit a rezoning application with the petition for voluntary annexation to establish an Apex zoning designation. Please contact the Planning Department for questions.

PETITION FOR VOLUNTARY ANNEXATION

Application #: _____ Submittal Date: _____

COMPLETE IF SIGNED BY INDIVIDUALS:

All individual owners must sign. (If additional signatures are necessary, please attach an additional sheet.)

Please Print	Signature
Teresa S. Allen	Teresa S. Allen

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Jeri Chastain Pederson, a Notary Public for the above State and County, this the 2nd day of, July, 2019.

SEAL

JERI CHASTAIN PEDERSON
Notary Public
Wake County, North Carolina
My Commission Expires
March 10, 2024

Jeri Chastain Pederson
Notary Public

My Commission Expires: March 10, 2024

COMPLETE IF A CORPORATION:

In witness whereof, said corporation has caused this instrument to be executed by its President and attested by its Secretary by order of its Board of Directors, this the _____ day of _____, 20_____.

Corporate Name _____

SEAL

By: _____
President (Signature)

Attest:

_____
Secretary (Signature)

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, _____, a Notary Public for the above State and County, this the _____day of _____, 20____.

_____
Notary Public

SEAL

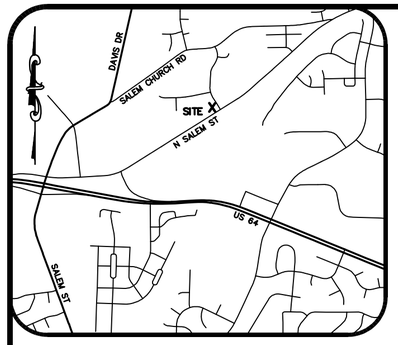
My Commission Expires: _____

Legal Description_Lot 6

Beginning at an existing iron pipe in northwestern right of way of North Salem Street, said point being a common corner between lots 5 and 6 in Phase I of the Salem Woods Subdivision as recorded in Book of Maps 1985 at Page 2255, thence from said beginning point and leaving said right of way and running with the common line between lots 5 and 6, North 32°06'57" West passing an existing iron pipe being the northeast corner of lot 5 at 266.06’ for a total distance of 298.80’ to an existing iron pipe, being the northwest corner of lot 6 and a common corner with lot 20 in Phase II of the Salem Woods Subdivision as recorded in Book of Maps 1986 at Page 427; thence along a common line of lots 6 and 20, North 65°16'13" East passing an existing iron pipe being a common corner between lots 20 and 21 at 53.02’ and another existing iron pipe at 72.23’ for a total distance of 357.23’ to an existing iron pipe in the western right of way of Greenlea Drive, being a common corner between lots 6 and 21; thence with said right of way South 31°59'03" East 232.78’ to an existing iron pipe; thence South 12°53'03" West 28.43’ to a point in the northwestern right of way of North Salem Street; thence with said right of way South 57°53'03" West 333.63’ to the point of beginning, and being all of lot 6 in Phase I of the Salem Woods Subdivision containing 2.237 acres.

Legal Description_Road Annexation

Beginning at an existing iron pipe in northwestern right of way of North Salem Street, said point being a common corner between lots 5 and 6 in Phase I of the Salem Woods Subdivision as recorded in Book of Maps 1985 at Page 2255, thence from said beginning point and with said right of way North 57°53'03" East 333.63’ to a point in the western right of way of Greenlea Drive; thence with said right of way North 12°53'03" East 28.43’ to an existing iron pipe; thence North 31°59'03" West 232.78’ to an existing iron pipe being a common corner between lots 6 and 21; thence crossing Greenlea Drive North 57°58’45" East 59.78’ to an existing iron pipe in the eastern right of way of Greenlea Drive being the northwestern corner of lot 8; thence with said right of way South 31°59'03" East 343.70’ to a point in the southern right of way of North Salem Street in the northwestern line of a tract now, or formerly, owned by Peakstone Partners, LLC; thence with said right of way South 57°38'33" West 140.81’ to a point in the eastern line of a tract now, or formerly, owned by Salem Street Arboretum Condo; thence with Salem Street Arboretum Condos line North 32°16'16" West 45.00’ to a point in the centerline of North Salem Street; thence with said centerline South 57°53'03" West 272.33’ to a point; thence North 32°06'57" West 46.51’ to the point of beginning, and being all of the area to be annexed lying within the right of way contiguous to lot 6 in Phase I of the Salem Woods Subdivision containing 0.938 acres.



VICINITY MAP

EASEMENT LINE TABLE		
LINE	BEARING	LENGTH
L1	S 59°51'49" E	83.19'
L2	S 56°16'22" E	56.38'
L3	S 64°48'21" E	82.80'
L4	S 61°08'57" E	24.55'
L5	S 88°08'27" E	59.71'
L6	N 77°15'42" E	58.69'
L7	S 88°04'35" E	39.56'
L8	S 41°56'55" W	63.66'

I, G. Darrell Taylor, certify that this plat was drawn under my supervision from an actual survey made under my supervision (deed description recorded in Book 13238, page 2476; Book of Maps 1985, page 2255); that the ratio of precision as calculated is 1:20,000; 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 July, A.D., 2019.

I certify that this plat is the following type: G.S. 47-30 (f)(11)(d.) This survey is the recombination of existing parcels, a court-ordered survey, or other exception to the definition of subdivision.

Surveyor

Reg. No. L-3729

NORTH CAROLINA PROFESSIONAL SEAL L-3729 LAND SURVEYOR G. DARRELL TAYLOR

Annexation # _____

I, Donna B. Hosch, MMC, NCCMC, Town Clerk, Apex, North Carolina certify this a true and exact map of annexation adopted the ___ day of _____, _____, by the Town Council. I set my hand and seal of the Town of Apex,_____.

_____
Donna B. Hosch, MMC, NCCMC, Town Clerk

LEGEND
EIP = EXISTING IRON PIPE EIR = EXISTING IRON ROD NIR = NEW IRON ROD OT = OPEN TOP PIPE CT = CRIMPED TOP PIPE RB = RE-BAR R/W = RIGHT OF WAY E/P = EDGE OF PAVEMENT B/C = BACK OF CURB WM = WATER METER = POWER POLE = LIGHT POLE ● = CALCULATED POINT
NOTES:
BEING ALL OF LOT 6 IN PHASE 1 OF THE SALEM WOODS S/D AS RECORDED IN BOOK OF MAPS 1985 PG. 2255 IN THE WAKE CO. REGISTRY.
LOT IS SUBJECT TO ALL RESTRICTIONS AND EASEMENTS OF RECORD.
FLOOD NOTE:
NO FEMA FLOOD HAZARD AREAS PER FIRM NUMBER 3720074200J, MAP REVISED MAY 2, 2006.

TOTAL ANNEXATION 3.175 AC.

— — — — EXISTING TOWN OF APEX CORPORATE LIMITS

PRESENTED FOR REGISTRATION IN THE OFFICE OF THE REGISTER OF DEEDS FOR _____ COUNTY, NORTH CAROLINA ON THE ___ DAY OF _____, 20___ AT ___ O'CLOCK ___.M. AND RECORDED IN SAID OFFICE IN PLAT BOOK ____, PAGE ____.

_____
REGISTER OF DEEDS

(21) ROBERT S. COATS & JEAN C.G. COATS
PIN 0742-79-3692
DB 5794-75
BM 1986-427

(20) ROBERT J. LANAHAN & JUDY A. LANAHAN
PIN 0742-79-2502
DB 8982-1996
BM 1986-427

(5) JEFFREY L. WATSON & DEBRA P. WATSON
PIN 0742-79-3228
DB 6162-647
BM 1985-2255

(6) 2.237 AC.

0.938 AC.

PEAKSTONE PARTNERS, LLC
PIN 0742-79-9174
DB 17109-2445
BM 1992-1340

SALEM STREET ARBORETUM CONDO
PIN 0742-78-8809
DB 12209-685
BM 2006-415

BM 1985-2255

GREENLEA DRIVE - SR 1203 (60' R/W)

N. SALEM ST. - SR 1011 (VARIABLE R/W)

1001

CONCRETE, DECK, 2SFD, 4' CHAIN FENCE, AC, PROPANE TANK, SEPTIC, BLOCK FOUNDATION, CREEK, WELL, GRAVEL, 15" CMP, 20' DRAINAGE & UTILITY EASEMENT (BM 1985-2255), 10' X 70' SIGN EASEMENT, 10' X 70' SIGHT TRIANGLE, PP, LP, E/P, R/W, B/C, WM, OU

EIP ½"OT — S 57°58'45" W (TIE) 59.78' — EIP ½"OT

N 65°16'13" E 357.23' (298.07') — IN / OUT

EIP-¾"OT 72.23' — EIP-¾"OT 53.02' — EIP ¾"OT — EIP-¾"OT 266.06'

L1 — L2 — L3 — L4 — L5 — L6 — L7 — L8

N 32°06'57" W 298.80' — IN / OUT

S 31°59'03" E 232.78' — 220.39' — S 31°59'03" E 343.70'

S 12°53'03" W 28.43'

S 57°53'03" W 314.76' — 333.63' — S 57°53'03" W 272.33' — IN / OUT

N 32°16'16" W 45.00'

S 57°38'33" W 140.81' — IN / OUT

EIP ¾"OT — PP — 46.51'

GRAPHIC SCALE

40 20 0 40 80 120

1 INCH = 40 FEET

G. DARRELL TAYLOR
Professional Land Surveyor
2220 Effingham Circle
Raleigh, NC 27615
919.906.8043

REVISIONS:
08/21/19: TOA comments

NORTH CAROLINA PROFESSIONAL SEAL L-3729 LAND SURVEYOR G. DARRELL TAYLOR

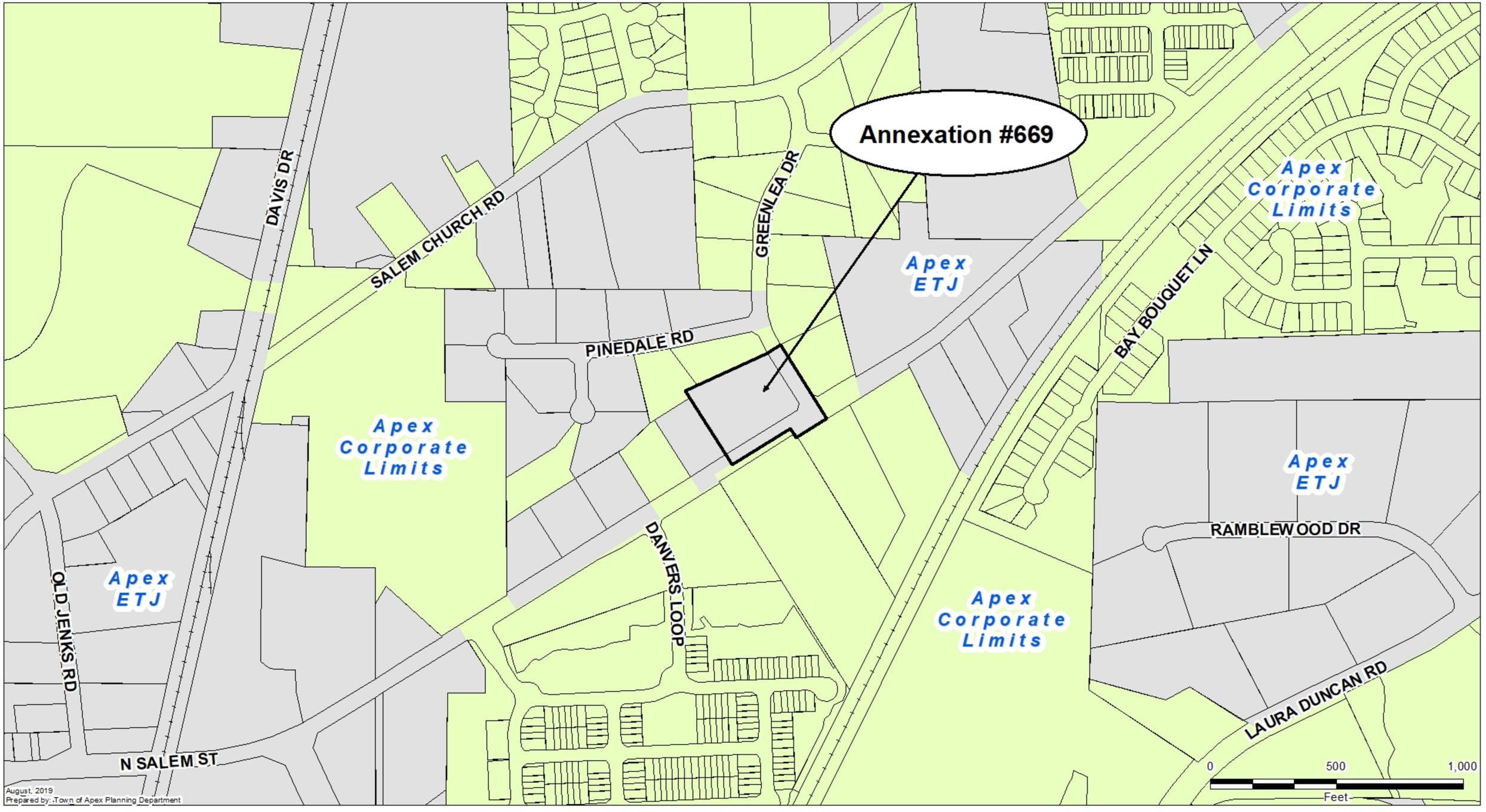
SURVEY BY:

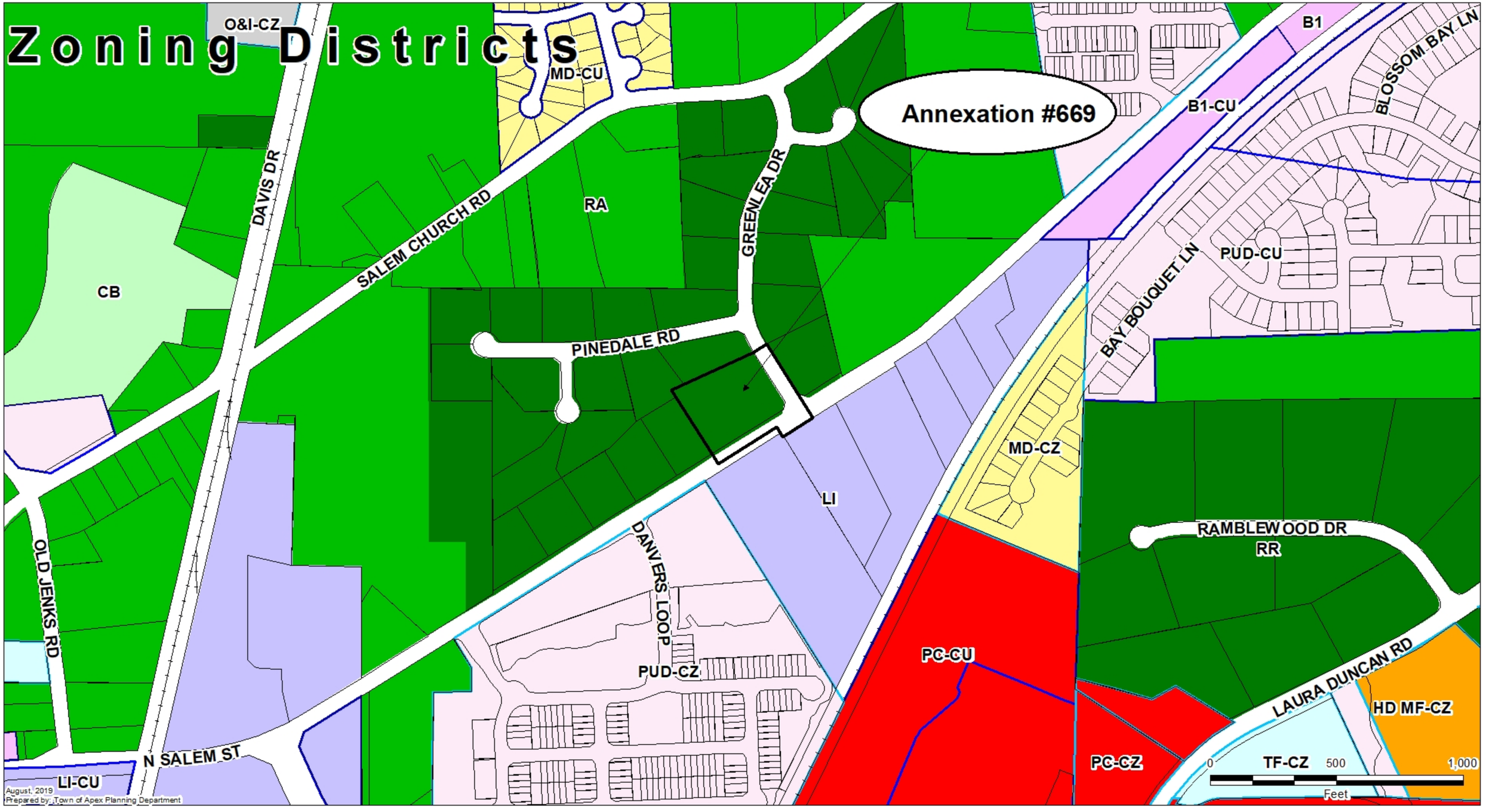
ANNEXATION MAP FOR THE TOWN OF APEX

TERESA S. ALLEN
1001 GREENLEA DRIVE, APEX, NC 27523
WHITE OAK TWP., WAKE CO., N. C.
PIN 0742-79-4431 DB 13238, PG 2476

PROJ. NO.:	2019-315
FILENAME:	ALLEN
DRAWN BY:	GDT
SCALE:	1" = 40'
DATE:	08/16/19


Annexation #669
PINEDALE RD
CARE FREE CV
GREENLEA DR
N SALEM ST
Salem Woods
Ellington Cove
DANVERS LOOP
August, 2019
May 2019 Aerial Photography
Prepared by: Town of Apex Planning Department
0
250
500
Feet


Annexation #669
DAVIS DR
SALEM CHURCH RD
GREENLEA DR
PINEDALE RD
BAY BOUQUET LN
Apex Corporate Limits
Apex ETJ
Apex Corporate Limits
Apex ETJ
Apex ETJ
RAMBLEWOOD DR
DANVERS LOOP
Apex Corporate Limits
OLD JENKS RD
N SALEM ST
LAURA DUNCAN RD
0
500
1,000
Feet
August, 2019
Prepared by: Town of Apex Planning Department


Zoning Districts
Annexation #669
O&I-CZ
MD-CU
B1
B1-CU
BLOSSOM BAY LN
DAVIS DR
SALEM CHURCH RD
RA
GREENLEA DR
CB
PINEDALE RD
BAY BOUQUET LN
PUD-CU
MD-CZ
LI
RAMBLEWOOD DR
RR
DANVERS LOOP
PUD-CZ
PC-CU
OLD JENKS RD
N SALEM ST
LAURA DUNCAN RD
HD MF-CZ
PC-CZ
TF-CZ
LI-CU
0
500
1,000
Feet
August, 2019
Prepared by: Town of Apex Planning Department

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: September 17, 2019

Item Details

Presenter(s): Vance Holloman, Finance Officer

Department(s): Finance

Requested Motion

Motion to approve Capital Project Ordinance Amendment No. 2 and Budget Ordinance Amendment No. 3 to appropriate funds for the construction and equipping of the Electric Department's new Operations Center and Warehouse

Approval Recommended?

Yes

Item Details

The Council has previously approved a preliminary resolution and a bond order authorizing the issuance of up to $10 million of revenue bonds for the project. Issuance of that debt was approved by the Local Government Commission (LGC) at its September 10th meeting and the revenue bond is expected to close on September 17th. The Town has previously appropriated $940,000 of local funds for the project. Capital Project Ordinance Amendment No. 2 will appropriate the debt proceeds as well as $250,000 in interest earnings and a transfer from the Electric Fund of $460,820. The source of the Electric Fund transfer will be appropriated fund balance. By borrowing the full amount authorized by the LGC, the Town will maintain local funds to address any changes in construction costs or unexpected items that may occur. The proposed capital project ordinance does include a contingency equal to 3% of construction costs.

Attachments

- Capital Project Ordinance Amendment No. 2
- Budget Ordinance Amendment No. 3

Town of Apex

CAPITAL PROJECT ORDINANCE AMENDMENT 2020-02

66 - Electric Capital Project Fund

BE IT ORDAINED, by the Council of the Town of Apex that the Capital Projects Ordinance previously entitled "Electric Capital Project Fund" be amended as follows:

Section 1. The revenues anticipated for the projects are:

Debt Proceeds	$	10,000,000
Transfer from Electric Fund		460,820
Interest Earned		120,000
Interest Earned-Debt Proceeds		130,000
Total Revenues		**$10,710,820**

Section 2. The expenditures anticipated are:

Electric Operations Center and Warehouse	$10,710,820
Total Expenditures	**$10,710,820**

Section 3. Within five (5) days after adoption, copies of this Amendment shall be filed with the Finance Officer and Town Clerk.

Adopted this the 17th day of September, 2019.

Attest:

Lance Olive, Mayor

Donna B. Hosch, MMC, Town Clerk

Town of Apex
BUDGET ORDINANCE AMENDMENT 3

BE IT ORDAINED, by the Council of the Town of Apex that the following Budget Amendment for the Fiscal Year 2019-2020 Budget Ordinance be adopted:

ELECTRIC FUND

Section 1. Revenues:

Appropriated Fund Balance	$460,820
Total Revenues	**$460,820**

Section 2. Expenditures:

Transfer to Electric Capital Project Fund	$460,820
Total Expenditures	**$460,820**

Section 3. Within five (5) days after adoption, copies of this Amendment shall be filed with the Finance Officer and Town Clerk.

Adopted this the 17th day of September, 2019.

Attest:

Lance Olive, Mayor

Donna B. Hosch, MMC, Town Clerk

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: September 17, 2019

Item Details

Presenter(s): Sarah Rayfield, Senior Planner

Department(s): Planning Department

Requested Motion

Public Hearing and possible motion regarding an amendment to the 2045 Land Use Map and Rezoning Case #19CZ02. The applicant, Kaplan Residential, seeks to amend the 2045 Land Use Map from Medium Density Residential to High Density Residential and to rezone approximately ±17.4376 acres, for the properties located at 0, 7208, & 7208B Morris Acres Road (PINs 0732289587, 0732382530, & 0732382709), from Rural Residential (RR) to Planned Unit Development-Conditional Zoning (PUD-CZ.)

Approval Recommended?

The Planning Department recommends approval.

Item Details

The Planning Board held Public Hearings on August 12, 2019 and September 9, 2019 and recommended approval of the 2045 Land Use Map Amendment and Rezoning by a vote of 4-3.

Attachments

- Vicinity Map
- Staff Report
- Rezoning Application

All property owners within three hundred (300) feet of this rezoning have been notified per UDO Sec. 2.2.11 *Public Notification*.

BACKGROUND INFORMATION:

Location: 0, 7208, 7208B Morris Acres Road
Applicant/Owner: Kaplan Residential/Edith S. Morris
Agent: Jason Barron, Morningstar Law Group

PROJECT DESCRIPTION:

Acreage: 17.4376 ± acres
PINs: 0732289587, 0732382530, & 0732382709
Current Zoning: Rural Residential (RR)
Proposed Zoning: Planned Unit Development-Conditional Zoning (PUD-CZ)
Current 2045 Land Use Map: Medium Density Residential
Proposed 2045 Land Use Map: High Density Residential
Town Limits: 0732382709 is in the ETJ; 0732289587 & 0732382530 are in Town limits

Adjacent Zoning & Land Uses:

	Zoning	Land Use
North:	Rural Residential (RR); Medium Density-Conditional Use (MD-CU #94CU01)	Single-family residential; Vacant
South:	Planned Unit Development-Conditional Zoning (PUD-CZ #15CZ22)	Morris Acres Road; Multi-family (Flats @ 540); Single-family residential (Beaver Creek @ 540 Townhomes)
East:	Medium Density-Conditional Use (MD-CU #94CU01); Conservation Buffer (CB)	Single-family residential (Walden Creek); Vacant
West:	Rural Residential (RR)	Morris Acres Road; Vacant

Existing Conditions:
The subject properties are located on the north side of Morris Acres Road, just east of NC 540. There are several existing structures on the properties related to the historically rural residential setting of these properties.

Neighborhood Meeting:
The applicant conducted a neighborhood meeting on January 24, 2019. The neighborhood meeting report is attached.

2045 LAND USE MAP:
The 2045 Land Use Map identifies the properties subject to this rezoning as Medium Density Residential. The rezoning to Planned Unit Development-Conditional Zoning, as proposed, is not consistent with the Medium Density Residential classification. Therefore, the applicant is also proposing a 2045 Land Use Map amendment to change the classification to High Density Residential.

This proposed Land Use Map amendment is generally consistent with the Advance Apex staff recommendation (not adopted) for Medium/High Density Residential and High Density Residential classifications in this area. The location is appropriate for such uses due to the proximity to NC 540 Hwy, the adjacent Flats at 540 multi-family

development, Beaver Creek @ 540 townhome development, and proximity to a future transit corridor. The recommended change in land use was not adopted with Advance Apex on February 5, 2019, but there was an understanding that three parcels (Morris Acres, Heelan, and Jenks/Wimberly) which remained unchanged from the 2030 Peak Plan), could be looked at in the future with a site-specific rezoning petition with conditions that could mitigate concerns.

Appropriate transitions from lesser to higher density residential can be achieved in a variety of ways, including stepping up density from lower to higher, transitioning with different housing types, or providing wider landscape buffers between multi-family to single-family homes. It is good practice to look at how an appropriate transition can be done during the rezoning stage as conditions can be added that go above UDO architectural, buffer, and/or RCA standards.

Morris Acres Road is included within Advance Apex's Transit Oriented Development (TOD) Context Area. Transit Oriented Development calls for a mix of land uses including residential, office, retail, civic, and commercial; Medium/High Density Residential to High Density Residential land use; and a transit stop within a quarter- to half-mile radius. TOD typically dictates transit-supportive densities, which is a minimum of seven (7) units per acre for a circulator bus service and a minimum 15 units per acre for fixed route bus service. The Morris Acres PUD proposes an overall density that supports future transit.

Without the proposed 2045 Land Use Map amendment, this site could be rezoned to MD-CZ or PUD-CZ and develop as single-family residential with a likely density of four (4) dwelling units per acre and with a 20' perimeter buffer required. Townhomes could be a permitted use with a rezoning to PUD-CZ with a density up to seven (7) units per acre (122 units). Single-family detached and townhome residential development patterns typically require increased infrastructure costs with the need for an internal street network, making it more likely that the existing pasture would be developed either with this parcel or an adjacent parcel.

PROPOSED ZONING CONDITIONS:

Limitation of Uses:

The Rezoned Lands may be used for, and only for, the uses listed immediately below. The permitted uses are subject to the limitations and regulations stated in the UDO and any additional limitations or regulations stated below. For convenience, some relevant sections of the UDO may be referenced; such references do not imply that other sections of the UDO do not apply.

Permitted Uses and Limitations:

1. Multi-family or apartment
2. Greenway
3. Recreation Facility, private
4. Park, active
5. Park, passive
6. Utility, minor

Proposed Design Controls:

1. **Maximum Density**

   The PUD text indicates a maximum residential density for the project of 17.0 dwelling units per acre and no more than 297 total units. Within the proposed 3-acre Medium Density Transition Area (as depicted on the PUD Preliminary Layout Plan), density shall be limited to 4.0 dwelling units per acre and no more than 12 total units within this area.

2. **Maximum Height of the Buildings and Number of Stories**
Maximum height – Four (4) stories above grade, with a basement level 5th story or 65'.

Buildings within the Medium Density Transition Area shall be no more than three (3) stories with a maximum height of 45' and shall be townhome-style multi-family units (i.e. side-by-side residences, not flats).

3. **Minimum Building Setbacks**
- From Building to Building – 10'
- From Buffer/RCA – 10' for Buildings; 5' for Parking Areas
- From Walden Woods Lots – 150' from any lot within Walden Woods containing a dwelling unit
- Within the Medium Density Transition Area, no building shall be constructed closer than 275' from the nearest home on Flints Pond Circle.

4. **Percentage of Built Upon Area**
The UDO allows for a maximum 70% of built upon area in a PUD project and the Morris Acres PUD will not exceed that amount.

5. **Parking**
The PUD indicates that parking will be provided per the standards in the UDO which are as follows:
- 1.5 spaces per 1-2 bedroom unit *(a minimum of 50% du shall be one-bedroom units)*
- 1.8 spaces per 3+ bedroom unit *(a maximum of 10% du shall be three-bedroom units)*

6. **Resource Conservation Area**
The PUD is providing at least 29.9% (5.09 acres) of the total area for Resource Conservation Area and landscape buffers. The minimum RCA required is 20% (3.49 acres).

The PUD also sets aside 1.77 acres of passive open space in the northeast corner of the subject property in addition to the 29.9% RCA, which preserves additional land above the minimum required while providing additional separation of development from adjacent single-family residential to the east and vacant land to the north. In this area, no buildings or other structures shall be permitted, with the exception of passive recreational amenities.

7. **Buffers**

Perimeter Buffers:	**Required**	**Proposed**
Western property boundary	10' Type B	30' Type A
Eastern property boundary	20' Type B	50' Undisturbed
Eastern property boundary, abutting Town of Apex property	10' Type A	50' Type A with 8-ft solid privacy fence*
Adjacent to riparian buffers within Medium Density Transition Area	N/A	10' evergreen planting strip
Southern property boundary	30' Type B	30' Type A
Northern property boundary	20' Type B	20' Type A

*The Preliminary Layout Sheet in the PUD plan set indicates that the fence will be located further inside the subject property than the 50' buffer along a portion of the eastern property line.

Architectural Standards:

1. Vinyl siding will not be used except for vinyl windows and limited decorative element use. Residential areas will utilize brick, stone, and Hardi-plank siding.
2. Siding materials will be varied in type and/or color on 30% of each façade on each building.
3. Windows that are not recessed shall be trimmed. Windows shall vary in size and/or type.
4. Recesses and projections shall be provided for at least 50% of each facade on each building. Building facades shall have horizontal relief achieved by the use of recesses and projections.
5. Four of the following decorative features shall be used on each building: decorative shake, board and batten siding, decorative porch rails and posts, shutters, decorative functional foundation and roof vents, recessed windows, decorative windows, decorative brick or stone, decorative gables, decorative cornices, or metal roofing.
6. A varied color palette shall be utilized throughout the development to include a minimum of three color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
7. The rear and side elevations of the units that can be seen from the right-of-way shall have trim around the windows.
8. Additionally, the following conditions shall apply to the building(s) located in the Medium Density Transition Area, as identified on the PUD Preliminary Sheet:
    a. The roof of each unit shall be horizontally and/or vertically distinct from any adjacent unit so as to avoid the appearance of a single mass.
    b. Front facing garage doors must have windows, decorative details, or carriage-style adornments.
    c. Entrances for units with front-facing garage shall have a prominent covered porch/stoop area leading to the front door.
    d. The front façade of any front-loaded garage shall not protrude farther than one foot forward of (i) the front façade of the dwelling unit, or (ii) the front porch of the dwelling unit, whichever is closer to the right-of-way from which the dwelling unit is addressed.

Additionally, the following conditions shall also apply:

1. A maximum of 297 residential units shall be permitted upon the property.
2. Along the eastern boundary of the subject property, extending from Morris Acres Road to the southern edge of the riparian buffer around the existing farm pond, the following shall be installed and maintained:
    a. A fifty-foot (50') Type A vegetative buffer; and
    b. An at least eight feet (8') tall solid privacy fence. The final location of the fence within the 50' Type A buffer will be determined at the time of site plan.
3. In the 3.00 acre Medium Density Residential Transition Area as depicted on the Preliminary Layout Plan, the following conditions shall apply:
    a. The maximum height for buildings shall be three (3) stories up to a foot height of forty-five feet (45');
    b. Only townhome style units (i.e., side-by-side rather than stacked multifamily) may be permitted; and
    c. The maximum development density within this area shall be four (4) dwelling units per acre, and no more than 12 dwelling units in total.

4. In the area identified as "Passive Open Space" on the PUD Plan, no buildings or other structures shall be permitted, with the exception of passive recreational amenities.
5. A minimum of fifty percent (50%) of the dwelling units shall be one-bedroom units, and a maximum of ten percent (10%) of the dwelling units shall be three-bedroom units.
6. For a period of at least twenty (20) years from the date of the issuance of the certificate of occupancy, at least five percent (5%) of the units developed on the site shall be preserved as affordable housing units at 60% of Wake County's area median income.
7. All buildings constructed on the property shall provide solar conduit for the installation of rooftop solar panels.
8. A 6' x 6' Public Art easement to the Town of Apex shall be provided along the Morris Acres Road frontage of the subject property. The precise location for this easement will be determined at the time of site plan review.

Pedestrian Connectivity:
The project will provide a 10' wide side path along the north side of Morris Acres Road, consistent with Bike Apex. An internal pedestrian connection to the preserved Passive Space in the northeast corner of the site is also proposed, as conceptually depicted on the Preliminary Layout Sheet. The pedestrian network will be evaluated during site plan review and shall be consistent with the UDO.

Public Facilities:
The proposed PUD shall meet all Public Facilities requirements as set forth in UDO Section 2.3.4.F.1.f. Such facilities will be designed according to sound engineering standards, and shall comply with Town of Apex Sewer and Water Master Plan and the Town of Apex Standards and Specifications.

All units within the project will be served by the Town of Apex for water and sanitary sewer. The utility design will be finalized at the time of Major Site Plan review and approval based upon available facilities adjacent to the site at that time. A conceptual utility plan is included in the PUD plan for reference. Electricity will be provided by Apex Electric. Phone, cable, and gas will be provided by the developer and shall meet the Town of Apex standards as outlined in the UDO.

This PUD shall meet all stormwater management requirements for quality and quantity treatment in accordance with Section 6.1.7 of the UDO, such that:

- Post development peak runoff shall not exceed pre-development peak runoff conditions for the 1 year, 10 year, and 25 year 24-hour storm events.

- This PUD shall convey as much stormwater runoff from the site development as practical, including required Stormwater Control Measures (SCM's), to the existing 48" RCP culvert located in the southeastern corner of the site along Morris Acres Road. The direct storm drainage connection to the existing 48" RCP culvert is subject to final approval by the Town of Apex, NCDOT or any other regulatory agency. In the event that this direct storm drainage connection is not approved, then this PUD shall meet and exceed existing stormwater management requirements for quality and quantity treatment provided in Section 6.1.7 of the UDO, such that post development peak runoff shall not exceed pre-development peak runoff conditions for the 1 year, 10 year, 25 year, and 100 year 24-hour storm events.

APEX TRANSPORTATION PLAN/ACCESS and CIRCULATION:

The proposed PUD is consistent with the Apex Transportation Plan. The proposed PUD includes two (2) points of access onto Morris Acres Road, an existing 3-lane Thoroughfare on the *Thoroughfare and Collector Street Plan*. This project shall provide minimum frontage widening based on ½ of a 3-lane thoroughfare section with side path and public right-of-way dedication based on an eighty foot (80') right-of-way along Morris Acres Road. The site will promote connectivity to undeveloped property with a cross access easement to the north.

Roadway improvements, subject to modification and final approval by the Town of Apex and NCDOT, are part of the site plan and construction plan approval process. A traffic study has been performed as part of this PUD rezoning consistent with the Town's standards for the same. Based upon the traffic impact analysis, the traffic from this development alone will not decrease the current Level of Service (LOS) for any intersection or approach as compared to the land remaining undeveloped and does not warrant off-site road improvements based on the UDO.

Wayfinding measures at the site shall be provided by the applicant in an effort to facilitate the movement of vehicles and pedestrians to and within the development.

Town of Apex staff has requested from NCDOT that the acceleration and deceleration lanes on US 64 for Morris Acres Road be extended to improve traffic flow on and off US 64 and reduce delays, as well as for improved wayfinding signs in the vicinity of Morris Acres Road and US 64.

MARKET RATE MULTI-FAMILY AND AFFORDABLE HOUSING:

Market rate multi-family statistics in Apex were provided by the Triangle Apartment Association. Based on their most recent numbers:

- Average market rate rent in Apex is $1,300 per month; up 5.2% since 2018.
- Average household income of those living in the units is $122,000; more than twice as much as the Wake County AMI for an individual and 44.7% above Wake County AMI for a family of four.
- Rental units are 48% full at delivery, meaning the buildings are half full the first day the buildings can be occupied.
- Vacancy rate in Apex is 6.2%; a healthy vacancy rate is 7-8%.
- Highest growth in apartment dwellers in Apex by age range is 55+ at 35.6%.
- Second highest growth in apartment dwellers by age range is 20-29 at 23.8%.

This data points to the fact that there are not enough market rate apartments in Apex today. The lack of market rate housing only exacerbates the need for affordable housing as the market rate units are taken by those most able to pay rents above the fair market value of the units.

While the Town of Apex does not currently have an affordable housing policy in place, the proposed condition that 5% of the units be preserved as affordable housing at 60% of Wake County's Area Median Income (AMI) for 20 years marks the first time a market rate project proposes to provide affordable units. This type of inclusionary zoning by way of rezoning condition is allowed by state law and addresses the Peak Plan 2030 goal for "a variety of housing types available to a range of incomes" which was prioritized in the 2013 Town Council-adopted plan.

The following is recent Wake County data that frames the discussion regarding affordability:

Wake County AMI	Individual	Family of four
100%	$59,100	$84,300
80% (workforce)	$47,280	$67,440
70%	$41,370	$59,010
60% (affordable)	$35,460	$50,580

To put these numbers in perspective, the following chart gives the average annual salaries for the Raleigh area:

Job	Average Annual Salary
WCPSS school teacher[1]	$46,178[2]
Police officer	$41,822[2]
Entry level bookkeeper	$34,817[2]
City planner	$45,758[3]
Firefighter	$44,602[3]
Administrative assistant	$39,662[3]
Grocery store stock clerk	$31,855[3]
Preschool teacher	$30,698[3]

For rents to be considered affordable for a particular household, the household income is divided by 40 to get the per month rental amount.[4] For example, a WCPSS teacher making the average salary of $46,178 could afford $1,154.45 in rent by themselves.

[1] Average of elementary, middle, and high school teacher salaries
[2] Payscale.com
[3] Salary.com
[4] Realtor.com

PARKS, RECREATION, AND CULTURAL RESOURCES ADVISORY COMMISSION:
The Parks, Recreation, and Cultural Resources Advisory Commission recommended a fee-in-lieu at their May 29, 2019 meeting. If the rezoning is approved, the fee rate will be set based on the date of PUD approval and will be applied to the number of units proposed at the time of Major Site Plan approval.

PLANNING STAFF RECOMMENDATION:
Planning staff recommends approval of the 2045 Land Use Map amendment and Rezoning #19CZ02 Morris Acres PUD with the conditions offered by the applicant.

PLANNING BOARD RECOMMENDATION:
The Planning Board held a Public Hearing on August 12, 2019 and continued their vote to September 9, 2019 where they opened up public comment on new conditions; they recommended approval of the 2045 Land Use Map Amendment and Rezoning #19CZ02 by a vote of 4-3. The Planning Board report to Town Council is attached.

ANALYSIS STATEMENT OF THE REASONABLENESS OF THE PROPOSED REZONING:
This Statement will address consistency with the Town's comprehensive and other applicable plans, reasonableness, and effect on public interest:

2045 Land Use Map Amendment:

With the conditions offered by the applicant in the PUD document, approval of the 2045 Land Use Map amendment from Medium Density Residential to High Density Residential is reasonable. The proposed Land Use Map amendment is generally consistent with the Advance Apex staff recommendation (not previously adopted) for Medium/High Density Residential and High Density Residential classifications in this area. The location is appropriate for the proposed multi-family use and density due to the proximity of NC 540 Hwy, the adjacent Flats at 540 and Beaver Creek @ 540 Townhomes developments, and proximity to a future transit corridor. While staff's recommendation was not adopted with Advance Apex on February 5, 2019, there was an understanding by Council at the time that a LUM amendment could be reviewed for this property in conjunction with a specific rezoning request at a later date.

The associated rezoning includes a 3-acre Medium Density Transition Area on the eastern side of the site, south of the stream and closest to existing single-family residential development. Within this transition area, the density is restricted to four (4) units per acre, building height is limited to three (3) stories (45 feet), and the units are required to be constructed to look like side-by-side townhomes, similar to the townhomes located across Morris Acres Road and on the southeast side of the adjacent single-family neighborhood. This area, along with the additional buffer and screening measures, provides the transition in density and building height for this area previously envisioned by staff during Advance Apex.

Furthermore, the Morris Acres PUD provides nearly 10% additional RCA above the required amount as well as additional passive open space, something that is not typically possible for lower density development to achieve as it spreads outward instead of upward. Without the proposed 2045 Land Use Map amendment, this site would likely develop as a single-family and/or townhome development which typically requires increased infrastructure costs with the need for an internal street network. This makes it more likely that the existing pasture would be developed either with this parcel or an adjacent parcel.

For these reasons, staff supports the proposed 2045 Land Use Map amendment provided it is done in conjunction with a rezoning offering these types of conditions.

Rezoning #19CZ02

The proposed rezoning is reasonable and in the public interest because it proposes appropriate land uses and provides an adequate transition in the height and density of the proposed multi-family use from the existing single-family residential development to the east. The provision of a Medium Density Transition Area, with limited densities and a townhome style product, provides the physical transition from the single-family detached neighborhood to the east and from the townhome and multi-family developments to the south. The PUD also sets aside nearly 10% more Resource Conservation Area (RCA) than required by the UDO plus additional passive open space.

The development potential without the provisions of the Morris Acres PUD may indeed provide a less dense product, but that could serve as a loss to the future transit corridor in this area which demands increased densities to support its existence. Typical single-family or townhome development of the site would likely not preserve the same amount of open space and would permit development utilizing all available land. This PUD provides for a combination of multi-family development and open space while offering a transition in height and density from the existing single-family to the east.

While the Town of Apex does not currently have an affordable housing policy in place, the proposed condition that 5% of the units be preserved as affordable housing at 60% of Wake County's Area Median Income (AMI) for 20 years marks the first time a market rate project proposes to provide affordable units. This type of inclusionary zoning by way of rezoning condition is allowed by state law and addresses the Peak Plan 2030 goal for "a variety of housing types available to a range of incomes" which was prioritized in the 2013 Town Council-adopted plan. Providing 5% of the units at 60% AMI would serve the public interest by providing affordable housing for first responders, teachers, and other important workers in the community.

PLANNED UNIT DEVELOPMENT DISTRICT AND CONDITIONAL ZONING STANDARDS:

Standards

In return for greater flexibility in site design requirements, Planned Development (PD) Districts are expected to deliver exceptional quality community designs that preserve critical environmental resources; provide high quality community amenities; incorporate creative design in the layout of buildings, Resource Conservation Area and circulation; ensure compatibility with surrounding land uses and neighborhood character; provide high quality architecture; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure. The Planned Development (PD) Districts shall not be used as a means of circumventing the Town's adopted land development regulations for routine developments.

1) *Planned Unit Development (PUD-CZ) District*
In approving a Planned Development (PD) Zoning District designation for a PUD-CZ, the Town Council shall find the PUD-CZ district designation and PD Plan for PUD-CZ demonstrates compliance with the following standards:

a) *Development parameters*

(i) The uses proposed to be developed in the PD Plan for PUD-CZ are those uses permitted in Sec. 4.2.2 *Use Table.*

(ii) The uses proposed in the PD Plan for PUD-CZ can be entirely residential, entirely non-residential, or a mix of residential and non-residential uses, provided a minimum percentage of non-residential land area is included in certain mixed use areas as specified on the 2045 Land Use Map. The location of uses proposed by the PUD-CZ must be shown in the PD Plan with a maximum density for each type of residential use and a maximum square footage for each type of non-residential use.

(iii) The dimensional standards in Sec. 5.1.3 *Table of Intensity and Dimensional Standards, Planned Development Districts* may be varied in the PD Plan for PUD-CZ. The PUD-CZ shall demonstrate compliance with all other dimensional standards of the UDO, North Carolina Building Code, and North Carolina Fire Code.

(iv) The development proposed in the PD Plan for PUD-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bikeways and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details*, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Apex

Transportation Plan. In addition, sidewalks shall be provided on both sides of all streets for single-family detached homes.

v) The design of development in the PD Plan for PUD-CZ results in land use patterns that promote and expand opportunities for walkability, connectivity, public transportation, and an efficient compact network of streets. Cul-de-sacs shall be avoided unless the design of the subdivision and the existing or proposed street system in the surrounding area indicate that a through street is not essential in the location of the proposed cul-de-sac, or where sensitive environmental areas such as streams, floodplains, and wetlands would be substantially disturbed by making road connections.

(vi) The development proposed in the PD Plan for PUD-CZ is compatible with the character of surrounding land uses and maintains and enhances the value of surrounding properties.

(vii) The development proposed in the PD Plan for PUD-CZ has architectural and design standards that are exceptional and provide higher quality than routine developments. All residential uses proposed in a PD Plan for PUD-CZ shall provide architectural elevations representative of the residential structures to be built to ensure the Standards of this Section are met.

b) *Off-street parking and loading*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.3 *Off-Street Parking and Loading*, except that variations from these standards may be permitted if a comprehensive parking and loading plan for the PUD-CZ is submitted as part of the PD Plan that is determined to be suitable for the PUD-CZ, and generally consistent with the intent and purpose of the off-street parking and loading standards.

c) *RCA.* The PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.1.2 *Resource Conservation Area*, except that the percentage of RCA required under Sec. 8.1.2 may be reduced by the Town Council by no more than two percent (2%) provided that:

(i) The PD Plan for PUD-CZ includes a non-residential component; or

(ii) The PD Plan for PUD-CZ has an overall density of 6 residential units per acre or more.

d) *Landscaping*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.2 *Landscaping, Buffering and Screening*, except that variations from these standards may be permitted where it is demonstrated that the proposed landscaping sufficiently buffers uses from each other, ensures compatibility with land uses on surrounding properties, creates attractive streetscapes and parking areas and is consistent with the character of the area. In no case shall a buffer be less than one half of the width required by Sec. 8.2 or 10 feet in width, whichever is greater.

e) *Signs.* Signage in the PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.7 *Signs*, except that the standards can be varied if a master signage plan is submitted for review and approval concurrent with the PD plan and is determined by the Town Council to be suitable for the PUD-CZ and generally consistent with the intent and purpose of the sign standards of the UDO. The master signage plan shall have design standards that are exceptional and provide for higher quality signs than those in routine developments and shall comply with Sec. 8.7.2 *Prohibited Signs*.

f) *Public facilities.* The improvements standards and guarantees applicable to the public facilities that will serve the site shall comply with Article 7: *Subdivision and* Article 14: *Parks, Recreation, Greenways, and Open Space*.

(i) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site transportation circulation system. The on-site transportation circulation system shall be integrated with the off-site transportation circulation system of the Town. The PD Plan for PUD-CZ shall be consistent with the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details* and show required right-of-way widths and road sections. A Traffic Impact Analysis (TIA) shall be required per Sec. 13.19.

(ii) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site system of potable water and wastewater lines that can accommodate the proposed development, and are efficiently integrated into off-site potable water and wastewater public improvement plans. The PD Plan shall include a proposed water and wastewater plan.

(iii) Adequate off-site facilities for potable water supply, sewage disposal, solid waste disposal, electrical supply, fire protection and roads shall be planned and programmed for the development proposed in the PD Plan for PUD-CZ, and the development is conveniently located in relation to schools and police protection services.

(iv) The PD Plan shall demonstrate compliance with the parks and recreation requirements of Sec. Article 14: *Parks, Recreation, Greenways, and Open Space* and Sec. 7.3.1 *Privately-owned Play Lawns* if there is a residential component in the PUD-CZ.

g) *Natural resource and environmental protection.* The PD Plan for PUD-CZ demonstrates compliance with the current regulatory standards of this Ordinance related to natural resource and environmental protection in Sec. 6.1 *Watershed Protection Overlay District*, Sec. 6.2 *Flood Damage Prevention Overlay District*, and Sec. 8.1 *Resource Conservation*.

h) *Storm water management.* The PD Plan shall demonstrate that the post-development rate of on-site storm water discharge from the entire site shall not exceed pre-development levels in accordance with Sec. 6.1.7 of the UDO.

i) *Phasing.* The PD Plan for PUD-CZ shall include a phasing plan for the development. If development of the PUD-CZ is proposed to occur in more than one phase, then guarantees shall be provided that project improvements and amenities that are necessary and desirable for residents of the project, or that are of benefit to the Town, are constructed with the first phase of the project, or, if this is not possible, then as early in the project as is technically feasible.

j) *Consistency with 2045 Land Use Map.* The PD Plan for PUD-CZ demonstrates consistency with the goals and policies established in the Town's 2045 Land Use.

k) *Complies with the UDO.* The PD Plan for PUD-CZ demonstrates compliance with all other relevant portions of the UDO.

CONDITIONAL ZONING STANDARDS:

The Planning Board shall find the Planned Unit Development-Conditional Zoning (PUD-CZ) designation demonstrates compliance with the following standards. 2.3.3.F:

Legislative Considerations

The applicant shall propose site-specific standards and conditions that take into account the following considerations, which are considerations that are relevant to the legislative determination of whether or not the proposed conditional zoning district rezoning request is in the public interest. These considerations do not exclude the legislative consideration of any other factor that is relevant to the public interest.

1) *Consistency with 2045 Land Use Map.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the 2045 Land Use Map.

2) *Compatibility.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and compatibility with the character of surrounding land uses.

3) *Zoning district supplemental standards.* The proposed Conditional Zoning (CZ) District use's compliance with Sec 4.4 *Supplemental Standards,* if applicable.

4) *Design minimizes adverse impact.* The design of the proposed Conditional Zoning (CZ) District use's minimization of adverse effects, including visual impact of the proposed use on adjacent lands; and avoidance of significant adverse impacts on surrounding lands regarding trash, traffic, service delivery, parking and loading, odors, noise, glare, and vibration and not create a nuisance.

5) *Design minimizes environmental impact.* The proposed Conditional Zoning District use's minimization of environmental impacts and protection from significant deterioration of water and air resources, wildlife habitat, scenic resources, and other natural resources.

6) *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.

7) *Health, safety, and welfare.* The proposed Conditional Zoning (CZ) District use's effect on the health, safety, or welfare of the residents of the Town or its ETJ.

8) *Detrimental to adjacent properties.* Whether the proposed Conditional Zoning (CZ) District use is substantially detrimental to adjacent properties.

9) *Not constitute nuisance or hazard.* Whether the proposed Conditional Zoning (CZ) District use constitutes a nuisance or hazard due to traffic impact or noise, or because of the number of persons who will be using the Conditional Zoning (CZ) District use.

10) *Other relevant standards of this Ordinance.* Whether the proposed Conditional Zoning (CZ) District use complies with all standards imposed on it by all other applicable provisions of this Ordinance for use, layout, and general development characteristics.

May 24, 2019

Kevin Dean, PE
Kimley-Horn and Associates, Inc.
421 Fayetteville St, Suite 600
Raleigh, NC 27601

Subject: **Staff summary and comments for The Wayforth at Apex TIA and Addendum, 04/30/2019**

Mr. Dean:

Please review the following summary of my comments and recommendations. You may schedule a meeting with me and your client to discuss at your convenience.

Study Area

The TIA proposes to study access to the development at the following two intersections.

- Morris Acres Road and Reedybrook Crossing/North Site Driveway (unsignalized)
- Morris Acres Road and South Site Driveway (unsignalized)

The following intersections were also studied in the TIA:

- Jenks Road and Morris Acres Road (unsignalized)
- Morris Acres Road and Creekside Landing Drive (signalized)
- Morris Acres Road and US 64 Westbound (unsignalized)

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Trip Generation

The proposed Wayforth at Apex development is anticipated to consist of 300 apartments. The development is anticipated to generate approximately 26 new trips entering and 74 new trips exiting the site during the weekday A.M. peak hour and 77 new trips entering and 50 new trips exiting the site during the P.M. peak hour. The development is expected to add a total of 1,634 new weekday trips to the adjacent roadway network.

Background traffic

Background traffic consists of 3% annual background traffic growth compounded to build out year 2022. Additionally 10% of site trips from the adjacent Beaver Creek Residential development (540 Townes) are included in the analysis, as the development was almost entirely built-out at the time this study was completed.

Trip Distribution and Assignment

The distribution to and from the development are as follows:

- 25% from the east on US 64
- 25% from the east on Jenks Road
- 25% from the west on Jenks Road
- 25% from the south on Creekside Landing Drive

- 50% to the east on Jenks Road
- 25% to the west on US 64
- 15% to the south on Creekside Landing Drive
- 10% to the west on Jenks Road

Traffic Capacity Analysis and Recommendations

Level of Service (LOS) is a grade of A through F assigned to an intersection, approach, or movement to describe how well or how poorly it operates. LOS A through D is considered acceptable for peak hour operation. LOS E or F describes potentially unacceptable operation and developers may be required to mitigate their anticipated traffic impact to improve LOS based on the Apex Unified Development Ordinance (UDO).

Tables 1 through 5 describe the levels of service (LOS) for the scenarios analyzed in the TIA. "*NA"* is shown when the scenario does not apply. The scenarios are as follows:

- **Existing 2018** - Existing year 2018 traffic.
- **No Build 2022** – Projected year (2022) with background growth, and approved development traffic from others.
- **Build 2022 –** Projected year (2022) with background traffic and site build-out traffic including recommended improvements where applicable.

Morris Acres Road and Reedybrook Crossing/North Site Driveway (unsignalized)

Table 1. A.M. / P.M. Unsignalized Peak Hour Levels of Service Morris Acres Road and Reedybrook Crossing/North Site Driveway			
	Existing 2018	**No Build 2022**	**Build 2022**
Overall	NA	NA	NA
Eastbound (Reedybrook Crossing)	*A / B[2]*	*A / B[2]*	*B / B[2]*
Westbound (North Site Driveway)	*NA*	*NA*	*B / B[2]*
Northbound (Morris Acres Road)	*A / A[1]*	*A / A[1]*	*A / A[1]*
Southbound (Morris Acres Road)	*NA*	*NA*	*A / A[1]*

1. Level of service for major street left turn movements
2. Level of service for minor street stop controlled approaches

TIA recommendations:

- The TIA recommends construction of a full movement stop-controlled site driveway with one lane of ingress and one lane of egress that aligns with Reedybrook Crossing at Morris Acres Road.

Apex staff recommendations:

- Apex staff agree with the recommendation. All approaches at this intersection are projected to operate at LOS B or better with no operational issues in the build condition. Morris Acres Road already provides a left turn lane both directions at the proposed driveway since it was constructed as a three-lane road.

Morris Acres Road and South Site Driveway (unsignalized)

Table 2. A.M. / P.M. Unsignalized Peak Hour Levels of Service Morris Acres Road and South Site Driveway	
	Build 2022
Overall	NA
Westbound (South Site Driveway)	*A / B[2]*
Northbound (Morris Acres Road)	*NA*
Southbound (Morris Acres Road)	*A / A[1]*

1. Level of service for major street left turn movements
2. Level of service for minor street stop controlled approaches

TIA recommendations:

- The TIA recommends construction of a full movement stop-controlled site driveway with one lane of ingress and one lane of egress approximately 500 feet south of Reedybrook Crossing.

Apex staff recommendations:

- Apex staff agree with the recommendation. All approaches at this proposed intersection are projected to operate at LOS B or better with no operational issues in the build condition. Morris Acres Road already provides a left turn lane at the proposed driveway since it was constructed as a three-lane road.

Jenks Road and Morris Acres Road (unsignalized)

Table 3. A.M. / P.M. Unsignalized Peak Hour Levels of Service Jenks Road and Morris Acres Road			
	Existing 2018	**No Build 2022**	**Build 2022**
Overall	NA	NA	NA
Eastbound (Jenks Road)	*NA*	*NA*	*NA*
Westbound (Jenks Road)	*A / A[1]*	*A / A[1]*	*A / A[1]*
Northbound (Morris Acres Road)	*B / C[2]*	*B / C[2]*	*B / C[2]*

1. Level of service for major street left turn movements
2. Level of service for minor street stop controlled approaches

TIA recommendations:

- The TIA does not recommend any improvements at this intersection. All approaches are anticipated to operate at LOS C or better with or without the development.

Apex staff recommendations:

- Apex staff agree with the recommendation. Left turn lanes are already provided on both roadways and no additional turn lanes are recommended.

Morris Acres Road and Creekside Landing Drive (Signalized)

Table 4. A.M. / P.M. Signalized Peak Hour Levels of Service Morris Acres Road and Creekside Landing Drive			
	Existing 2018	**No Build 2022**	**Build 2022**
Overall	A / A	A / A	A / A
Eastbound (Reedybrook Crossing)	*A / A*	*A / A*	*A / A*
Northbound (Morris Acres Road)	*A / A*	*A / A*	*A / A*
Southbound (Morris Acres Road)	*A / A*	*A / B*	*A / B*

TIA recommendations:

- The TIA does not recommend any improvements at this signalized intersection. All approaches are anticipated to operate at LOS B or better with or without the development.

Apex staff recommendations:

- Apex staff agree with the recommendation. There are already left turn lanes provided on both roadways and no additional turn lanes are recommended.

Morris Acres Road and US 64 Westbound (unsignalized)

Table 5. A.M. / P.M. Unsignalized Peak Hour Levels of Service Morris Acres Road and US 64 Westbound			
	Existing 2018	**No Build 2022**	**Build 2022**
Overall	NA	NA	NA
Westbound (US 64)	*NA*	*NA*	*NA*
Southbound (Morris Acres Road)	*D / D*[1]	*E / E*[1]	*E / E*[1]

1. Level of service for minor street stop controlled approaches

TIA recommendations:

- The TIA does not recommend any improvements at this channelized intersection.

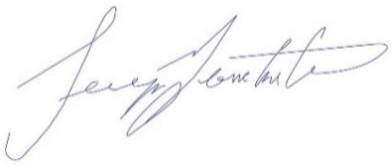
Apex staff recommendations:

- The right-out onto westbound US-64 is anticipated to operate at LOS E with average delays of over 45 seconds per vehicle and 95th percentile queues of 5 vehicles in both the A.M. and P.M. peak hours. Staff concurs with no roadway improvements being

required of this site approval according to the requirements of the UDO. However, the Town or NCDOT should consider future construction of an 800-foot long acceleration lane with a 300-foot taper on US 64 and lengthening of the right-turn deceleration lane. Town staff have already submitted these improvements to NCDOT for consideration of funding under one of their grant programs. The acceleration lane will eliminate the stop condition and the delays associated with the stop on Morris Acres Road while the longer deceleration lane will provide improved operations for the exit from US 64.

Please coordinate with the NCDOT District Engineer's Office concerning recommended improvements. Town staff will be available for meetings with NCDOT staff to discuss improvements on state maintained roadways as needed. All recommendations are subject to review by Town Council prior to approval.

Sincerely,



Serge Grebenschikov
Traffic Engineer
919-372-7448


Rezoning #19CZ02
540
GREEN LEVEL CHURCH RD
BRISTERS SPRING WAY
Walden Creek
WALDEN WOODS DR
WALDEN CREEK DR
RABBIT WALK LN
FLINTS POND CIR
The Flats at 540
TUNISIAN DR
REEDYBROOK CRSG
KYNER ALY
PEAKSIDE DR
540Townes
CitiSide
March, 2019
January, 2019 Aerial Photography
Prepared by: Town of Apex Planning Department
0
250
500
Feet

PLANNED UNIT DEVELOPMENT APPLICATION

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Application #: 19CZ02 Submittal Date: 2/1/19

Fee Paid $ 2370 Check #

PETITION TO AMEND THE OFFICIAL ZONING DISTRICT MAP

Project Name: Morris Acres PUD

Address(es): 0, 7208, and 7208B Morris Acres Road

PIN(s) 0732-28-9587; 0732-38-2530; and 0732-38-2709

Acreage: 16.95

Current Zoning: RR Proposed Zoning: PUD-CZ

Current 2030 LUM Designation: Medium Density Residential

Requested 2030 LUM Designation: High Density Residential

See next page for LUM amendment

If any portion of the project is shown as mixed use (3 or more stripes on the 2030 Land Use Map) provide the following:

Area classified as mixed use: Acreage:

Area proposed as non-residential development: Acreage:

Percent of mixed use area proposed as non-residential: Percent:

Applicant Information

Name: Kaplan Residential

Address: 1111 Kane Concourse Ste 302

City: Bay Harbor Islands State: FL Zip: 33154

Phone: 305.901.2202 E-mail:

Owner Information

Name: Edith S Morris

Address: 7208 Morris Acres Road

City: Apex State: NC Zip: 27523

Phone: E-mail:

Agent Information

Name: Jason Barron

Address: 421 Fayetteville Street | Ste 530

City: Raleigh State: NC Zip: 27601

Phone: 919-590-0371 E-mail: jbarron@morningstarlawgroup.com

Other contacts: Nil Ghosh - nghosh@morningstarlawgroup.com

PLANNED UNIT DEVELOPMENT APPLICATION

Application #: 19CZ02 Submittal Date:

2030 LAND USE MAP AMENDMENT (if applicable)

The applicant does hereby respectfully request the Town Council amend the 2030 Land Use Map. In support of this request, the following facts are shown:

The area sought to be amended on the 2030 Land Use Map is located at:

0, 7208, and 7208B Morris Acres Road

Current 2030 Land Use Classification: Medium Density Residential

Proposed 2030 Land Use Classification: High Density Residential

What conditions justify the passage of the amendment to the 2030 Land Use Map? Discuss the existing use classifications of the subject area in addition to the adjacent land use classifications.

The Town of Apex currently is in the process of adopting an updated Land Use Plan with a 2045 horizon. The draft proposal for this new plan indicated that these parcels would be designated as High Density Residential. This draft already has been recommended for approval by the Town's Planning Board and is expected to be passed by Council in February. Consistent with the recommendations in the draft 2045 Land Use Plan, the applicant seeks to modify the future designation from Medium Density Residential to High Density Residential.

CERTIFIED LIST OF NEIGHBORING PROPERTY OWNERS

Application #: 19CZ02 Submittal Date: 2/1/19

Provide a certified list of property owners subject to this application and all property owners within 300' of the subject property and HOA Contacts.

	Owner's Name	PIN		Owner's Name	PIN
1	540 TOWNES HOA, INC	0732-37-1960; 0732-37-4927; 0732-37-5626; 0732-38-0119; 0732-38-1079; 0732-38-2217	32	MADHVANI, VIRAT K MADHVANI, KAJAL V	0732-37-3978
2	ADDEN, NICOLE	0732-39-8073	33	MAGNOLIA PROPERTY MANAGEMENT LLC	0732-37-4900
3	ALPS LP	0732-38-7152	34	MCSWAIN, CHASE ALEXANDER	0732-38-1102
4	ANKNEY, CHRISTINA L ANKNEY, JOHN ASTOR	0732-38-8153	35	MISTRY, DHANSUKH MISTRY, SHILA D	0732-38-1071
5	APEX TOWN OF	0732-38-7570; 0732-39-7559	36	MORRIS, EDITH S	0732-28-9587; 0732-38-2530; 0732-38-2709
6	BARK, GI CHAN	0732-38-1244	37	MORRIS, WILMA LEE	0732-29-5482; 0732-29-8556
7	BEAVER CREEK CROSSING LLC	0732-28-6392	38	MULCAHY, JOHN M MULCAHY, MICHELE A	0732-39-6483
8	BECKER, GARY A BECKER, BARBARA J	0732-38-9017	39	NC DOT TRNPK AUTHORITY	0732-29-5017; 0732-28-4334
9	BUTTERWORTH, JAMES D BUTTERWORTH, BARBARA A	0732-39-8254	40	PARKER, DAVID PARKER, ROBYN	0732-38-7613
10	CAUTHEN, JOHNSON JR CAUTHEN, DEBORAH	0732-39-6202	41	PETERSON, DAVID R PETERSON, GAIL C	0732-39-8344
11	CHEN, WANLING	0732-38-2191	42	PULIJALA, DHEERAJ KUMAR PULIJALA, CHAITANYA	0732-38-3061
12	CHING, LEUNG YIN	0732-38-9347	43	PYNE, CRAIG A GALIEN, KIMBERLY L	0732-39-6402
13	CHO, EUNA K CHO, REX H	0732-38-2024	44	RAJARAM, NARAYAN K UTHAMARAJAN, ARTHI	0732-38-1216
14	CITISIDE AT BEAVER CREEK CROSSING HOA INC (Charleston Mngmt)	0732-37-7766	45	RAMSEY, FRANCES B	0732-38-2147
15	DIAZ, CYNTHIA I COLON CADENA, ARGYL I RAMIREZ	0732-38-0249	46	SAFIAN, DAVID SAFIAN, MICHELLE	0732-38-8289
16	FALKANGER, JEFFREY J FALKANGER, KERRY C	0732-39-7014	47	SARTORI, JEANETTE	0732-28-9182
17	GAYLES, ANTHONY DARON	0732-38-0268	48	SIMMONS, RYAN KENNETH SIMMONS, KRYSTAL MARIE	0732-38-7292
18	GREEN ACRES OF APEX LLC	0732-39-3853	49	SINGH, ISHA	0732-38-1092
19	GROSSER, DONALD B JR GROSSER, CYNTHIA S	0732-38-9588	50	SMITH, DERMOT J SMITH, JENNIFER R	0732-38-2164
20	HARPER, PAUL MARK HARPER, RENAE KEY	0732-39-6197	51	ST AMANT, STEVEN	0732-38-1272
21	HOUSTON, MICHAEL J HOUSTON, KRISTIN A	0732-38-0310	52	STEVENS, GREGORY W STEVENS, YOKO FUSE	0732-38-7923
22	ISAACS, DANIEL J	0732-48-0708	53	V & V PROPERTY GROUP LLC	0732-37-3986
23	KAPLAN, PETER KAPLAN, ERIN B	0732-39-7472	54	VACCA, STACY ELLEN	0732-38-1121
24	KOESTER, JOHN D KOESTER, JOHANNA P	0732-38-9603	55	VOJTICEK, BRANDON M VOJTICEK, LEIGH ANN	0732-38-7723
25	LAO, TERENCE LAO, CATHERINE	0732-38-3044	56	WARD, JUDITH F	0732-48-0456

26	LAXMANA, RAJINEESH KUMAR VUMMIDISINGH LAXMANA, SREE HARSHITHA VUMMIDISINGH	0732-28-9185	57	WEISS, GEOFFREY L	0732-38-7823
27	LIN, SEN	0732-38-0174	58	WEST, DONALD EUGENE II	0732-38-0287
28	LIU, XINGJUN XING, JUN	0732-38-2119	59	WILLIAMS, STACEY D WILLIAMS, JOHN C	0732-39-8164
29	LU, HAIRONG	0732-38-1049	60	WRIGHT, STEVEN C	0732-38-3018
30	LU, XIAOYUAN WAN, PENG	0732-37-3993	61	ZHANG, DONG	0732-38-2173
31	LUO, JING OUYANG, WEN	0732-38-1281			

I, Nil Ghosh, certify that this is an accurate listing of all property owners and property owners within 300' of the subject property.

Date: 1/29/19 By:

COUNTY OF ~~WAKE~~ Durham STATE OF NORTH CAROLINA

Sworn and subscribed before me, Terri Lee Tolley, a Notary Public for the above State and County, on this the 29th day of January, 20 19.

Notary Public

Terri Lee Tolley
Print Name

SEAL

TERRI LEE TOLLEY NOTARY PUBLIC DURHAM COUNTY, N.C.

My Commission Expires: 8/25/2023

CERTIFIED LIST OF NEIGHBORING PROPERTY OWNERS

Application #: _____ Submittal Date: _____

Provide a certified list of property owners subject to this application and all property owners within 300' of the subject property and HOA Contacts.

	Owner's Name	PIN
1.	Golden Apple Tree, LLC	0732-38-1049
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

I, Nil Ghosh, certify that this is an accurate listing of all property owners and property owners within 300' of the subject property.

Date: 6/21/19 By: _____

DURHAM
COUNTY OF ~~WAKE~~ STATE OF NORTH CAROLINA

Sworn and subscribed before me, Jeffrey Phillips, a Notary Public for the above State and County, on this the 21st day of June, 2019.

_____
Notary Public

SEAL

JEFFREY PHILLIPS NOTARY PUBLIC DURHAM COUNTY, N.C. My Comm. Exp. 02-24-2024.

Jeffrey Phillips
Print Name

My Commission Expires: 02-24-2024

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: 19CZ02 Submittal Date: 2/1/19

Fee for Initial Submittal: No Charge Fee for Name Change after Approval: $500*

Purpose

To provide a consistent and clearly stated procedure for the naming of subdivisions and/or developments and entrance roadways (in conjunction with *Town of Apex Address Policy*) so as to allow developers to define and associate the theme or aesthetics of their project(s) while maintaining the Town's commitment to preserving the quality of life and safety for all residents of Apex proper and extraterritorial jurisdiction.

Guidelines

- ✓ The subdivision/development name shall not duplicate, resemble, or present confusion with an existing subdivision/development within Apex corporate limits or extraterritorial jurisdiction except for the extension of an existing subdivision/development of similar or same name that shares a continuous roadway.
- ✓ The subdivision/development name shall not resemble an existing street name within Apex corporate limits or extraterritorial jurisdiction unless the roadway is a part of the subdivision/development or provides access to the main entrance.
- ✓ The entrance roadway of a proposed subdivision/development shall contain the name of the subdivision/development where this name does not conflict with the Town of Apex *Road Name Approval Application* and *Town of Apex Address Policy* guidelines.
- ✓ The name "Apex" shall be excluded from any new subdivision/development name.
- ✓ Descriptive words that are commonly used by existing developments will be scrutinized more seriously in order to limit confusion and encourage distinctiveness. A list of commonly used descriptive words in Apex's jurisdiction is found below.
- ✓ The proposed subdivision/development name must be requested, reviewed and approved during preliminary review by the Town.
- ✓ A $500.00 fee will be assessed to the developer if a subdivision/development name change is requested after official submittal of the project to the Town.*

*The imposed fee offsets the cost of administrative changes required to alleviate any confusion for the applicant, Planning staff, other Town departments, decision-making bodies, concerned utility companies and other interested parties. There is no charge for the initial name submittal.

Existing Development Titles, Recurring

	Residential	Non-Residential
10 or more	Creek, Farm(s), Village(s),	Center/Centre
6 to 9	Crossing(s), Park, Ridge, Wood(s)	Commons, Park
3 to 5	Acres, Estates, Glen(s), Green•, Hills	Crossing(s), Plaza, Station, Village(s)

•excludes names with Green Level

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: 19CZ02 Submittal Date: 2/1/19

Proposed Subdivision/Development Information

Description of location: 0, 7208, and 7208B Morris Acres Rd

Nearest intersecting roads: Morris Acres Road at Reedybrook Crsg

Wake County PIN(s): 0732-28-9587; 0732-38-2530; and 0732-38-2709

Township: White Oak

Contact Information (as appropriate)

Contact person: Jason Barron

Phone number: 919-590-0371 Fax number: _____

Address: 421 Fayetteville Street | Ste 530, Raleigh, NC 27601

E-mail address: jbarron@morningstarlawgroup.com

Owner: _____

Phone number: _____ Fax number: _____

Address: _____

E-mail address: _____

Proposed Subdivision/Development Name

1st Choice: _____

2nd Choice *(Optional)*: _____

Town of Apex Staff Approval:

_____ _____

Town of Apex Planning Department Staff Date

STREET NAME APPROVAL APPLICATION

Application #: _____ Submittal Date: _____

Wake County Approval Date: _____

Guidelines:

- No names duplicating or sounding similar to existing road names
- Avoid difficult to pronounce names
- No individuals' names
- Avoid proper names of a business, e.g. Hannaford Drive
- Limit names to 14 characters in length
- No directionals, e.g. North, South, East, West
- No punctuation marks, e.g. periods, hyphens, apostrophes, etc.
- Avoid using double suffixes, e.g. Deer Path Lane
- All names must have an acceptable suffix, e.g. Street, Court, Lane, Path, etc.
- Use only suffixes which are Town of Apex approved
- Town of Apex has the right to deny any street name that is determined to be inappropriate

Information:

Description of location: 0, 7208, and 7208B Morris Acres Rd

Nearest intersecting roads: Morris Acres Road at Reedybrook Crsg

Wake County PIN(s): 0732-28-9587; 0732-38-2530; and 0732-38-2709

Township: White Oak

Contact information (as appropriate)

Contact person: Jason Barron

Phone number: 919-590-0371 Fax number: _____

Address: 421 Fayetteville Street | Ste 530, Raleigh, NC 27601

E-mail address: jbarron@morningstarlawgroup.com

Owner: Edith S Morris

Phone number: _____ Fax number: _____

Address: 0, 7208 and 7208B Morris Acres Road

E-mail address: _____

STREET NAME APPROVAL APPLICATION

Application #: _____ Submittal Date: _____

# of roads to be named: _____

Please submit twice as many road names as needed, with preferred names listed first. Proposed road names should be written exactly as one would want them to appear. Town of Apex Planning Department staff will send all approved street names to the Wake County GIS Department for county approval. Please allow several weeks for approval. Upon approval Wake County GIS – Street Addressing will inform you of the approved street names.

Example: Road Name Suffix

Hunter Street

1	Nathan Drive	11	
2		12	
3		13	
4		14	
5		15	
6		16	
7		17	
8		18	
9		19	
10		20	

TOWN OF APEX STAFF APPROVAL

Town of Apex Staff Approval Date

WAKE COUNTY STAFF APPROVAL:

GIS certifies that _____ names indicated by checkmark ☑ are approved.
Please disregard all other names.

Comments:

Wake County GIS Staff Approval Date

TOWN OF APEX UTILITIES OFFER AND AGREEMENT

Application #: _____ Submittal Date: _____

Town of Apex
73 Hunter Street
P.O. Box 250 Apex, NC 27502
919-249-3400

WAKE COUNTY, NORTH CAROLINA CUSTOMER SELECTION AGREEMENT

0, 7208, and 7208B Morris Acres Rd

_____

(the "Premises")

The Town of Apex offers to provide you with electric utilities on the terms described in this Offer & Agreement. If you accept the Town's offer, please fill in the blanks on this form and sign and we will have an Agreement once signed by the Town.

Kaplan Residential, the undersigned customer ("Customer") hereby irrevocably chooses and selects the Town of Apex (the "Town") as the permanent electric supplier for the Premises. Permanent service to the Premises will be preceded by temporary service if needed.

The sale, delivery, and use of electric power by Customer at the Premises shall be subject to, and in accordance with, all the terms and conditions of the Town's service regulations, policies, procedures and the Code of Ordinances of the Town.

Customer understands that the Town, based upon this Agreement, will take action and expend funds to provide the requested service. By signing this Agreement the undersigned signifies that he or she has the authority to select the electric service provider, for both permanent and temporary power, for the Premises identified above.

Any additional terms and conditions to this Agreement are attached as Appendix 1. If no appendix is attached this Agreement constitutes the entire agreement of the parties.

Acceptance of this Agreement by the Town constitutes a binding contract to purchase and sell electric power.

Please note that under North Carolina General Statute §160A-332, you may be entitled to choose another electric supplier for the Premises.

Upon acceptance of this Agreement, the Town of Apex Electric Utilities Division will be pleased to provide electric service to the Premises and looks forward to working with you and the owner(s).

ACCEPTED:

CUSTOMER: _____ TOWN OF APEX

BY: _____ BY: _____
Authorized Agent Authorized Agent

DATE: _____ DATE: _____

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Edith S Morris is the owner of the property for which the attached application is being submitted:

- ☑ Land Use Amendment
- ☑ Rezoning
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property is located at: 0, 7208, and 7208B Morris Acres Rd

The agent for this project is: Jason Barron

☐ I am the owner of the property and will be acting as my own agent

Agent Name: Jason Barron

Address: 421 Fayetteville Street | Ste 530, Raleigh, NC 27601

Telephone Number: 919-590-0371

Fax Number: _____

E-Mail Address: jbarron@morningstarlawgroup.com

Signature(s) of Owner(s)

Edith S. Morris

Edith S. Morris — Type or print name

1-28-2019 — Date

_____

_____ — Type or print name

_____ — Date

_____

_____ — Type or print name

_____ — Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

WAKE COUNTY PUBLIC SCHOOL SYSTEM

Developer Company *Information*	
Company *Name*	Kaplan Residential
Company Phone *Number*	305.901.2202
Developer Representative *Name*	Jason Barron
Developer Representative *Phone Number*	919-590-0371
Developer Representative *Email*	jbarron@morningstarlawgroup.com

New Residential Subdivision *Information*	
Date of Application for Subdivision	2/1/19
City, Town or Wake County Jurisdiction	Apex
Name of Subdivision	
Address of Subdivision (if unknown enter nearest cross streets)	Morris Acres Rd at Reedybrook Crsg
REID(s)	
PIN(s)	0732-28-9587; 0732-38-2530; and 0732-38-2709

Please complete each section and return by email or fax to all:

WCPSS
Debra Adams
dbadams@wcpss.net

Judy Stafford
jstafford1@wcpss.net

Fax: 919-431-7302

WAKE
Mike Ping
Mike.ping@wakegov.com

Fax: 919-856-6389

Projected Dates *Information*	
Subdivision *Completion Date*	2021
Subdivision *Projected First Occupancy Date*	2020

Lot by Lot Development *Information*

Unit Type	Total # of Units	Senior Living	Studio	1 Bedroom	2 Bedroom	3 Bedroom	4 Bedroom	Square Foot Range		Price Range		Anticipated Completion Units & Dates					
								Min	Max	Low	High	Year	# Units	Year	# Units	Year	# Units
Single Family	0																
Townhomes	0																
Condos	0																
Apartments	303											2020	84	2021	219		
Other	0																

NOTICE OF NEIGHBORHOOD MEETING

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

1/11/19

Date

Dear Neighbor:

You are invited to a neighborhood meeting to review and discuss the development proposal at

0, 7208, 72088 Morris Acres Road (Address(es)) (0732-28-9587; 0732-38-2530; and 0732-38-2709) (PIN(s))

in accordance with the Town of Apex Neighborhood Meeting procedures. The Neighborhood Meeting is intended as a way for the applicant to discuss the project and review the proposed plans with adjacent neighbors and neighborhood organizations before the submittal of an application to the Town. This provides neighbors an opportunity to raise questions and discuss any concerns about the impacts of the project before it is officially submitted. Once an application has been submitted to the Town, it may be tracked using the Interactive Development Map or the Apex Development Report located on the Town of Apex website at www.apexnc.org.

A Neighborhood Meeting is required because this project includes (check all that apply):

- ☑ Rezoning (including Planned Unit Development);
- ☐ Major Site Plan;
- ☐ Master Subdivision Plan (excludes minor or exempt subdivision); or
- ☐ Special Use Permit

The following is a description of the proposal (also see attached map(s) and/or plan sheet(s)):

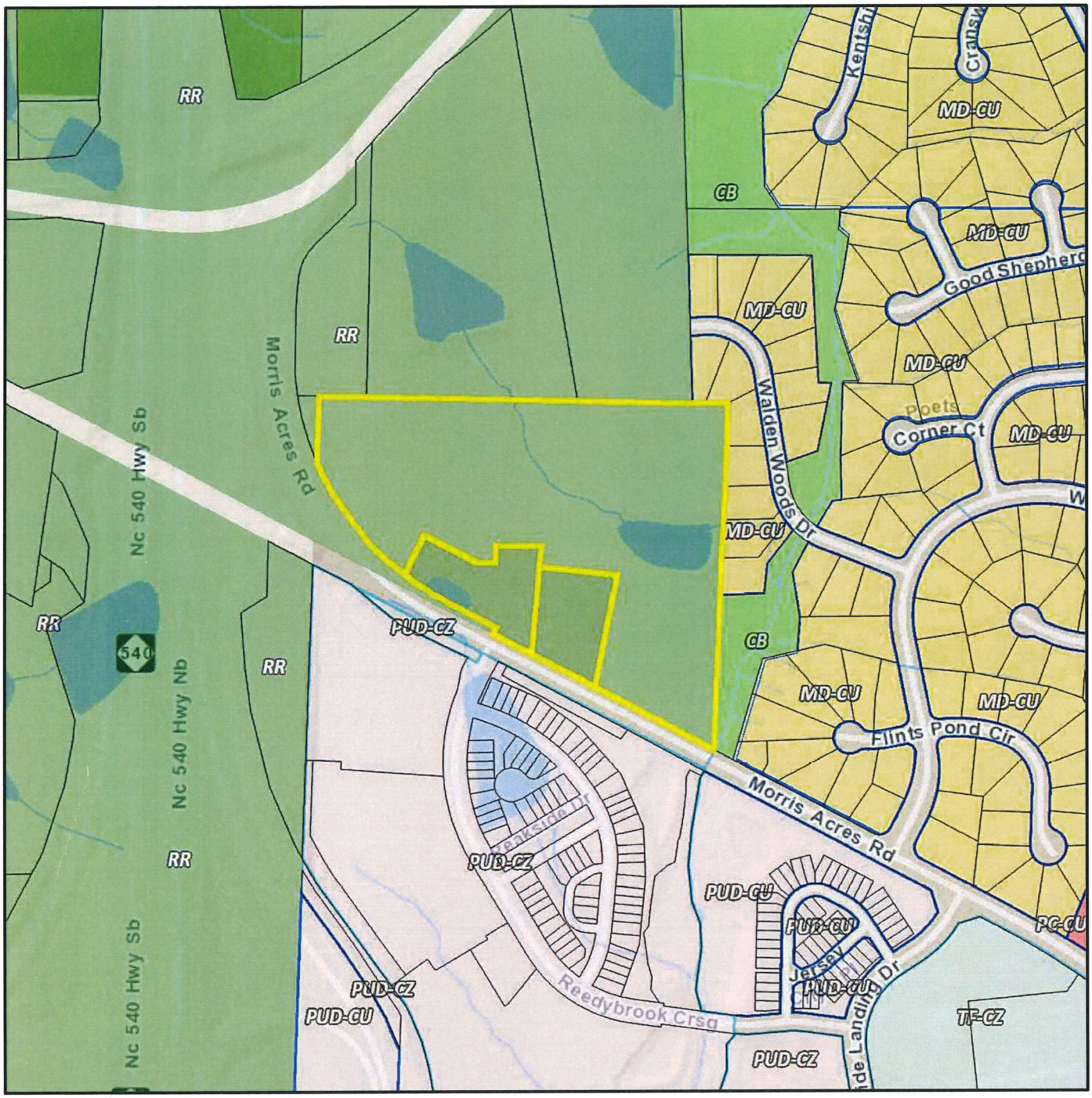
Rezoning to PUD is requested in order to allow the development of an approximately 300 unit multifamily development with multiple buildings, each up to 5 stories tall.

Estimated submittal date: 2/1/19

MEETING INFORMATION:	
Property Owner(s) name(s):	Edith S Morris
Applicant(s):	Jason Barron - Attorney for Applicant
Contact information (email/phone):	jbarron@morningstarlawgroup.com / 919.590.0371
Meeting Address:	237 N Salem St. Apex, NC 27502
Date of meeting*:	1/24/19
Time of meeting*:	6:00pm

MEETING AGENDA TIMES:	
Welcome:	6:00 - 6:05
Project Presentation:	6:06 - 6:15
Question & Answer:	6:15 - on

*Meetings shall occur between 5:00 p.m. - 9:00 p.m. on a Monday through Thursday (excluding Town recognized holidays). If you have questions about the general process for this application, please contact the Planning Department at 919-249-3426. You may also find information about the Apex Planning Department and on-going planning efforts at http://www.apexnc.org/180/Planning.



Vicinty and Zoning Map

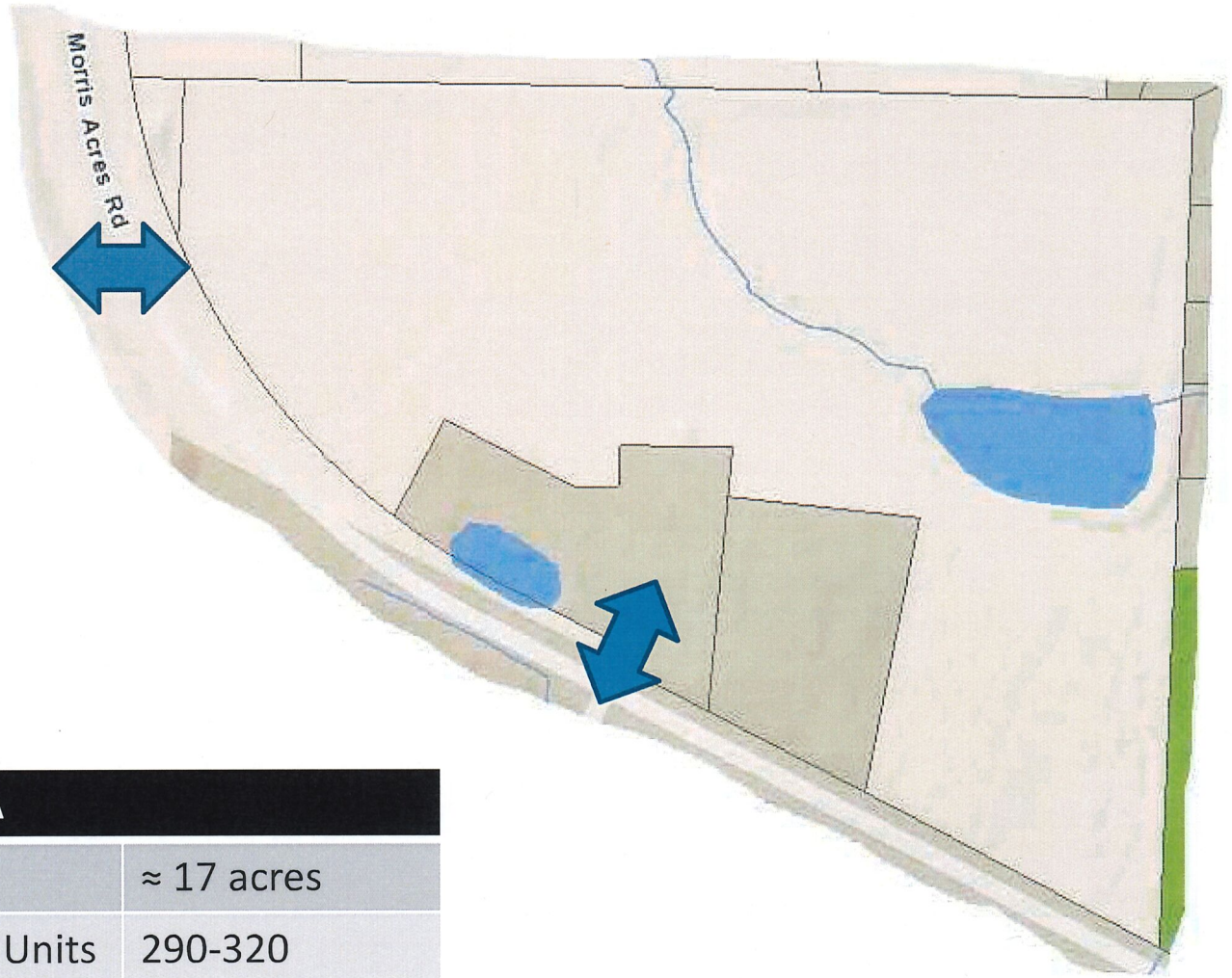
N

0 220 440 880 ft

1 inch = 400 feet

Disclaimer

*iMaps makes every effort to produce and publish the most current and accurate information possible. However, the maps are produced for information purposes, and are **NOT** surveys. No warranties, expressed or implied ,are provided for the data therein, its use,or its interpretation.*



SITE DATA	
Acreage	≈ 17 acres
Proposed Units	290-320

- Proposed Vehicular Connection(s)

NEIGHBORHOOD MEETING SIGN-IN SHEET

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Applicant(s): Jason Barron - Attorney for Applicant

Please print your name below, state your address and/or affiliation with a neighborhood group, and provide your phone number and email address. Providing your name below does not represent support or opposition to the project; it is for documentation purposes only.

	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	[illegible]	Walden creek	—	—	—
2.	Jeff Pickover	Walden Creek	—	—	—
3.	Debi Cauldle	Walden Creek			
4.	Johnson Cauldle	Walden Creek			
5.	Susan Cormier	Walden Creek			
6.	ANDY CHINBOUKAS	WALDEN CREEK			
7.	BOSCAN CHINBOUKAS	WALDEN CREEK			
8.	Patti Edwards	Walden Creek			
9.	Dianatteaning	Walden Creek			
10.	Don Grosser	Walden Creek			
11.	Andrew Schofield	Walden Creek.			
12.	ROBERT WARNER	WALDEN CREEK			
13.	Phyllis Townsend	White Pond Ct/Walden Townes			
14.	JIM TOWNSEND	" " "		[redacted]	

Use additional sheets, if necessary.

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	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	BANDHOLZ	2405 RABBIT WALK LN		[redacted]	
2.	Jonathan Schisler	2006 Walden Glade Run			
3.	Bradley Carey	2204 Oak Stream Ln			
4.	Chris Kiper	2326 Walden Creek Dr.			
5.	John & Cyndy Levitzow	700 Tulawney LN			
6.	MORGAN HUET	1611 SQUAW WALDEN, APEX			
7.	Dora Schmitt	2216 Echo Glen Ln			
8.	GUS GREEN	2500 FLINTS POND CIR			
9.	Astor Ankney	2507 Flints Pond Cir			
10.	Jonathan Edwards	1901 Deveron Ct			
11.	Dave Safian	2506 Flints Pond Cir			
12.	CRAIG PYNE	2528 Walden Woods Dr			
13.	Mike Kilmartin	2406 Rabbit Walk Ln			
14.	Gus Carey	2306 Bristers Spring Way			

Use additional sheets, if necessary.

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	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	BURAK ERYILGIT	2208 GOOD SHEPHERD	[redacted]		
2.	Christy Hetfeld	2219 Walden Creek Dr.			
3.	MIKE ROSEN AIA	2300 WALDEN CREEK			(4)
4.	Katherine Nutt	2325 Walden Creek Dr.			
5.	Jim Butterworth	2520 Walden Woods Dr.			
6.	Andrew George	2314 Walden Creek Dr			
7.	John Koesters	2505 Walden Woods Dr.			
8.	Johanna Koester	2505 Walden Woods Dr			
9.	J.J. Falkanger	2517 Walden Woods			
10.	KERRY FALKANGER	2517 WALDEN WOODS D			
11.	Dan Isaacs	2502 Walden Wo			
12.	John Williams	2518 Walden Woods Dr.			
13.	MARC MULLIN	2113 ECHO GLEN LN			
14.	RYAN SIMMONS	2508 FLINTS POND			

Use additional sheets, if necessary.

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	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	KRYSTAL SIMMONS	2503 FLINTS POND CIR	[redacted]		
2.	Paul + Renae Harper	2519 WALDEN WOODS DRIVE			
3.	Erin Kaplan	2524 Walden Woods Dr			
4.	NANCY + PAT FARLEY	505 TRELAWNEY CARY/ 2N.			
5.	Sharon Malley	2817 Kentshire PL			
6.	Erika Chapman	2808 Kentshire Pl.			
7.	Pamela Green	2018 WALDEN GLADE			
8.	IRENA REA	2201 HENNIKER ST			
9.	Gail Peterson	2522 Walden			
10.	LINDA HEBERT	2110 WHITE POND CT			
11.	BRANDON VOJTICEK	2511 WALDEN WOODS DR			
12.	Jason Morris	7208 Morris Acres Rd.			
13.	Edith Morris	7208 Morris Acres Rd.			
14.	Michael DuBrow	2503 Cransick Place			

Use additional sheets, if necessary.

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	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	ANNA COHEN	1602 SHEPHERDS GLADE	[redacted]		←
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

Use additional sheets, if necessary.

















CONCEPT IMAGERY

NOVEMBER/20/2018

MORRIS APEX

APEX, NORTH CAROLINA

dwell design studio

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SUMMARY OF DISCUSSION FROM THE NEIGHBORHOOD MEETING

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Property Owner(s) name(s): Edith Morris

Applicant(s): Jason Barron - Attorney for Applicant

Contact information (email/phone): jbarron@morningstarlawgroup.com / 919-590-0371

Meeting Address: 237 N Salem St. Apex, NC

Date of meeting: 1/24/19 Time of meeting: 6:00PM

Please summarize the questions/comments and your response from the Neighborhood Meeting in the spaces below (attach additional sheets, if necessary). Please state if/how the project has been modified in response to any concerns. The response should not be "Noted" or "No Response". There has to be documentation of what consideration the neighbor's concern was given and justification for why no change was deemed warranted.

Question/Concern #1:

There was a concern raised about building height

Applicant's Response:

The notice indicated building heights of up to 5 stories, but it was explained that the buildings generally are only 4 stories. Because of the topo in some areas, a 5th "basement" story is possible, which is why the max height was listed as 5 stories. In reality, the top of each building will appear to be only 4-stories high.

Question/Concern #2:

What type of road improvements will you all be doing and when?

Applicant's Response:

A TIA has been submitted which may recommend offsite road improvements, but for now, the only thing we know for certain is that we will be required to widen Morris Acres Road to a 3-lane section for our entire frontage. That improvement, plus any others committed to as a result of the TIA, will be required to be built before we can get a CO.

Question/Concern #3:

What can be done about existing flooding problems and how will SW be handled?

Applicant's Response:

The design and engineering for stormwater controls are done at time of site plan. We will meet the Town's requirements for quantity and quality of runoff from the site. At this stage, we can look into the existing flooding issues you all experience. It may be possible for us to address some of that issue at the zoning stage, but we need to study it first.

Question/Concern #4:

What kind of buffers will you have?

Applicant's Response:

We will have a 25' wide Type A buffer around the perimeter of the property. On the southeast side, there is a Town owned parcel which creates additional separation in that area. On the northeast side, we are committing to preserving that area as passive open space which will not be developed.

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Question/Concern #1:

Why is this a quasi-judicial case? What exceptions to the UDO are you seeking?

Applicant's Response:

Our rezoning is not quasi-judicial; it is a legislative approval. We are not seeking any exception to the UDO at this time. The site plan, which will come after rezoning, is a quasi-judicial approval, but not due to any exception or variance we are seeking. In Apex, all Major Site Plans are quasi-judicial, even if not variance or exception is sought.

Question/Concern #2:

Can you put a fence along the perimeter?

Applicant's Response:

We are open to doing that, but some people have expressed that they do not want a fence. Depending on where the fence proponents are, we may be able to put a fence along a portion of the perimeter and keep it off of the areas where people do not want a fence. We will look into adding this.

Question/Concern #3:

How will this project affect our property values?

Applicant's Response:

We have not had an appraiser study that, but there are very few projects which negatively affect property value. Our expectation is that this project would not hurt your property values.

Question/Concern #4:

Do any of these examples on the concept imagery handout apply to this project?

Applicant's Response:

All of these are examples of what this developer has built elsewhere, but not all will apply to this site. Some will. We are required to include sample elevations with our rezoning submittal, so you will see some of these again as part of our submittal.

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Applicant(s): Jason Barron - Attorney for Applicant

Contact information (email/phone): jbarron@morningstarlawgroup.com / 919-590-0371

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Question/Concern #1:

What will the time line be for construction?

Applicant's Response:

From today, we would anticipate about 2 years before breaking ground. The project will most likely be developed in a single phase which may take about 18 to 24 months to complete.

Question/Concern #2:

Is there enough parking?

Applicant's Response:

Based on this developer's experience and what we are seeing in the market, we believe that Apex's standard parking ratio for multi-family will provide adequate parking for this use. Moreover, it is important that we put enough parking on this site because there is no opportunity for shared parking with any adjacent development.

Question/Concern #3:

Will there be sidewalks?

Applicant's Response:

Yes. We are requird to build sidewalk along our Morris Acres Road frontage and there will be sidewalks internal to the site.

Question/Concern #4:

Applicant's Response:

AFFIDAVIT OF CONDUCTING A NEIGHBORHOOD MEETING, SIGN-IN SHEET AND ISSUES/RESPONSES SUBMITTAL

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

I, Nil Ghosh, do hereby declare as follows:
Print Name

1. I have conducted a Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Master Subdivision Plan, or Special Use Permit in accordance with UDO Sec. 2.2.7 *Neighborhood Meeting*.

2. The meeting invitations were mailed to the Apex Planning Department, all property owners within 300 feet of the subject property and any neighborhood association that represents citizens in the area via first class mail a minimum of 10 days in advance of the Neighborhood Meeting.

3. The meeting was conducted at 237 N Salem St, Apex, NC 27502 (location/address) on 1/24/19 (date) from 6:00PM (start time) to 8:00PM (end time).

4. I have included the mailing list, meeting invitation, sign-in sheet, issue/response summary, and zoning map/reduced plans with the application.

5. I have prepared these materials in good faith and to the best of my ability.

1/29/19
Date

By: [signature]

STATE OF NORTH CAROLINA
COUNTY OF ~~WAKE~~ Durham

Sworn and subscribed before me, Terri Lee Tolley, a Notary Public for the above State and County, on this the 29th day of January, 2019.

SEAL

TERRI LEE TOLLEY NOTARY PUBLIC DURHAM COUNTY, N.C.

[signature]
Notary Public

Terri Lee Tolley
Print Name

My Commission Expires: 8/25/2023

Morris Acres PUD

PD PLAN

APEX, NORTH CAROLINA

Submitted: February 2019

Revised: February 28, 2019

Revised: May 10, 2019

Revised: June 7, 2019

Revised: June 27, 2019

Revised: July 31, 2019

Revised: August 6, 2019

Revised: August 23, 2019

PREPARED BY:

MORNINGSTAR LAW GROUP

Section 1: Table of Contents – PUD Text

Section 1: Table of Contents

Section 2: Vicinity Map

Section 3: Project Data

Section 4: Purpose Statement

Section 5: Permitted Uses

Section 6: Design Controls

Section 7: Architectural Controls

Section 8: Parking and Loading

Section 9: Signage

Section 10: Natural Resource and Environmental Data

Section 11: Stormwater Management

Section 12: Parks and Recreation

Section 13: Public Facilities

Section 14: Phasing Plan

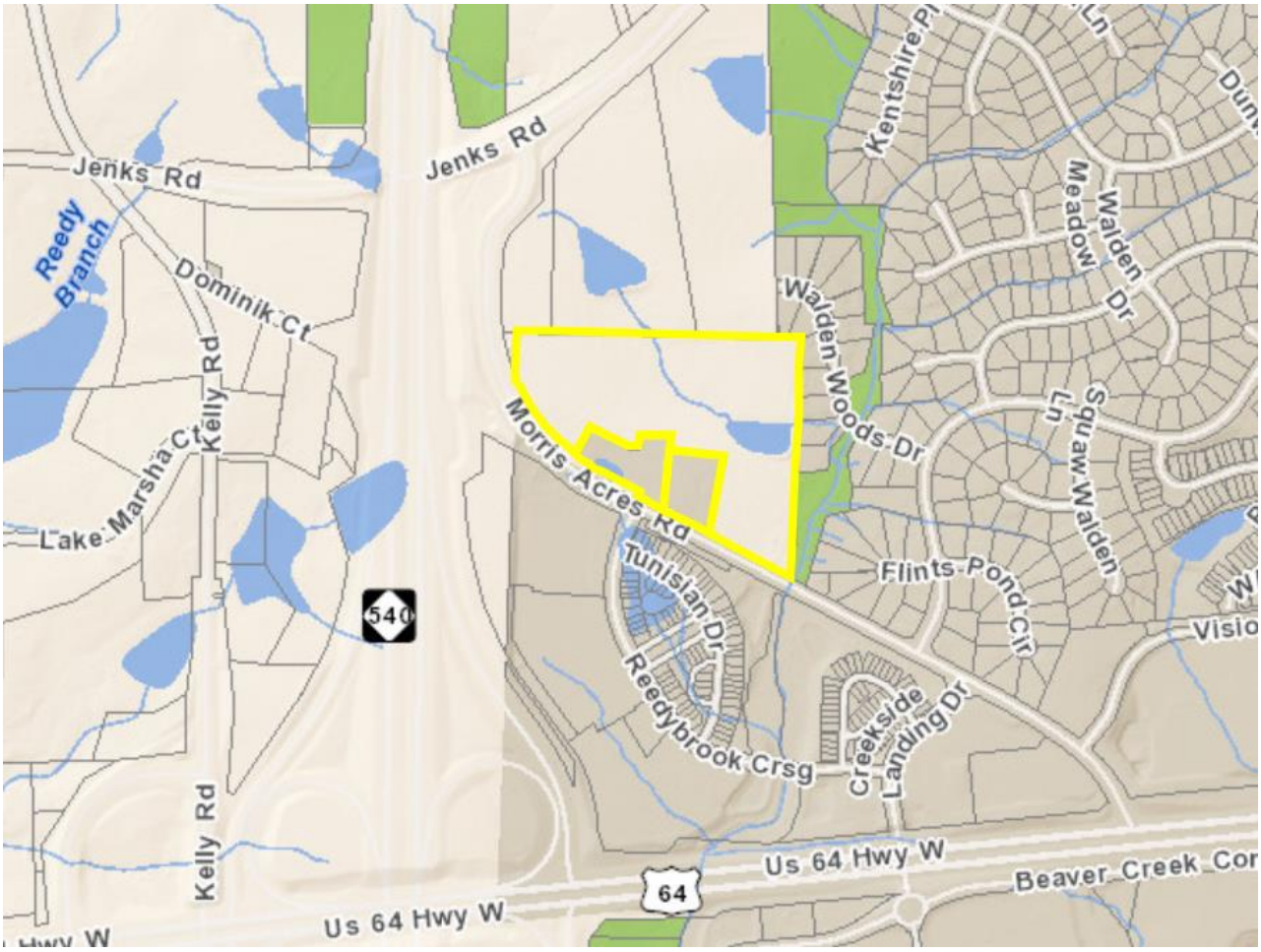
Section 15: Consistency with 2045 Land Use Plan

Section 16: Compliance with UDO

Section 17: Compliance with Apex Bicycle Plan

Section 18: Public Art

Section 2: Vicinity Map



The Morris Acres PUD is located in the Town of Apex, east of I-540, south of Jenks Road, and north of US-64. The properties are located on the north side of Morris Acres Road. To the north are large tracts of agricultural land with frontage on Jenks Road. Directly south is Morris Acres Road, and across Morris Acres Road is the 540 Townes Townhome community. East of the project site is the large Walden Creek single-family neighborhood built in the late 90's and early 2000's. Morris Acres Road and I-540 are directly west of the project.

Section 3: Project Data

A. Name of Project:
Morris Acres PUD

B. Property Owners:
Edith S. Morris

Prepared By:

Jason Barron, Partner
Morningstar Law Group
421 Fayetteville St | Ste 530
Raleigh, NC 27601

C. Current Zoning Designation:
Rural Residential (RR)

D. Proposed Zoning Designation:
Planned Unit Development – Conditional Zoning (PUD-CZ)

E. Current 2045 Land Use Map Designation:
Medium Density Residential (< 6 units/acre)

F. Proposed 2045 Land Use Map Designation:
High Density Residential

G. Proposed Use
Up to 297 dwelling units and associated open space, recreational amenities and infrastructure.

H. Size of Project

Wake County Tax Identification Number	Acreage
0732-28-9587; 0732-38-2530; and 0732-38-2709	17.44 acres

Section 4: Purpose Statement

The Morris Acres PUD development will be a multi-building apartment community with buildings that are up to four (4) stories or less entirely above grade (i.e., where basement units are feasible, some sides of buildings may be up to five (5) stories). The maximum building height shall be sixty-five feet (65') measured to the top of any pitched roof. Given the proximity of the subject property to the existing residences in Walden Woods (located to the east of the site), there shall be a minimum building setback of one hundred fifty feet (150') from any lot within Walden Woods containing a dwelling unit, and not structures on the property can be located any closer than two hundred seventy five feet (275') from the nearest home that is located on Flints Pond Circle. Additionally, in the medium density residential transition area as shown on the PUD Preliminary Layout Plan (the "Medium Density Transition Area"), the maximum height of buildings shall be three (3) stories up to a foot height of forty-five feet (45'), a maximum of four (4) dwelling units per acre shall be permitted, and only townhome style multifamily units (i.e., side-by-side residences rather than stacked apartments) shall be permitted Further, a Type A buffer shall be established along the eastern boundary of the subject property from Morris Acres Road to the southern edge of the riparian buffer around the existing farm pond on the subject property, a 10' wide evergreen planting strip shall be provided adjacent to riparian areas in the southeastern portion of the site, and a solid privacy fence at least eight feet (8') in height shall be installed within the Medium Density Residential Transition Area to provide beneficial screening from the proposed use to the adjacent community. Additionally, the northeastern corner of the subject property, north and east of the existing creek and pond, is to be preserved as permanent passive open space. Lastly, at least five percent (5%) of the units shall be affordable housing units at sixty percent (60%) of Wake County AMI for a period of at least twenty (20) years, and all of the buildings shall be prewired for solar.

This concept is consistent with the Town's stated PUD goal to provide site specific, high quality neighborhoods that exhibit natural feature preservation as well as compatibility with, and connectivity to, surrounding land uses. More specifically, this plan will:

- Allow uses that are compatible with Section 4.2.2, *Use Table* of the UDO
- Provide for the preservation of existing open space areas.
- Provide appropriate buffering and screening from the proposed use to the existing residential areas.
- Offer multifamily style living near interstate I-540 in an area where there are not many options for the same.
- Demonstrate dimensional standards that are consistent with the UDO, and where variations occur, said variations will be included herein and subject to Council approval.
- Provide a high quality community that is linked by a network of connected streets and pedestrian sidewalks that promotes connectivity, walkability and healthy lifestyles.
- Exhibit character and quality that is compatible with surrounding communities, which is expected to enhance the value of surrounding land uses.

- Provide significant open space and walkable trails to promote pedestrian activity, while appropriately buffering adjacent residential areas

All site-specific standards and conditions of this PUD Plan shall be consistent with all Conditional Zoning (CZ) District standards set forth in the UDO Section 2.3.3, *Conditional Zoning Districts* and UDO Section 2.3.4.F.1, *Planned Unit Development (PUD-CZ) District*. The proposed PUD will provide a development density that is consistent with principles found throughout the recently updated Advance Apex 2045. Through various policies, the Peak Plan 2030 works to ensure that there are appropriate transitions between uses. The proposed PUD Plan does just that, by transitioning from I-540 on the west to the single-family Walden Creek community east of the site. Thus, the plan is consistent with several policies contained within the Peak Plan 2030.

Section 5: Permitted Uses

The development will only include residential and supporting uses. Specifically, the permitted uses include:

- Multi-family or apartment
- Greenway
- Recreation Facility, private
- Park, active
- Park, passive
- Utility, minor

Additionally, the following conditions shall also apply:

A. A maximum of 297 residential units shall be permitted upon the property.
B. Along the eastern boundary of the subject property, extending from Morris Acres Road to the southern edge of the riparian buffer around the existing farm pond, the following shall be installed and maintained:
    a. A fifty-foot (50') Type A vegetative buffer; and
    b. An at least eight feet (8') tall solid privacy fence. The final location of the fence within the 50' Type A buffer will be determined at the time of site plan.
C. In the 3.00 acre Medium Density Residential Transition Area as depicted on the Preliminary Layout Plan, the following conditions shall apply:
    a. The maximum height for buildings shall be three (3) stories, up to a foot height of forty-five feet (45');
    b. Only townhome style units (i.e., side-by-side rather than stacked multifamily) may be permitted; and
    c. The maximum development density within this area shall be four (4) dwelling units per acre, and no more than 12 dwelling units in total.
D. In the area identified as "Passive Open Space" on the PUD Plan, no buildings or other structures shall be permitted, with the exception of passive recreational amenities.
E. A minimum of fifty percent (50%) of the dwelling units shall be one-bedroom units,

and a maximum of ten percent (10%) of the dwelling units shall be three-bedroom units.

F. For a period of at least twenty (20) years from the date of the issuance of the certificate of occupancy, at least five percent (5%) of the units developed on the site shall be preserved as affordable housing units at sixty percent (60%) of Wake County's area median income.

G. All buildings constructed on the property shall provide solar conduit for the installation of rooftop solar panels.

Section 6: Proposed Design Controls

A. Maximum Non-Residential Densities (SF per non-residential use) This PUD does not provide for any non-residential land uses (see Section 5, *Permitted Uses*).

B. Residential Densities and Design Controls

Density - The overall gross density shall not exceed 17.0 units per acre. The gross density within the Medium Density Transition Area shall not exceed 4.0 units per acre.

Design Controls – Dimensional standards below shall apply to all residential uses, and at a minimum, will comply with the following:

Maximum Density:	17.0 Units/Acre (includes RCA and rights-of-way)
Maximum Number of Units:	297
Maximum Built-Upon Area:	70%
Minimum Lot Size:	n/a
Minimum Lot Width:	n/a
Maximum Building Height:	Four (4) stories above grade, with a basement level (5th story) or 65'

Note: Porches, patios, decks and other accessory structures may encroach into building setbacks as allowed by the Town of Apex UDO.

Minimum Building Setbacks:

- From Building to Building: 10 feet
- From Buffer/RCA: 10 feet for Buildings; 5 feet for Parking Areas

Additional Setback: 150 feet from any lot within Walden Woods containing a dwelling unit

Within Medium Density Transition Area:

- Max Building Height: 3 stories (45')
- Maximum Density: 4.0 units/acre
- Setback: no building shall be constructed closer than 275' from the nearest home on Flints Pond Circle

C. Buffers

Perimeter Buffers

North boundary:	20-foot Type A
South boundary (Morris Acres Road):	30-foot Type A
West boundary (along 0732-29-5017):	30-foot Type A
East boundary	
Where Abutting Town of Apex Property:	50-foot Type A with ≥8-ft solid privacy fence
Adjacent to riparian buffers within Medium Density Transition Area:	10' wide evergreen planting strip
Otherwise:	50-foot undisturbed

Note: Where perimeter buffers coincide with stream buffers or 100-year floodplain, existing vegetation will be used to meet the buffer width and opacity.

Thoroughfare Buffers

As depicted on the PD Plan, a 30' Type A Buffer shall be established along Morris Acres Road.

Section 7: Proposed Architectural Controls

The proposed development offers the following architectural controls to ensure a consistency of character throughout the development, while allowing for enough variety to create interest and avoid monotony. Changes to the exterior materials, roof, windows, doors, process, trim, etc. are allowable with administrative approval at the staff level. Further details shall be provided at the time of Site Plan submittal. The following conditions shall apply:

- **A.** Vinyl siding will not be used except for vinyl windows and limited decorative element use. Residential areas will utilize brick, stone, and Hardi-plank siding.
- **B.** Siding materials will be varied in type and/or color on 30% of each façade on each building.
- **C.** Windows that are not recessed shall be trimmed. Windows shall vary in size and/or type.
- **D.** Recesses and projections shall be provided for at least 50% of each facade on each building. Building facades shall have horizontal relief achieved by the use of recesses and projections.
- **E.** Four of the following decorative features shall be used on each building: decorative shake, board and batten siding, decorative porch rails and posts, shutters, decorative functional foundation and roof vents, recessed windows, decorative windows, decorative brick or stone, decorative gables, decorative cornices, or metal roofing.
- **F.** A varied color palette shall be utilized throughout the development to include a minimum of three color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
- **G.** The rear and side elevations of the units that can be seen from the right-of-way shall have trim around the windows.
- **H.** Additionally, the following conditions shall apply to the building(s) located in the Medium Density Transition Area, as identified on the PUD Preliminary Sheet:
    1. The roof of each unit shall be horizontally and/or vertically distinct from any adjacent unit so as to avoid the appearance of a single mass.
    2. Front facing garage doors must have windows, decorative details, or carriage-style adornments.
    3. Entrances for units with front-facing garages shall have a prominent covered porch/stoop area leading to the front door.
    4. The front façade of any front-loaded garage shall not protrude farther than one foot forward of (i) the front façade of the dwelling unit, or (ii) the front porch of the dwelling unit, whichever is closer to the right-of-way from which the dwelling unit is addressed.

Section 8: Parking and Loading

Parking for the development shall be per Town of Apex UDO.

Section 9: Signage

All signage for this PUD shall comply with Section 8.7, *Signs*, of the Town of Apex UDO.

Section 10: Natural Resource and Environmental Data

A. River Basins and Watershed Protection Overlay Districts

The project is located within the Beaver Creek drainage basin, which is within the Cape Fear River Basin.

B. Resource Conservation Areas (RCA) – Required and Provided

This PUD will be subject to, and meet the requirements of Section 8.1.2 of the UDO, *Resource Conservation Area* and Section 2.3.4, *Planned Development Districts*.

The Site is located on the east side of the 540 corridor and therefore is required to preserve a minimum of 30% Resource Conservation Area (RCA). Designated RCA areas will be consistent with the items listed in Section 8.1.2(B) of the Town's UDO. Preserved streams, wetlands, and associated riparian buffers provide the primary RCA's throughout the site. Additional RCA area provided include stormwater management areas, perimeter buffers, and greenway trails within the walkable community.

C. Any historic structures present

As confirmed by the North Carolina State Historic Preservation Office and Capital Area Preservation, Inc. there are no historic structures present within the project boundary.

Section 11: Stormwater Management

A. This PUD shall meet all stormwater management requirements for quality and quantity treatment in accordance with Section 6.1.7 of the UDO, such that:

- Post development peak runoff shall not exceed pre-development peak runoff conditions for the 1 year, 10 year, and 25 year 24-hour storm events.

B. This PUD shall convey as much stormwater runoff from the site development as practical, including required Stormwater Control Measures (SCM'), to the existing 48" RCP culvert located in the southeastern corner of the site along Morris Acres Road. The direct storm drainage connection to the existing 48" RCP culvert is subject to final approval by the Town of Apex, NCDOT or any other regulatory agency. In the event that this direct storm drainage connection is not approved, then this PUD shall meet and exceed existing stormwater management requirements for quality and quantity treatment provided in Section 6.1.7 of the UDO, such that post development peak runoff shall not exceed pre-development peak runoff conditions for the 1 year, 10 year, 25 year, and 100 year 24-hour storm events

Section 12: Parks and Recreation

The Parks, Recreation, and Cultural Resources Advisory Commission recommended a fee-in-lieu for the project at the May 29, 2019 meeting.

Section 13: Public Facilities

The proposed PUD shall meet all Public Facilities requirements as set forth in UDO Section 2.3.4(F)(1)(f) and be designed according to sound engineering standards, and shall comply with Town of Apex Sewer and Water Master Plan and the Town of Apex Standards and Specifications. Specifically, road and utility infrastructure shall be as follows:

- **General Roadway Infrastructure**
  Developer shall provide minimum frontage widening based on ½ of a 3-lane thoroughfare section with side path and public right-of-way dedication based on an eighty foot (80') right-of-way along Morris Acres Road. The road network will promote connectivity wherever possible to adjacent neighborhoods and undeveloped property. Further, cul-de-sacs will be avoided except where environmental features make through streets unfeasible. Sidewalks will be provided on both sides of streets internal to the site and along street frontage.

  Please refer to the concept plan of the PUD plan for proposed access points, stub streets and planned vehicular connectivity. All access and circulation is conceptual and will be finalized at the time of Major Site Plan review and approval.

- **Transportation Improvements**
  5. Roadway improvements are subject to modification and final approval by the Town of Apex and NCDOT as part of the site plan and construction plan approval process. A traffic study has been performed as part of this PUD rezoning consistent with the Town's standards for the same. Based upon the traffic study, no offsite improvements are recommended for this development.

- **Wayfinding Improvements**
  Wayfinding measures at the site shall be provided in an effort to facilitate the movement of vehicles and pedestrians to and within the development.

- **Water and Sanitary Sewer**
  All lots within the project will be served by the Town of Apex for water and sanitary sewer. The utility design will be finalized at the time of Major Site Plan review and approval based upon available facilities adjacent to the site at that time. A conceptual utility plan is included in the PUD plan for reference.

- **Other Utilities**
  Electricity will be provided by Apex Electric. Phone, cable and gas will be provided by the developer and shall meet the Town of Apex standards as outlined in the UDO.

Section 14: Phasing Plan

This PUD may be completed in up to three (3) phases, with construction anticipated to begin in 2020. Project phasing will be planned to ensure the points of access are

provided in accordance with the UDO.

Section 15: Consistency with the 2045 Land Use Map

The proposed land use is consistent with the 2045 Land Use Map, if the Land Use Map Amendment is approved.

Section 16: Compliance with the UDO

The development standards adopted for this PUD are in compliance with those set forth in the current version of the Town's Unified Development Ordinance (UDO). Any deviations from UDO requirements have been specifically defined within this document.

Section 17: Compliance with Comprehensive Transportation Plan and Bicycle Plan

Major Site Plans for any development to be made pursuant to this amendment to the Official Zoning District Map shall comply with the adopted Comprehensive Transportation Plan in effect at the time of the Major Site Plan approval as provided for in the Unified Development Ordinance. Further, development of the Property shall be consistent with the Town's adopted Bicycle Plan.

Section 18: Public Art

The applicant shall provide a 6' x 6' Public Art easement to the Town of Apex along the Morris Acres Road frontage of the subject property. The precise location for this easement will be determined at the time of site plan review.

















CONCEPT IMAGERY

NOVEMBER/20/2018

MORRIS APEX

APEX, NORTH CAROLINA

dwell design studio

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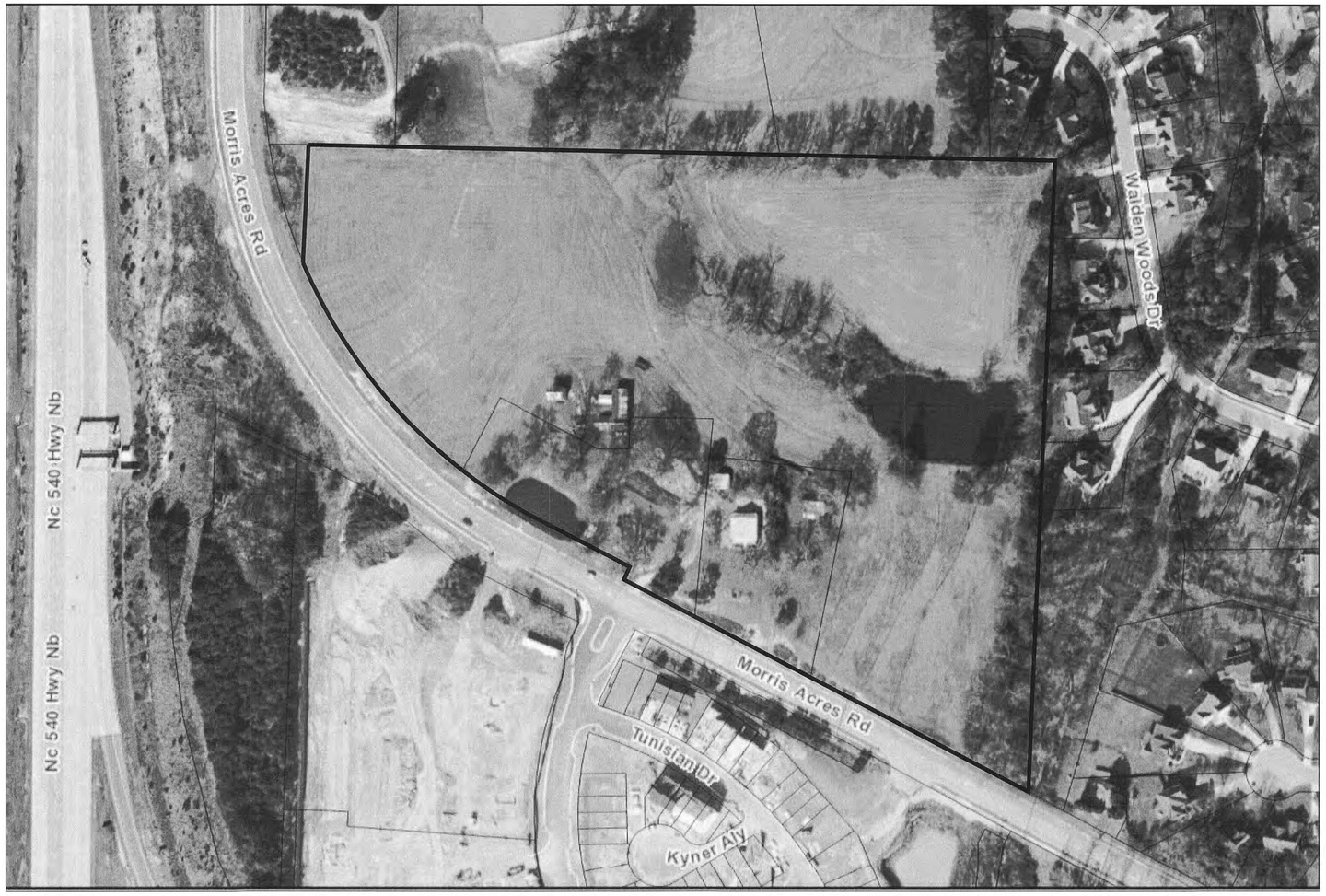
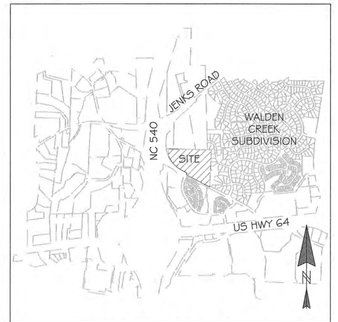
Mammoth1.com



MORRIS TRACT
PLANNED UNIT DEVELOPMENT





VICINITY MAP
N.T.S.

SITE DATA

PROJECT NAME	MORRIS TRACT
PREPARER'S CONTACT INFORMATION	JONES & CNOSSEN ENGINEERING, PLLC P.O. BOX 1062 APEX, NORTH CAROLINA 27502 PHONE - (919) 387-1174 FAX - (919) 387-3375 CONTACT PERSON - PETER D. CNOSSEN
OWNER / DEVELOPER CONTACT INFORMATION	KAPLAN RESIDENTIAL 1111 KANE CONCOURSE, SUITE 302 BAY HARBOUR, FLORIDA 33154 PHONE - (305) 901-2203 CONTACT PERSON - MORRIS KAPLAN
CURRENT ZONING	RR
CURRENT 2045 LAND USE MAP DESIGNATION	MEDIUM DENSITY RESIDENTIAL
PROPOSED ZONING DESIGNATION	PUD-CZ
PROPOSED 2045 LAND USE MAP DESIGNATION	HIGH DENSITY RESIDENTIAL
WAKE COUNTY PINS 0732:	38-2709, 38-2530, 28-9587
TOTAL PROJECT AREA	17.44 ACRES
AREA IN MORRIS ACRES ROAD R/W DEDICATION	0.64 ACRE
NET SITE AREA	16.80 ACRES
MAXIMUM NUMBER OF UNITS	297 UNITS (17.0 UNITS/ACRE)
PROPOSED NUMBER OF UNITS	297 UNITS (17.0 UNITS/ACRE)
REQUIRED RCA / BUFFER AREA	3.49 ACRES (20.0%)
PROVIDED RCA / BUFFER AREA	5.09 ACRES (29.9%)
MAXIMUM BUILT UPON AREA FOR PUD	70% OR 12.21 ACRES
MAXIMUM BUILDING HEIGHT	65' (4-STORIES ABOVE GRADE WITH A BASEMENT LEVEL)
OFF STREET PARKING	TOWN OF APEX UDO REQUIREMENTS
PUBLIC RECREATION REQUIREMENT	MULTI-FAMILY ATTACHED
WATERSHED INFORMATION	PRIMARY; BEAVER CREEK BASIN
HISTORIC STRUCTURE?	NO
FEMA FLOODPLAIN INFORMATION	MAP #3720073300J - PROJECT IS NOT WITHIN 100 YEAR FLOODPLAIN
MEDIUM DENSITY TRANSITION AREA	MAX. BUILDING HEIGHT - 3 STORIES (45') MAXIMUM DENSITY - 4 UNITS/ACRE

PERMITTED USE:

- MULTI-FAMILY OR APARTMENT
- GREENWAY
- RECREATION FACILITY, PRIVATE
- PARK, ACTIVE
- PARK, PASSIVE
- UTILITY, MINOR

MINIMUM BUILDING SETBACKS

FROM BUILDING TO BUILDING	10'
FROM BUFFER/RCA	10'
FROM WALDEN WOODS LOTS	150'
FROM FLINTS POND CIRCLE RESIDENTIAL STRUCTURES	275'

PD PLAN - DRAWING SHEET INDEX

1 COVER SHEET
2 PRELIMINARY LAYOUT PLAN
3 EXISTING CONDITIONS PLAN
4 PRELIMINARY UTILITY PLAN

REVISIONS
08/22/19 RCA & SETBACKS

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

THIS SHEET IS FOR
ILLUSTRATIVE PURPOSES ONLY

Jones & Cnossen ENGINEERING, PLLC
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Registration: P-0151
www.jonescnossen.com

NORTH CAROLINA PROFESSIONAL SEAL 032162 ENGINEER PETER D. CNOSSEN
8/22/19

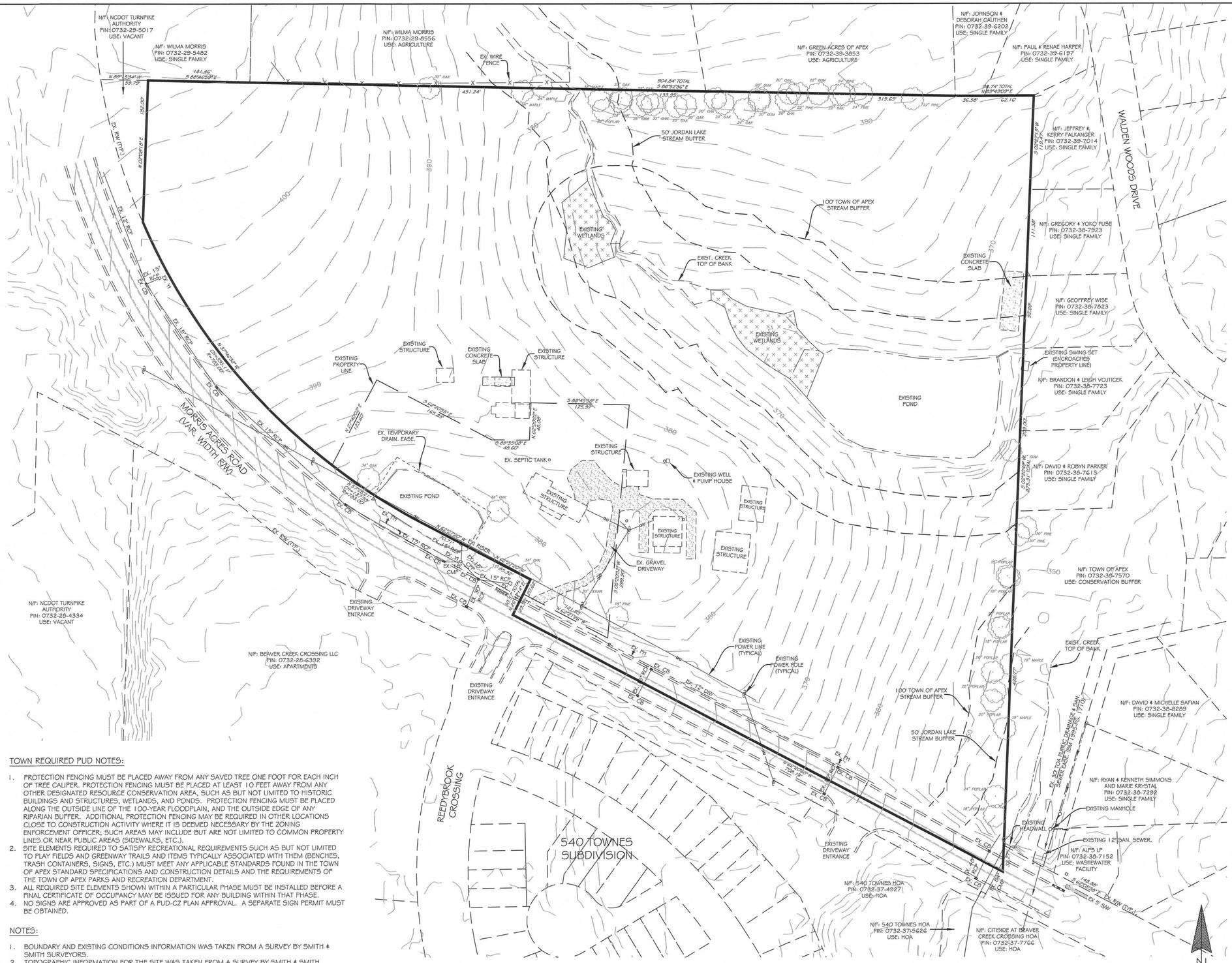
MORRIS TRACT
PD PLANS
WAKE COUNTY, NORTH CAROLINA
TOWN OF APEX

COVER SHEET

SCALE 1"=100'
DRAWN PDC
DATE FEBRUARY 1, 2019

REVISION	
03/07/19	1st TRC COMMENTS
05/10/19	2nd TRC COMMENTS
06/06/19	3rd TRC COMMENTS
06/27/19	4th TRC COMMENTS
07/30/19	5th TRC COMMENTS
08/06/19	6th TRC COMMENTS

SHEET 1
PROJECT 1846



TOWN REQUIRED PUD NOTES:

1. PROTECTION FENCING MUST BE PLACED AWAY FROM ANY SAVED TREE ONE FOOT FOR EACH INCH OF TREE CALIPER. PROTECTION FENCING MUST BE PLACED AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RESOURCE CONSERVATION AREA, SUCH AS BUT NOT LIMITED TO HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS. PROTECTION FENCING MUST BE PLACED ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN, AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER. ADDITIONAL PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE BUT ARE NOT LIMITED TO COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).
2. SITE ELEMENTS REQUIRED TO SATISFY RECREATIONAL REQUIREMENTS SUCH AS BUT NOT LIMITED TO PLAY FIELDS AND GREENWAY TRAILS AND ITEMS TYPICALLY ASSOCIATED WITH THEM (BENCHES, TRASH CONTAINERS, SIGNS, ETC.) MUST MEET ANY APPLICABLE STANDARDS FOUND IN THE TOWN OF APEX STANDARD SPECIFICATIONS AND CONSTRUCTION DETAILS AND THE REQUIREMENTS OF THE TOWN OF APEX PARKS AND RECREATION DEPARTMENT.
3. ALL REQUIRED SITE ELEMENTS SHOWN WITHIN A PARTICULAR PHASE MUST BE INSTALLED BEFORE A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR ANY BUILDING WITHIN THAT PHASE.
4. NO SIGNS ARE APPROVED AS PART OF A PUD-CZ PLAN APPROVAL. A SEPARATE SIGN PERMIT MUST BE OBTAINED.

NOTES:

1. BOUNDARY AND EXISTING CONDITIONS INFORMATION WAS TAKEN FROM A SURVEY BY SMITH & SMITH SURVEYORS.
2. TOPOGRAPHIC INFORMATION FOR THE SITE WAS TAKEN FROM A SURVEY BY SMITH & SMITH SURVEYORS. THE TOPO OUTSIDE THE SITE WAS TAKEN FROM TOWN OF APEX LIDAR WHICH WAS BLENDED WITH THE FIELD TOPO AT THE PROPERTY BOUNDARY.
3. THE SITE HAS BEEN EVALUATED FOR THE EXISTENCE OF WETLANDS AND STREAMS BY ENVIRONMENTAL SERVICES, INC. THE LOCATION OF THESE ENVIRONMENTAL FEATURES INCLUDING STREAM BUFFERS ARE SHOWN AS SURVEYED. TOWN OF APEX PROJECT ID IS APEX 18-011.
4. THE EXISTING POND AND TEMPORARY DRAINAGE EASEMENT ALONG MORRIS ACRES ROAD ARE RECORDED IN DB 14372, PG. 82.
5. NCDOT APPROVAL TO REMOVE EXISTING POND AND TEMPORARY DRAINAGE EASEMENT FROM SITE SHALL BE HANDLED AT THE TIME OF MASTER PLAN APPROVAL.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL SEAL 17942 ENGINEER PETER D. CNOSSEN
01/7/19

MORRIS TRACT
PD PLANS

TOWN OF APEX
WAKE COUNTY, NORTH CAROLINA

EXISTING CONDITIONS PLAN

SCALE	1"=60'
DRAWN	PDC
DATE	FEBRUARY 1, 2019

REVISION	
03/07/19	1st TRC COMMENTS

SHEET	3
PROJECT	1846

TOWN REQUIRED PUD NOTES:

1. PROTECTION FENCING MUST BE PLACED AWAY FROM ANY SAVED TREE ONE FOOT FOR EACH INCH OF TREE CALIPER. PROTECTION FENCING MUST BE PLACED AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RESOURCE CONSERVATION AREA, SUCH AS BUT NOT LIMITED TO HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS. PROTECTION FENCING MUST BE PLACED ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN, AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER. ADDITIONAL PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE BUT ARE NOT LIMITED TO COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).
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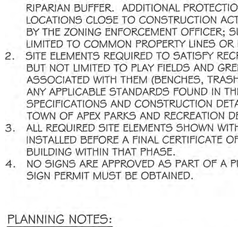
3. ALL REQUIRED SITE ELEMENTS SHOWN WITHIN A PARTICULAR PHASE MUST BE INSTALLED BEFORE A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR ANY BUILDING WITHIN THAT PHASE.
4. NO SIGNS ARE APPROVED AS PART OF A PUD-CZ PLAN APPROVAL. A SEPARATE SIGN PERMIT MUST BE OBTAINED.

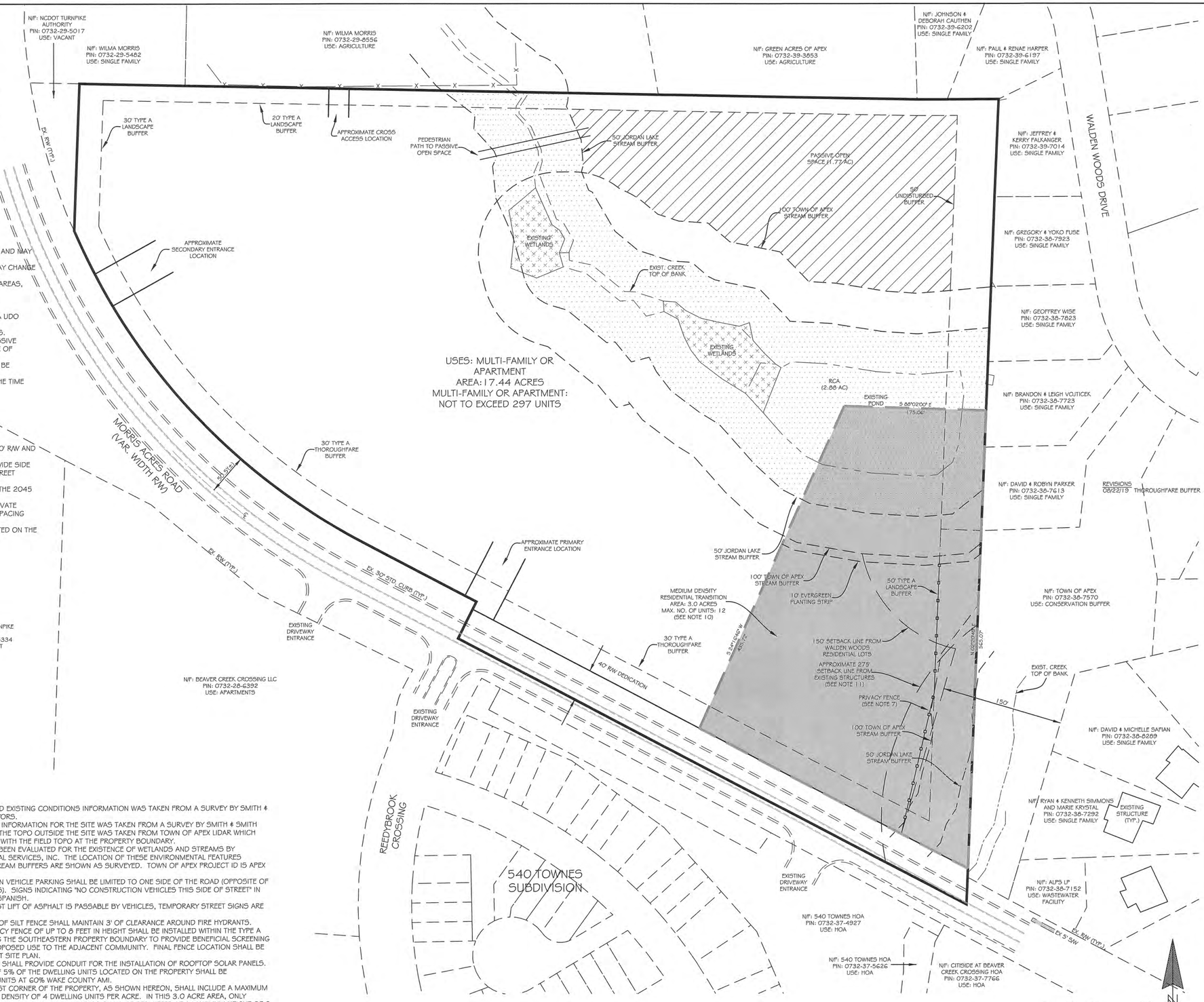
PLANNING NOTES:

1. PRIMARY AND SECONDARY ENTRANCE LOCATIONS SHOWN HEREON ARE PRELIMINARY AND MAY CHANGE AT THE TIME OF MASTER PLAN APPROVAL.
2. THE RESOURCE CONSERVATION AREA (RCA) SHOWN HEREON IS PRELIMINARY AND MAY CHANGE AT THE TIME OF MASTER PLAN APPROVAL.
3. THE MAINTENANCE OF RCA, LANDSCAPE BUFFERS, PASSIVE OPEN SPACE, COMMON AREAS, AND THE STORMWATER DEVICES SHALL BE THE RESPONSIBILITY OF THE PROPERTY ASSOCIATION.
4. ALL SIGNAGE SHALL COMPLY WITH TOA UDO SECTION 8.7, SIGNS
5. THE PUD SHALL MEET TOWN OF APEX STORMWATER REQUIREMENTS OUTLINED IN TOA UDO SECTION 6.1.7 SUCH THAT POST-DEVELOPMENT RUNOFF SHALL NOT EXCEED THE PRE-DEVELOPMENT RUNOFF FOR THE 1-YEAR AND 10-YEAR, 24 HOUR STORM EVENTS.
6. THE PEDESTRIAN PATH IS FOR INTERNAL SIDEWALK CONNECTION TO ACCESS THE PASSIVE OPEN SPACE. THE LOCATION SHOWN IS PRELIMINARY AND MAY CHANGE AT THE TIME OF MASTER PLAN APPROVAL.
7. THE PEDESTRIAN PATH ACCESS TO THE PASSIVE OPEN SPACE IS PRIVATE AND SHALL BE MAINTAINED BY THE PROPERTY ASSOCIATION.
8. PERMITTING FOR THE PEDESTRIAN PATH STREAM CROSSING SHALL BE HANDLED AT THE TIME OF CONSTRUCTION DRAWING APPROVAL.

TRANSPORTATION ELEMENTS:

1. MORRIS ACRES ROAD IS A TOWN OF APEX 3-LANE THOROUGHFARE REQUIRING AN 80' R/W AND 41' B-B STREET SECTION.
2. DEVELOPER SHALL DEDICATE 40' OF R/W AS SHOWN HEREON AND CONSTRUCT 10' WIDE SIDE PATH ALONG THE FRONTAGE TO COMPLETE HALF OF THE 3-LANE THOROUGHFARE STREET SECTION.
3. THE 10' WIDE SIDE PATH SHALL COMPLY WITH THE TERMINOLOGY IN ADVANCE APEX THE 2045 PLAN.
4. THE PRIMARY AND SECONDARY ENTRANCE LOCATIONS SHOWN HEREON ARE FOR PRIVATE ACCESS. ENTRANCE LOCATIONS ARE PRELIMINARY AND SHALL BE AT APPROPRIATE SPACING PER TOA UDO REQUIREMENTS.
5. THE CROSS ACCESS LOCATION SHOWN HEREON IS PRELIMINARY AND MAY BE ADJSTED ON THE SITE PLAN SUBMITTAL.





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4. CONSTRUCTION VEHICLE PARKING SHALL BE LIMITED TO ONE SIDE OF THE ROAD (OPPOSITE OF FIRE HYDRANTS). SIGNS INDICATING "NO CONSTRUCTION VEHICLES THIS SIDE OF STREET" IN ENGLISH AND SPANISH.
5. ONCE THE FIRST LIFT OF ASPHALT IS PASSABLE BY VEHICLES, TEMPORARY STREET SIGNS ARE REQUIRED.
6. INSTALLATION OF SILT FENCE SHALL MAINTAIN 3' OF CLEARANCE AROUND FIRE HYDRANTS.
7. A SOLID PRIVACY FENCE OF UP TO 8 FEET IN HEIGHT SHALL BE INSTALLED WITHIN THE TYPE A BUFFER ALONG THE SOUTHEASTERN PROPERTY BOUNDARY TO PROVIDE BENEFICIAL SCREENING FROM THE PROPOSED USE TO THE ADJACENT COMMUNITY. FINAL FENCE LOCATION SHALL BE DETERMINED AT SITE PLAN.
8. ALL BUILDINGS SHALL PROVIDE CONDUIT FOR THE INSTALLATION OF ROOFTOP SOLAR PANELS.
9. A MINIMUM OF 5% OF THE DWELLING UNITS LOCATED ON THE PROPERTY SHALL BE AFFORDABLE UNITS AT 60% WAKE COUNTY AMI.
10. THE SOUTHEAST CORNER OF THE PROPERTY, AS SHOWN HEREON, SHALL INCLUDE A MAXIMUM DEVELOPMENT DENSITY OF 4 DWELLING UNITS PER ACRE. IN THIS 3.0 ACRE AREA, ONLY TOWNHOME STYLE MULTI-FAMILY DWELLINGS SHALL BE PERMITTED AT A MAXIMUM HEIGHT OF 3 STORIES (45').
11. NO RESIDENTIAL STRUCTURE ON THE SUBJECT PROPERTY SHALL BE CLOSER THAN 275' TO THE NEAREST HOME ON FLINT'S POND CIRCLE. RESIDENTIAL STRUCTURES SHOWN WERE DRAWN USING AERIAL INFORMATION FROM IMAPS AND SHOULD BE CONSIDERED APPROXIMATE.

PRELIMINARY PLANS
NOT FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 17252 PETER D. CNOSSEN
8/27/19

MORRIS TRACT PD PLANS

WAKE COUNTY, NORTH CAROLINA

TOWN OF APEX

PRELIMINARY LAYOUT PLAN

SCALE	1"=60'
DRAWN	PDC
DATE	FEBRUARY 1, 2019

REVISION	
03/07/19	1st TRC COMMENTS
05/10/19	2nd TRC COMMENTS
06/06/19	3rd TRC COMMENTS
06/27/19	4th TRC COMMENTS
07/30/19	5th TRC COMMENTS
08/06/19	6th TRC COMMENTS
08/22/19	THOROUGHFARE BUFFER

SHEET	2
PROJECT	1846

TOWN REQUIRED PUD NOTES:

1. ALL UTILITY DESIGNS AND EXTENSIONS SHALL COMPLY WITH THE TOWN OF APEX SEWER AND WATER MASTER PLANS AND THE TOWN OF APEX STANDARDS AND SPECIFICATIONS.
2. PROTECTION FENCING MUST BE PLACED AWAY FROM ANY SAVED TREE ONE FOOT FOR EACH INCH OF TREE CALIPER. PROTECTION FENCING MUST BE PLACED AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RESOURCE CONSERVATION AREA, SUCH AS BUT NOT LIMITED TO HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS. PROTECTION FENCING MUST BE PLACED ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN, AND THE OUTSIDE EDGE OF ANY RIPARIAN BUFFER. ADDITIONAL PROTECTION FENCING MAY BE REQUIRED IN OTHER LOCATIONS CLOSE TO CONSTRUCTION ACTIVITY WHERE IT IS DEEMED NECESSARY BY THE ZONING ENFORCEMENT OFFICER; SUCH AREAS MAY INCLUDE BUT ARE NOT LIMITED TO COMMON PROPERTY LINES OR NEAR PUBLIC AREAS (SIDEWALKS, ETC.).
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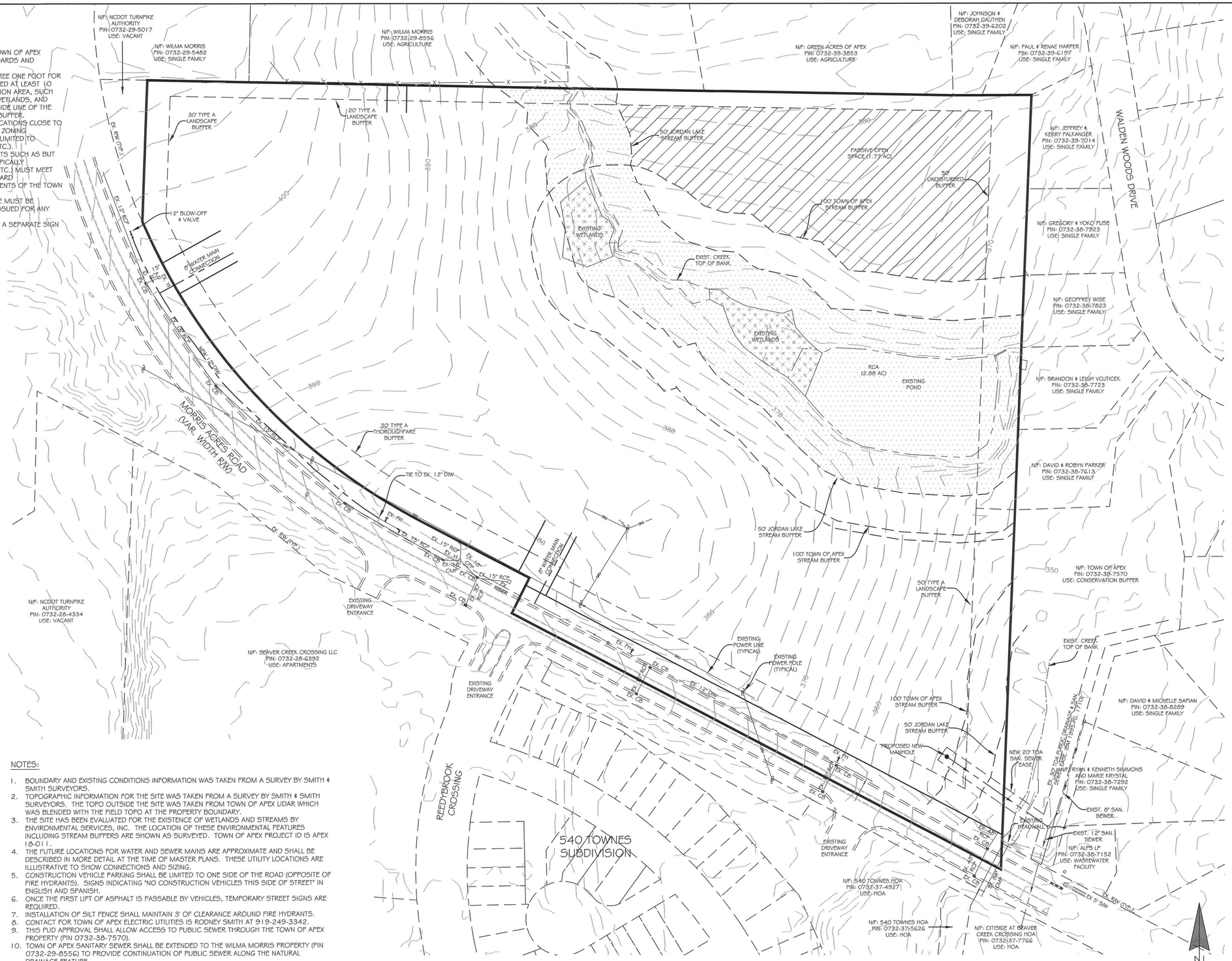

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4. THE FUTURE LOCATIONS FOR WATER AND SEWER MAINS ARE APPROXIMATE AND SHALL BE DESCRIBED IN MORE DETAIL AT THE TIME OF MASTER PLANS. THESE UTILITY LOCATIONS ARE ILLUSTRATIVE TO SHOW CONNECTIONS AND SIZING.
5. CONSTRUCTION VEHICLE PARKING SHALL BE LIMITED TO ONE SIDE OF THE ROAD (OPPOSITE OF FIRE HYDRANTS). SIGNS INDICATING "NO CONSTRUCTION VEHICLES THIS SIDE OF STREET" IN ENGLISH AND SPANISH.
6. ONCE THE FIRST LIFT OF ASPHALT IS PASSABLE BY VEHICLES, TEMPORARY STREET SIGNS ARE REQUIRED.
7. INSTALLATION OF SILT FENCE SHALL MAINTAIN 3' OF CLEARANCE AROUND FIRE HYDRANTS.
8. CONTACT FOR TOWN OF APEX ELECTRIC UTILITIES IS RODNEY SMITH AT 919-249-3342.
9. THIS PUD APPROVAL SHALL ALLOW ACCESS TO PUBLIC SEWER THROUGH THE TOWN OF APEX PROPERTY (PIN 0732-38-7570).
10. TOWN OF APEX SANITARY SEWER SHALL BE EXTENDED TO THE WILMA MORRIS PROPERTY (PIN 0732-29-8556) TO PROVIDE CONTINUATION OF PUBLIC SEWER ALONG THE NATURAL DRAINAGE FEATURE.
11. ANY REQUIRED UTILITY CONNECTIONS TO THE SURROUNDING PROPERTIES AND PUBLIC R/W SHALL BE ALLOWED THROUGH ALL PERIMETER BUFFERS.

0 30 60 120
GRAPHIC SCALE

PRELIMINARY PLANS NOT FOR CONSTRUCTION

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NORTH CAROLINA PROFESSIONAL SEAL 17112 ENGINEER KEVIN D. CNOSSEN
6/12/19

MORRIS TRACT PD PLANS

WAKE COUNTY, NORTH CAROLINA

TOWN OF APEX

PRELIMINARY UTILITY PLAN

SCALE	1"=60'
DRAWN	PDC
DATE	FEBRUARY 1, 2019

REVISION	
03/07/19	1st TRC COMMENTS
05/10/19	2nd TRC COMMENTS
06/27/19	4th TRC COMMENTS

SHEET 4

PROJECT 1846

Traffic Impact Analysis

The Wayforth at Apex
Apex, NC

Prepared for:

Kaplan Residential

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Kimley»Horn

Traffic Impact Analysis
for
The Wayforth at Apex
Apex, North Carolina

Prepared for:
Kaplan Residential
Bay Harbor, FL

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January 2019
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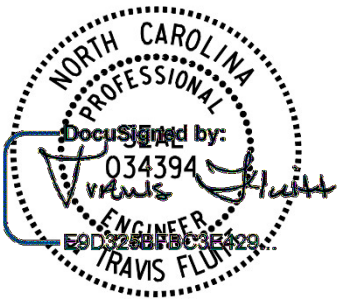

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Executive Summary

Kimley-Horn and Associates, Inc. has performed a Traffic Impact Analysis for The Wayforth at Apex, a proposed apartment project located on the east side of Morris Acres Road between Jenks Road and Walden Creek Drive in Apex, North Carolina. The property is currently occupied by a few single-family homes and as currently envisioned will consist of approximately 300 apartments. The development is proposed to be accessed via three driveways on Morris Acres Road, and build-out of the project is anticipated in the year 2022.

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands in conjunction with the development. The traffic conditions studied include the existing (2018) traffic condition as well as the projected (2022) background and build-out traffic conditions.

As shown in Table ES-1, the proposed development has the potential to generate 1,634 new trips during a typical weekday with 100 new trips during the AM peak hour and 127 new trips during the PM peak hour.

Table ES-1
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity		Daily		AM Peak Hour		PM Peak Hour	
				In	Out	In	Out	In	Out
221	Multifamily Housing (Mid-Rise)	300	d.u.	817	817	26	74	77	50

Capacity analyses were performed using Synchro Version 9.2 software. Table ES-2 summarizes the operation of the study intersections for the AM and PM peak hour traffic conditions.

Table ES-2
Level-of-Service Summary

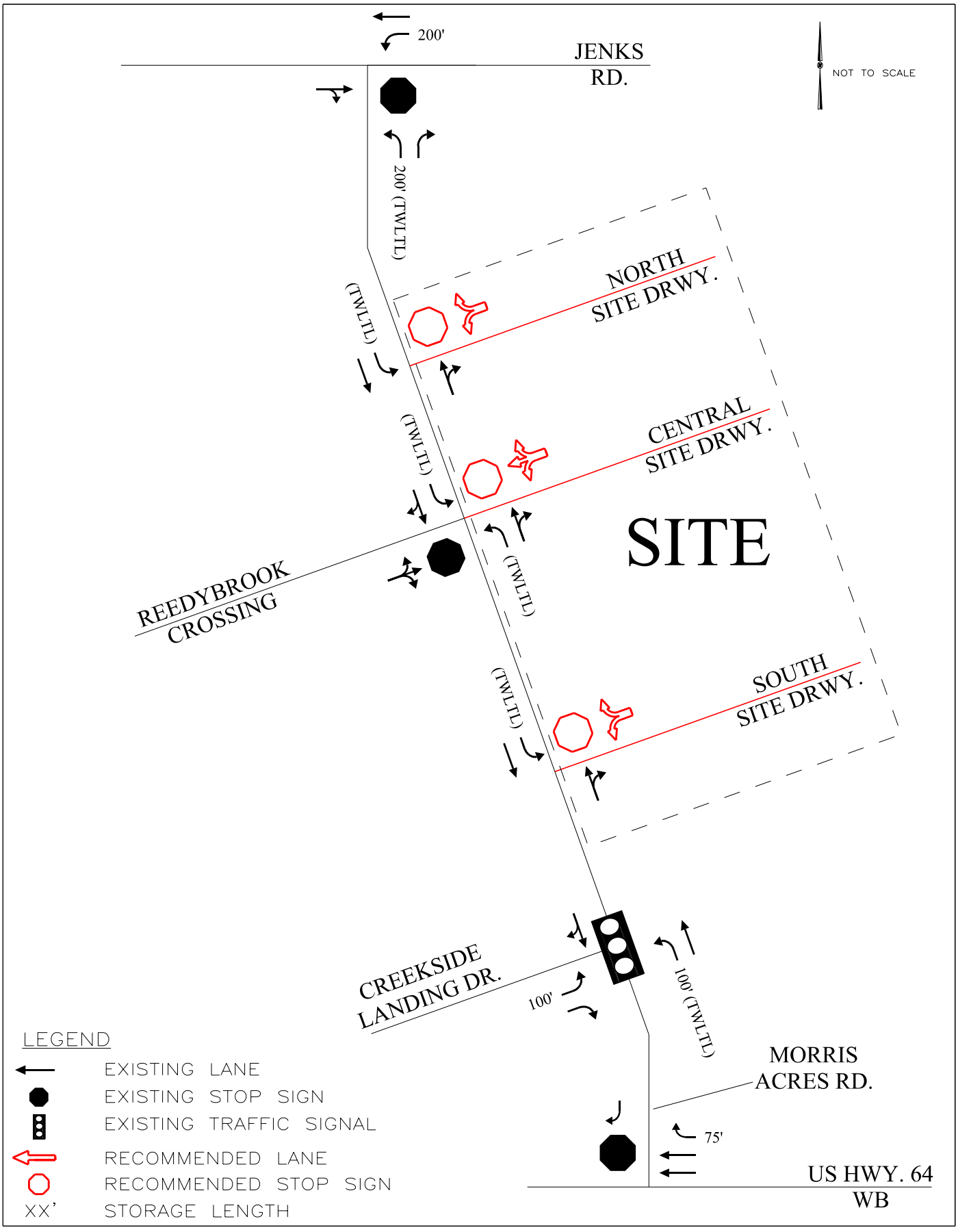
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Jenks Road at Morris Acres Road (Unsignalized)		
Existing (2018) Traffic	NB ¯ B (11.3) WBL ¯ A (7.8)	NB ¯ B (14.6) WBL ¯ A (8.1)
Background (2022) Traffic	NB ¯ B (11.8) WBL ¯ A (7.9)	NB ¯ C (16.6) WBL ¯ A (8.2)
Build-out (2022) Traffic	NB ¯ B (11.9) WBL ¯ A (7.9)	NB ¯ C (17.6) WBL ¯ A (8.3)

Table ES-2 (cont.) Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Morris Acres Road at Reedybrook Crossing/Central Site Driveway (Unsignalized)		
Existing (2018) Traffic	EB – A (9.4) NBL – A (7.3)	EB – B (10.2) NBL – A (7.6)
Background (2022) Traffic	EB – A (9.5) NBL – B (7.3)	EB – B (10.4) NBL – A (7.7)
Build-out (2022) Traffic	EB – B (10.2) WB – B (10.2) NBL – A (7.4) SBL – A (7.6)	EB – B (12.6) WB – B (12.5) NBL – A (7.7) SBL – A (8.0)
Morris Acres Road at Creekside Landing Drive (Signalized)		
Existing (2018) Traffic	A (4.6)	A (6.7)
Background (2022) Traffic	A (4.7)	A (7.1)
Build-out (2022) Traffic	A (5.0)	A (7.8)
US 64 Westbound at Morris Acres Road (Unsignalized)		
Existing (2018) Traffic	SB – D (27.9)	SB – D (28.8)
Background (2022) Traffic	SB – E (41.8)	SB – E (43.6)
Build-out (2022) Traffic	SB – E (49.4)	SB – E (48.8)
Morris Acres Road at North Site Driveway (Unsignalized)		
Build-out (2022) Traffic	WB – A (9.8) SBL – A (7.7)	WB – B (10.6) SBL – A (8.0)
Morris Acres Road at South Site Driveway (Unsignalized)		
Build-out (2022) Traffic	WB – A (9.7) SBL – A (7.6)	WB – B (10.8) SBL – A (8.0)

With the exception of southbound Morris Acres Road at US 64 Westbound, analyses indicate that all of the study intersections are expected to operate at an acceptable LOS at project build-out with only minor increases in delays and queues associated with the addition of site traffic. The intersection of US 64 Westbound at Morris Acres road is expected to operate with moderate delays on Morris Acres Road in the year 2022 with or without the proposed project in place.

No roadway improvements are recommended to be performed to accommodate projected site traffic volumes.

The build-out roadway laneage is shown on Figure ES-1.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	BUILD-OUT ROADWAY LANEAGE	FIGURE ES-1

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1.0 Introduction

Kimley-Horn and Associates, Inc. has performed a Traffic Impact Analysis for The Wayforth at Apex, a proposed apartment project located on the east side of Morris Acres Road between Jenks Road and Walden Creek Drive in Apex, North Carolina. The property is currently occupied by a few single-family homes and as currently envisioned will consist of approximately 300 apartments. The development is proposed to be accessed via three driveways on Morris Acres Road, and build-out of the project is anticipated in the year 2022.

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands in conjunction with the development. The traffic conditions studied include the existing (2018) traffic condition as well as the projected (2022) background and build-out traffic conditions.

Town of Apex and North Carolina Department of Transportation (NCDOT) transportation staff provided background data and were consulted regarding the elements to be covered in this analysis. The approved Memorandum of Understanding is included in the Appendix of this report.

2.0 Inventory

2.1 Study Area

The study area for this development in includes the following intersections:

- Jenks Road at Morris Acres Road
- Morris Acres Road at Reedybrook Crossing/Central Site Driveway
- Morris Acres Road at Creekside Landing Drive
- Morris Acres Road at US 64 Westbound
- Morris Acres Road at North Site Driveway
- Morris Acres Road at South Site Driveway

Figure 1 shows the site location. The preliminary site plan is shown on Figure 2.

2.2 Existing Conditions

The Wayforth at Apex development is proposed to be located generally east of Morris Acres Road between Jenks Road and Walden Creek Drive in Apex, North Carolina. Roadways in the study area include US 64, Jenks Road, Creekside Landing Drive, and Morris Acres Road (formerly Green Level Church Road). The existing roadway laneage is shown in Figure 3.

US 64 is a 4-lane divided highway with a posted speed limit of 55 mph near Morris Acres Road. On US 64 Westbound, the reported 2017 average daily traffic (ADT) volume was approximately 31,000 vehicles per day (vpd) west of Morris Acres Road. US 64 is designated as a freeway on the Town of Apex Thoroughfare and Collector Street Plan.

Jenks Road is a 2-lane undivided roadway with a posted speed limit of 45 mph in the vicinity of Morris Acres Road. The estimated 2018 ADT volume is approximately 6,000 vpd west of Morris Acres Road. Jenks Road is designated to be a 3-lane thoroughfare section per the Town of Apex Thoroughfare and Collector Street Plan.

Creekside Landing Drive is a 2-lane undivided roadway with a posted speed limit of 25 mph. The estimated 2018 ADT volume is approximately 3,500 vpd. Morris Acres Road is designated to be a minor collector on the Town of Apex Thoroughfare and Collector Street Plan.

Morris Acres Road (formerly Green Level Church Road) is a 3-lane undivided roadway in the vicinity of the site with a posted speed limit of 45 mph. The estimated 2018 ADT volume is approximately 3,000 vpd at Jenks Road. Morris Acres Road has already been widened to the designated 3-lane thoroughfare per the Town of Apex Thoroughfare and Collector Street Plan.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	SITE LOCATION	FIGURE 1

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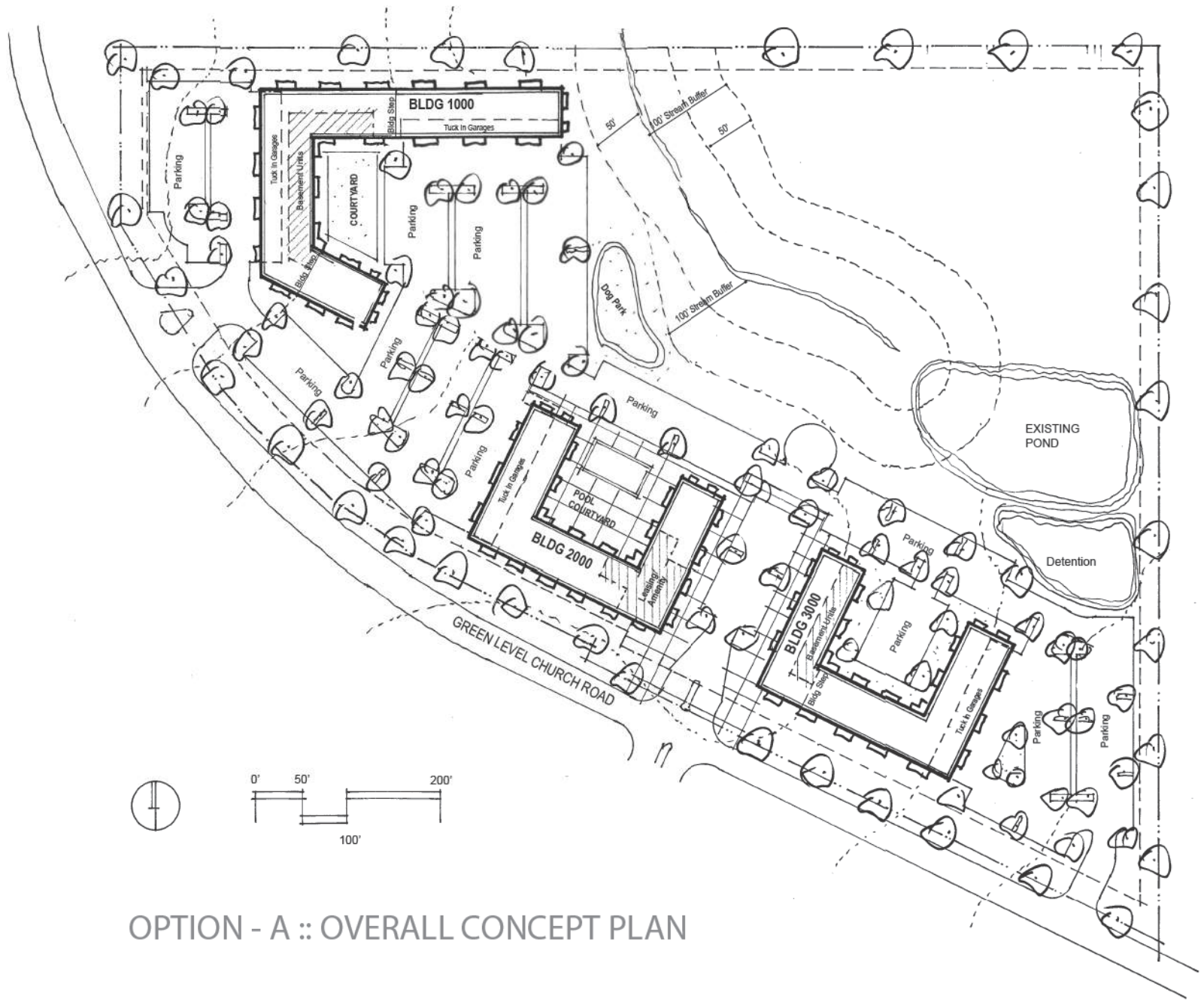

OPTION - A :: OVERALL CONCEPT PLAN

PROJECT DATA

RESIDENTIAL - 1,000 SF Average

BUILDING 1000	**- 102 Units (4/5 Story)**
BUILDING 2000	**- 88 Units (4/5 Story)**
BUILDING 3000	**- 113 Units (4/5 Story)**
TOTAL	**- 303 Units**

Leasing and Amenity in Bldg 2000
- 7,500 SF

PARKING

SURFACE PARKING	- 408 SPACES
TUCK UNDER GARAGES	- 47 SPACES
TOTAL	- 455 SPACES (1.5 Spaces/Unit)

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FIGURE 2

PROPOSED SITE PLAN

THE WAYFORTH AT APEX
APEX, NC
TRAFFIC CAPACITY ANALYSIS

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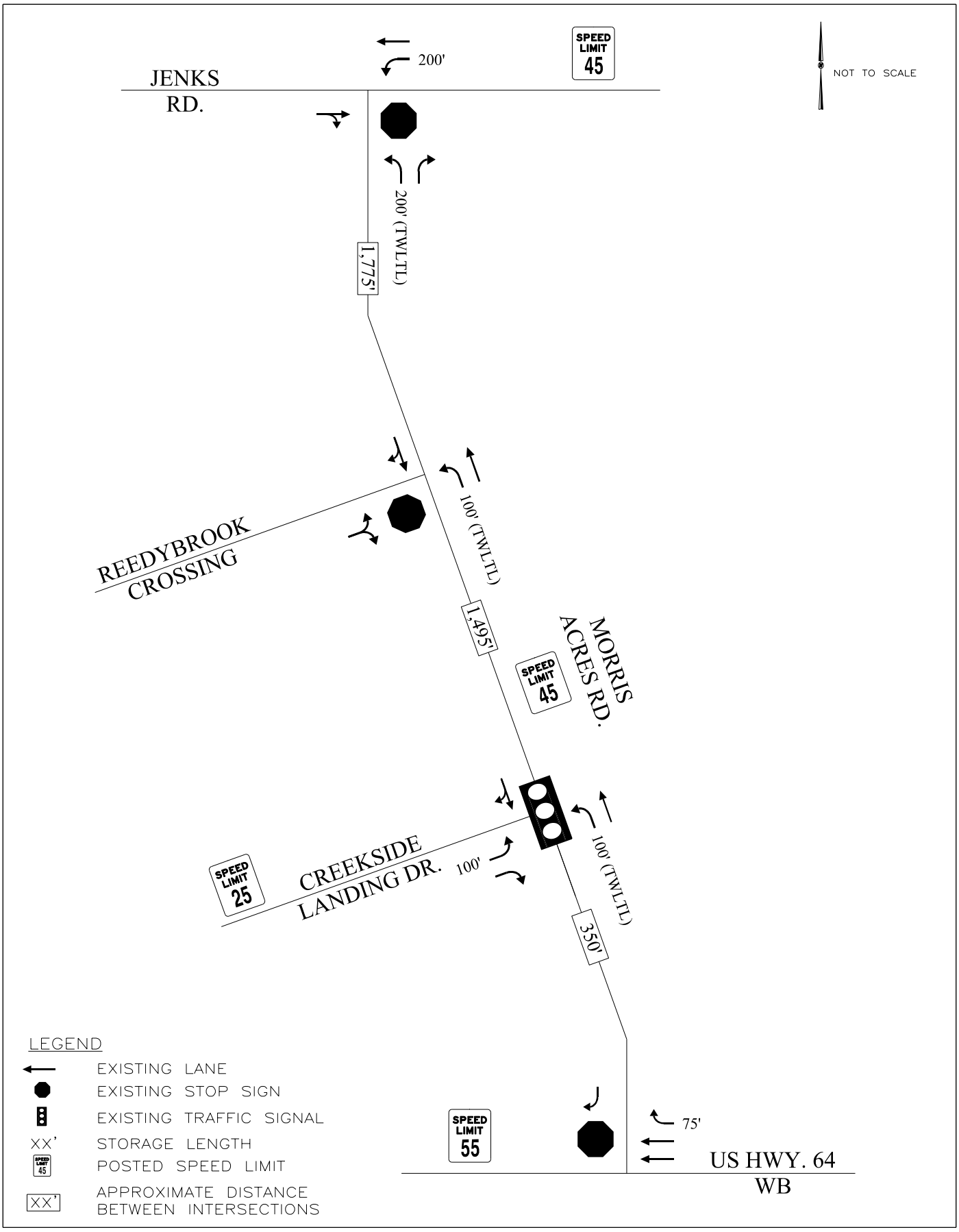

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THE WAYFORTH AT APEX
APEX, NC
TRAFFIC CAPACITY ANALYSIS

EXISTING ROADWAY LANEAGE

FIGURE 3

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3.0 Traffic Generation

The traffic generation potential of the proposed development was determined using the traffic generation rates published in Trip Generation (Institute of Transportation Engineers, Tenth Edition, 2017). As currently envisioned the development will consist of approximately 300 apartments. Table 3.0 summarizes the estimated traffic generation for the proposed development.

Table 3.0
ITE Traffic Generation (Vehicles)

Land Use Code	Land Use	Intensity		Daily		AM Peak Hour		PM Peak Hour	
				In	Out	In	Out	In	Out
221	Multifamily Housing (Mid-Rise)	300	d.u.	817	817	26	74	77	50

Table 3.0 shows the proposed development has the potential to generate 1,634 new trips during a typical weekday with 100 new trips during the AM peak hour and 127 new trips during the PM peak hour.

Detailed trip generation calculations are included in the Appendix of this report.

4.0 Site Traffic Distribution

The projected site-generated trips were assigned to the surrounding roadway network. The directional distribution and assignment for this development were based on a review of surrounding land uses and traffic patterns in the study area. As the intersection of Morris Acres Road at US 64 Westbound is limited to right-in/right-out access, separate inbound and outbound distributions were developed for the site in conjunction with Town of Apex staff to account for anticipated travel paths.

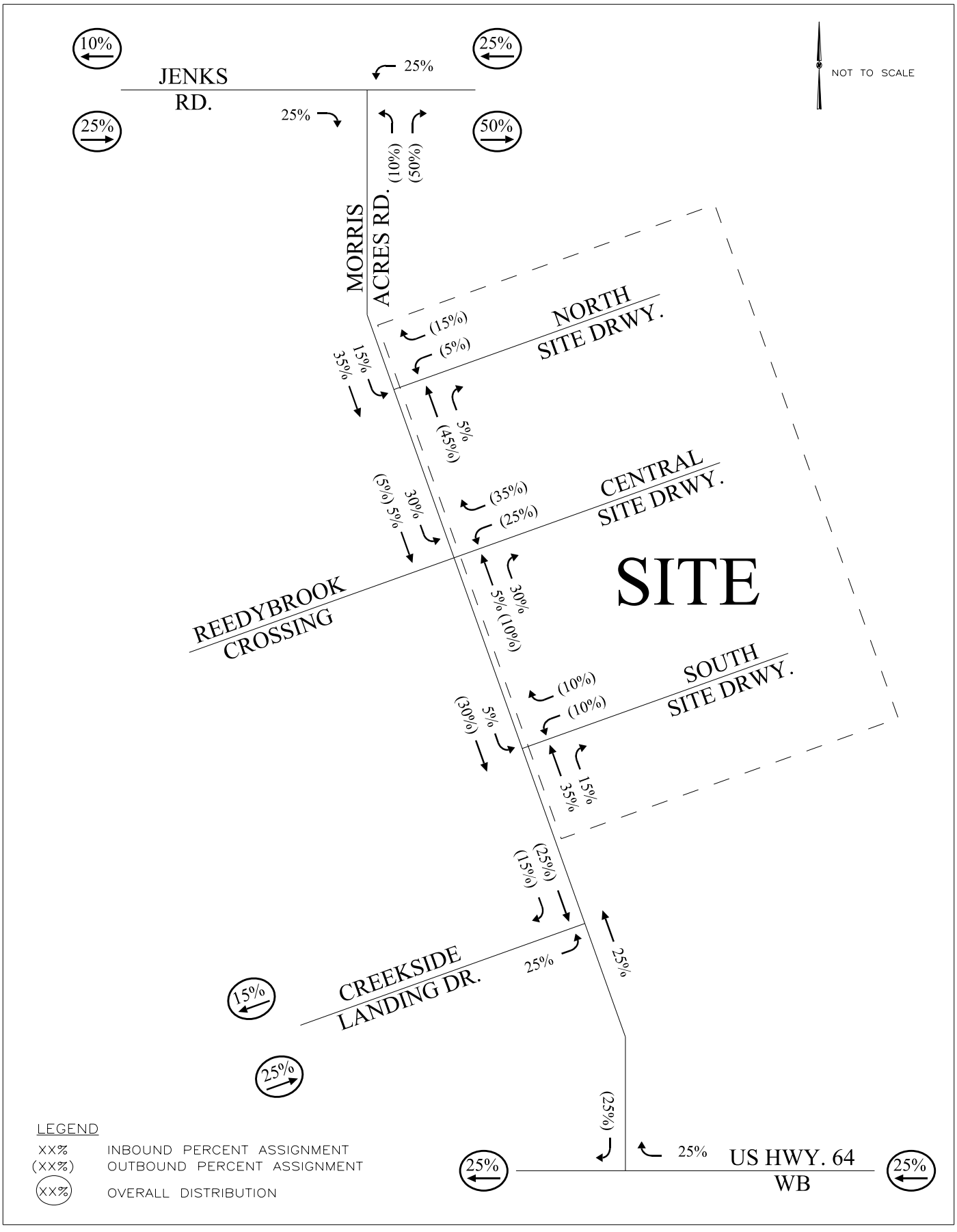
The inbound site traffic distribution used for the site was:

- 25% from the east on US 64
- 25% from the east on Jenks Road
- 25% from the west on Jenks Road
- 25% from the south on Creekside Landing Drive

The outbound site traffic distribution used for the site was:

- 50% to the east on Jenks Road
- 25% to the west on US 64
- 15% to the south on Creekside Landing Drive
- 10% to the west on Jenks Road

The site traffic distribution and percent assignment for site are shown on Figure 4.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT	FIGURE 4

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5.0 Projected Traffic Volumes

5.1 Existing Traffic

AM peak hour (7:00 to 9:00 AM) and PM peak hour (4:00 to 6:00 PM) turning movement counts were performed at the following intersections:

- Jenks Road at Morris Acres Road October 23, 2018
- Morris Acres Road at Creekside Landing Drive October 23, 2018
- Morris Acres Road at US 64 Westbound October 23, 2018

The existing AM and PM peak hour traffic volumes are shown on Figures 5 and 6, and the traffic count data are included in the Appendix. No turning movement counts were performed at the intersection of Morris Acres Road at Reedybrook Crossing. However, as the development is approximately 90% occupied (discussed below), existing volumes onto/off of Reedybrook Crossing were assumed to be equal to 90% of the site traffic volume on those movements as indicated in the TIA for that project.

5.2 Historic Growth Traffic

Historic growth traffic is the increase in traffic due to usage increases and non-specific growth throughout the area. An annual growth rate of 3% was applied to the existing volumes up to the year 2022. Background growth calculations are detailed on intersection spreadsheets in the Appendix of this report.

5.3 Approved Development Traffic

Approved development traffic is generated by approved but not yet constructed projects in the vicinity of the proposed project. Based on discussions with the Town of Apex, the Beaver Creek Phase 4 Residential (540 Townes) project was the only development identified for inclusion in the analysis as background traffic.

Per the Beaver Creek Residential Development TIA (Stantec, August 2015), the project proposes the construction of approximately 300 apartments and 50 townhomes along Morris Acres Road (Green Level Church Road) north of US 64 with a build-out year of 2020. As the development was almost entirely built-out when traffic counts were performed, only 10% of site trips from this development were included at off-site intersections as background traffic.

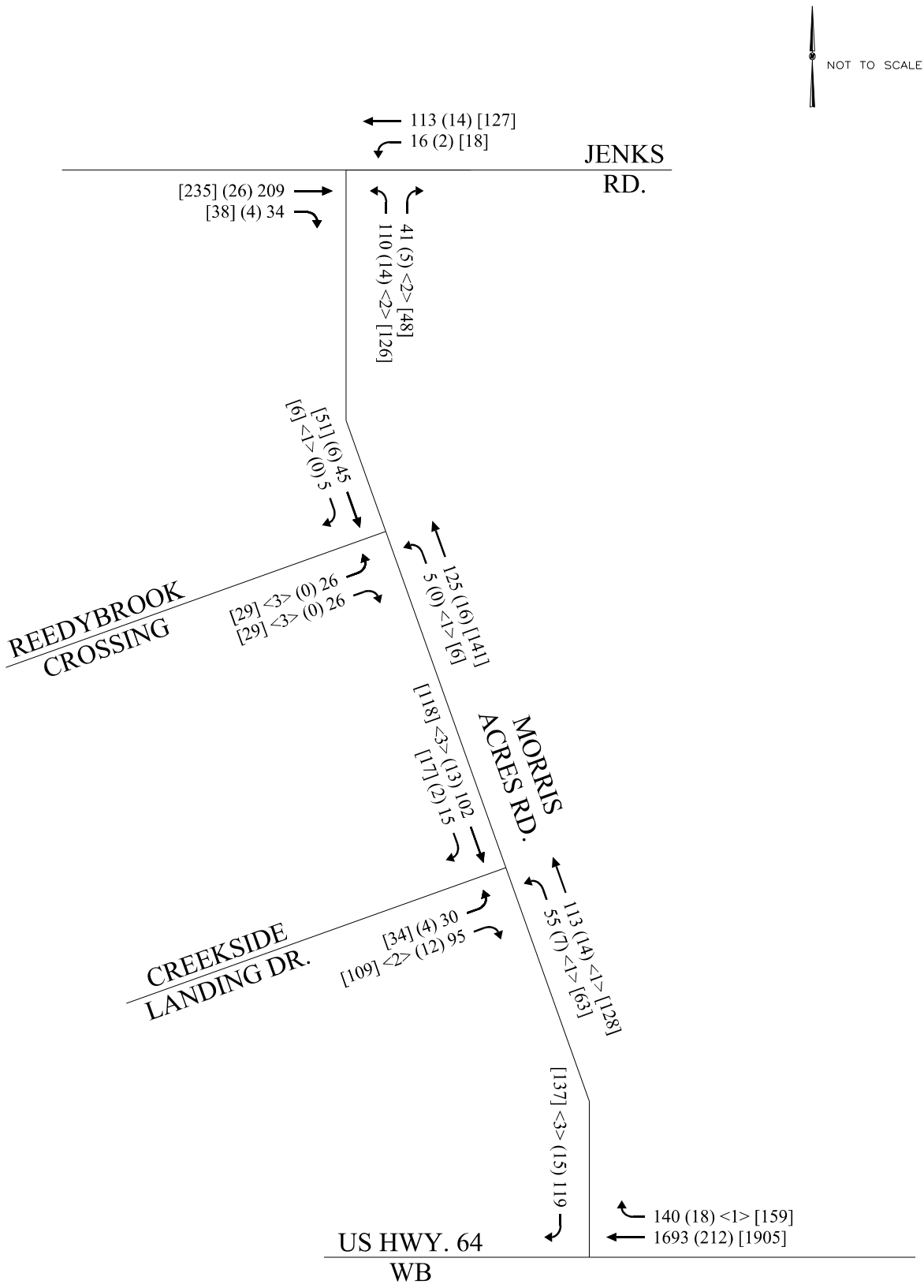
Background traffic volumes consisting of existing, historic growth, and approved development traffic, are shown on Figures 5 and 6 for the AM and PM peak hours, respectively.

5.4 Site Traffic

The projected site traffic was generated and assigned to the adjacent roadway network according to the distribution discussed previously in Section 4.0. The site traffic volumes for the AM and PM peak hours are shown in Figures 7 and 8, respectively.

5.5 Build-Out Traffic

To obtain the projected (2022) build-out traffic volumes, the projected site traffic were added to the projected (2022) background traffic. Traffic volume calculations are detailed in intersection spreadsheets in the Appendix of this report. Figures 7 and 8 show the projected (2022) AM and PM peak hour build-out traffic volumes, respectively.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	EXISTING AND PROJECTED (2022) BACKGROUND AM PEAK HOUR TRAFFIC VOLUMES	FIGURE 5

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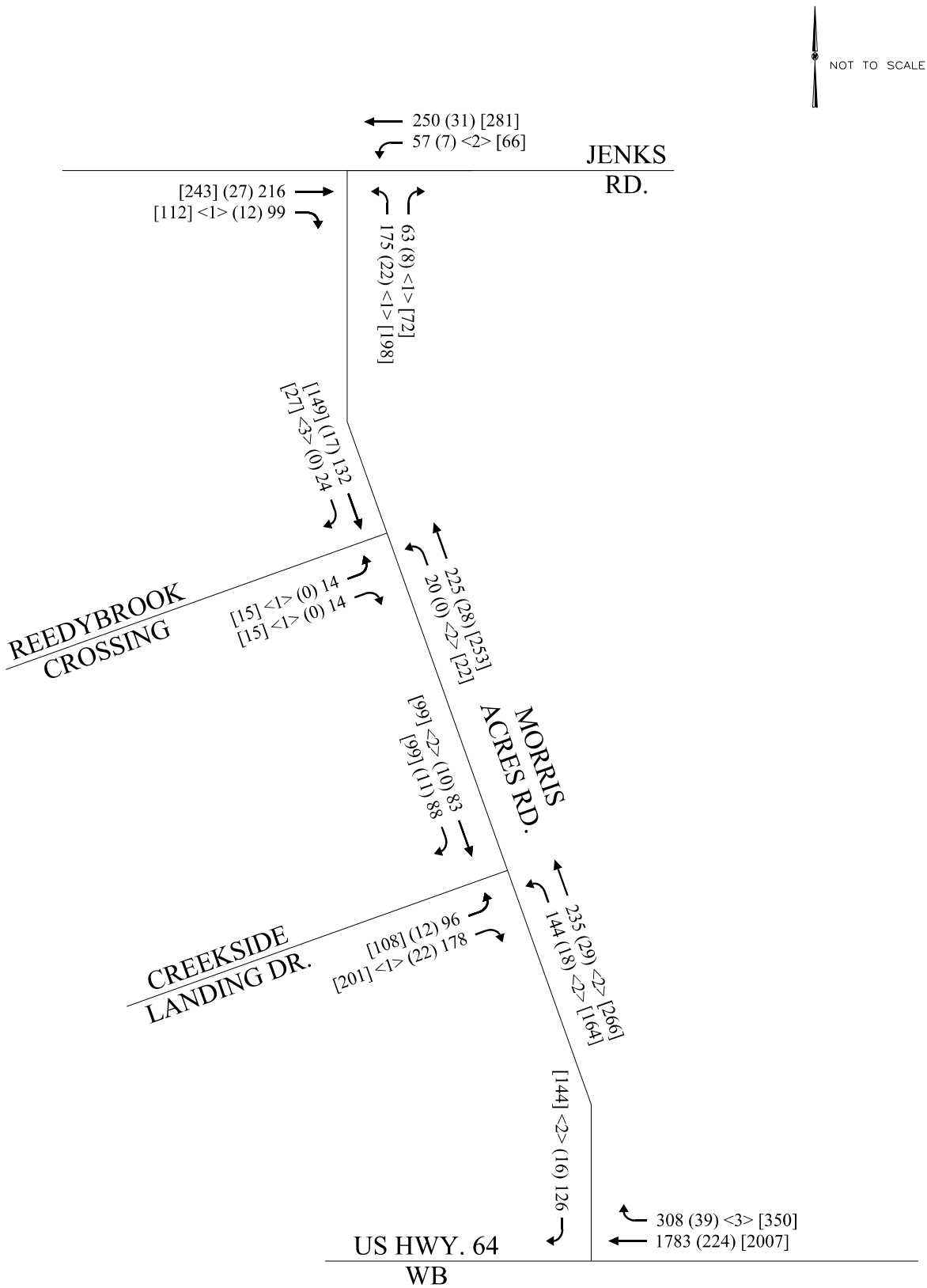

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THE WAYFORTH AT APEX
APEX, NC
TRAFFIC CAPACITY ANALYSIS

EXISTING AND PROJECTED (2022) BACKGROUND PM PEAK HOUR TRAFFIC VOLUMES

FIGURE 6

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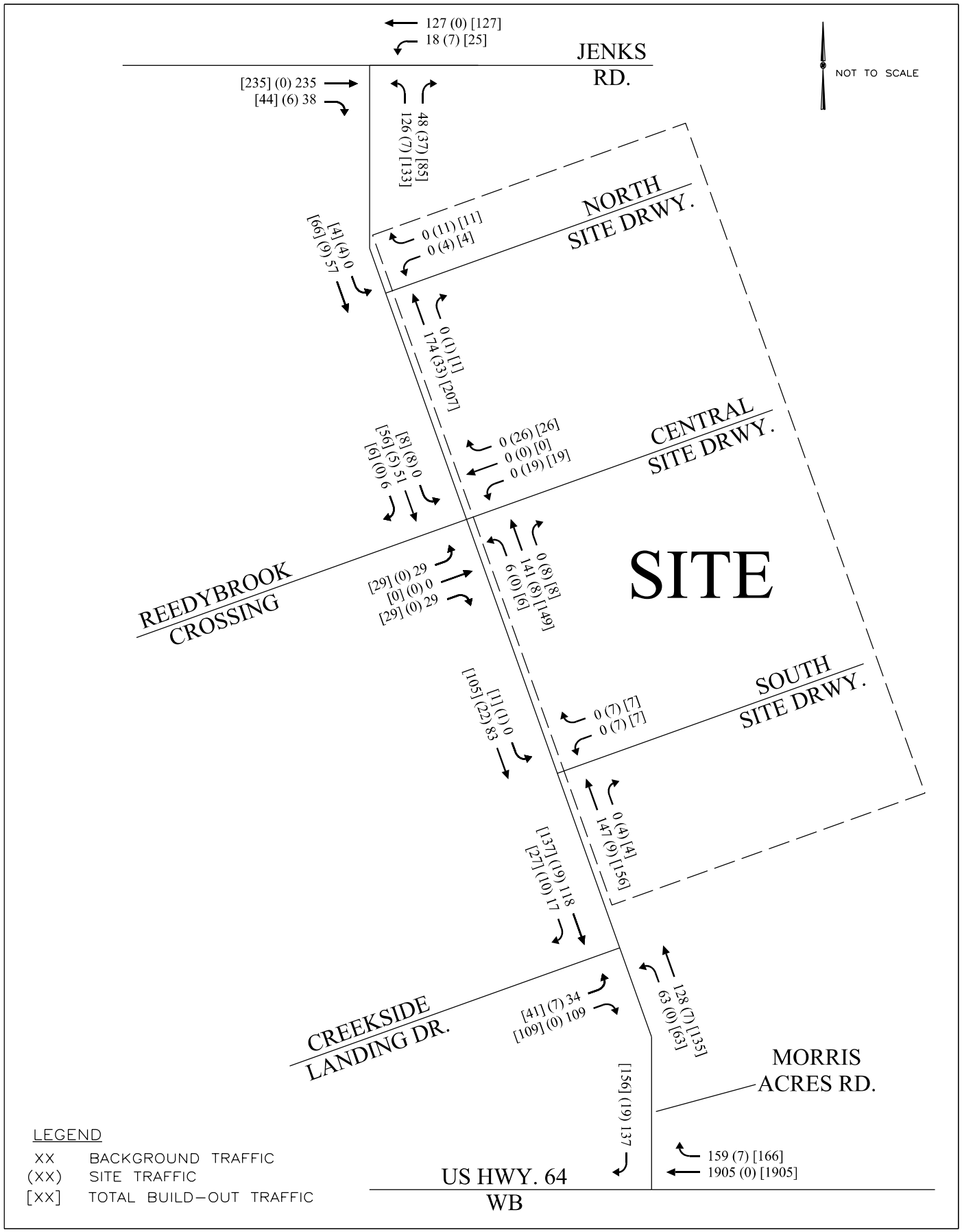

Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	PROJECTED (2022) BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES	FIGURE 7

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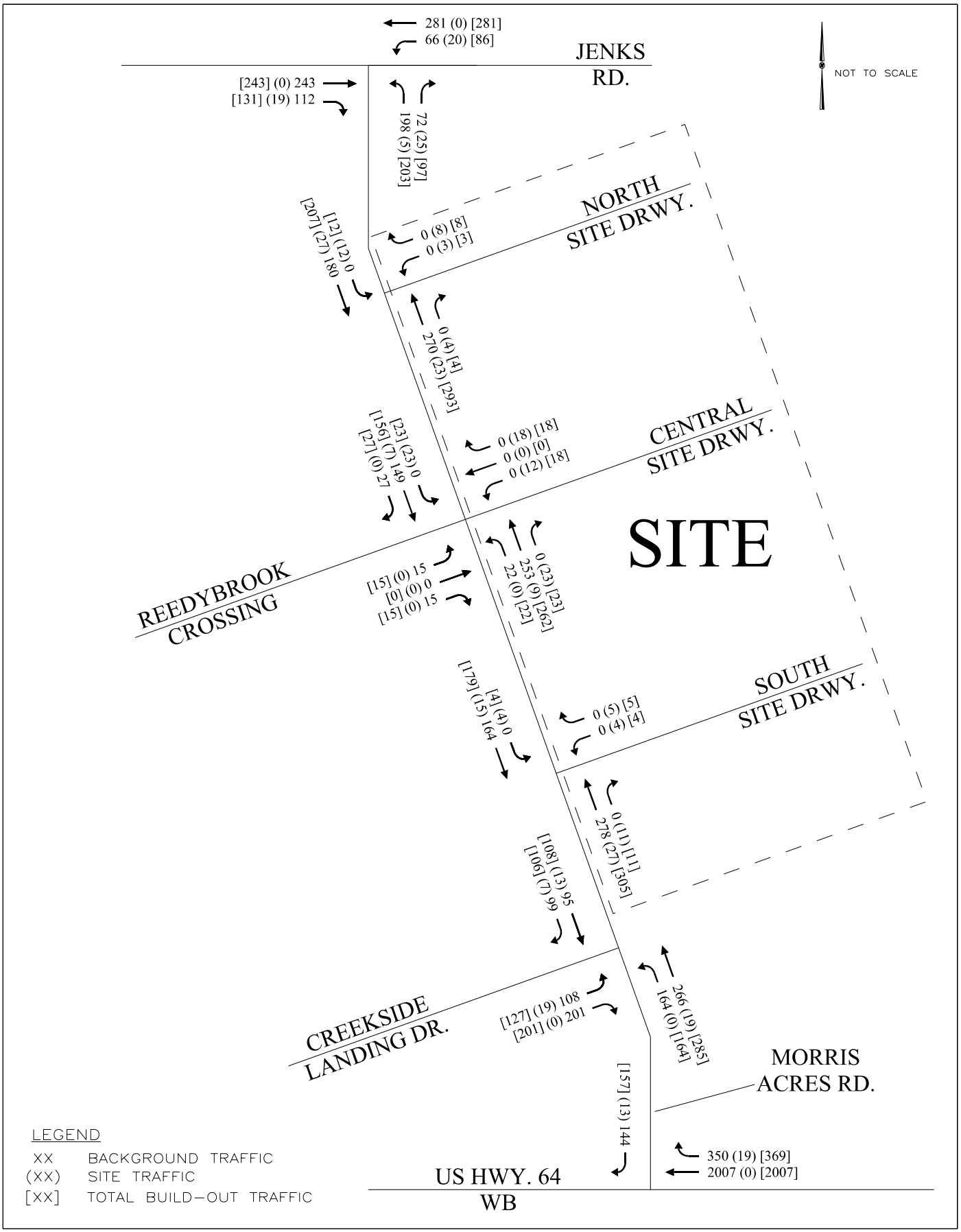

Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	PROJECTED (2022) BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 8

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6.0 Capacity Analysis

Capacity analyses (see Appendix) were performed for the AM and PM peak hours for the existing traffic condition and the projected (2022) background and build-out traffic conditions using Synchro Version 9.2 software to determine the operating characteristics of the adjacent road network and the impacts of the proposed project.

Capacity is defined as the maximum number of vehicles that can pass over a particular road segment or through a particular intersection within a set time duration. Capacity is combined with Level-of-Service (LOS) to describe the operating characteristics of a road segment or intersection. LOS is a qualitative measure that describes operational conditions and motorist perceptions within a traffic stream. The Highway Capacity Manual defines six levels of service, LOS A through LOS F, with A representing the shortest average delays and F representing the longest average delays. LOS D is the typically accepted standard for signalized intersections in urbanized areas. For signalized intersections, LOS is defined for the overall intersection operation.

For unsignalized intersections, only the movements that must yield right-of-way experience control delay. Therefore, LOS criteria for the overall intersection is not reported by Synchro Version 9.2 or computable using methodology published in the Highway Capacity Manual. It is typical for stop sign controlled side streets and driveways intersecting major streets to experience long delays during peak hours, while the majority of the traffic moving through the intersection on the major street experiences little or no delay. Table 6.0-A lists the LOS control delay thresholds published in the Highway Capacity Manual for signalized and unsignalized intersections.

Table 6.0-A
Level-of-Service Control Delay Thresholds

Level-of-Service	Signalized Intersections ¯ Control Delay Per Vehicle [sec/veh]	Unsignalized Intersections ¯ Average Control Delay [sec/veh]
A	‡10	‡10
B	> 10 ¯ 20	> 10 ¯ 15
C	> 20 ¯ 35	> 15 ¯ 25
D	> 35 ¯ 55	> 25 ¯ 35
E	> 55 ¯ 80	> 35 ¯ 50
F	> 80	> 50

Existing peak hour factors (PHF) were used at all existing intersections for all conditions except at new intersections, where a PHF of 0.90 was used. The existing signal plan provided by NCDOT was referenced to obtain signal timings, which were not adjusted as part of this analysis, and right-turns on red were allowed where currently allowed.

Capacity analyses were performed for the existing (2018) traffic condition and the projected (2022) background and build-out traffic conditions for the following intersections:

- Jenks Road at Morris Acres Road
- Morris Acres Road at Reedybrook Crossing/Central Site Driveway
- Morris Acres Road at Creekside Landing Drive
- Morris Acres Road at US 64 Westbound
- Morris Acres Road at North Site Driveway
- Morris Acres Road at South Site Driveway

Table 6.0-B summarizes the LOS and delay (seconds per vehicle) for all of the study intersections for the existing (2018) traffic condition and the projected (2022) background and build-out traffic conditions. All capacity analyses are included in the Appendix and are briefly summarized in the following sub-sections.

Table 6.0-B
Level-of-Service Summary

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Jenks Road at Morris Acres Road (Unsignalized)		
Existing (2018) Traffic	NB ¯ B (11.3) WBL ¯ A (7.8)	NB ¯ B (14.6) WBL ¯ A (8.1)
Background (2022) Traffic	NB ¯ B (11.8) WBL ¯ A (7.9)	NB ¯ C (16.6) WBL ¯ A (8.2)
Build-out (2022) Traffic	NB ¯ B (11.9) WBL ¯ A (7.9)	NB ¯ C (17.6) WBL ¯ A (8.3)
Morris Acres Road at Reedybrook Crossing/Central Site Driveway (Unsignalized)		
Existing (2018) Traffic	EB ¯ A (9.4) NBL ¯ A (7.3)	EB ¯ B (10.2) NBL ¯ A (7.6)
Background (2022) Traffic	EB ¯ A (9.5) NBL ¯ B (7.3)	EB ¯ B (10.4) NBL ¯ A (7.7)
Build-out (2022) Traffic	EB ¯ B (10.2) WB ¯ B (10.2) NBL ¯ A (7.4) SBL ¯ A (7.6)	EB ¯ B (12.6) WB ¯ B (12.5) NBL ¯ A (7.7) SBL ¯ A (8.0)
Morris Acres Road at Creekside Landing Drive (Signalized)		
Existing (2018) Traffic	A (4.6)	A (6.7)
Background (2022) Traffic	A (4.7)	A (7.1)
Build-out (2022) Traffic	A (5.0)	A (7.8)
US 64 Westbound at Morris Acres Road (Unsignalized)		
Existing (2018) Traffic	SB ¯ D (27.9)	SB ¯ D (28.8)
Background (2022) Traffic	SB ¯ E (41.8)	SB ¯ E (43.6)
Build-out (2022) Traffic	SB ¯ E (49.4)	SB ¯ E (48.8)

Table 6.0-B (cont.) Level-of-Service Summary		
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Morris Acres Road at North Site Driveway (Unsignalized)		
Build-out (2022) Traffic	WB – A (9.8) SBL – A (7.7)	WB – B (10.6) SBL – A (8.0)
Morris Acres Road at South Site Driveway (Unsignalized)		
Build-out (2022) Traffic	WB – A (9.7) SBL – A (7.6)	WB – B (10.8) SBL – A (8.0)

6.1 Jenks Road at Morris Acres Road

Analyses indicate that the unsignalized intersection of Jenks Road at Morris Acres Road currently operates with short delays on the minor street approach (Morris Acres Road) in both the AM and PM peak hours. The intersection is expected to continue to operate with short delays and queues in the year 2022 with or without the proposed project in place, and no roadway improvements are recommended to accommodate projected site traffic.

Table 6.1 summarizes the operation of the intersection of Jenks Road at Morris Acres Road for the existing (2018) and projected (2022) background and build-out traffic conditions.

Table 6.1
Level-of-Service
Jenks Road at Morris Acres Road (Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2018) Traffic	NB – B (11.3) WBL – A (7.8)	NB – B (14.6) WBL – A (8.1)
Background (2022) Traffic	NB – B (11.8) WBL – A (7.9)	NB – C (16.6) WBL – A (8.2)
Build-out (2022) Traffic	NB – B (11.9) WBL – A (7.9)	NB – C (17.6) WBL – A (8.3)

6.2 Morris Acres Road at Reedybrook Crossing/Central Site Driveway

Analyses indicates that the intersection of Morris Acres Road at Reedybrook Crossing currently operates with short delays on the minor street approach (Reedybrook Crossing) in both the AM and PM peak hours, and the intersection is expected to continue to operate with short delays in the background traffic condition.

The Wayforth at Apex proposes to construct a site driveway aligning with Reedybrook Crossing, providing one ingress lane and one egress lane. Analyses indicate that at project build-out both minor street approaches (Reedybrook Crossing and the Central Site Driveway) are expected to operate with short delays and queues. No roadway improvements are recommended to be performed as part of this development

Table 6.2 summarizes the operation of the intersection of Morris Acres Road at Reedybrook Crossing/Central Site Driveway for the existing (2018) and projected (2022) background and build-out traffic conditions.

Table 6.2
Level-of-Service
Morris Acres Road at Reedybrook Crossing/Central Site Driveway (Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2018) Traffic	EB ¯ A (9.4) NBL ¯ A (7.3)	EB ¯ B (10.2) NBL ¯ A (7.6)
Background (2022) Traffic	EB ¯ A (9.5) NBL ¯ B (7.3)	EB ¯ B (10.4) NBL ¯ A (7.7)
Build-out (2022) Traffic	EB ¯ B (10.2) WB ¯ B (10.2) NBL ¯ A (7.4) SBL ¯ A (7.6)	EB ¯ B (12.6) WB ¯ B (12.5) NBL ¯ A (7.7) SBL ¯ A (8.0)

6.3 Morris Acres Road at Creekside Landing Drive

Analyses indicate that the signalized intersection of Morris Acres Road at Creekside Landing Drive currently operates at LOS A in both the AM and PM peak hours. The intersection is expected to continue to operate at LOS A in the year 2022 with or without the proposed project in place, and no queuing issues are expected at this intersection. No roadway improvements are recommended to be performed at this intersection to accommodate projected site traffic volumes.

Table 6.3 summarizes the operation of the intersection of Morris Acres Road at Creekside Landing Drive for the existing (2018) and projected (2022) background and build-out traffic conditions.

Table 6.3
Level-of-Service
Morris Acres Road at Creekside Landing Drive (Signalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2018) Traffic	A (4.6)	A (6.7)
Background (2022) Traffic	A (4.7)	A (7.1)
Build-out (2022) Traffic	A (5.0)	A (7.8)

6.4 Morris Acres Road at US 64 Westbound

Analyses indicate that the unsignalized intersection of Morris Acres Road at US 64 Westbound currently operates with moderate delays on the minor street approach (Morris Acres Road) in both the AM and PM peak hours. The intersection is expected to continue to operate with moderate delays on the minor street approach in the year 2022 with or without the proposed project in place. As only slight increases in queues and delays are expected at this intersection with the addition of site traffic, no roadway improvements are recommended to be performed at this intersection.

Table 6.4 summarizes the operation of the intersection of Morris Acres Road at US 64 Westbound for the existing (2018) and projected (2022) background and build-out traffic conditions.

Table 6.4
Level-of-Service
Morris Acres Road at US 64 Westbound (Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Existing (2018) Traffic	SB – D (27.9)	SB – D (28.8)
Background (2022) Traffic	SB – E (41.8)	SB – E (43.6)
Build-out (2022) Traffic	SB – E (49.4)	SB – E (48.8)

6.5 Morris Acres Road at North Site Driveway

A full-movement site driveway is proposed to be constructed on Morris Acres Road approximately 750 feet north of Reedybrook Crossing. Analyses indicate that the intersection is expected to operate with short delays and queues on the minor street approach (North Site Driveway) at project build-out. No roadway improvements are recommended to be performed as part of this development

Table 6.5 summarizes the operation of the intersection of Morris Acres Road at North Site Driveway for the projected (2022) build-out traffic condition.

Table 6.5
Level-of-Service
Morris Acres Road at North Site Driveway (Unsignalized)

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2022) Traffic	WB – A (9.8) SBL – A (7.7)	WB – B (10.6) SBL – A (8.0)

6.6 Morris Acres Road at South Site Driveway

A full-movement site driveway is proposed to be constructed on Morris Acres Road approximately 500 feet south of Reedybrook Crossing. Analyses indicate that the intersection is expected to operate with short delays and queues on the minor street approach (South Site Driveway) at project build-out. No roadway improvements are recommended to be performed as part of this development

Table 6.6 summarizes the operation of the intersection of Morris Acres Road at South Site Driveway for the projected (2022) build-out traffic condition.

Table 6.6
Level-of-Service
Morris Acres Road at South Site Driveway (Unsignalized)

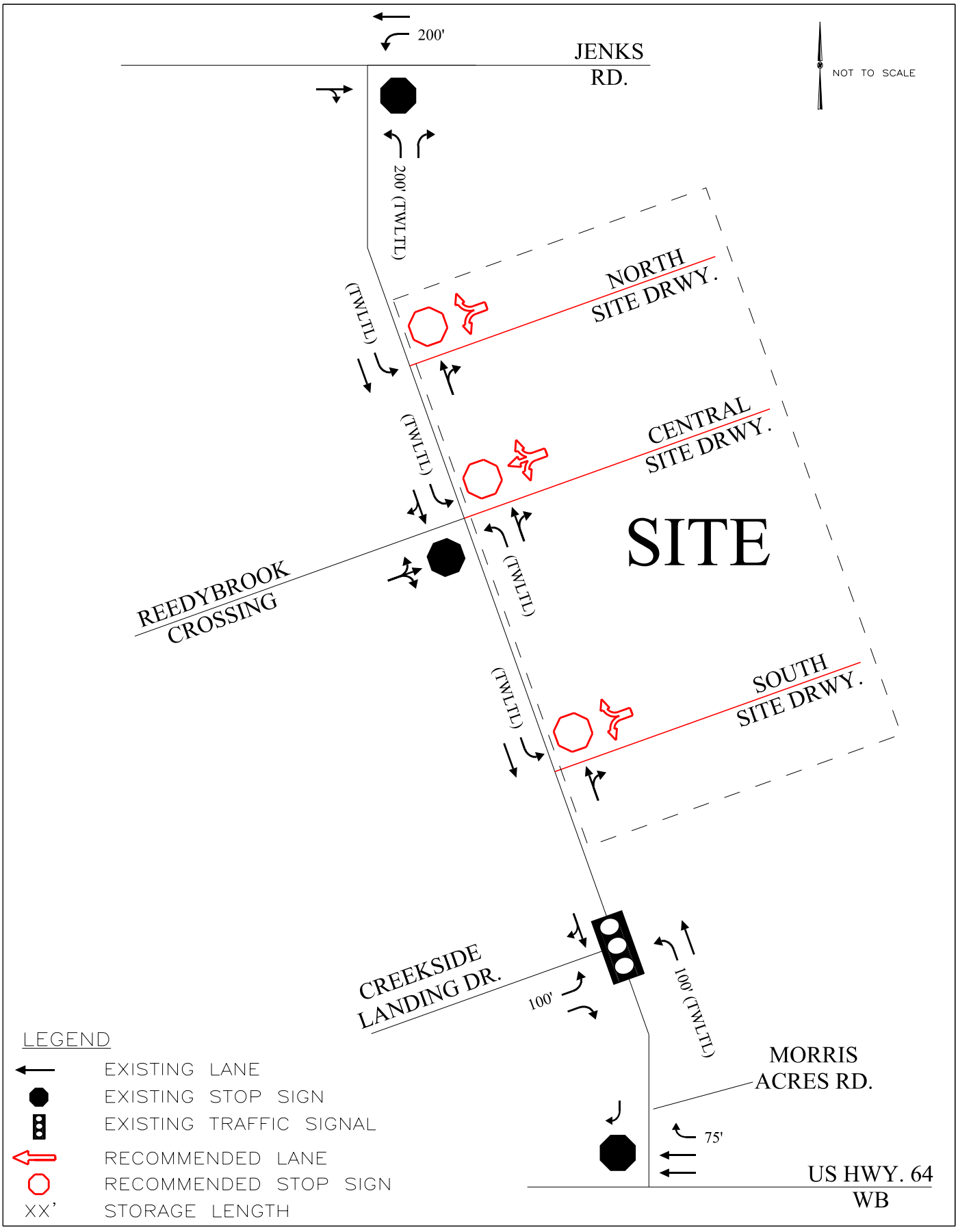
Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Build-out (2022) Traffic	WB – A (9.7) SBL – A (7.6)	WB – B (10.8) SBL – A (8.0)

7.0 Recommendations

With the exception of southbound Morris Acres Road at US 64 Westbound, analyses indicate that all of the study intersections are expected to operate at an acceptable LOS at project build-out with only minor increases in delays and queues associated with the addition of site traffic. The intersection of US 64 Westbound at Morris Acres road is expected to operate with moderate delays on Morris Acres Road in the year 2022 with or without the proposed project in place.

No roadway improvements are recommended to be performed to accommodate projected site traffic volumes.

The build-out roadway laneage is shown on Figure 9.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	BUILD-OUT ROADWAY LANEAGE	FIGURE 9

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

Appendix

Appendix A:
Assumptions Memorandum

Revised 11/6/2018

Preliminary Assumptions
The Wayforth at Apex Apartments - Traffic Impact Analysis
Apex, North Carolina

KHA will perform analyses for The Wayforth at Apex development, a proposed apartments project located on the east side of Morris Acres Road (formerly Green Level Church Road) between Jenks Road and Creekside Landing in Apex, North Carolina. The following assumptions will be used in the analysis of the site:

The study area will consist of the following intersections:

- Jenks Road at Morris Acres Road
- Morris Acres Road at Creekside Landing Drive
- US 64 at Morris Acres Road
- Morris Acres Road at Reedybrook Crossing/Central Site Driveway
- Morris Acres Road at North Site Driveway
- Morris Acres Road at South Site Driveway

The study scenarios will consist of:

- Existing (2018)
- Background (2022)
- Build-out (2022)

Based on discussions with the Town of Apex and the North Carolina Department of Transportation (NCDOT), the 540 Townes development located on the west side of Morris Acres Road (which is partially built-out and occupied) was identified for inclusion in this analysis as background traffic. Traffic for this development will be obtained from the Beaver Creek Residential Development TIA (Stantec, July 2015).

In addition to the approved development traffic, an annual growth rate of 3% will also be applied to the existing traffic volumes up to the year 2022.

Separate entering and existing directional distributions will be used for the site based on a review of surrounding land uses and the existing roadway network. The following overall distribution will be used for entering traffic:

- 25% from the east on US 64
- 25% from the east on Jenks Road
- 25% from the west on Jenks Road
- 25% from the south on Creekside Landing Drive

The following overall distribution will be used for entering traffic:

- 50% to the east on Jenks Road
- 25% to the west on US 64
- 15% to the south on Creekside Landing Drive
- 10% to the west on Jenks Road

The property is currently occupied by a few single-family homes, and as currently envisioned the development will consist of approximately 305 apartments. Trips will be generated using ITE Trip Generation 10th Edition rates. See attached trip generation table.

The Wayforth at Apex

Table 1 - Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
221 Multifamily Housing (Mid-Rise)	305 d.u.	1,662	831	831	102	27	75	129	79	50

The Wayforth at Apex - Site Driveway Locations



Appendix B:
Trip Generation

The Wayforth at Apex

Table 1 - Trip Generation

Land Use	Intensity	Daily			AM Peak Hour			PM Peak Hour		
		Total	In	Out	Total	In	Out	Total	In	Out
221 Multifamily Housing (Mid-Rise)	300 d.u.	1,634	817	817	100	26	74	127	77	50

Appendix C:
Traffic Count Data

Morris Acres Road/ and J enks Road AM and PM Peak Hour Traffic Count

Count Performed: Tuesday, October 23, 2018

Start Time	0 Southbound			J enks Road Westbound			Morris Acres Road Northbound			J enks Road Eastbound			Intersection Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	0	2	15	0	28	0	13	0	53	9	120
7:15	0	0	0	2	21	0	26	0	13	0	38	9	109
7:30	0	0	0	2	37	0	24	0	13	0	54	9	139
7:45	0	0	0	4	31	0	37	0	13	0	55	3	143
8:00	0	0	0	4	23	0	29	0	9	0	54	9	128
8:15	0	0	0	6	22	0	20	0	6	0	46	13	113
8:30	0	0	0	3	27	0	18	0	15	0	45	11	119
8:45	0	0	0	4	28	0	15	0	17	0	53	12	129
16:00	0	0	0	11	39	0	36	0	16	0	47	24	173
16:15	0	0	0	16	47	0	38	0	12	0	39	24	176
16:30	0	0	0	9	45	0	48	0	16	0	38	14	170
16:45	0	0	0	11	59	0	35	0	17	0	41	21	184
17:00	0	0	0	10	65	0	41	0	15	0	47	23	201
17:15	0	0	0	15	52	0	44	0	20	0	45	31	207
17:30	0	0	0	15	67	0	43	0	11	0	63	28	227
17:45	0	0	0	17	66	0	47	0	17	0	61	17	225

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
7:00 - 8:00	0	0	0	10	104	0	115	0	52	0	200	30	511
7:15 - 8:15	0	0	0	12	112	0	116	0	48	0	201	30	519
7:30 - 8:30	0	0	0	16	113	0	110	0	41	0	209	34	523
7:45 - 8:45	0	0	0	17	103	0	104	0	43	0	200	36	503
8:00 - 9:00	0	0	0	17	100	0	82	0	47	0	198	45	489

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
16:00 - 17:00	0	0	0	47	190	0	157	0	61	0	165	83	703
16:15 - 17:15	0	0	0	46	216	0	162	0	60	0	165	82	731
16:30 - 17:30	0	0	0	45	221	0	168	0	68	0	171	89	762
16:45 - 17:45	0	0	0	51	243	0	163	0	63	0	196	103	819
17:00 - 18:00	0	0	0	57	250	0	175	0	63	0	216	99	860

Peak-Hour Traffic Volumes													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Volume
7:30 - 8:30	110	0	41	0	0	0	0	209	34	16	113	0	523
17:00 - 18:00	175	0	63	0	0	0	0	216	99	57	250	0	860

Peak-Hour Factor by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PHF
7:30 - 8:30	0.743	-	0.788	-	-	-	-	0.950	0.654	0.667	0.764	-	0.914
17:00 - 18:00	0.931	-	0.788	-	-	-	0.250	0.857	0.798	0.838	0.933	-	0.947

Peak-Hour Factor by Approach					
Peak Hour	NB	SB	EB	WB	PHF
7:30 - 8:30	0.76	-	0.96	0.83	0.91
17:00 - 18:00	0.93	-	0.87	0.93	0.95

Heavy Vehicle Percentage by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	%HV
7:30 - 8:30	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Heavy Vehicle Percentage by Approach					
Peak Hour	NB	SB	EB	WB	%HV
7:30 - 8:30	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%

Morris Acres Road and Creekside Landing Drive/ AM and PM Peak Hour Traffic Count

Count Performed: Tuesday, October 23, 2018

Start Time	Morris Acres Road Southbound			0 Westbound			Morris Acres Road Northbound			Creekside Landing Drive Eastbound			Intersection Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	19	5	0	0	0	11	25	0	3	0	20	83
7:15	0	25	8	0	0	0	10	26	0	4	0	28	101
7:30	0	40	3	0	0	0	10	27	0	5	0	21	106
7:45	0	17	1	0	0	0	19	28	0	15	0	23	103
8:00	0	20	3	0	0	0	16	32	0	6	0	23	100
8:15	0	31	6	0	0	0	7	18	0	2	0	31	95
8:30	0	14	8	0	0	0	14	26	0	5	0	27	94
8:45	0	18	9	0	0	0	21	21	0	8	0	24	101
16:00	0	19	20	0	0	0	35	27	0	32	0	35	168
16:15	0	26	19	0	0	0	41	42	0	21	0	42	191
16:30	0	14	12	0	0	0	35	59	0	22	0	44	186
16:45	0	17	19	0	0	0	42	44	0	19	0	43	184
17:00	0	19	16	0	0	0	37	55	0	20	0	50	197
17:15	0	29	26	0	0	0	29	59	0	31	0	43	217
17:30	0	20	23	0	0	0	39	47	0	15	0	39	183
17:45	0	15	23	0	0	0	39	74	0	30	0	46	227

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
7:00 - 8:00	0	101	17	0	0	0	50	106	0	27	0	92	393
7:15 - 8:15	0	102	15	0	0	0	55	113	0	30	0	95	410
7:30 - 8:30	0	108	13	0	0	0	52	105	0	28	0	98	404
7:45 - 8:45	0	82	18	0	0	0	56	104	0	28	0	104	392
8:00 - 9:00	0	83	26	0	0	0	58	97	0	21	0	105	390

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
16:00 - 17:00	0	76	70	0	0	0	153	172	0	94	0	164	729
16:15 - 17:15	0	76	66	0	0	0	155	200	0	82	0	179	758
16:30 - 17:30	0	79	73	0	0	0	143	217	0	92	0	180	784
16:45 - 17:45	0	85	84	0	0	0	147	205	0	85	0	175	781
17:00 - 18:00	0	83	88	0	0	0	144	235	0	96	0	178	824

Peak-Hour Traffic Volumes													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Volume
7:15 - 8:15	55	113	0	0	102	15	30	0	95	0	0	0	410
17:00 - 18:00	144	235	0	0	83	88	96	0	178	0	0	0	824

Peak-Hour Factor by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PHF
7:15 - 8:15	0.724	0.883	-	-	0.638	0.469	0.500	-	0.848	-	-	-	0.967
17:00 - 18:00	0.923	0.794	-	-	0.716	0.846	0.613	-	0.890	-	-	-	0.907

Peak-Hour Factor by Approach					
Peak Hour	NB	SB	EB	WB	PHF
7:15 - 8:15	0.88	0.68	0.82	-	0.97
17:00 - 18:00	0.84	0.78	0.90	-	0.91

Heavy Vehicle Percentage by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	%HV
7:15 - 8:15	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Heavy Vehicle Percentage by Approach					
Peak Hour	NB	SB	EB	WB	%HV
7:15 - 8:15	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%

/Morris Acres Road and /US 64 AM and PM Peak Hour Traffic Count

Count Performed: Tuesday, October 23, 2018

Start Time	Morris Acres Road Southbound			US 64 Westbound			0 Northbound			0 Eastbound			Intersection Volume
	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	Left	Thru	Right	
7:00	0	0	19	0	300	31	0	0	0	0	0	0	350
7:15	0	0	34	0	320	34	0	0	0	0	0	0	388
7:30	0	0	35	0	399	37	0	0	0	0	0	0	471
7:45	0	0	26	0	450	43	0	0	0	0	0	0	519
8:00	0	0	26	0	428	32	0	0	0	0	0	0	486
8:15	0	0	32	0	416	28	0	0	0	0	0	0	476
8:30	0	0	23	0	370	40	0	0	0	0	0	0	433
8:45	0	0	24	0	372	41	0	0	0	0	0	0	437
16:00	0	0	33	0	394	55	0	0	0	0	0	0	482
16:15	0	0	35	0	417	61	0	0	0	0	0	0	513
16:30	0	0	37	0	415	80	0	0	0	0	0	0	532
16:45	0	0	28	0	416	78	0	0	0	0	0	0	522
17:00	0	0	32	0	456	76	0	0	0	0	0	0	564
17:15	0	0	29	0	459	71	0	0	0	0	0	0	559
17:30	0	0	34	0	450	74	0	0	0	0	0	0	558
17:45	0	0	31	0	418	87	0	0	0	0	0	0	536

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
7:00 - 8:00	0	0	114	0	1,469	145	0	0	0	0	0	0	1,728
7:15 - 8:15	0	0	121	0	1,597	146	0	0	0	0	0	0	1,864
7:30 - 8:30	0	0	119	0	1,693	140	0	0	0	0	0	0	1,952
7:45 - 8:45	0	0	107	0	1,664	143	0	0	0	0	0	0	1,914
8:00 - 9:00	0	0	105	0	1,586	141	0	0	0	0	0	0	1,832

Peak Hour	SBL	SBT	SBR	WBL	WBT	WBR	NBL	NBT	NBR	EBL	EBT	EBR	Volume
16:00 - 17:00	0	0	133	0	1,642	274	0	0	0	0	0	0	2,049
16:15 - 17:15	0	0	132	0	1,704	295	0	0	0	0	0	0	2,131
16:30 - 17:30	0	0	126	0	1,746	305	0	0	0	0	0	0	2,177
16:45 - 17:45	0	0	123	0	1,781	299	0	0	0	0	0	0	2,203
17:00 - 18:00	0	0	126	0	1,783	308	0	0	0	0	0	0	2,217

Peak-Hour Traffic Volumes													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	Volume
7:30 - 8:30	0	0	0	0	0	119	0	0	0	0	1,693	140	1,952
17:00 - 18:00	0	0	0	0	0	126	0	0	0	0	1,783	308	2,217

Peak-Hour Factor by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	PHF
7:30 - 8:30	-	-	-	-	-	0.850	-	-	-	-	0.941	0.814	0.940
17:00 - 18:00	-	-	-	-	-	0.926	-	-	-	-	0.971	0.885	0.983

Peak-Hour Factor by Approach					
Peak Hour	NB	SB	EB	WB	PHF
7:30 - 8:30	-	0.85	-	0.93	0.94
17:00 - 18:00	-	0.93	-	0.98	0.98

Heavy Vehicle Percentage by Movement													
Peak Hour	NBL	NBT	NBR	SBL	SBT	SBR	EBL	EBT	EBR	WBL	WBT	WBR	%HV
7:30 - 8:30	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Heavy Vehicle Percentage by Approach					
Peak Hour	NB	SB	EB	WB	%HV
7:30 - 8:30	0%	0%	0%	0%	0%
17:00 - 18:00	0%	0%	0%	0%	0%

Appendix D:
Approved Development Data

Beaver Creek Residential Development Final Traffic Impact Analysis

Green Level Church Road and US 64
Apex, NC



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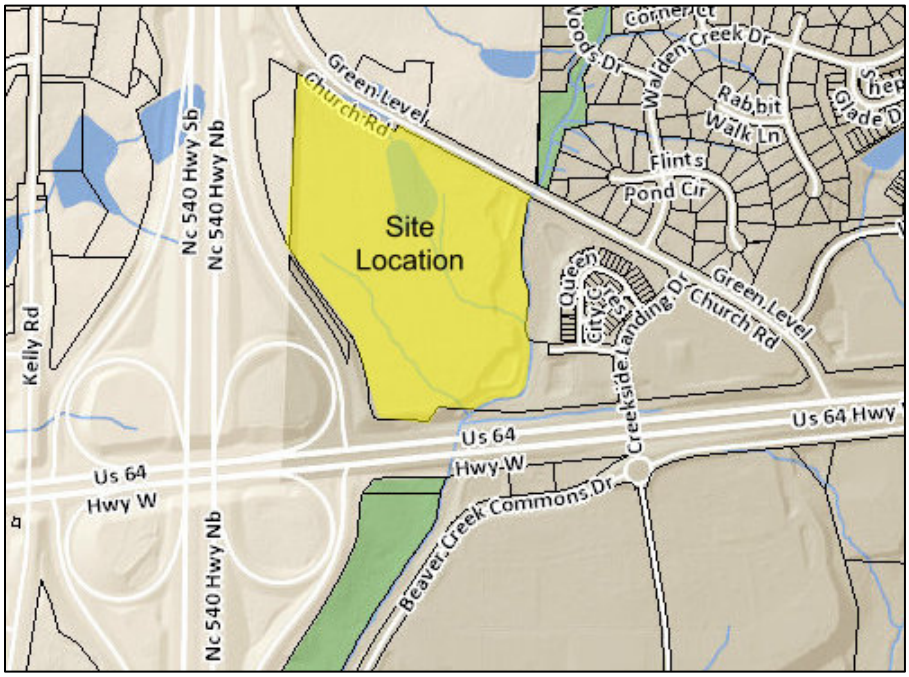
July 30, 2015
Revised August 28, 2015

1.0 INTRODUCTION

The proposed Beaver Creek Residential Development is located between US 64 and Green Level Church Road, just east of NC 540, in Apex, NC, as illustrated in Figure 1.

Figure 1: Proposed Site Location

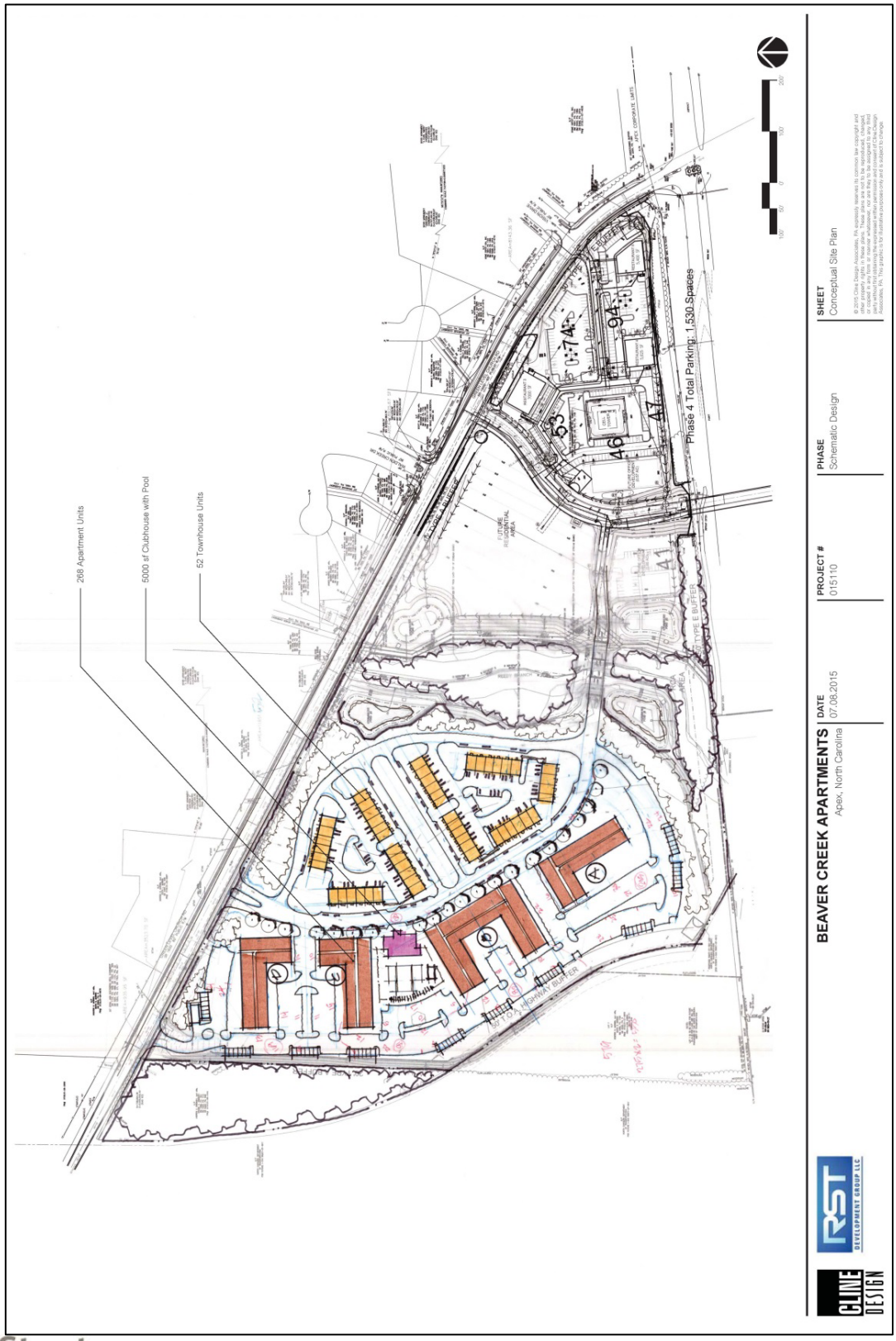


The proposed 27.5 acre site is planned to have up to 300 apartments and 50 townhomes. The proposed site is anticipated to be built-out by the year 2020. A conceptual sketch illustrating the development property and the access locations used in this study is shown on the site plan in Figure 2.

The purpose of this report is to evaluate the proposed development in terms of projected traffic conditions, evaluate the ability of the adjacent roadways to accommodate the additional traffic volumes, and to recommend transportation improvements needed to mitigate congestion that may result from the additional site traffic. This report presents trip generation, trip distribution, traffic analyses, and recommendations for transportation improvements needed to meet anticipated traffic demands. This report examines the following scenarios for both the AM and PM peak hours:

- 2015 Existing
- 2020 No-Build
- 2020 Build

Figure 2: Site Plan



4.0 TRAFFIC GENERATION

The proposed Beaver Creek Residential Development will consist of up to 300 Apartments and 50 Condominiums. Table 2 below shows the number of anticipated trips entering and exiting the site during a typical week day and during the AM and PM peak hours.

Table 2: ITE Trip Generation Table

ITE Trip Generation Beaver Creek Residential Development ITE Trip Generation										
Land Use	**ITE Site Code**	**Size**		**Daily**	**AM Peak**			**PM Peak**		
				Total	**Total**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**
Apartment	220	300	units	1942	151	30	121	183	119	64
Residential Condominium/Townhouse	230	50	units	352	30	5	25	34	23	11
Total New Trips				2293	181	35	146	217	142	75

4.1 SITE TRIP DISTRIBUTION

In order to accurately determine the effect of the proposed development on the surrounding roadway network, an estimate of the expected distribution of traffic entering and exiting the site is needed. The following percentages were used in both the AM and PM peak hours.

- 5% to/from the west on US 64
- 20% to/from the east on US 64
- 25% to/from the north on W. Williams Street
- 15% to/from the south on W. Williams Street
- 10% to/from the north on Kelly Road
- 10% to/from the south on Kelly Road
- 15% to/from the north on NC 540

These percentages were developed using a combination of input from the Town of Apex, existing traffic volume counts, historic AADTs provided by NCDOT, and engineering judgment. Figure 8 shows the distributions described above as well as the turning movement percentages at each intersection.

Figure 8: Site Trip Distribution

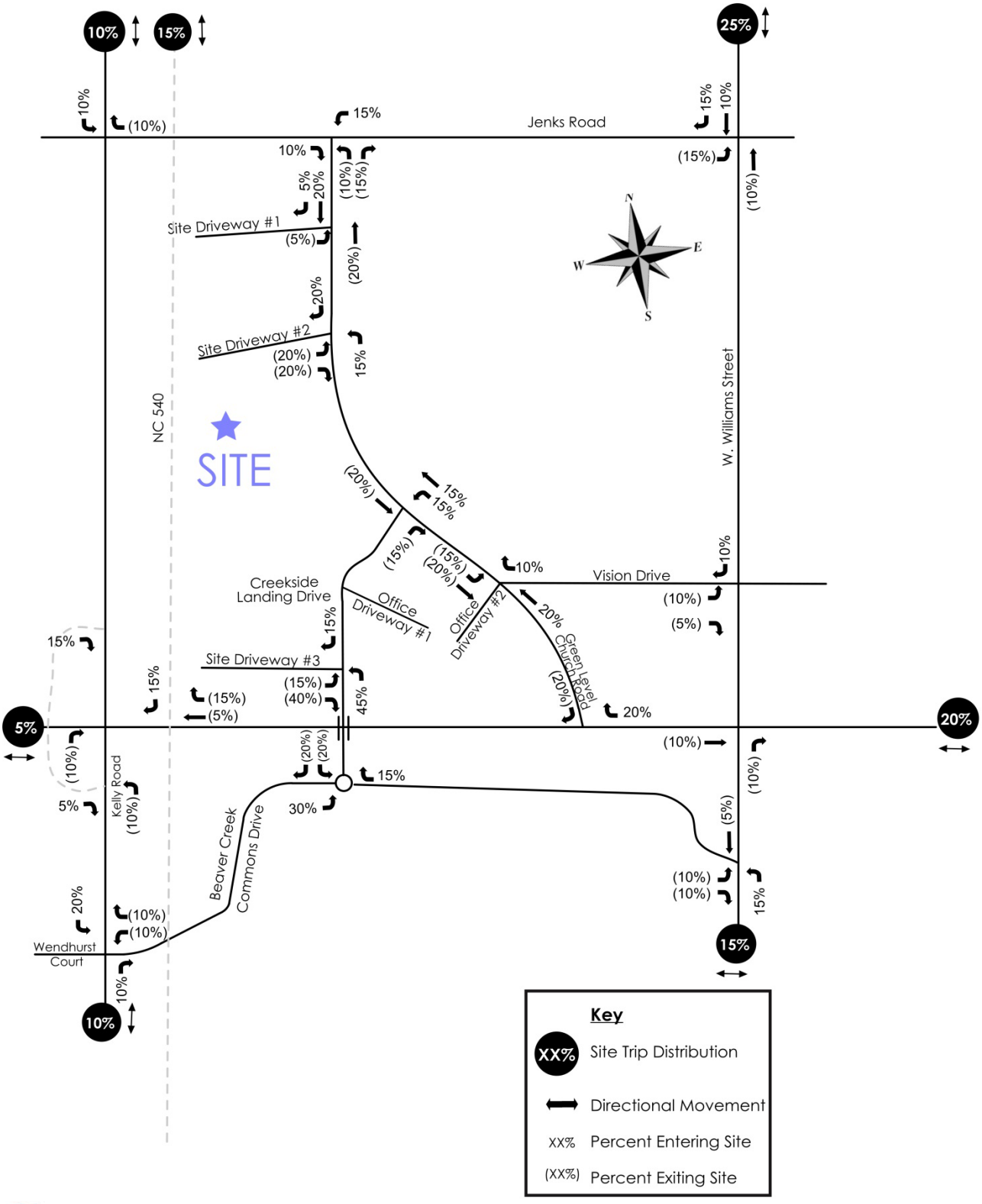


Figure 9: Future (2020) AM Build Out Traffic Volumes

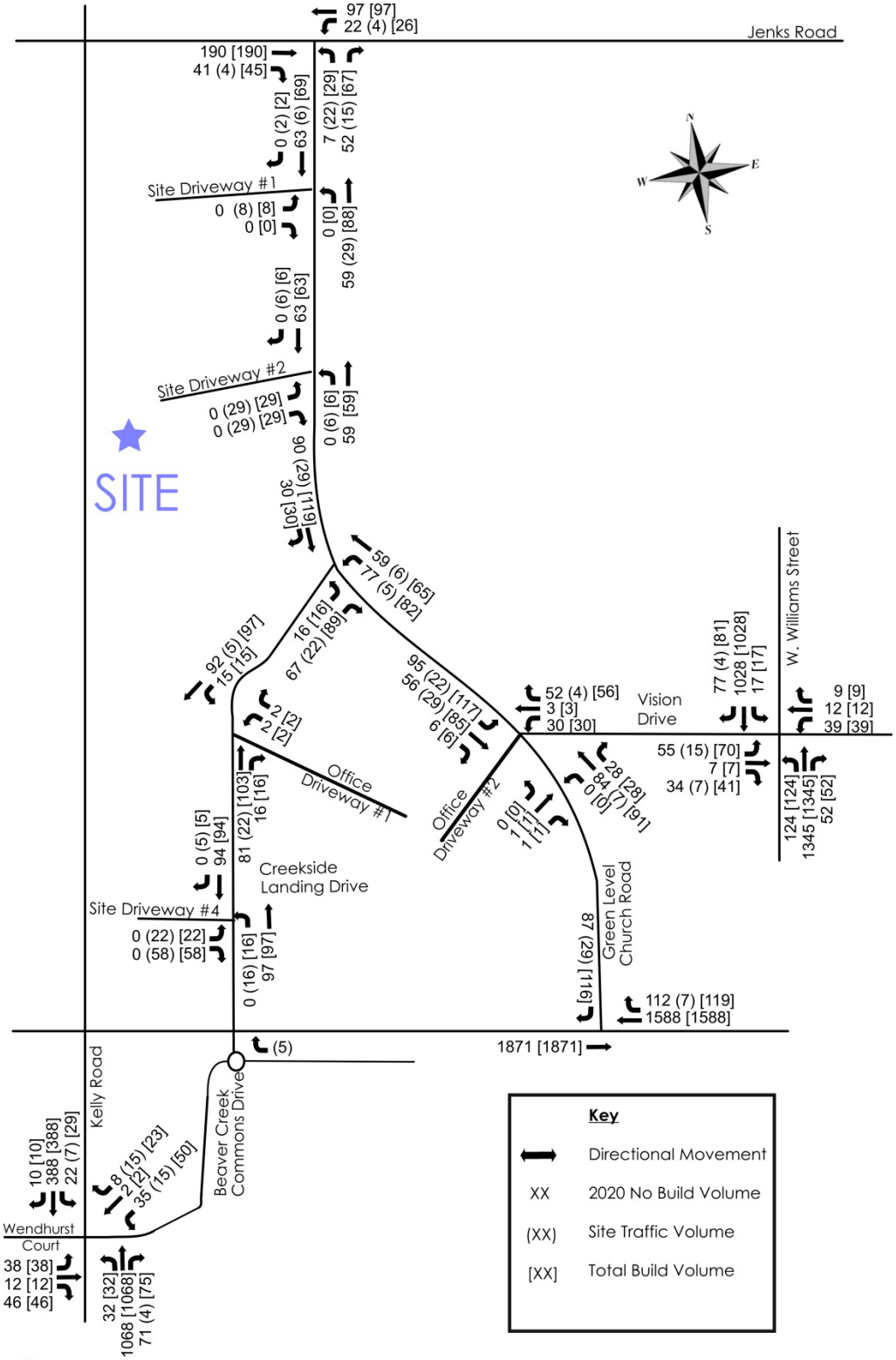


Figure 10: Future (2020) PM Build Out Traffic Volumes

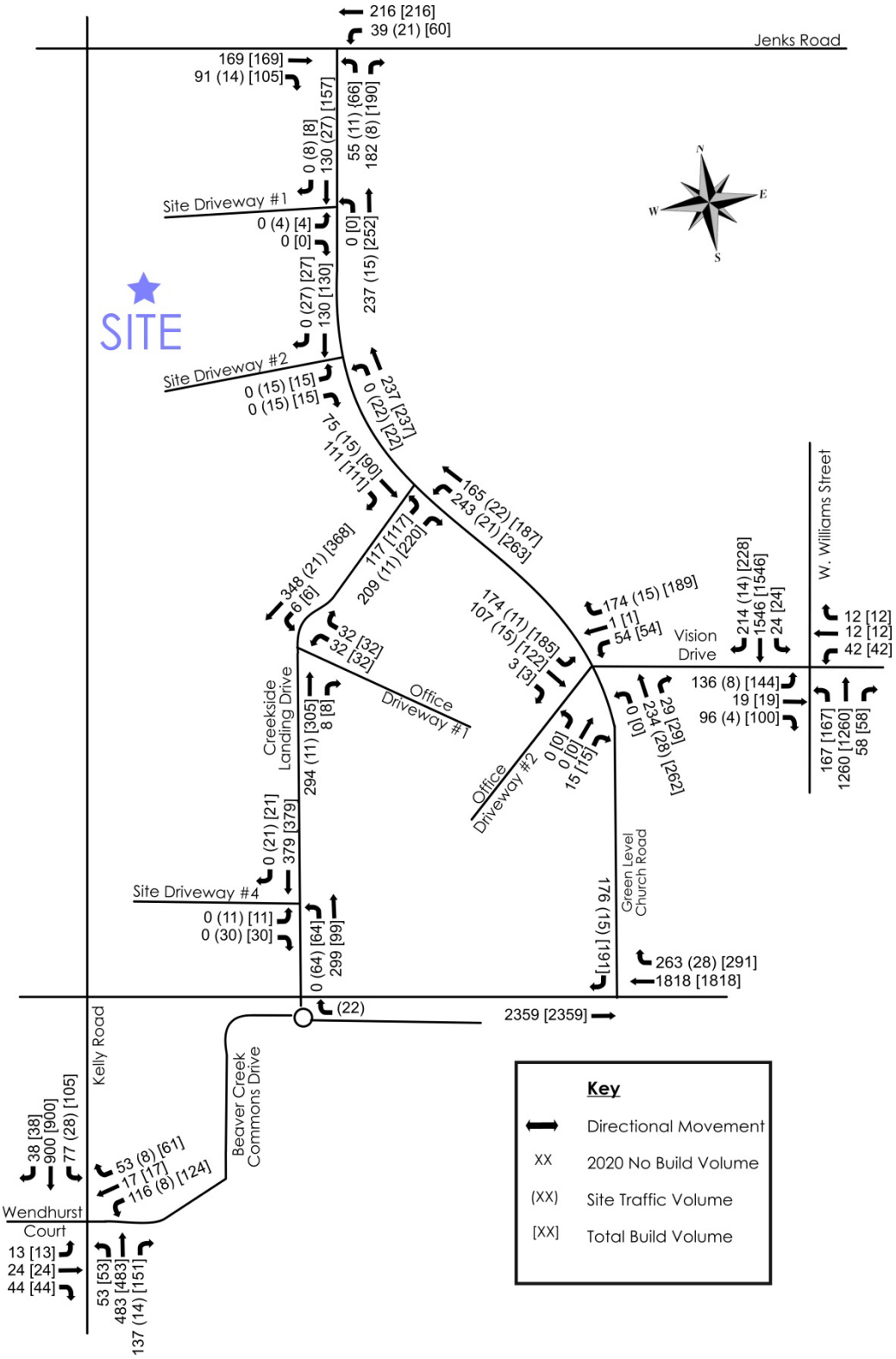
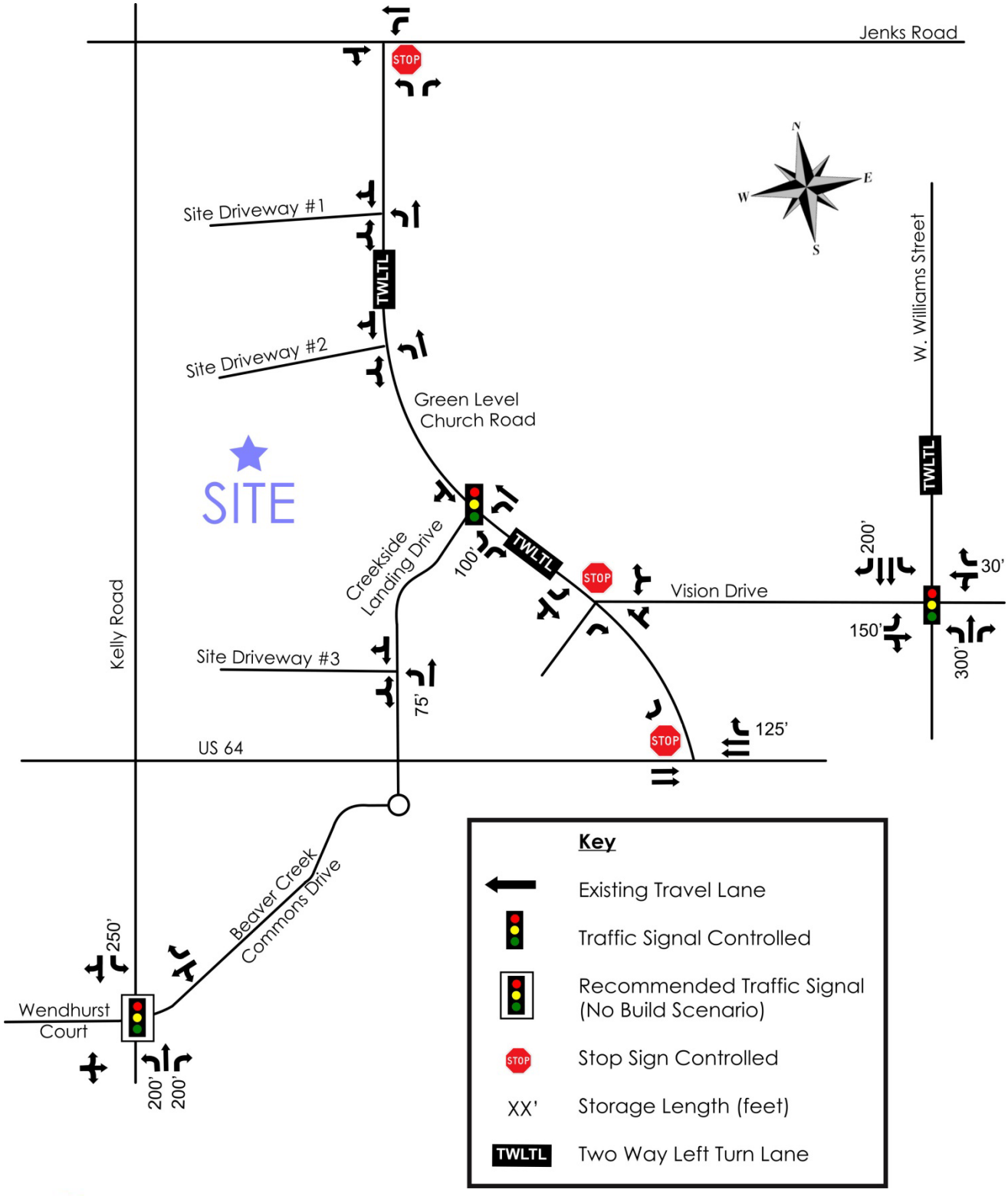


Figure 11: Recommended Geometry



Appendix E:
Intersection Spreadsheets

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	10/23/2018
N/S Street:	Morris Acres Road
E/W Street:	Jenks Road

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.91

Description	Jenks Road Eastbound			Jenks Road Westbound			Morris Acres Road Northbound			Morris Acres Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	209	34	16	113	0	110	0	41	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	0	209	34	16	113	0	110	0	41	0	0	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	26	4	2	14	0	14	0	5	0	0	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	2	0	2	0	0	0
Total Committed Traffic	0	0	0	0	0	0	2	0	2	0	0	0
2022 Background Traffic	0	235	38	18	127	0	126	0	48	0	0	0
Project Traffic												
Percent Assignment Inbound	0%	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	6	7	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	10%	0%	50%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	7	0	37	0	0	0
Total Project Traffic	0	0	6	7	0	0	7	0	37	0	0	0
2022 Buildout Total	0	235	44	25	127	0	133	0	85	0	0	0
Percent Impact (Approach)		2.1%			4.6%			20.2%			-	
Overall Percent Impact	8.8%											

PM PEAK HOUR
PM PHF = 0.95

Description	Jenks Road Eastbound			Jenks Road Westbound			Morris Acres Road Northbound			Morris Acres Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	216	99	57	250	0	175	0	63	0	0	0
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	0	216	99	57	250	0	175	0	63	0	0	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	27	12	7	31	0	22	0	8	0	0	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	1	2	0	0	1	0	1	0	0	0
Total Committed Traffic	0	0	1	2	0	0	1	0	1	0	0	0
2022 Background Traffic	0	243	112	66	281	0	198	0	72	0	0	0
Project Traffic												
Percent Assignment Inbound	0%	0%	25%	25%	0%	0%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	19	20	0	0	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	10%	0%	50%	0%	0%	0%
Outbound Project Traffic	0	0	0	0	0	0	5	0	25	0	0	0
Total Project Traffic	0	0	19	20	0	0	5	0	25	0	0	0
2022 Buildout Total	0	243	131	86	281	0	203	0	97	0	0	0
Percent Impact (Approach)		5.1%			5.4%			10.0%			-	
Overall Percent Impact	6.6%											

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	Balance with Jenks at Morris Acres
N/S Street:	Morris Acres Road
E/W Street:	Reedybrook Crossing/Central Site Driveway

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.90

Description	Reedybrook Crossing Eastbound			Central Site Driveway Westbound			Morris Acres Road Northbound			Morris Acres Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	26	0	26	0	0	0	5	125	0	0	45	5
2018 Existing Traffic	26	0	26	0	0	0	5	125	0	0	45	5
Growth Factor (0.03 per year)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.126	0.000	0.000	0.126	0.000
2022 Background Growth	0	0	0	0	0	0	0	16	0	0	6	0
Committed Projects												
Beaver Creek Phase 4 Residential	3	0	3	0	0	0	1	0	0	0	0	1
Total Committed Traffic	3	0	3	0	0	0	1	0	0	0	0	1
2022 Background Traffic	29	0	29	0	0	0	6	141	0	0	51	6
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	5%	30%	30%	5%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	1	8	8	1	0
Percent Assignment Outbound	0%	0%	0%	25%	0%	35%	0%	10%	0%	0%	5%	0%
Outbound Project Traffic	0	0	0	19	0	26	0	7	0	0	4	0
Total Project Traffic	0	0	0	19	0	26	0	8	8	8	5	0
2022 Buildout Total	29	0	29	19	0	26	6	149	8	8	56	6
Percent Impact (Approach)		0.0%			100.0%			9.8%			18.7%	

Overall Percent Impact 22.1%

PM PEAK HOUR
PM PHF = 0.90

Description	Reedybrook Crossing Eastbound			Central Site Driveway Westbound			Morris Acres Road Northbound			Morris Acres Road Southbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	14	0	14	0	0	0	20	225	0	0	132	24
2018 Existing Traffic	14	0	14	0	0	0	20	225	0	0	132	24
Growth Factor (0.03 per year)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.126	0.000	0.000	0.126	0.000
2022 Background Growth	0	0	0	0	0	0	0	28	0	0	17	0
Committed Projects												
Beaver Creek Phase 4 Residential	1	0	1	0	0	0	2	0	0	0	0	3
Total Committed Traffic	1	0	1	0	0	0	2	0	0	0	0	3
2022 Background Traffic	15	0	15	0	0	0	22	253	0	0	149	27
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	5%	30%	30%	5%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	4	23	23	4	0
Percent Assignment Outbound	0%	0%	0%	25%	0%	35%	0%	10%	0%	0%	5%	0%
Outbound Project Traffic	0	0	0	12	0	18	0	5	0	0	3	0
Total Project Traffic	0	0	0	12	0	18	0	9	23	23	7	0
2022 Buildout Total	15	0	15	12	0	18	22	262	23	23	156	27
Percent Impact (Approach)		0.0%			100.0%			10.4%			14.6%	

Overall Percent Impact 16.1%

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	10/23/2018
N/S Street:	Morris Acres Road
E/W Street:	Creekside Landing Drive

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.97

Description	Creekside Landing Drive Eastbound Left	Through	Right	- Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	30	0	95	0	0	0	55	113	0	0	102	15
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	30	0	95	0	0	0	55	113	0	0	102	15
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	4	0	12	0	0	0	7	14	0	0	13	2
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	2	0	0	0	1	1	0	0	3	0
Total Committed Traffic	0	0	2	0	0	0	1	1	0	0	3	0
2022 Background Traffic	34	0	109	0	0	0	63	128	0	0	118	17
Project Traffic												
Percent Assignment Inbound	25%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%
Inbound Project Traffic	7	0	0	0	0	0	0	7	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	15%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	19	10
Total Project Traffic	7	0	0	0	0	0	0	7	0	0	19	10
2022 Buildout Total	41	0	109	0	0	0	63	135	0	0	137	27
Percent Impact (Approach)		4.7%			-			3.6%			17.7%	
Overall Percent Impact	8.4%											

PM PEAK HOUR
PM PHF = 0.91

Description	Creekside Landing Drive Eastbound Left	Through	Right	- Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	96	0	178	0	0	0	144	235	0	0	83	88
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	96	0	178	0	0	0	144	235	0	0	83	88
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	12	0	22	0	0	0	18	29	0	0	10	11
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	1	0	0	0	2	2	0	0	2	0
Total Committed Traffic	0	0	1	0	0	0	2	2	0	0	2	0
2022 Background Traffic	108	0	201	0	0	0	164	266	0	0	95	99
Project Traffic												
Percent Assignment Inbound	25%	0%	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%
Inbound Project Traffic	19	0	0	0	0	0	0	19	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%	15%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	13	7
Total Project Traffic	19	0	0	0	0	0	0	19	0	0	13	7
2022 Buildout Total	127	0	201	0	0	0	164	285	0	0	108	106
Percent Impact (Approach)		5.8%			-			4.2%			9.4%	
Overall Percent Impact	5.9%											

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	10/23/2018
N/S Street:	Morris Acres Road
E/W Street:	US 64 WB

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.94

Description	US 64 WB Eastbound Left	US 64 WB Eastbound Through	US 64 WB Eastbound Right	US 64 WB Westbound Left	US 64 WB Westbound Through	US 64 WB Westbound Right	Morris Acres Road Northbound Left	Morris Acres Road Northbound Through	Morris Acres Road Northbound Right	Morris Acres Road Southbound Left	Morris Acres Road Southbound Through	Morris Acres Road Southbound Right
2018 Traffic Count	0	0	0	0	1693	140	0	0	0	0	0	119
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	0	0	0	0	1693	140	0	0	0	0	0	119
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	212	18	0	0	0	0	0	15
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	1	0	0	0	0	0	3
Total Committed Traffic	0	0	0	0	0	1	0	0	0	0	0	3
2022 Background Traffic	0	0	0	0	1905	159	0	0	0	0	0	137
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	7	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	19
Total Project Traffic	0	0	0	0	0	7	0	0	0	0	0	19
2022 Buildout Total	0	0	0	0	1905	166	0	0	0	0	0	156
Percent Impact (Approach)		-			0.3%			-			12.2%	

Overall Percent Impact 1.2%

PM PEAK HOUR
PM PHF = 0.98

Description	US 64 WB Eastbound Left	US 64 WB Eastbound Through	US 64 WB Eastbound Right	US 64 WB Westbound Left	US 64 WB Westbound Through	US 64 WB Westbound Right	Morris Acres Road Northbound Left	Morris Acres Road Northbound Through	Morris Acres Road Northbound Right	Morris Acres Road Southbound Left	Morris Acres Road Southbound Through	Morris Acres Road Southbound Right
2018 Traffic Count	0	0	0	0	1783	308	0	0	0	0	0	126
Count Balancing	0	0	0	0	0	0	0	0	0	0	0	0
2018 Existing Traffic	0	0	0	0	1783	308	0	0	0	0	0	126
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	224	39	0	0	0	0	0	16
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	3	0	0	0	0	0	2
Total Committed Traffic	0	0	0	0	0	3	0	0	0	0	0	2
2022 Background Traffic	0	0	0	0	2007	350	0	0	0	0	0	144
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	25%	0%	0%	0%	0%	0%	0%
Inbound Project Traffic	0	0	0	0	0	19	0	0	0	0	0	0
Percent Assignment Outbound	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	25%
Outbound Project Traffic	0	0	0	0	0	0	0	0	0	0	0	13
Total Project Traffic	0	0	0	0	0	19	0	0	0	0	0	13
2022 Buildout Total	0	0	0	0	2007	369	0	0	0	0	0	157
Percent Impact (Approach)		-			0.8%			-			8.3%	

Overall Percent Impact 1.3%

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	Balance with Jenks at Morris Acres
N/S Street:	Morris Acres Road
E/W Street:	North Site Driveway

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.90

Description	North Site Driveway Eastbound Left	Through	Right	North Site Driveway Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	151	0	0	50	0
2018 Existing Traffic	0	0	0	0	0	0	0	151	0	0	50	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	19	0	0	6	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	4	0	0	1	0
Total Committed Traffic	0	0	0	0	0	0	0	4	0	0	1	0
2022 Background Traffic	0	0	0	0	0	0	0	174	0	0	57	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	5%	15%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	1	4	9	0
Percent Assignment Outbound	0%	0%	0%	5%	0%	15%	0%	45%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	4	0	11	0	33	0	0	0	0
Total Project Traffic	0	0	0	4	0	11	0	33	1	4	9	0
2022 Buildout Total	0	0	0	4	0	11	0	207	1	4	66	0
Percent Impact (Approach)		-			100.0%			16.4%			18.6%	
Overall Percent Impact	21.2%											

PM PEAK HOUR
PM PHF = 0.90

Description	North Site Driveway Eastbound Left	Through	Right	North Site Driveway Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	238	0	0	156	0
2018 Existing Traffic	0	0	0	0	0	0	0	238	0	0	156	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	30	0	0	20	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	2	0	0	4	0
Total Committed Traffic	0	0	0	0	0	0	0	2	0	0	4	0
2022 Background Traffic	0	0	0	0	0	0	0	270	0	0	180	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	5%	15%	35%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	4	12	27	0
Percent Assignment Outbound	0%	0%	0%	5%	0%	15%	0%	45%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	3	0	8	0	23	0	0	0	0
Total Project Traffic	0	0	0	3	0	8	0	23	4	12	27	0
2022 Buildout Total	0	0	0	3	0	8	0	293	4	12	207	0
Percent Impact (Approach)		-			100.0%			9.1%			17.8%	
Overall Percent Impact	14.6%											

INTERSECTION ANALYSIS SHEET

Project:	The Wayforth at Apex
Location:	Apex, NC
Ct. Date	Balance with Jenks at Morris Acres
N/S Street:	Morris Acres Road
E/W Street:	South Site Driveway

	AM In	AM Out	PM In	PM Out
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	Existing Year:	2018
Growth Factor:	0.125509	Buildout Year:	2022

AM PEAK HOUR
AM PHF = 0.90

Description	South Site Driveway Eastbound Left	Through	Right	South Site Driveway Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	130	0	0	71	0
2018 Existing Traffic	0	0	0	0	0	0	0	130	0	0	71	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	16	0	0	9	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	1	0	0	3	0
Total Committed Traffic	0	0	0	0	0	0	0	1	0	0	3	0
2022 Background Traffic	0	0	0	0	0	0	0	147	0	0	83	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	35%	15%	5%	0%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	9	4	1	0	0
Percent Assignment Outbound	0%	0%	0%	10%	0%	10%	0%	0%	0%	0%	30%	0%
Outbound Project Traffic	0	0	0	7	0	7	0	0	0	0	22	0
Total Project Traffic	0	0	0	7	0	7	0	9	4	1	22	0
2022 Buildout Total	0	0	0	7	0	7	0	156	4	1	105	0
Percent Impact (Approach)		-			100.0%			8.1%			21.8%	

Overall Percent Impact 17.9%

PM PEAK HOUR
PM PHF = 0.90

Description	South Site Driveway Eastbound Left	Through	Right	South Site Driveway Westbound Left	Through	Right	Morris Acres Road Northbound Left	Through	Right	Morris Acres Road Southbound Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	244	0	0	145	0
2018 Existing Traffic	0	0	0	0	0	0	0	244	0	0	145	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	31	0	0	18	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	2	0	0	1	0
Total Committed Traffic	0	0	0	0	0	0	0	2	0	0	1	0
2022 Background Traffic	0	0	0	0	0	0	0	278	0	0	164	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	35%	15%	5%	0%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	27	11	4	0	0
Percent Assignment Outbound	0%	0%	0%	10%	0%	10%	0%	0%	0%	0%	30%	0%
Outbound Project Traffic	0	0	0	4	0	5	0	0	0	0	15	0
Total Project Traffic	0	0	0	4	0	5	0	27	11	4	15	0
2022 Buildout Total	0	0	0	4	0	5	0	305	11	4	179	0
Percent Impact (Approach)		-			100.0%			12.0%			10.4%	

Overall Percent Impact 13.0%

Appendix F:
Synchro Output:
Existing (2018)



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	209	34	16	113	110	41
Future Volume (vph)	209	34	16	113	110	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1827	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1827	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	267	0	18	124	121	45
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			

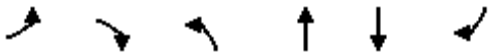
Intersection	
Int Delay, s/veh	3.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	209	34	16	113	110	41
Future Vol, veh/h	209	34	16	113	110	41
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	230	37	18	124	121	45

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	267	0	407	248
Stage 1	-	-	-	-	248	-
Stage 2	-	-	-	-	159	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1297	-	600	791
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	870	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1297	-	592	791
Mov Cap-2 Maneuver	-	-	-	-	645	-
Stage 1	-	-	-	-	793	-
Stage 2	-	-	-	-	858	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.3
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	645	791	-	-	1297	-
HCM Lane V/C Ratio	0.187	0.057	-	-	0.014	-
HCM Control Delay (s)	11.9	9.8	-	-	7.8	-
HCM Lane LOS	B	A	-	-	A	-
HCM 95th %tile Q(veh)	0.7	0.2	-	-	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	26	26	5	125	45	5
Future Volume (vph)	26	26	5	125	45	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		100			
Satd. Flow (prot)	1694	0	1770	1863	1837	0
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	1863	1837	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	294			470	758	
Travel Time (s)	8.0			7.1	11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	58	0	6	139	56	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 16.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	26	26	5	125	45	5
Future Vol, veh/h	26	26	5	125	45	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	29	29	6	139	50	6

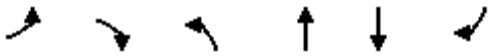
Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	203	53	56	0	-	0
Stage 1	53	-	-	-	-	-
Stage 2	150	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	786	1014	1549	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	878	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	783	1014	1549	-	-	-
Mov Cap-2 Maneuver	771	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	875	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.4	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1549	-	876	-	-
HCM Lane V/C Ratio	0.004	-	0.066	-	-
HCM Control Delay (s)	7.3	-	9.4	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-



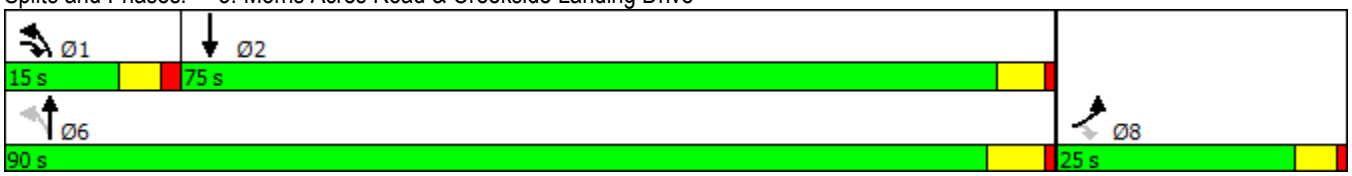
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	30	95	55	113	102	15
Future Volume (vph)	30	95	55	113	102	15
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1785	0
Flt Permitted	0.950		0.510			
Satd. Flow (perm)	1752	1567	974	1909	1785	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		98			11	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	31	98	57	116	120	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	6.8	9.2	25.8	30.0	16.8	
Actuated g/C Ratio	0.21	0.28	0.79	0.92	0.51	
v/c Ratio	0.09	0.19	0.06	0.07	0.13	
Control Delay	12.6	3.2	2.1	1.7	7.8	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.6	3.2	2.1	1.7	7.8	
LOS	B	A	A	A	A	
Approach Delay	5.4			1.8	7.8	
Approach LOS	A			A	A	
Queue Length 50th (ft)	4	0	0	0	9	
Queue Length 95th (ft)	22	16	13	22	46	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	1086	637	1027	1909	1785	

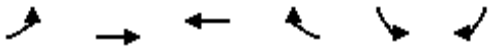


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.15	0.06	0.06	0.07	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 32.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.19			
Intersection Signal Delay: 4.6		Intersection LOS: A	
Intersection Capacity Utilization 24.2%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1693	140	0	119
Future Volume (vph)	0	0	1693	140	0	119
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1801	149	0	127
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 60.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Vol, veh/h	0	0	1693	140	0	119
Future Vol, veh/h	0	0	1693	140	0	119
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1801	149	0	127

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	901
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	281
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	281
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	27.9
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	281
HCM Lane V/C Ratio	-	-	0.451
HCM Control Delay (s)	-	-	27.9
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	2.2

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	216	99	57	250	175	63
Future Volume (vph)	216	99	57	250	175	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1785	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1785	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	331	0	60	263	184	66
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 40.4%		ICU Level of Service A	
Analysis Period (min) 15			

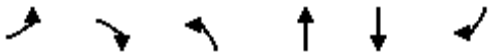
Intersection	
Int Delay, s/veh	4.6

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	216	99	57	250	175	63
Future Vol, veh/h	216	99	57	250	175	63
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	227	104	60	263	184	66

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	332	0	662	279
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	383	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1227	-	427	760
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	689	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1227	-	406	760
Mov Cap-2 Maneuver	-	-	-	-	505	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	655	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.5	14.6
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	505	760	-	-	1227	-
HCM Lane V/C Ratio	0.365	0.087	-	-	0.049	-
HCM Control Delay (s)	16.2	10.2	-	-	8.1	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	1.7	0.3	-	-	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	14	14	20	225	132	24
Future Volume (vph)	14	14	20	225	132	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		100			
Satd. Flow (prot)	1694	0	1770	1863	1824	0
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	1863	1824	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	294			470	758	
Travel Time (s)	8.0			7.1	11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	32	0	22	250	174	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	14	14	20	225	132	24
Future Vol, veh/h	14	14	20	225	132	24
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	16	22	250	147	27

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	454	160	173	0	-	0
Stage 1	160	-	-	-	-	-
Stage 2	294	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	564	885	1404	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	756	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	555	885	1404	-	-	-
Mov Cap-2 Maneuver	614	-	-	-	-	-
Stage 1	869	-	-	-	-	-
Stage 2	744	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1404	-	725	-	-
HCM Lane V/C Ratio	0.016	-	0.043	-	-
HCM Control Delay (s)	7.6	-	10.2	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0	-	0.1	-	-

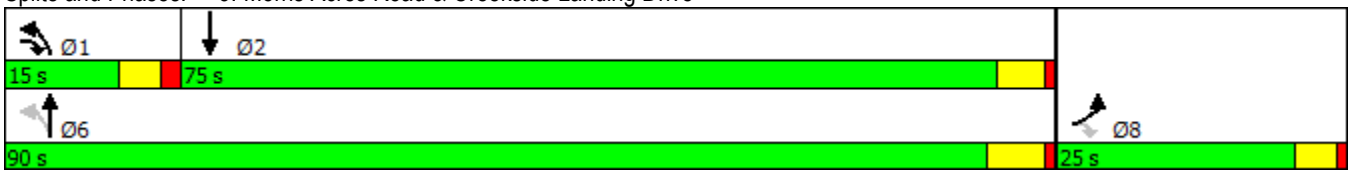


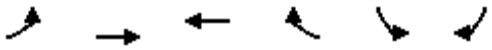
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	96	178	144	235	83	88
Future Volume (vph)	96	178	144	235	83	88
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1689	0
Flt Permitted	0.950		0.448			
Satd. Flow (perm)	1752	1567	855	1909	1689	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		196			85	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	105	196	158	258	188	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	7.3	16.8	25.1	26.4	12.3	
Actuated g/C Ratio	0.19	0.43	0.64	0.67	0.31	
v/c Ratio	0.33	0.25	0.22	0.20	0.32	
Control Delay	18.5	2.2	4.8	4.6	9.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	18.5	2.2	4.8	4.6	9.1	
LOS	B	A	A	A	A	
Approach Delay	7.9			4.7	9.1	
Approach LOS	A			A	A	
Queue Length 50th (ft)	22	0	13	22	17	
Queue Length 95th (ft)	55	21	33	51	58	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	907	872	792	1909	1689	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.12	0.22	0.20	0.14	0.11	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 39.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.33			
Intersection Signal Delay: 6.7		Intersection LOS: A	
Intersection Capacity Utilization 36.3%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1783	308	0	126
Future Volume (vph)	0	0	1783	308	0	126
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1819	314	0	129
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 63.8%		ICU Level of Service B	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Vol, veh/h	0	0	1783	308	0	126
Future Vol, veh/h	0	0	1783	308	0	126
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	1819	314	0	129

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	910
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	277
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	277
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	28.8
HCM LOS		D

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	277
HCM Lane V/C Ratio	-	-	0.464
HCM Control Delay (s)	-	-	28.8
HCM Lane LOS	-	-	D
HCM 95th %tile Q(veh)	-	-	2.3

Appendix G:
Synchro Output:
Background (2022)

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	235	38	18	127	126	48
Future Volume (vph)	235	38	18	127	126	48
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1827	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1827	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	300	0	20	140	138	53
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 28.6%		ICU Level of Service A	
Analysis Period (min) 15			

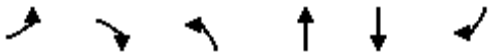
Intersection	
Int Delay, s/veh	3.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	235	38	18	127	126	48
Future Vol, veh/h	235	38	18	127	126	48
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	258	42	20	140	138	53

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	300	0	458	279
Stage 1	-	-	-	-	279	-
Stage 2	-	-	-	-	179	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1261	-	561	760
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	852	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1261	-	552	760
Mov Cap-2 Maneuver	-	-	-	-	616	-
Stage 1	-	-	-	-	768	-
Stage 2	-	-	-	-	838	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	616	760	-	-	1261	-
HCM Lane V/C Ratio	0.225	0.069	-	-	0.016	-
HCM Control Delay (s)	12.5	10.1	-	-	7.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.2	-	-	0	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	29	29	6	141	51	6
Future Volume (vph)	29	29	6	141	51	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		100			
Satd. Flow (prot)	1694	0	1770	1863	1835	0
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	1863	1835	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	294			470	758	
Travel Time (s)	8.0			7.1	11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	64	0	7	157	64	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 17.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	29	29	6	141	51	6
Future Vol, veh/h	29	29	6	141	51	6
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	32	32	7	157	57	7

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	230	60	63	0	-	0
Stage 1	60	-	-	-	-	-
Stage 2	170	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	758	1005	1540	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	860	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	755	1005	1540	-	-	-
Mov Cap-2 Maneuver	751	-	-	-	-	-
Stage 1	963	-	-	-	-	-
Stage 2	856	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.5	0.3	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1540	-	860	-	-
HCM Lane V/C Ratio	0.004	-	0.075	-	-
HCM Control Delay (s)	7.3	-	9.5	-	-
HCM Lane LOS	A	-	A	-	-
HCM 95th %tile Q(veh)	0	-	0.2	-	-

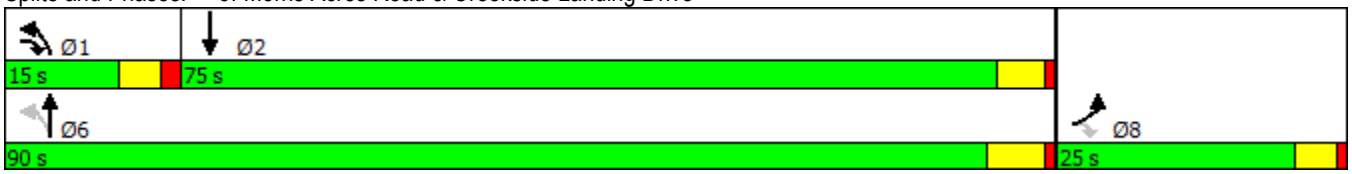


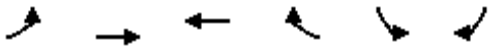
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	34	109	63	128	118	17
Future Volume (vph)	34	109	63	128	118	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1785	0
Flt Permitted	0.950		0.497			
Satd. Flow (perm)	1752	1567	949	1909	1785	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		112			12	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	35	112	65	132	140	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	6.8	9.2	25.5	29.8	16.4	
Actuated g/C Ratio	0.21	0.28	0.79	0.92	0.51	
v/c Ratio	0.10	0.21	0.07	0.08	0.15	
Control Delay	12.6	3.2	2.1	1.7	8.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.6	3.2	2.1	1.7	8.0	
LOS	B	A	A	A	A	
Approach Delay	5.4			1.8	8.0	
Approach LOS	A			A	A	
Queue Length 50th (ft)	4	0	0	0	11	
Queue Length 95th (ft)	24	17	14	24	52	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	1100	652	1017	1909	1785	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.03	0.17	0.06	0.07	0.08	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 32.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 4.7		Intersection LOS: A	
Intersection Capacity Utilization 34.2%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1905	159	0	137
Future Volume (vph)	0	0	1905	159	0	137
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	2027	169	0	146
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 67.8%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.6

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Vol, veh/h	0	0	1905	159	0	137
Future Vol, veh/h	0	0	1905	159	0	137
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2027	169	0	146

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1013
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	237
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	237
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	41.8
HCM LOS		E

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	237
HCM Lane V/C Ratio	-	-	0.615
HCM Control Delay (s)	-	-	41.8
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	3.6

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	243	112	66	281	198	72
Future Volume (vph)	243	112	66	281	198	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1783	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1783	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	374	0	69	296	208	76
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 44.2%		ICU Level of Service A	
Analysis Period (min) 15			

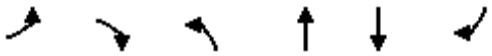
Intersection	
Int Delay, s/veh	5.2

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	112	66	281	198	72
Future Vol, veh/h	243	112	66	281	198	72
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	256	118	69	296	208	76

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	374	0	750	315
Stage 1	-	-	-	-	315	-
Stage 2	-	-	-	-	435	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1184	-	379	725
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	653	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1184	-	357	725
Mov Cap-2 Maneuver	-	-	-	-	467	-
Stage 1	-	-	-	-	740	-
Stage 2	-	-	-	-	615	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.6	16.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	467	725	-	-	1184	-
HCM Lane V/C Ratio	0.446	0.105	-	-	0.059	-
HCM Control Delay (s)	18.8	10.5	-	-	8.2	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	2.3	0.3	-	-	0.2	-



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	15	15	22	253	149	27
Future Volume (vph)	15	15	22	253	149	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	100			0
Storage Lanes	1	0	1			0
Taper Length (ft)	25		100			
Satd. Flow (prot)	1694	0	1770	1863	1824	0
Flt Permitted	0.976		0.950			
Satd. Flow (perm)	1694	0	1770	1863	1824	0
Link Speed (mph)	25			45	45	
Link Distance (ft)	294			470	758	
Travel Time (s)	8.0			7.1	11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	34	0	24	281	196	0
Sign Control	Stop			Free	Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.1%		ICU Level of Service A	
Analysis Period (min) 15			

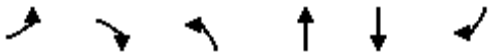
Intersection	
Int Delay, s/veh	1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	15	15	22	253	149	27
Future Vol, veh/h	15	15	22	253	149	27
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	100	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	17	17	24	281	166	30

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	511	181	196	0	-	0
Stage 1	181	-	-	-	-	-
Stage 2	330	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	523	862	1377	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	728	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	514	862	1377	-	-	-
Mov Cap-2 Maneuver	584	-	-	-	-	-
Stage 1	850	-	-	-	-	-
Stage 2	715	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.4	0.6	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1377	-	696	-	-
HCM Lane V/C Ratio	0.018	-	0.048	-	-
HCM Control Delay (s)	7.7	-	10.4	-	-
HCM Lane LOS	A	-	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

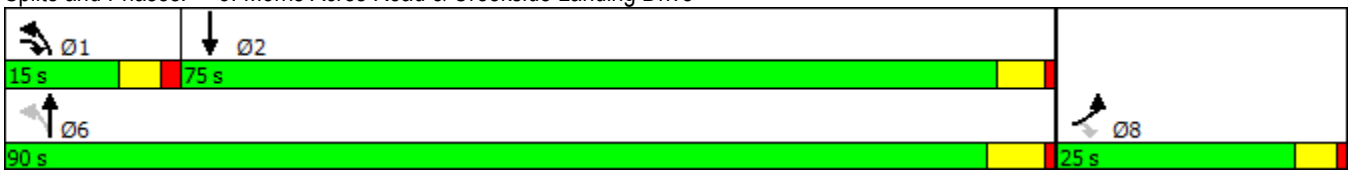


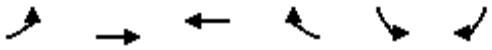
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	108	201	164	266	95	99
Future Volume (vph)	108	201	164	266	95	99
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1691	0
Flt Permitted	0.950		0.438			
Satd. Flow (perm)	1752	1567	836	1909	1691	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		221			84	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	119	221	180	292	213	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	7.5	17.3	25.4	26.7	12.4	
Actuated g/C Ratio	0.19	0.43	0.64	0.67	0.31	
v/c Ratio	0.36	0.27	0.25	0.23	0.37	
Control Delay	19.1	2.2	5.1	4.8	10.3	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	19.1	2.2	5.1	4.8	10.3	
LOS	B	A	A	A	B	
Approach Delay	8.1			4.9	10.3	
Approach LOS	A			A	B	
Queue Length 50th (ft)	25	0	15	26	22	
Queue Length 95th (ft)	62	22	38	60	69	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	898	884	782	1909	1691	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.13	0.25	0.23	0.15	0.13	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 39.9			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.37			
Intersection Signal Delay: 7.1		Intersection LOS: A	
Intersection Capacity Utilization 38.6%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	2007	350	0	144
Future Volume (vph)	0	0	2007	350	0	144
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	2048	357	0	147
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.1%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Vol, veh/h	0	0	2007	350	0	144
Future Vol, veh/h	0	0	2007	350	0	144
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2048	357	0	147

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1024
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	233
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	233
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	43.6
HCM LOS		E

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	233
HCM Lane V/C Ratio	-	-	0.631
HCM Control Delay (s)	-	-	43.6
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	3.8

Appendix H:
Synchro Output:
Build-out (2022)

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	235	44	25	127	133	85
Future Volume (vph)	235	44	25	127	133	85
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1824	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1824	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	306	0	27	140	146	93
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 34.8%		ICU Level of Service A	
Analysis Period (min) 15			

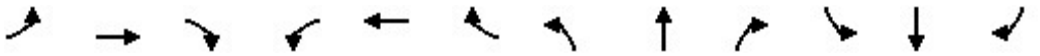
Intersection	
Int Delay, s/veh	4.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	235	44	25	127	133	85
Future Vol, veh/h	235	44	25	127	133	85
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	258	48	27	140	146	93

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	307	0	477	282
Stage 1	-	-	-	-	282	-
Stage 2	-	-	-	-	195	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1254	-	547	757
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	838	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1254	-	535	757
Mov Cap-2 Maneuver	-	-	-	-	605	-
Stage 1	-	-	-	-	766	-
Stage 2	-	-	-	-	820	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.3	11.9
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	605	757	-	-	1254	-
HCM Lane V/C Ratio	0.242	0.123	-	-	0.022	-
HCM Control Delay (s)	12.8	10.4	-	-	7.9	-
HCM Lane LOS	B	B	-	-	A	-
HCM 95th %tile Q(veh)	0.9	0.4	-	-	0.1	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	4	29	19	4	26	6	149	8	8	56	6
Future Volume (vph)	29	4	29	19	4	26	6	149	8	8	56	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1703	0	0	1694	0	1770	1848	0	1770	1835	0
Flt Permitted		0.977			0.981		0.950			0.950		
Satd. Flow (perm)	0	1703	0	0	1694	0	1770	1848	0	1770	1835	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		294			267			470			758	
Travel Time (s)		8.0			7.3			7.1			11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	54	0	7	175	0	9	69	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.0%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	4	29	19	4	26	6	149	8	8	56	6
Future Vol, veh/h	29	4	29	19	4	26	6	149	8	8	56	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	4	32	21	4	29	7	166	9	9	62	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	283	271	66	285	270	170	69	0	0	174	0	0
Stage 1	83	83	-	183	183	-	-	-	-	-	-	-
Stage 2	200	188	-	102	87	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	669	636	998	667	636	874	1532	-	-	1403	-	-
Stage 1	925	826	-	819	748	-	-	-	-	-	-	-
Stage 2	802	745	-	904	823	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	638	629	998	637	629	874	1532	-	-	1403	-	-
Mov Cap-2 Maneuver	638	629	-	637	629	-	-	-	-	-	-	-
Stage 1	921	821	-	815	745	-	-	-	-	-	-	-
Stage 2	767	742	-	864	818	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	10.2	0.3	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1532	-	-	767	743	1403	-	-
HCM Lane V/C Ratio	0.004	-	-	0.09	0.073	0.006	-	-
HCM Control Delay (s)	7.4	-	-	10.2	10.2	7.6	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.2	0	-	-



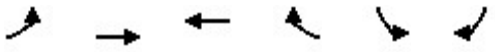
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	41	109	63	135	137	27
Future Volume (vph)	41	109	63	135	137	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1776	0
Flt Permitted	0.950		0.484			
Satd. Flow (perm)	1752	1567	924	1909	1776	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		112			16	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97
Shared Lane Traffic (%)						
Lane Group Flow (vph)	42	112	65	139	169	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	6.8	9.2	25.5	29.8	16.4	
Actuated g/C Ratio	0.21	0.28	0.79	0.92	0.51	
v/c Ratio	0.11	0.21	0.07	0.08	0.19	
Control Delay	12.7	3.2	2.1	1.7	8.0	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	12.7	3.2	2.1	1.7	8.0	
LOS	B	A	A	A	A	
Approach Delay	5.8			1.8	8.0	
Approach LOS	A			A	A	
Queue Length 50th (ft)	5	0	0	0	13	
Queue Length 95th (ft)	27	17	14	25	61	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	1100	652	1005	1909	1776	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.04	0.17	0.06	0.07	0.10	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 32.4			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.21			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 34.2%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Volume (vph)	0	0	1905	166	0	156
Future Volume (vph)	0	0	1905	166	0	156
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	2027	177	0	166
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 69.0%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Vol, veh/h	0	0	1905	166	0	156
Future Vol, veh/h	0	0	1905	166	0	156
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	94	94	94	94	94	94
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2027	177	0	166

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1013
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	237
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	237
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	49.4
HCM LOS		E

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	237
HCM Lane V/C Ratio	-	-	0.7
HCM Control Delay (s)	-	-	49.4
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	4.6



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	11	207	4	4	66
Future Volume (vph)	4	11	207	4	4	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1655	0	1859	0	1770	1863
Flt Permitted	0.988				0.950	
Satd. Flow (perm)	1655	0	1859	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	317		758			1006
Travel Time (s)	8.6		11.5			15.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	234	0	4	73
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 21.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	11	207	4	4	66
Future Vol, veh/h	4	11	207	4	4	66
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	12	230	4	4	73

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	314	232	0	0	234	0
Stage 1	232	-	-	-	-	-
Stage 2	82	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	679	807	-	-	1333	-
Stage 1	807	-	-	-	-	-
Stage 2	941	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	677	807	-	-	1333	-
Mov Cap-2 Maneuver	697	-	-	-	-	-
Stage 1	807	-	-	-	-	-
Stage 2	938	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.8	0	0.4
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	774	1333	-
HCM Lane V/C Ratio	-	-	0.022	0.003	-
HCM Control Delay (s)	-	-	9.8	7.7	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	7	156	4	4	105
Future Volume (vph)	7	7	156	4	4	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1694	0	1857	0	1770	1863
Flt Permitted	0.976				0.950	
Satd. Flow (perm)	1694	0	1857	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	369		1004			470
Travel Time (s)	10.1		15.2			7.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	16	0	177	0	4	117
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.6

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	7	156	4	4	105
Future Vol, veh/h	7	7	156	4	4	105
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	8	173	4	4	117

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	302	176	0	0	178	0
Stage 1	176	-	-	-	-	-
Stage 2	126	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	690	867	-	-	1398	-
Stage 1	855	-	-	-	-	-
Stage 2	900	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	688	867	-	-	1398	-
Mov Cap-2 Maneuver	713	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	897	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	782	1398	-
HCM Lane V/C Ratio	-	-	0.02	0.003	-
HCM Control Delay (s)	-	-	9.7	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	243	131	86	281	203	97
Future Volume (vph)	243	131	86	281	203	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)		0	200		200	0
Storage Lanes		0	1		1	1
Taper Length (ft)			100		100	
Satd. Flow (prot)	1775	0	1770	1863	1770	1583
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	1775	0	1770	1863	1770	1583
Link Speed (mph)	45			45	45	
Link Distance (ft)	645			534	1006	
Travel Time (s)	9.8			8.1	15.2	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	394	0	91	296	214	102
Sign Control	Free			Free	Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 46.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	5.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	243	131	86	281	203	97
Future Vol, veh/h	243	131	86	281	203	97
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	200	-	200	0
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	256	138	91	296	214	102

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	394	0	802	325
Stage 1	-	-	-	-	325	-
Stage 2	-	-	-	-	477	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1165	-	353	716
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	624	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1165	-	325	716
Mov Cap-2 Maneuver	-	-	-	-	438	-
Stage 1	-	-	-	-	732	-
Stage 2	-	-	-	-	575	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2	17.6
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	438	716	-	-	1165	-
HCM Lane V/C Ratio	0.488	0.143	-	-	0.078	-
HCM Control Delay (s)	20.8	10.9	-	-	8.3	-
HCM Lane LOS	C	B	-	-	A	-
HCM 95th %tile Q(veh)	2.6	0.5	-	-	0.3	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	4	15	12	4	18	22	262	23	23	156	27
Future Volume (vph)	15	4	15	12	4	18	22	262	23	23	156	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1712	0	0	1697	0	1770	1840	0	1770	1822	0
Flt Permitted		0.978			0.983		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1697	0	1770	1840	0	1770	1822	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		294			267			470			758	
Travel Time (s)		8.0			7.3			7.1			11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	37	0	24	317	0	26	203	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 29.1%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	4	15	12	4	18	22	262	23	23	156	27
Future Vol, veh/h	15	4	15	12	4	18	22	262	23	23	156	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	4	17	13	4	20	24	291	26	26	173	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	604	605	188	603	607	304	203	0	0	317	0	0
Stage 1	239	239	-	353	353	-	-	-	-	-	-	-
Stage 2	365	366	-	250	254	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	410	412	854	411	411	736	1369	-	-	1243	-	-
Stage 1	764	708	-	664	631	-	-	-	-	-	-	-
Stage 2	654	623	-	754	697	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	384	396	854	388	395	736	1369	-	-	1243	-	-
Mov Cap-2 Maneuver	384	396	-	388	395	-	-	-	-	-	-	-
Stage 1	751	693	-	652	620	-	-	-	-	-	-	-
Stage 2	621	612	-	719	682	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.6	12.5	0.6	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1369	-	-	510	519	1243	-	-
HCM Lane V/C Ratio	0.018	-	-	0.074	0.073	0.021	-	-
HCM Control Delay (s)	7.7	-	-	12.6	12.5	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.2	0.1	-	-



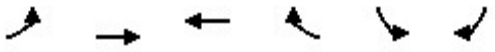
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Volume (vph)	127	201	164	285	108	106
Future Volume (vph)	127	201	164	285	108	106
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Grade (%)	2%			-5%	5%	
Storage Length (ft)	100	0	100			0
Storage Lanes	1	1	1			0
Taper Length (ft)	55		100			
Satd. Flow (prot)	1752	1567	1814	1909	1694	0
Flt Permitted	0.950		0.432			
Satd. Flow (perm)	1752	1567	825	1909	1694	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		221			78	
Link Speed (mph)	25			45	45	
Link Distance (ft)	396			548	1004	
Travel Time (s)	10.8			8.3	15.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	221	180	313	235	0
Turn Type	Prot	pm+ov	pm+pt	NA	NA	
Protected Phases	8	1	1	6	2	
Permitted Phases		8	6			
Detector Phase	8	1	1	6	2	
Switch Phase						
Minimum Initial (s)	7.0	7.0	7.0	12.0	12.0	
Minimum Split (s)	22.7	12.2	12.2	24.0	23.1	
Total Split (s)	25.0	15.0	15.0	90.0	75.0	
Total Split (%)	21.7%	13.0%	13.0%	78.3%	65.2%	
Yellow Time (s)	3.7	3.5	3.5	5.0	4.1	
All-Red Time (s)	1.0	1.7	1.7	1.0	1.0	
Lost Time Adjust (s)	0.3	-0.2	-0.2	-1.0	-0.1	
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	
Lead/Lag		Lead	Lead		Lag	
Lead-Lag Optimize?		Yes	Yes		Yes	
Recall Mode	None	None	None	Min	Min	
Act Effct Green (s)	7.9	17.8	25.8	27.2	12.6	
Actuated g/C Ratio	0.19	0.44	0.63	0.67	0.31	
v/c Ratio	0.41	0.27	0.25	0.25	0.41	
Control Delay	20.1	2.2	5.3	5.1	11.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.1	2.2	5.3	5.1	11.6	
LOS	C	A	A	A	B	
Approach Delay	9.1			5.1	11.6	
Approach LOS	A			A	B	
Queue Length 50th (ft)	30	0	16	30	28	
Queue Length 95th (ft)	73	23	40	68	83	
Internal Link Dist (ft)	316			468	924	
Turn Bay Length (ft)	100		100			
Base Capacity (vph)	884	885	771	1909	1694	

Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Starvation Cap Reductn	0	0	0	0	0	
Spillback Cap Reductn	0	0	0	0	0	
Storage Cap Reductn	0	0	0	0	0	
Reduced v/c Ratio	0.16	0.25	0.23	0.16	0.14	

Intersection Summary			
Area Type:	Other		
Cycle Length: 115			
Actuated Cycle Length: 40.7			
Natural Cycle: 60			
Control Type: Actuated-Uncoordinated			
Maximum v/c Ratio: 0.41			
Intersection Signal Delay: 7.8		Intersection LOS: A	
Intersection Capacity Utilization 40.8%		ICU Level of Service A	
Analysis Period (min) 15			
Description: 05-2280			

Splits and Phases: 3: Morris Acres Road & Creekside Landing Drive





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Volume (vph)	0	0	2007	369	0	157
Future Volume (vph)	0	0	2007	369	0	157
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			75	0	0
Storage Lanes	0			1	0	1
Taper Length (ft)	25				25	
Satd. Flow (prot)	0	0	3539	1583	0	1611
Flt Permitted						
Satd. Flow (perm)	0	0	3539	1583	0	1611
Link Speed (mph)		55	55		45	
Link Distance (ft)		890	661		383	
Travel Time (s)		11.0	8.2		5.8	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	2048	377	0	160
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 71.9%		ICU Level of Service C	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑	↱		↱
Traffic Vol, veh/h	0	0	2007	369	0	157
Future Vol, veh/h	0	0	2007	369	0	157
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	75	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	98	98	98	98	98	98
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	0	0	2048	377	0	160

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1024
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.94
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.32
Pot Cap-1 Maneuver	-	-	0	233
Stage 1	-	-	0	-
Stage 2	-	-	0	-
Platoon blocked, %	-	-		
Mov Cap-1 Maneuver	-	-	-	233
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	48.8
HCM LOS		E

Minor Lane/Major Mvmt	WBT	WBR	SBLn1
Capacity (veh/h)	-	-	233
HCM Lane V/C Ratio	-	-	0.688
HCM Control Delay (s)	-	-	48.8
HCM Lane LOS	-	-	E
HCM 95th %tile Q(veh)	-	-	4.4



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	8	293	4	12	207
Future Volume (vph)	4	8	293	4	12	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1664	0	1859	0	1770	1863
Flt Permitted	0.985				0.950	
Satd. Flow (perm)	1664	0	1859	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	317		758			1006
Travel Time (s)	8.6		11.5			15.2
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	13	0	330	0	13	230
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.4

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	8	293	4	12	207
Future Vol, veh/h	4	8	293	4	12	207
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	9	326	4	13	230

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	585	328	0	0	330	0
Stage 1	328	-	-	-	-	-
Stage 2	257	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	473	713	-	-	1229	-
Stage 1	730	-	-	-	-	-
Stage 2	786	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	468	713	-	-	1229	-
Mov Cap-2 Maneuver	557	-	-	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	778	-	-	-	-	-

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

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	652	1229	-
HCM Lane V/C Ratio	-	-	0.02	0.011	-
HCM Control Delay (s)	-	-	10.6	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	4	5	305	11	4	179
Future Volume (vph)	4	5	305	11	4	179
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1678	0	1853	0	1770	1863
Flt Permitted	0.980				0.950	
Satd. Flow (perm)	1678	0	1853	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	369		1004			470
Travel Time (s)	10.1		15.2			7.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	10	0	351	0	4	199
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.7%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	4	5	305	11	4	179
Future Vol, veh/h	4	5	305	11	4	179
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	6	339	12	4	199

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	553	345	0	0	351	0
Stage 1	345	-	-	-	-	-
Stage 2	208	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	494	698	-	-	1208	-
Stage 1	717	-	-	-	-	-
Stage 2	827	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	492	698	-	-	1208	-
Mov Cap-2 Maneuver	572	-	-	-	-	-
Stage 1	717	-	-	-	-	-
Stage 2	824	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	636	1208	-
HCM Lane V/C Ratio	-	-	0.016	0.004	-
HCM Control Delay (s)	-	-	10.8	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0	0	-

Appendix I:
Signal Plans

PROJECT REFERENCE NO.	SHEET NO.
36249.2236	Sig-1

PHASING DIAGRAM

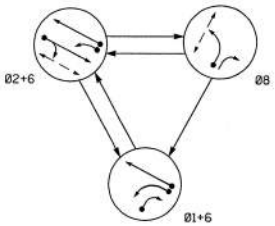
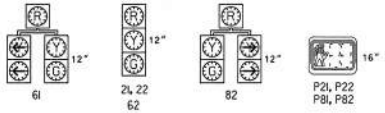


TABLE OF OPERATION				
SIGNAL FACE	PHASE Ø1+6	Ø2+6	Ø8	FLASH
21, 22	R	G	R	Y
61	G	G	R	Y
62	G	G	R	Y
81	R	R	G	R
82	R	R	G	R
P21, P22	DW	W	DW	DRK
P81, P82	DW	DW	W	DRK

SIGNAL FACE I.D.

Denotes L.E.D.



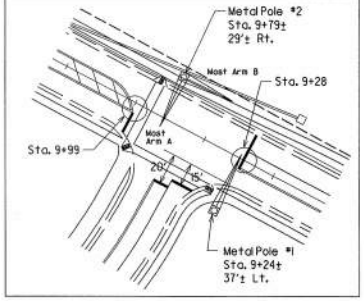
PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT

2070L LOOP & DETECTOR INSTALLATION

INDUCTIVE LOOPS					DETECTOR PROGRAMMING						
LOOP	SIZE (FT)	TURNS	DISTANCE FROM STOPBAR (FT)	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	SYSTEM LOOP	STRETCH TIME	DELAY TIME	NEW CARD
1A	6X40	2-4-2	0	Y	1	Y	Y	–	–	15	Y
					6	Y	Y	Y	–	–	3	Y
1B	6X40	2-4-2	0	Y	1	Y	Y	–	–	15	Y
2A	6X6	5	300	Y	2	Y	Y	–	–	–	–	Y
6A	6X6	5	300	Y	6	Y	Y	–	–	–	–	Y
8A	6X40	2-4-2	0	Y	8	Y	Y	–	–	–	3	Y

Metal Pole and Stop Bar Locations



3 Phase
Fully Actuated
(Isolated)

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated July 2006, "Standard Specifications for Roads and Structures" dated July 2006 and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: "https://www.ncdot.org/doh/preconstruct/traffic/tmssu/"
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Set all detector units to presence mode.
4. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
5. Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
6. Program pedestrian heads to countdown the flashing "Don't Walk" time only.
7. Contractor to furnish Metal Poles and Mast Arms to be black powder coated.

LEGEND

PROPOSED		EXISTING
	Traffic Signal Head	
	Modified Signal Head	N/A
	Sign	
	Pedestrian Signal Head With Push Button & Sign	
	Signal Pole with Guy	
	Signal Pole with Sidewalk Guy	
	Inductive Loop Detector	
	Controller & Cabinet	
	Junction Box	
	2-in Underground Conduit	
N/A	Right of Way	
	Directional Arrow	
	Pavement Marking Arrow	
	Metal Pole with Mastarm	
	Rigid Metal Conduit	
	Pedestrian Signal Pedestal	
N/A	Wheelchair Ramp	
(A)	Green Level Church Rd	(A)
(B)	Creekside Landing Dr	(B)

2070L TIMING CHART

FEATURE	PHASE 1	2	6	8
Min Green 1 *	7	12	12	7
Extension 1 *	2.0	6.0	6.0	2.0
Max Green 1 *	15	90	90	25
Yellow Clearance	3.5	4.1	5.0	3.7
Red Clearance	1.7	1.0	1.0	1.0
Walk 1 *	-	7	-	7
Don't Walk 1	-	10	-	8
Seconds Per Actuation *	-	2.5	2.5	-
Max Variable Initial *	-	34	34	-
Time Before Reduction *	-	15	15	-
Time To Reduce *	-	30	30	-
Minimum Gap	-	3.0	3.0	-
Recall Mode	-	MIN RECALL	MIN RECALL	-
Vehicle Call Memory	-	YELLOW	YELLOW	-
Dual Entry	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

New Installation

RAMEY KEMP & ASSOCIATES, INC.
TRANSPORTATION ENGINEERS
5808 Faringdon Place
Raleigh, North Carolina 27609
919-872-5115 fax 919-870-6478 e-mail rka@ramey-kemp.com

Prepared for:
North Carolina Department of Transportation
Traffic Engineering Branch
Signals and Geometrics Section
1723 N. McDowell St., Raleigh, NC 27603

SR 1600 (Green Level Church Rd.)
at
Creekside Landing Drive

Division 5 | Wake County | Apex

PLAN DATE:	Sept 2006	REVIEWED BY:	D.J. Darity
PREPARED BY:	H.W. Surtl	RKA PROJ. NO.:	04111 (041)

REVISIONS	INIT.	DATE

SCALE 0 40 1"=40'

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 15141 DONALD J. DARITY
ENGINEER
DONALD J. DARITY
11-03-2006
SIGNATURE DATE

SIG. INVENTORY NO. 05-2280

Kimley»Horn

KIMLEY-HORN AND ASSOCIATES, INC
NC License #F-0102



MEMORANDUM

To:	Mr. Sean Brennan, P.E., NCDOT Mr. Russell Dalton, P.E., Town of Apex
From:	Kevin Dean, P.E. Kimley-Horn and Associates, Inc.
Date:	April 30, 2019
Subject:	The Wayforth at Apex – Traffic Analysis Addendum – Revised Site Access

Kimley-Horn has performed an addendum to the original *Wayforth at Apex TIA* (Kimley-Horn, January 2019) to determine the impacts of a revision to the site access. The original TIA for the development analyzed the site assuming three full-movement access driveways along Morris Acres Road. However, a revised development plan indicates that only two full-movement driveways will be provided, with one driveway aligning with Reedybrook Crossing and another approximately 515 feet to the south. The revised development plan is shown on the attached **Figure 1.**

As this change in access will not have impacts on any off-site intersections, it was confirmed with the Town of Apex that this addendum should only include analysis for the site driveway intersections along Morris Acres Road. It should be noted that as the previously-analyzed "North Site Driveway" is no longer proposed, the "Central Site Driveway" described in the previous analysis has been renamed to "North Site Driveway" for this addendum analysis.

This report presents trip generation, distribution, traffic analyses, and recommendations for transportation improvements required to meet anticipated traffic demands at the proposed site driveways.

Background Volume Development

AM and PM peak hour background traffic volumes were obtained from the original TIA and were not modified as part of this analysis.

Trip Generation

Trip generation data was obtained from the original TIA and was not modified as part of this analysis.

Trip Distribution and Assignment

No changes were made to the overall distribution of site traffic assumed in the original TIA. However, to account for this revised access scenario, site traffic assignment percentages were modified for this addendum. The revised site traffic assignment is shown on the attached **Figure 2**.

The attached **Figures 3** and **4** show the AM and PM peak hour site traffic and total build-out volumes at the study intersections, and volume development is detailed on the attached intersection spreadsheets.

Capacity Analysis

Consistent with the original TIA, capacity analyses were performed using Synchro Version 9.2 software. Synchro intersection level-of-service (LOS) reports are attached. The LOS for the study intersections are summarized in Table 1.

Table 2
Level-of-Service Summary

Condition	AM Peak Hour LOS (Delay)	PM Peak Hour LOS (Delay)
Morris Acres Road at Reedybrook Crossing/North Site Driveway (Unsignalized)		
Existing (2018) Traffic	EB – A (9.4) NBL – A (7.3)	EB – B (10.2) NBL – A (7.6)
Background (2022) Traffic	EB – A (9.5) NBL – B (7.3)	EB – B (10.4) NBL – A (7.7)
Build-out (2022) Traffic	EB – B (10.2) WB – B (10.3) NBL – A (7.4) SBL – A (7.6)	EB – B (12.8) WB – B (12.6) NBL – A (7.7) SBL – A (8.0)
Morris Acres Road at South Site Driveway (Unsignalized)		
Build-out (2022) Traffic	WB – A (9.7) SBL – A (7.6)	WB – B (10.8) SBL – A (8.0)

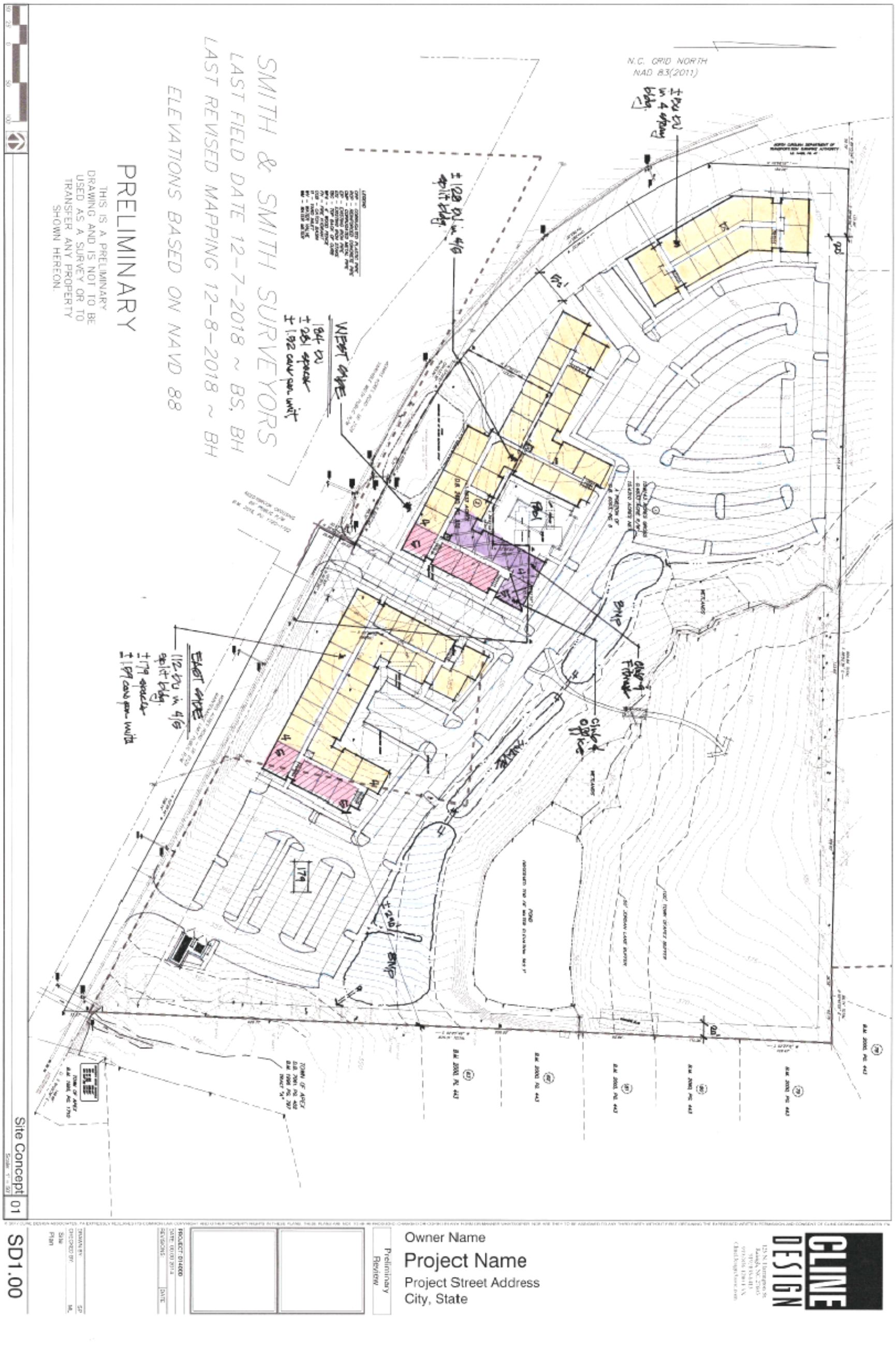
Analysis indicates that the site driveway intersections are expected to operate at an acceptable level-of-service at project build-out, and no queueing issues are expected at these intersections.

Recommendations

Based on the findings of this addendum analysis, and consistent with the original TIA, no roadway improvements are recommended to be performed to accommodate projected site traffic volumes.

The build-out roadway laneage is shown on **Figure 5**.

Should you have any questions or comments, please do not hesitate to contact me at (919) 678-4185 or kevin.dean@kimley-horn.com.



SMITH & SMITH SURVEYORS

LAST FIELD DATE 12-7-2018 ~ BS, BH

LAST REVISED MAPPING 12-8-2018 ~ BS, BH

ELEVATIONS BASED ON NAVD 88

PRELIMINARY

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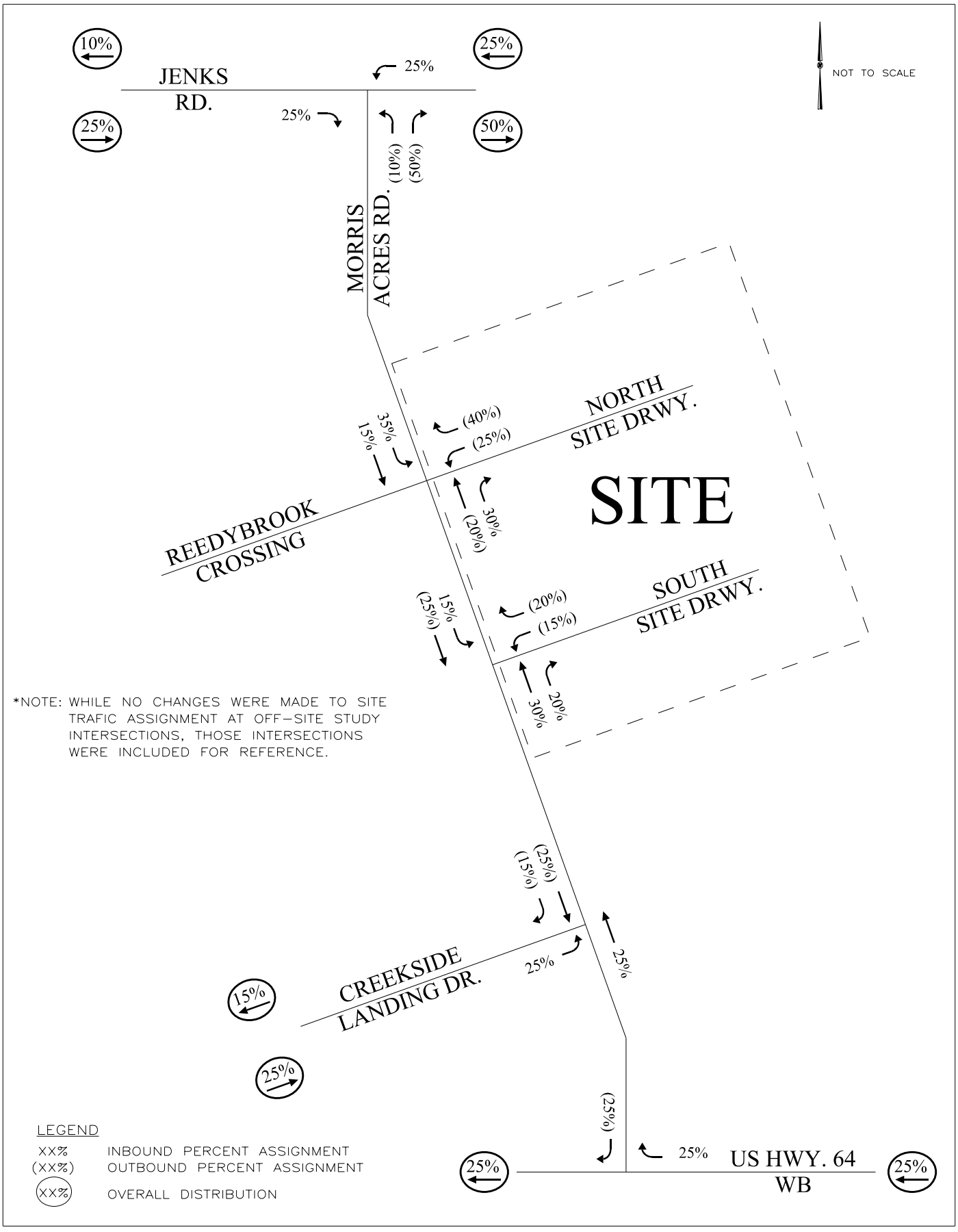
Kimley»Horn

THE WAYFORTH AT APEX
APEX, NC
TRAFFIC CAPACITY ANALYSIS

ADDENDUM ANALYSIS – REVISED DEVELOPMENT PLAN

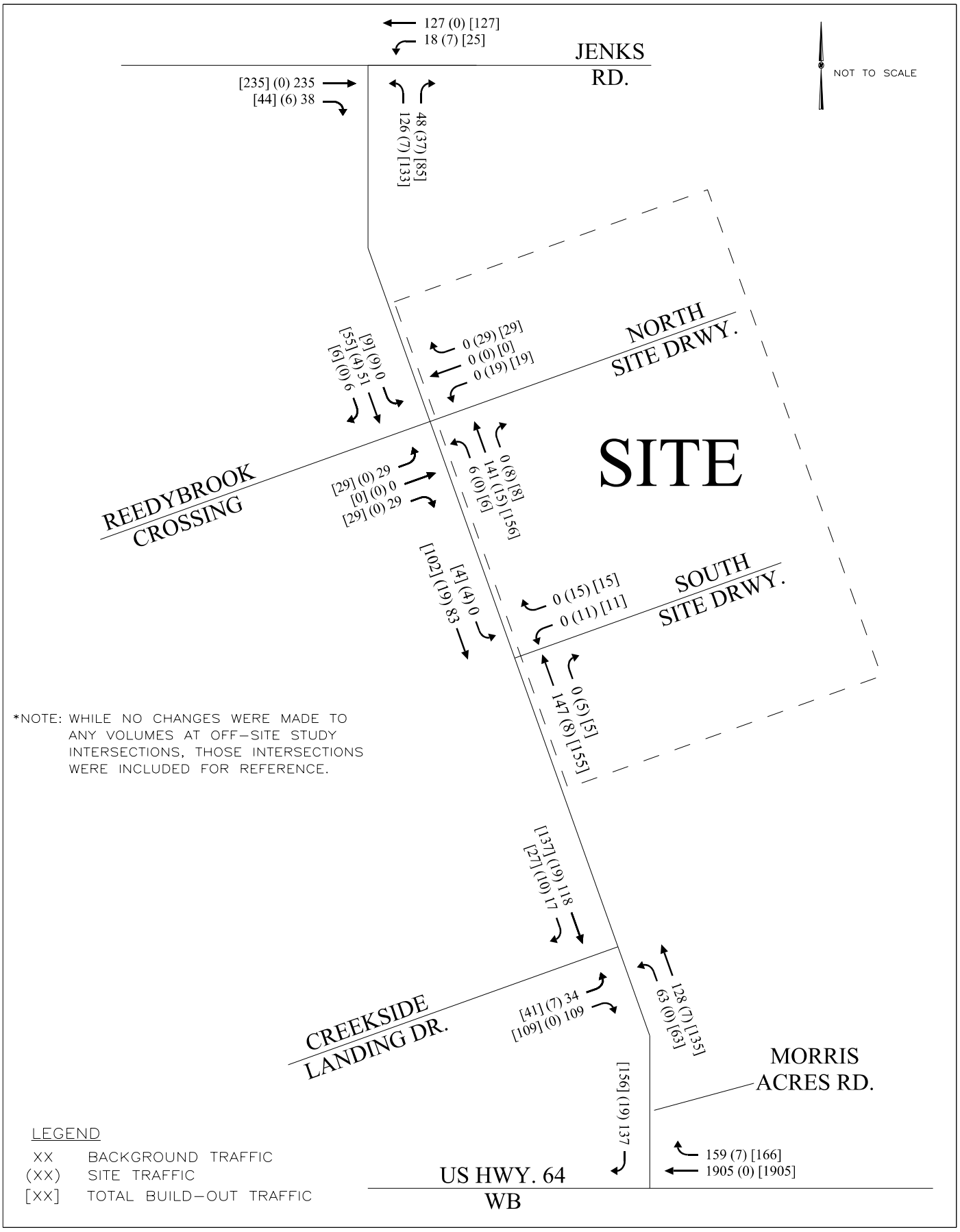
FIGURE 1

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



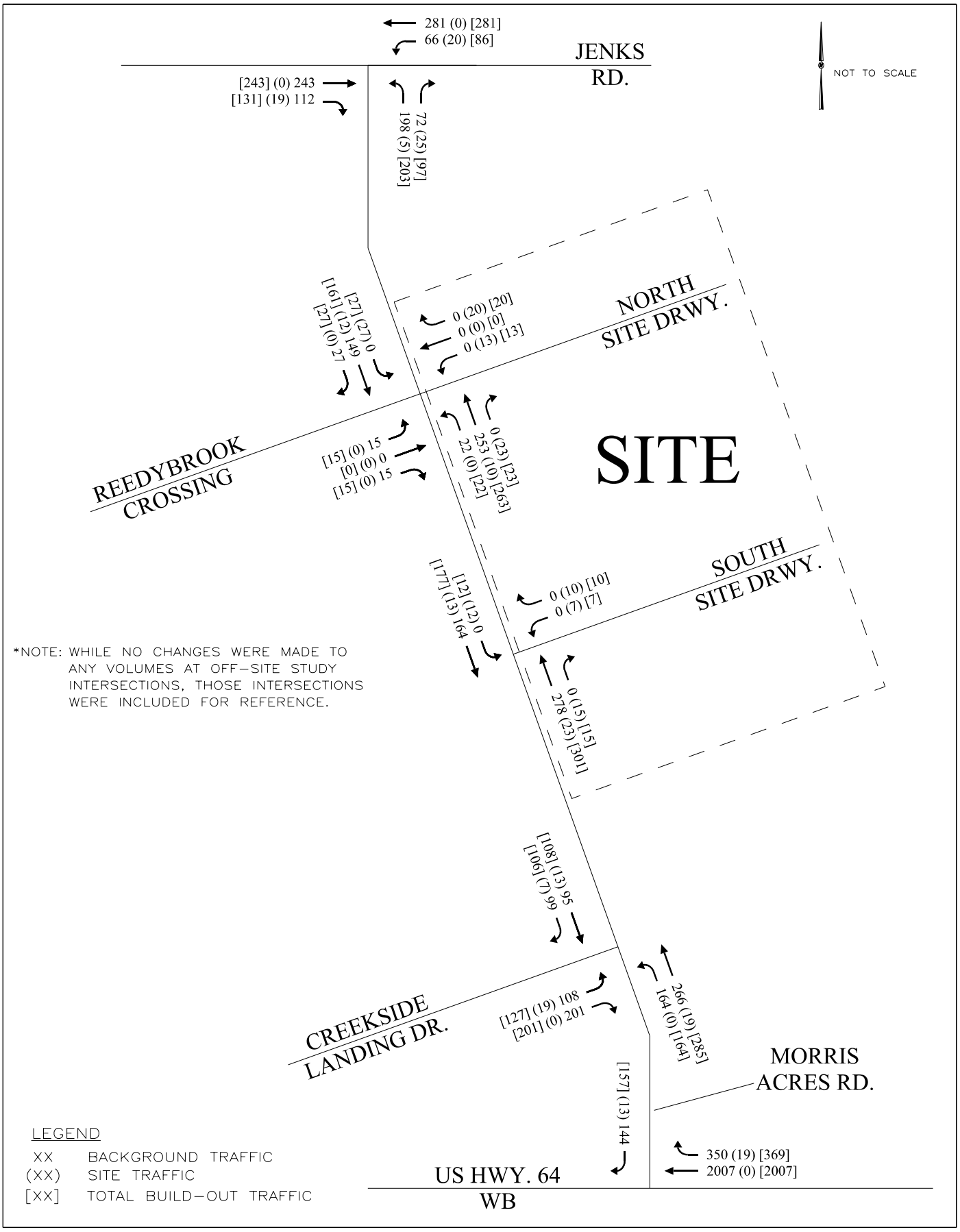
Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	ADDENDUM ANALYSIS – SITE TRAFFIC DISTRIBUTION AND PERCENT ASSIGNMENT	FIGURE 2

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



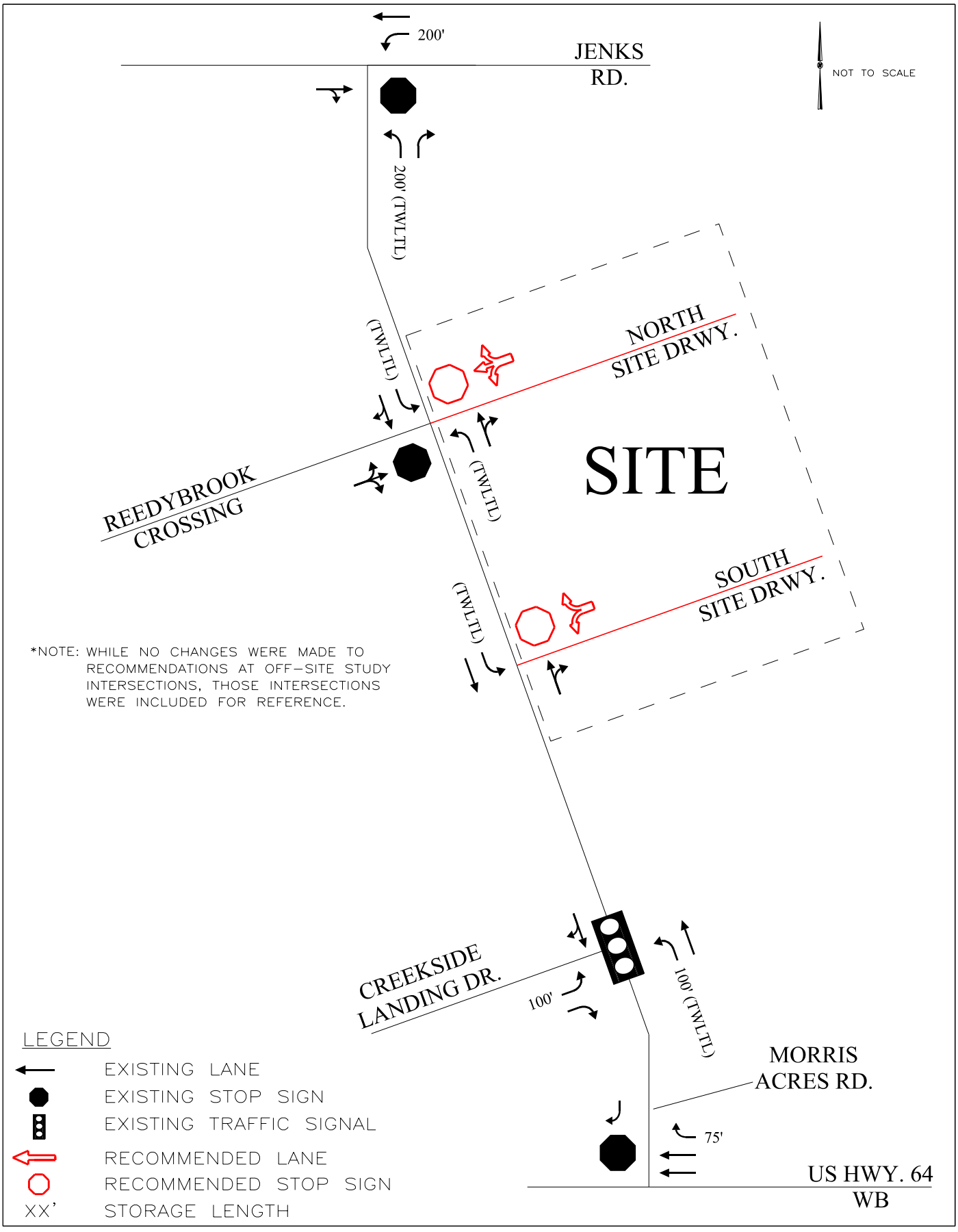
Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	ADDENDUM ANALYSIS – PROJECTED (2022) BUILD-OUT AM PEAK HOUR TRAFFIC VOLUMES	FIGURE 3

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	ADDENDUM ANALYSIS – PROJECTED (2022) BUILD-OUT PM PEAK HOUR TRAFFIC VOLUMES	FIGURE 4

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.



Kimley»Horn	THE WAYFORTH AT APEX APEX, NC TRAFFIC CAPACITY ANALYSIS	ADDENDUM ANALYSIS – BUILD-OUT ROADWAY LANEAGE	FIGURE 5

THIS DOCUMENT, TOGETHER WITH THE CONCEPTS AND DESIGNS PRESENTED HEREIN, AS AN INSTRUMENT OF SERVICE, IS INTENDED ONLY FOR THE SPECIFIC PURPOSE AND CLIENT FOR WHICH IT WAS PREPARED. REUSE OF AND IMPROPER RELIANCE ON THIS DOCUMENT WITHOUT WRITTEN AUTHORIZATION AND ADAPTATION BY KIMLEY-HORN AND ASSOCIATES, INC. SHALL BE WITHOUT LIABILITY TO KIMLEY-HORN AND ASSOCIATES, INC.

INTERSECTION ANALYSIS SHEET

Project:	**The Wayforth at Apex**
Location:	**Apex, NC**
Scenario:	**Addendum - 2 Site Driveways**
Ct. Date	**Balance with Jenks at Morris Acres**
N/S Street:	**Morris Acres Road**
E/W Street:	**Reedybrook Crossing/North Site Driveway**

	AM In	**AM Out**	**PM In**	**PM Out**
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	**Existing Year:**	2018
Growth Factor:	0.125509	**Buildout Year:**	2022

AM PEAK HOUR
AM PHF = 0.90

	Reedybrook Crossing **Eastbound**			North Site Driveway **Westbound**			Morris Acres Road **Northbound**			Morris Acres Road **Southbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	26	0	26	0	0	0	5	125	0	0	45	5
2018 Existing Traffic	26	0	26	0	0	0	5	125	0	0	45	5
Growth Factor (0.03 per year)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.126	0.000	0.000	0.126	0.000
2022 Background Growth	0	0	0	0	0	0	0	16	0	0	6	0
Committed Projects												
Beaver Creek Phase 4 Residential	3	0	3	0	0	0	1	0	0	0	0	1
Total Committed Traffic	3	0	3	0	0	0	1	0	0	0	0	1
2022 Background Traffic	29	0	29	0	0	0	6	141	0	0	51	6
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	30%	35%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	8	9	4	0
Percent Assignment Outbound	0%	0%	0%	25%	0%	40%	0%	20%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	19	0	29	0	15	0	0	0	0
Total Project Traffic	0	0	0	19	0	29	0	15	8	9	4	0
2022 Buildout Total	29	0	29	19	0	29	6	156	8	9	55	6
Percent Impact (Approach)		0.0%			100.0%			13.5%			18.7%	

Overall Percent Impact 24.3%

PM PEAK HOUR
PM PHF = 0.90

	Reedybrook Crossing **Eastbound**			North Site Driveway **Westbound**			Morris Acres Road **Northbound**			Morris Acres Road **Southbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	14	0	14	0	0	0	20	225	0	0	132	24
2018 Existing Traffic	14	0	14	0	0	0	20	225	0	0	132	24
Growth Factor (0.03 per year)	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.126	0.000	0.000	0.126	0.000
2022 Background Growth	0	0	0	0	0	0	0	28	0	0	17	0
Committed Projects												
Beaver Creek Phase 4 Residential	1	0	1	0	0	0	2	0	0	0	0	3
Total Committed Traffic	1	0	1	0	0	0	2	0	0	0	0	3
2022 Background Traffic	15	0	15	0	0	0	22	253	0	0	149	27
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	0%	30%	35%	15%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	0	23	27	12	0
Percent Assignment Outbound	0%	0%	0%	25%	0%	40%	0%	20%	0%	0%	0%	0%
Outbound Project Traffic	0	0	0	13	0	20	0	10	0	0	0	0
Total Project Traffic	0	0	0	13	0	20	0	10	23	27	12	0
2022 Buildout Total	15	0	15	13	0	20	22	263	23	27	161	27
Percent Impact (Approach)		0.0%			100.0%			10.7%			18.2%	

Overall Percent Impact 18.0%

INTERSECTION ANALYSIS SHEET

Project:	**The Wayforth at Apex**
Location:	**Apex, NC**
Ct. Date	**Balance with Jenks at Morris Acres**
N/S Street:	**Morris Acres Road**
E/W Street:	**South Site Driveway**

	AM In	**AM Out**	**PM In**	**PM Out**
Net New Trips:	26	74	77	50

Annual Growth Rate:	3.0%	**Existing Year:**	2018
Growth Factor:	0.125509	**Buildout Year:**	2022

AM PEAK HOUR
AM PHF = 0.90

	South Site Driveway **Eastbound**			South Site Driveway **Westbound**			Morris Acres Road **Northbound**			Morris Acres Road **Southbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	130	0	0	71	0
2018 Existing Traffic	0	0	0	0	0	0	0	130	0	0	71	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	16	0	0	9	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	1	0	0	3	0
Total Committed Traffic	0	0	0	0	0	0	0	1	0	0	3	0
2022 Background Traffic	0	0	0	0	0	0	0	147	0	0	83	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	30%	20%	15%	0%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	8	5	4	0	0
Percent Assignment Outbound	0%	0%	0%	15%	0%	20%	0%	0%	0%	0%	25%	0%
Outbound Project Traffic	0	0	0	11	0	15	0	0	0	0	19	0
Total Project Traffic	0	0	0	11	0	15	0	8	5	4	19	0
2022 Buildout Total	0	0	0	11	0	15	0	155	5	4	102	0
Percent Impact (Approach)		-			100.0%			8.1%			21.8%	

Overall Percent Impact 21.3%

PM PEAK HOUR
PM PHF = 0.90

	South Site Driveway **Eastbound**			South Site Driveway **Westbound**			Morris Acres Road **Northbound**			Morris Acres Road **Southbound**		
Description	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
2018 Traffic Count	0	0	0	0	0	0	0	0	0	0	0	0
Count Balancing	0	0	0	0	0	0	0	244	0	0	145	0
2018 Existing Traffic	0	0	0	0	0	0	0	244	0	0	145	0
Growth Factor (0.03 per year)	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126	0.126
2022 Background Growth	0	0	0	0	0	0	0	31	0	0	18	0
Committed Projects												
Beaver Creek Phase 4 Residential	0	0	0	0	0	0	0	2	0	0	1	0
Total Committed Traffic	0	0	0	0	0	0	0	2	0	0	1	0
2022 Background Traffic	0	0	0	0	0	0	0	278	0	0	164	0
Project Traffic												
Percent Assignment Inbound	0%	0%	0%	0%	0%	0%	0%	30%	20%	15%	0%	0%
Inbound Project Traffic	0	0	0	0	0	0	0	23	15	12	0	0
Percent Assignment Outbound	0%	0%	0%	15%	0%	20%	0%	0%	0%	0%	25%	0%
Outbound Project Traffic	0	0	0	7	0	10	0	0	0	0	13	0
Total Project Traffic	0	0	0	7	0	10	0	23	15	12	13	0
2022 Buildout Total	0	0	0	7	0	10	0	301	15	12	177	0
Percent Impact (Approach)		-			100.0%			12.0%			13.2%	

Overall Percent Impact 15.3%

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	29	4	29	19	4	29	6	156	8	9	55	6
Future Volume (vph)	29	4	29	19	4	29	6	156	8	9	55	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1703	0	0	1690	0	1770	1850	0	1770	1835	0
Flt Permitted		0.977			0.982		0.950			0.950		
Satd. Flow (perm)	0	1703	0	0	1690	0	1770	1850	0	1770	1835	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		294			267			470			758	
Travel Time (s)		8.0			7.3			7.1			11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	68	0	0	57	0	7	182	0	10	68	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.6%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	3.6

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	29	4	29	19	4	29	6	156	8	9	55	6
Future Vol, veh/h	29	4	29	19	4	29	6	156	8	9	55	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	32	4	32	21	4	32	7	173	9	10	61	7

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	293	280	64	294	279	178	68	0	0	182	0	0
Stage 1	84	84	-	191	191	-	-	-	-	-	-	-
Stage 2	209	196	-	103	88	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	659	628	1000	658	629	865	1533	-	-	1393	-	-
Stage 1	924	825	-	811	742	-	-	-	-	-	-	-
Stage 2	793	739	-	903	822	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	625	621	1000	628	622	865	1533	-	-	1393	-	-
Mov Cap-2 Maneuver	625	621	-	628	622	-	-	-	-	-	-	-
Stage 1	920	819	-	807	739	-	-	-	-	-	-	-
Stage 2	755	736	-	863	816	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.2	10.3	0.3	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1533	-	-	758	741	1393	-	-
HCM Lane V/C Ratio	0.004	-	-	0.091	0.078	0.007	-	-
HCM Control Delay (s)	7.4	-	-	10.2	10.3	7.6	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0	-	-	0.3	0.3	0	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	11	15	155	5	4	102
Future Volume (vph)	11	15	155	5	4	102
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1681	0	1853	0	1770	1863
Flt Permitted	0.980				0.950	
Satd. Flow (perm)	1681	0	1853	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	369		1004			470
Travel Time (s)	10.1		15.2			7.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	29	0	178	0	4	113
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 18.5%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	11	15	155	5	4	102
Future Vol, veh/h	11	15	155	5	4	102
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	12	17	172	6	4	113

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	297	175	0	0	178	0
Stage 1	175	-	-	-	-	-
Stage 2	122	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	694	868	-	-	1398	-
Stage 1	855	-	-	-	-	-
Stage 2	903	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	692	868	-	-	1398	-
Mov Cap-2 Maneuver	715	-	-	-	-	-
Stage 1	855	-	-	-	-	-
Stage 2	900	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	0	0.3
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	796	1398	-
HCM Lane V/C Ratio	-	-	0.036	0.003	-
HCM Control Delay (s)	-	-	9.7	7.6	-
HCM Lane LOS	-	-	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	15	4	15	13	4	20	22	263	23	27	161	27
Future Volume (vph)	15	4	15	13	4	20	22	263	23	27	161	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	100		0	100		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25			25			100			100		
Satd. Flow (prot)	0	1712	0	0	1696	0	1770	1840	0	1770	1822	0
Flt Permitted		0.978			0.983		0.950			0.950		
Satd. Flow (perm)	0	1712	0	0	1696	0	1770	1840	0	1770	1822	0
Link Speed (mph)		25			25			45			45	
Link Distance (ft)		294			267			470			758	
Travel Time (s)		8.0			7.3			7.1			11.5	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	40	0	24	318	0	30	209	0
Sign Control		Stop			Stop			Free			Free	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 31.9%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	15	4	15	13	4	20	22	263	23	27	161	27
Future Vol, veh/h	15	4	15	13	4	20	22	263	23	27	161	27
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	100	-	-	100	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	17	4	17	14	4	22	24	292	26	30	179	30

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	621	621	194	618	623	305	209	0	0	318	0	0
Stage 1	254	254	-	354	354	-	-	-	-	-	-	-
Stage 2	367	367	-	264	269	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	400	403	847	402	402	735	1362	-	-	1242	-	-
Stage 1	750	697	-	663	630	-	-	-	-	-	-	-
Stage 2	653	622	-	741	687	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	372	386	847	378	385	735	1362	-	-	1242	-	-
Mov Cap-2 Maneuver	372	386	-	378	385	-	-	-	-	-	-	-
Stage 1	737	680	-	651	619	-	-	-	-	-	-	-
Stage 2	618	611	-	704	670	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.8	12.6	0.5	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1362	-	-	497	514	1242	-	-
HCM Lane V/C Ratio	0.018	-	-	0.076	0.08	0.024	-	-
HCM Control Delay (s)	7.7	-	-	12.8	12.6	8	-	-
HCM Lane LOS	A	-	-	B	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	-	0.2	0.3	0.1	-	-

Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (vph)	7	10	301	15	12	177
Future Volume (vph)	7	10	301	15	12	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	100	
Storage Lanes	1	0		0	1	
Taper Length (ft)	25				100	
Satd. Flow (prot)	1681	0	1850	0	1770	1863
Flt Permitted	0.979				0.950	
Satd. Flow (perm)	1681	0	1850	0	1770	1863
Link Speed (mph)	25		45			45
Link Distance (ft)	369		1004			470
Travel Time (s)	10.1		15.2			7.1
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)						
Lane Group Flow (vph)	19	0	351	0	13	197
Sign Control	Stop		Free			Free

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 26.8%		ICU Level of Service A	
Analysis Period (min) 15			

Intersection	
Int Delay, s/veh	0.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	7	10	301	15	12	177
Future Vol, veh/h	7	10	301	15	12	177
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	100	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	11	334	17	13	197

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	566	343	0	0	351	0
Stage 1	343	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	486	700	-	-	1208	-
Stage 1	719	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	481	700	-	-	1208	-
Mov Cap-2 Maneuver	564	-	-	-	-	-
Stage 1	719	-	-	-	-	-
Stage 2	805	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	637	1208	-
HCM Lane V/C Ratio	-	-	0.03	0.011	-
HCM Control Delay (s)	-	-	10.8	8	-
HCM Lane LOS	-	-	B	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0	-

Planning Board Recommendation:

Motion: To recommend approval of the 2045 Land Use Map amendment and rezoning #19CZ02

Introduced by Planning Board member: Reginald Skinner

Seconded by Planning Board member: Tommy Pate

☐ *Approval*: the project is consistent with all applicable officially adopted plans and the applicable legislative considerations listed above.

☒ *Approval with conditions*: the project is not consistent with all applicable officially adopted plans and/or the applicable legislative considerations as noted above, so the following conditions are recommended to be included in the project in order to make it fully consistent:

Conditions as offerred by the applicant and presented by staff.

☐ *Denial*: the project is not consistent with all applicable officially adopted plans.

With 4 Planning Board Member(s) voting "aye"

With 3 Planning Board Member(s) voting "no"

Reasons for dissenting votes:

1. Beth Godfrey - relying on Medium Density on 2030 Land Use Map.
2. Tina Sherman and Mark Steele - a) relying on Medium Density on 2030 Land Use Map and b) want more affordable housing provided.

This report reflects the recommendation of the Planning Board, this the 9th day of September 2019.

Attest:

Margo J Bills
Margo Bills, Planning Board Chair

Dianne F. Khin
Dianne Khin, Planning Director

PLANNING BOARD REPORT TO TOWN COUNCIL

Rezoning #19CZ02 Morris Acres PUD

September 9, 2019 Planning Board Meeting

Report Requirements:

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Per NCGS 160A-383, the Planning Board shall advise and comment on whether the proposed zoning amendment is consistent with all applicable officially adopted plans, and provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the officially adopted plans shall not preclude consideration or approval of the proposed amendment by the Town Council.

PROJECT DESCRIPTION:

Acreage:	± 17.4376 acres
PINs:	0732289587, 0732382530, 0732382709
Current Zoning:	Rural Residential (RR)
Proposed Zoning:	Planned Unit Development-Conditional Zoning (PUD-CZ)
2045 Land Use Map:	Medium Density Residential
Proposed 2045 Land Use Map:	High Density Residential
Town Limits:	0732382709 is in the ETJ; PINs 0732289587 & 0732382530 are in Town limits

Applicable Officially Adopted Plans:

The Board must state whether the project is consistent or inconsistent with the following officially adopted plans, if applicable. Applicable plans have a check mark next to them.

☒ 2045 Land Use Map

☒ Consistent ☐ Inconsistent Reason: with amendment to 2045 Land Use Map

☒ Apex Transportation Plan

☒ Consistent ☐ Inconsistent Reason: _____

☒ Parks, Recreation, Open Space, and Greenways Plan

☒ Consistent ☐ Inconsistent Reason: _____

Legislative Considerations:

The applicant shall propose site-specific standards and conditions that take into account the following considerations, which are considerations that are relevant to the legislative determination of whether or not the proposed conditional zoning district rezoning request is in the public interest. These considerations do not exclude the legislative consideration of any other factor that is relevant to the public interest.

1. *Consistency with 2045 Land Use Map*. The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the 2045 Land Use Map.
   ☒ Consistent ☐ Inconsistent Reason: with amendment to 2045 Land Use Map.

2. *Compatibility.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and compatibility with the character of surrounding land uses.
   ☒ Consistent ☐ Inconsistent Reason: _____

3. *Zoning district supplemental standards*. The proposed Conditional Zoning (CZ) District use's compliance with Sec. 4.4 Supplemental Standards, if applicable.
   ☒ Consistent ☐ Inconsistent Reason: _____

4. *Design minimizes adverse impact.* The design of the proposed Conditional Zoning (CZ) District use's minimization of adverse effects, including visual impact of the proposed use on adjacent lands; and avoidance of significant adverse impacts on surrounding lands regarding trash, traffic, service delivery, parking and loading, odors, noise, glare, and vibration and not create a nuisance.
   ☒ Consistent ☐ Inconsistent Reason: _____

5. *Design minimizes environmental impact.* The proposed Conditional Zoning District use's minimization of environmental impacts and protection from significant deterioration of water and air resources, wildlife habitat, scenic resources, and other natural resources.
   ☒ Consistent ☐ Inconsistent Reason: _____

6. *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.
   ☒ Consistent ☐ Inconsistent Reason: _____

7. *Health, safety, and welfare.* The proposed Conditional Zoning (CZ) District use's effect on the health, safety, or welfare of the residents of the Town or its ETJ.
   ☒ Consistent ☐ Inconsistent Reason: _____

8. *Detrimental to adjacent properties.* Whether the proposed Conditional Zoning (CZ) District use is substantially detrimental to adjacent properties.
   ☒ Consistent ☐ Inconsistent Reason: _____

9. *Not constitute nuisance or hazard.* Whether the proposed Conditional Zoning (CZ) District use constitutes a nuisance or hazard due to traffic impact or noise, or because of the number of persons who will be using the Conditional Zoning (CZ) District use.
   ☒ Consistent ☐ Inconsistent Reason: _____

10. *Other relevant standards of this Ordinance.* Whether the proposed Conditional Zoning (CZ) District use complies with all standards imposed on it by all other applicable provisions of this Ordinance for use, layout, and general development characteristics.
    ☒ Consistent ☐ Inconsistent Reason: _____

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PUBLIC NOTIFICATION OF PUBLIC HEARINGS

2045 LAND USE MAP AMENDMENT & CONDITIONAL ZONING #19CZ02
Morris Acres PUD

Pursuant to the provisions of North Carolina General Statutes Section 160A-364 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Planning Board and Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

Applicant: Kaplan Residential
Authorized Agent: Jason Barron, Morningstar Law Group
Property Addresses: 0, 7208, & 7208B Morris Acres Road
Acreage: ± 17.4376
Property Identification Numbers (PINs): 0732289587, 0732382530, & 0732382709
Existing 2045 Land Use Map Designation: Medium Density Residential
Proposed 2045 Land Use Map Designation: High Density Residential
Existing Zoning of Property: Rural Residential (RR)
Proposed Zoning of Property: Planned Unit Development-Conditional Zoning (PUD-CZ)

Public Hearing Location: Apex Town Hall
73 Hunter Street, Apex, North Carolina
Council Chambers, 2nd Floor
Planning Board Public Hearing Date and Time: July 8, 2019 4:30 P.M.
Town Council Public Hearing Date and Time: July 16, 2019 7:00 P.M.

Vicinity Map:



Property owners within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may appear at the public hearing and be heard with respect to the application. Maps showing the location for the above site(s) to be considered in addition to a copy of the 2045 Land Use Map can be inspected at the Apex Town Hall or call 919-249-3426, Department of Planning and Community Development for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/26285.

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Published Da... CP

10:37 AM
6/21/2019

PHONE 919-249-3426

CONTINUED

2045 LAND USE MAP AMENDMENT &
CONDITIONAL ZONING #19CZ02
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Dianne F. Khin, AICP
Planning Director

Published Dates: June 21, 2019 · ~~July 17, 2019~~ August 20, 2019

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2045 LAND USE MAP AMENDMENT &
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Dianne F. Khin, AICP
Planning Director

Published Dates: June 21, 2019 - ~~July 17, 2019~~ ~~August 20, 2019~~ September 17, 2019

2:19 PM

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Dianne F. Khin, AICP
Planning Director

Published Dates: June 21, 2019 – July 16, 2019

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PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONTINUED

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Dianne F. Khin, AICP
Planning Director

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PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONTINUED

2045 LAND USE MAP AMENDMENT & CONDITIONAL ZONING #19CZ02 Morris Acres PUD

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Dianne F. Khin, AICP
Planning Director

Published Dates: June 21, 2019 - ~~July 17, 2019~~ ~~August 20, 2019~~ **September 17, 2019**



Public Hearing Sign Posted By

Signature

2/6/19

Date

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AFFIDAVIT CERTIFYING
Public Notification – Written (Mailed) Notice

Section 2.2.11
Town of Apex Unified Development Ordinance

Project Name:	Rezoning 19CZ02
Project Location:	0, 7208, & 7208B Morris Acres Road
Applicant or Authorized Agent:	Jason Barron
Firm:	Morningstar Law Group

This is to certify that I, as Planning Director, mailed or caused to have mailed by first class postage for the above mentioned project **June 21, 2019**, a notice containing the time and place, location, nature and scope of the application, where additional information may be obtained, and the opportunity for interested parties to be heard, to the property owners within 300' of the land subject to notification. I further certify that I relied on information provided to me by the above-mentioned person as to accuracy and mailing addresses of property owners within 300' of the land subject to notification.

6/21/19
Date

Planning Director

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Paralee J. Smith, a Notary Public for the above State and County, this the 21 day of June, 2019.

Notary Public

PARALEE J. SMITH NOTARY PUBLIC JOHNSTON COUNTY, NC

My Commission Expires: 9/12/2023

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: September 17, 2019

Item Details

Presenter(s): Liz Loftin, Senior Planner

Department(s): Planning Department

Requested Motion

Public Hearing and possible motion to approve Rezoning Application #19CZ17, Woodbury PUD Amendment. The applicant, Pulte Home Company, LLC, seeks to rezone approximately 42 acres located at 2564, 2567, 2556, 2552, 2548, 2544, 2540, 2536, 2532, 2528, 2516, 2527, 2531, 2545 Collection Court; 2552, 2536, 2531, 2547 Kylewynd Place; 2532, 2528, 2524, 2520, 2516, 2512, 2508, 2504, 2500, 2501, 2505, 2511, 2515, 2519, 2523, 2527, 2531, 2535, 2539, 2543 Impulsion Drive; 2701 Old US Highway 1 (portion of) from Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01) to Planned Unit Development-Conditional Zoning (PUD-CZ) in order to update an architectural standard.

Approval Recommended?

The Planning Department recommends approval.

The Planning Board heard this item at their September 9, 2019 meeting and unanimously recommended approval.

Item Details

The following PINs are included in this rezoning: 0710855474, 0710857473, 0710855545, 0710855631, 0710855646, 0710855742, 0710855747, 0710855842, 0710855847, 0710855942, 0710865171, 0710857933, 0710857838, 0710857731, 0710859436, 0710858676, 0710950758, 0710951508, 0710953870, 0710953865, 0710953950, 0710953946, 0710963010, 0710962095, 0710962069, 0710962137, 0710963227, 0710964235, 0710964179, 0710964183, 0710965008, 0710965013, 0710955937, 0710955942, 0710955857, 0710955852, 0710955766, 0710955791, portion of 0720057756

Attachments

- Staff Report

All property owners and neighborhood associations within 300 feet of this rezoning have been notified per UDO Sec. 2.2.11 *Public Notification*.

BACKGROUND INFORMATION:

Location: 2564, 2567, 2556, 2552, 2548, 2544, 2540, 2536, 2532, 2528, 2516, 2527, 2531, 2545 Collection Court; 2552, 2536, 2531, 2547 Kylewynd Place; 2532, 2528, 2524, 2520, 2516, 2512, 2508, 2504, 2500, 2501, 2505, 2511, 2515, 2519, 2523, 2527, 2531, 2535, 2539, 2543 Impulsion Drive; 2701 Old US Highway 1 (portion of)

PINs: 0710855474, 0710857473, 0710855545, 0710855631, 0710855646, 0710855742, 0710855747, 0710855842, 0710855847, 0710855942, 0710865171, 0710857933, 0710857838, 0710857731, 0710859436, 0710858676, 0710950758, 0710951508, 0710953870, 0710953865, 0710953950, 0710953946, 0710963010, 0710962095, 0710962069, 0710962137, 0710963227, 0710964235, 0710964179, 0710964183, 0710965008, 0710965013, 0710955937, 0710955942, 0710955857, 0710955852, 0710955766, 0710955791, 0720057756 (portion of)

Applicant/Owner: Pulte Home Company, LLC

PROJECT DESCRIPTION:

Acreage: ±42 Acres
Current Zoning: Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01)
Proposed Zoning: Planned Unit Development-Conditional Zoning (PUD-CZ)
2045 Land Use Map: Medium Density Residential
Town Limits: Inside

Adjacent Zoning & Land Uses:

	Zoning	Land Use
North:	Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01); Wake County R-40W	Vacant
South:	Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01)	Single-family residential; Vacant
East:	Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01); Wake County R-40W	Single-family residential (Woodbury future phases); Vacant
West:	Planned Unit Development-Conditional Zoning (PUD-CZ #16CZ01); Wake County R-40W	Single-family residential; Vacant

EXISTING CONDITIONS:
The properties to be rezoned were originally rezoned to Planned Unit Development-Conditional Zoning in 2016 as part of the Woodbury PUD. Three of the subject lots are homeowner occupied, two are under contract pending building permit approval, and the rest of the properties are vacant.

NEIGHBORHOOD MEETING:
The applicant conducted a neighborhood meeting on July 30, 2019. The neighborhood meeting report is attached.

2045 LAND USE MAP:
The 2045 Land Use Map classifies the property subject to this rezoning as Medium Density Residential. The proposed amendments to the PUD-CZ zoning are consistent with that classification.

PLANNED UNIT DEVELOPMENT PLAN:
The applicant is proposing the following change (shown in bold) with this PUD amendment:

1. **Changes to Section 7: Architectural Standards**

   The garage cannot protrude more than 1-foot from either the front façade or porch, except that the garage may protrude up to 5-feet from the front façade or porch with the inclusion of windows in the garage door and one (1) architectural feature such as a variation in roof form, balcony, trimmed window or decorative vent over the door area to minimize the impact of the garage façade. **No more than 15% of the total number of homes shall be side entry garages with "J" drives. Homes with "J" drives shall not be located on immediately adjacent lots to other homes with "J" drives.**

PLANNING STAFF RECOMMENDATION:
Planning staff recommends approval of rezoning #19CZ17 Woodbury PUD Amendment as proposed by the applicant.

PLANNING BOARD RECOMMENDATION:
The Planning Board heard this item at their September 9, 2019 meeting and unanimously recommended approved of the rezoning with the conditions proposed by the applicant. The Planning Board report to Town Council is attached.

ANALYSIS STATEMENT OF THE REASONABLENESS OF THE PROPOSED REZONING:
This Statement will address consistency with the Town's comprehensive and other applicable plans, reasonableness, and effect on public interest:

The proposed rezoning is consistent with the 2045 Land Use Plan and other adopted plans in that the 2045 Land Use Map classifies the subject properties as Medium Density Residential. This classification includes the PUD-CZ district.

The proposed rezoning is reasonable and in the public interest because the amendment will make the already built homes conforming to the PUD architectural standards and allow design flexibility for future single-family homes in the subdivision.

PLANNED UNIT DEVELOPMENT DISTRICT AND CONDITIONAL ZONING STANDARDS:

Standards

In return for greater flexibility in site design requirements, Planned Development (PD) Districts are expected to deliver exceptional quality community designs that preserve critical environmental resources; provide high quality community amenities; incorporate creative design in the layout of buildings, Resource Conservation Area and circulation; ensure compatibility with surrounding land uses and neighborhood character; provide high quality architecture; and provide greater efficiency in the layout and provision of roads, utilities, and other infrastructure. The Planned Development (PD) Districts shall not be used as a means of circumventing the Town's adopted land development regulations for routine developments.

1) *Planned Unit Development (PUD-CZ) District*
In approving a Planned Development (PD) Zoning District designation for a PUD-CZ, the Town Council shall find the PUD-CZ district designation and PD Plan for PUD-CZ demonstrates compliance with the following standards:

a) *Development parameters*

(i) The uses proposed to be developed in the PD Plan for PUD-CZ are those uses permitted in Sec. 4.2.2 *Use Table*.

(ii) The uses proposed in the PD Plan for PUD-CZ can be entirely residential, entirely non-residential, or a mix of residential and non-residential uses, provided a minimum percentage of non-residential land area is included in certain mixed use areas as specified on the 2045 Land Use Map. The location of uses proposed by the PUD-CZ must be shown in the PD Plan with a maximum density for each type of residential use and a maximum square footage for each type of non-residential use.

(iii) The dimensional standards in Sec. 5.1.3 *Table of Intensity and Dimensional Standards, Planned Development Districts* may be varied in the PD Plan for PUD-CZ. The PUD-CZ shall demonstrate compliance with all other dimensional standards of the UDO, North Carolina Building Code, and North Carolina Fire Code.

(iv) The development proposed in the PD Plan for PUD-CZ encourages cluster and compact development to the greatest extent possible that is interrelated and linked by pedestrian ways, bikeways and other transportation systems. At a minimum, the PD Plan must show sidewalk improvements as required by the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details*, and greenway improvements as required by the Town of Apex Parks, Recreation, Greenways, and Open Space Plan and the Apex Transportation Plan. In addition, sidewalks shall be provided on both sides of all streets for single-family detached homes.

v) The design of development in the PD Plan for PUD-CZ results in land use patterns that promote and expand opportunities for walkability, connectivity, public transportation, and an efficient compact network of streets. Cul-de-sacs shall be avoided unless the design of the subdivision and the existing or proposed street system in the surrounding area indicate that a through street is not essential in the location of the proposed cul-de-sac, or where

sensitive environmental areas such as streams, floodplains, and wetlands would be substantially disturbed by making road connections.

(vi) The development proposed in the PD Plan for PUD-CZ is compatible with the character of surrounding land uses and maintains and enhances the value of surrounding properties.

(vii) The development proposed in the PD Plan for PUD-CZ has architectural and design standards that are exceptional and provide higher quality than routine developments. All residential uses proposed in a PD Plan for PUD-CZ shall provide architectural elevations representative of the residential structures to be built to ensure the Standards of this Section are met.

b) *Off-street parking and loading*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.3 *Off-Street Parking and Loading*, except that variations from these standards may be permitted if a comprehensive parking and loading plan for the PUD-CZ is submitted as part of the PD Plan that is determined to be suitable for the PUD-CZ, and generally consistent with the intent and purpose of the off-street parking and loading standards.

c) *RCA.* The PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.1.2 *Resource Conservation Area*, except that the percentage of RCA required under Sec. 8.1.2 may be reduced by the Town Council by no more than two percent (2%) provided that:

(i) The PD Plan for PUD-CZ includes a non-residential component; or

(ii) The PD Plan for PUD-CZ has an overall density of 6 residential units per acre or more.

d) *Landscaping*. The PD Plan for PUD-CZ shall demonstrate compliance with the standards of Sec. 8.2 *Landscaping, Buffering and Screening*, except that variations from these standards may be permitted where it is demonstrated that the proposed landscaping sufficiently buffers uses from each other, ensures compatibility with land uses on surrounding properties, creates attractive streetscapes and parking areas and is consistent with the character of the area. In no case shall a buffer be less than one half of the width required by Sec. 8.2 or 10 feet in width, whichever is greater.

e) *Signs.* Signage in the PD Plan for PUD-CZ shall demonstrate compliance with Sec. 8.7 *Signs*, except that the standards can be varied if a master signage plan is submitted for review and approval concurrent with the PD plan and is determined by the Town Council to be suitable for the PUD-CZ and generally consistent with the intent and purpose of the sign standards of the UDO. The master signage plan shall have design standards that are exceptional and provide for higher quality signs than those in routine developments and shall comply with Sec. 8.7.2 *Prohibited Signs*.

f) *Public facilities.* The improvements standards and guarantees applicable to the public facilities that will serve the site shall comply with Article 7: *Subdivision and* Article 14: *Parks, Recreation, Greenways, and Open Space*.

(i) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site transportation circulation system. The on-site transportation circulation system shall be integrated with the off-site transportation circulation system of the Town. The PD Plan for PUD-CZ shall be consistent with the Apex Transportation Plan and the *Town of Apex Standard Specifications and Standard Details* and show required right-of-way widths and road sections. A Traffic Impact Analysis (TIA) shall be required per Sec. 13.19.

(ii) The PD Plan for PUD-CZ demonstrates a safe and adequate on-site system of potable water and wastewater lines that can accommodate the proposed development, and are efficiently integrated into off-site potable water and wastewater public improvement plans. The PD Plan shall include a proposed water and wastewater plan.

(iii) Adequate off-site facilities for potable water supply, sewage disposal, solid waste disposal, electrical supply, fire protection and roads shall be planned and programmed for the development proposed in the PD Plan for PUD-CZ, and the development is conveniently located in relation to schools and police protection services.

(iv) The PD Plan shall demonstrate compliance with the parks and recreation requirements of Sec. Article 14: *Parks, Recreation, Greenways, and Open Space* and Sec. 7.3.1 *Privately-owned Play Lawns* if there is a residential component in the PUD-CZ.

g) *Natural resource and environmental protection.* The PD Plan for PUD-CZ demonstrates compliance with the current regulatory standards of this Ordinance related to natural resource and environmental protection in Sec. 6.1 *Watershed Protection Overlay District*, Sec. 6.2 *Flood Damage Prevention Overlay District*, and Sec. 8.1 *Resource Conservation*.

h) *Storm water management.* The PD Plan shall demonstrate that the post-development rate of on-site storm water discharge from the entire site shall not exceed pre-development levels in accordance with Sec. 6.1.7 of the UDO.

i) *Phasing.* The PD Plan for PUD-CZ shall include a phasing plan for the development. If development of the PUD-CZ is proposed to occur in more than one phase, then guarantees shall be provided that project improvements and amenities that are necessary and desirable for residents of the project, or that are of benefit to the Town, are constructed with the first phase of the project, or, if this is not possible, then as early in the project as is technically feasible.

j) *Consistency with 2045 Land Use Map.* The PD Plan for PUD-CZ demonstrates consistency with the goals and policies established in the Town's 2045 Land Use.

k) *Complies with the UDO.* The PD Plan for PUD-CZ demonstrates compliance with all other relevant portions of the UDO.

Legislative Considerations

The Town Council shall find the PUD-CZ designation demonstrates compliance with the following standards. Sec. 2.3.3.F:

The applicant shall propose site-specific standards and conditions that take into account the following considerations, which are considerations that are relevant to the legislative determination of whether or not the proposed conditional zoning district rezoning request is in the public interest. These considerations do not exclude the legislative consideration of any other factor that is relevant to the public interest.

1) *Consistency with 2045 Land Use Map.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the 2045 Land Use Map.

2) *Compatibility.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and compatibility with the character of surrounding land uses.

3) *Zoning district supplemental standards.* The proposed Conditional Zoning (CZ) District use's compliance with Sec. 4.4 *Supplemental Standards,* if applicable.

4) *Design minimizes adverse impact.* The design of the proposed Conditional Zoning (CZ) District use's minimization of adverse effects, including visual impact of the proposed use on adjacent lands; and avoidance of significant adverse impacts on surrounding lands regarding trash, traffic, service delivery, parking and loading, odors, noise, glare, and vibration and not create a nuisance.

5) *Design minimizes environmental impact.* The proposed Conditional Zoning District use's minimization of environmental impacts and protection from significant deterioration of water and air resources, wildlife habitat, scenic resources, and other natural resources.

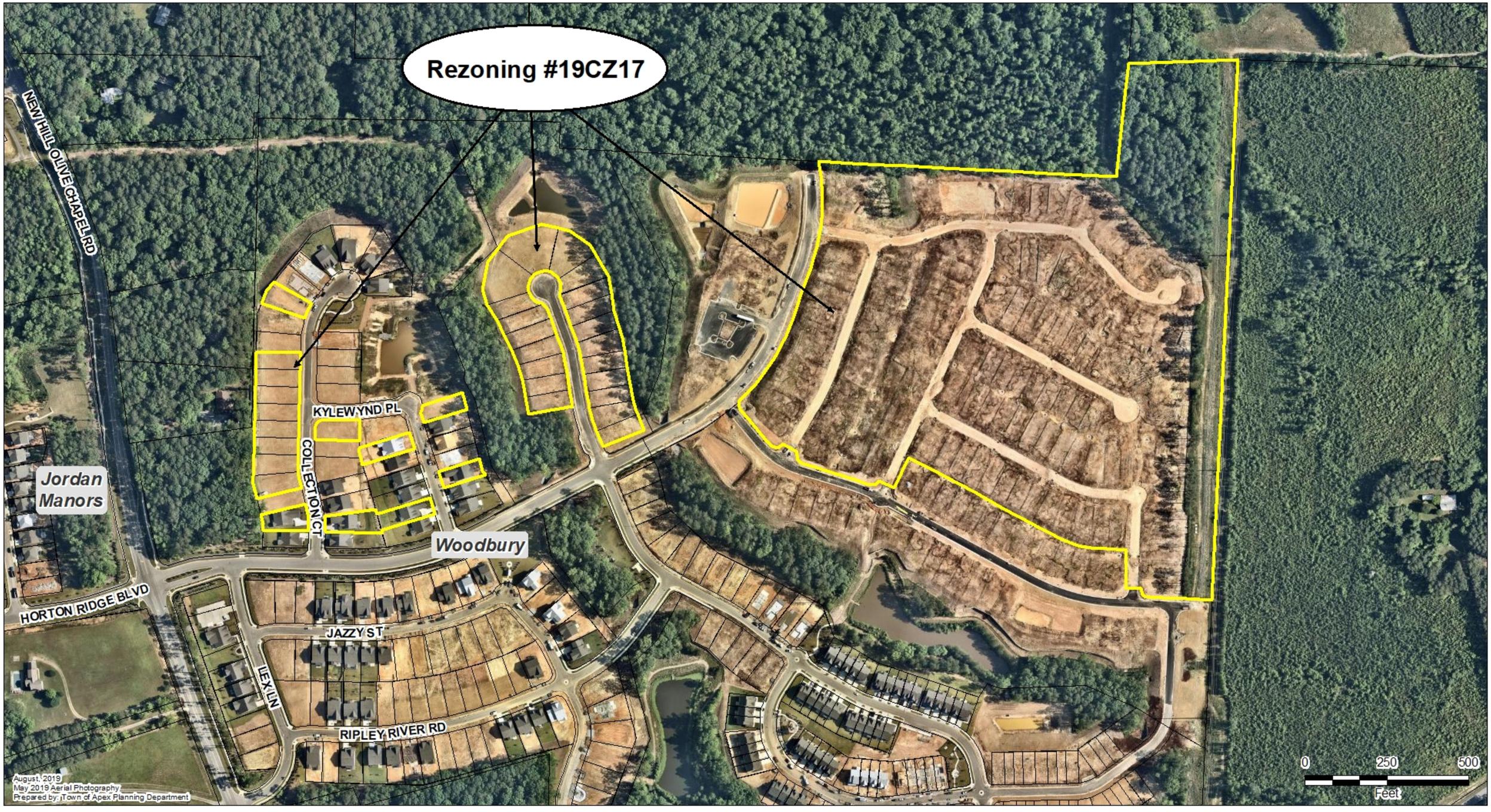
6) *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.

7) *Health, safety, and welfare.* The proposed Conditional Zoning (CZ) District use's effect on the health, safety, or welfare of the residents of the Town or its ETJ.

8) *Detrimental to adjacent properties.* Whether the proposed Conditional Zoning (CZ) District use is substantially detrimental to adjacent properties.

9) *Not constitute nuisance or hazard.* Whether the proposed Conditional Zoning (CZ) District use constitutes a nuisance or hazard due to traffic impact or noise, or because of the number of persons who will be using the Conditional Zoning (CZ) District use.

10) *Other relevant standards of this Ordinance.* Whether the proposed Conditional Zoning (CZ) District use complies with all standards imposed on it by all other applicable provisions of this Ordinance for use, layout, and general development characteristics.


Rezoning #19CZ17
NEW HILL OLIVE CHAPEL RD
KYLEWYND PL
COLLECTION CT
Jordan Manors
Woodbury
HORTON RIDGE BLVD
JAZZY ST
LEXLN
RIPLEY RIVER RD
August, 2019
May 2019 Aerial Photography
Prepared by: Town of Apex Planning Department
0
250
500
Feet

PLANNED UNIT DEVELOPMENT APPLICATION

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Application #: _____ Submittal Date: _____

Fee Paid $ _____ Check # _____

PETITION TO AMEND THE OFFICIAL ZONING DISTRICT MAP

Project Name: Woodbury

Address(es): New Hill Olive Chapel Road and Horton Ridge Blvd.

PIN(s) See attached property owner list

Acreage: +/- 60 Acres

Current Zoning: PUD 16CZ01 Proposed Zoning: PUD

Current 2045 LUM Designation: MD

Requested 2045 LUM Designation: MD

See next page for LUM amendment

If any portion of the project is shown as mixed use (3 or more stripes on the 2045 Land Use Map) provide the following:

Area classified as mixed use: Acreage: _____

Area proposed as non-residential development: Acreage: _____

Percent of mixed use area proposed as non-residential: Percent: _____

Applicant Information

Name: Pulte Home Company, LLC

Address: 1225 Crescent Green Drive, Suite 250

City: Cary State: NC Zip: 27513

Phone: 919-816-1155 E-mail: craig.duerr@pultegroup.com

Owner Information

Name: Same as above

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Agent Information

Name: Same as above

Address: _____

City: _____ State: _____ Zip: _____

Phone: _____ E-mail: _____

Other contacts: _____

Woodbury Lots subject to Rezoning for 'J' Drives

Lot #	House #	Street	City, State, Zip	PIN	Real Estate
Phase 1 - Owned by Residents. Recorded in BM2018, Pages 326-333					
80	2564	COLLECTION COURT	NEW HILL, NC 27562	0710855474	0455233
108	2567	COLLECTION COURT	NEW HILL, NC 27562	0710857473	0455261
111	2552	KYLEWYND PLACE	NEW HILL, NC 27562	0710859436	0455264
Phase 1 - Owned by Pulte Home Company, LLC. Recorded in BM2018, Pages 326-333					
82	2556	COLLECTION COURT	NEW HILL, NC 27562	0710855545	0455235
83	2552	COLLECTION COURT	NEW HILL, NC 27562	0710855631	0455236
84	2548	COLLECTION COURT	NEW HILL, NC 27562	0710855646	0455237
85	2544	COLLECTION COURT	NEW HILL, NC 27562	0710855742	0455238
86	2540	COLLECTION COURT	NEW HILL, NC 27562	0710855747	0455239
87	2536	COLLECTION COURT	NEW HILL, NC 27562	0710855842	0455240
88	2532	COLLECTION COURT	NEW HILL, NC 27562	0710855847	0455241
89	2528	COLLECTION COURT	NEW HILL, NC 27562	0710855942	0455242
92	2516	COLLECTION COURT	NEW HILL, NC 27562	0710865171	0455245
100	2527	COLLECTION COURT	NEW HILL, NC 27562	0710857933	0455253
101	2531	COLLECTION COURT	NEW HILL, NC 27562	0710857838	0455254
103	2545	COLLECTION COURT	NEW HILL, NC 27562	0710857731	0455256
115	2536	KYLEWYND PLACE	NEW HILL, NC 27562	0710858676	0455268
117	2531	KYLEWYND PLACE	NEW HILL, NC 27562	0710950758	0455270
121	2547	KYLEWYND PLACE	NEW HILL, NC 27562	0710951508	0455274
Phase 2B - Owned by Pulte Home Company, LLC. Recorded in BM2018, Pages 2237-2243					
124	2532	IMPULSION DRIVE	NEW HILL, NC 27562	0710953870	0462599
125	2528	IMPULSION DRIVE	NEW HILL, NC 27562	0710953865	0462600
126	2524	IMPULSION DRIVE	NEW HILL, NC 27562	0710953950	0462601
127	2520	IMPULSION DRIVE	NEW HILL, NC 27562	0710953946	0462602
128	2516	IMPULSION DRIVE	NEW HILL, NC 27562	0710963010	0462603
129	2512	IMPULSION DRIVE	NEW HILL, NC 27562	0710962095	0462604
130	2508	IMPULSION DRIVE	NEW HILL, NC 27562	0710962069	0462605
131	2504	IMPULSION DRIVE	NEW HILL, NC 27562	0710962137	0462606
132	2500	IMPULSION DRIVE	NEW HILL, NC 27562	0710963227	0462607
133	2501	IMPULSION DRIVE	NEW HILL, NC 27562	0710964235	0462608
134	2505	IMPULSION DRIVE	NEW HILL, NC 27562	0710964179	0462609
135	2511	IMPULSION DRIVE	NEW HILL, NC 27562	0710964183	0462610
136	2515	IMPULSION DRIVE	NEW HILL, NC 27562	0710965008	0462611
137	2519	IMPULSION DRIVE	NEW HILL, NC 27562	0710965013	0462612
138	2523	IMPULSION DRIVE	NEW HILL, NC 27562	0710955937	0462613
139	2527	IMPULSION DRIVE	NEW HILL, NC 27562	0710955942	0462614
140	2531	IMPULSION DRIVE	NEW HILL, NC 27562	0710955857	0462615
141	2535	IMPULSION DRIVE	NEW HILL, NC 27562	0710955852	0462616
142	2539	IMPULSION DRIVE	NEW HILL, NC 27562	0710955766	0462617
143	2543	IMPULSION DRIVE	NEW HILL, NC 27562	0710955791	0462618
Lots 277-306 and Lots 321-400 in Phases 3B, 3C, and 3D - Owned by Pulte Home Company, LLC					
-	2701	OLD US HIGHWAY 1	APEX , NC 27562	0720057756	0071205
** Excluding Lots 251 to 276 and Lots 307-320 in Phase 3A*					

CERTIFIED LIST OF NEIGHBORING PROPERTY OWNERS

Application #: _____ Submittal Date: _____

Provide a certified list of property owners subject to this application and all property owners within 300' of the subject property and HOA Contacts.

	Owner's Name	PIN
1.	See attached list of property owners within 300' radius	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

I, CRAIG DUERR, certify that this is an accurate listing of all property owners and property owners within 300' of the subject property.

Date: 7/23/19 By: _____

COUNTY OF WAKE STATE OF NORTH CAROLINA

Sworn and subscribed before me, James C. Hughey, a Notary Public for the above State and County, on this the 23rd day of July, 2019.

SEAL

JAMES C. HUGHEY NOTARY PUBLIC WAKE COUNTY, NORTH CAROLINA

_____
Notary Public

James C. Hughey
Print Name

My Commission Expires: 2-20-22

WOODBURY REZONING FOR 'J' DRIVES - PROPERTY OWNER NOTIFICATION WITHIN 300' RADIUS

Owner	Street Address	City, State, Zip	PIN
3 BOYS CAPITAL LLC MUSIC ROW INVESTMENTS LLC	1018 N WELLONSBURG PL	APEX NC 27502-7127	0720177185
AGARWAL, AMIT AGARWAL, SAMPADA	204 KURTNER CT	MORRISVILLE NC 27560-6736	0720044708
AGARWAL, GITESH AGARWAL, VIJAY	3235 RETAMA RUN	NEW HILL NC 27562-9346	0710949879
BARKER, LINDA BARBEE	PO BOX 252	NEW HILL NC 27562-0252	0720158891
BORKAR, YOGESH D BORKAR, GAURI	1008 KATIE LN	CARY NC 27519-1557	0720041897
CALDWELL, JASON T CALDWELL, KERI-ANN	2660 IMPULSION DR	NEW HILL NC 27562-9344	0720041941
CAROL B HEELAN IRREVOCABLE TRUST	GEORGE HEELAN TRUSTEE	12940 DORMAN RD APT 2206	0720075965
CARR, JOHN F CARR, LESLIE K	PO BOX 187	GOLF IL 60029-0187	0710868186
CORDER, MEGHAN PATAKY CORDER, PRESTON DEE	2623 JAZZY ST	NEW HILL NC 27562	0710858118
COTTON, VELNON D COTTON, HELEN L G	2341 NEW HILL OLIVE CHAPEL RD	NEW HILL NC 27562-9001	0710862080
COULL, ANNA V	3208 RETAMA RUN	NEW HILL NC 27562-9346	0720042648
DEATON, KIMBERLY	2555 KYLEWYND PL	NEW HILL NC 27562-9331	0710951448
DIAZ, ISMAEL DIAZ, CYNTHIA	2551 KYLEWYND PL	NEW HILL NC 27562-9331	0710951523
DIPIETRO, PETER F DIPIETRO, CARRIE	2675 IMPULSION DR	NEW HILL NC 27562-9344	0720043975
DIXIT, AJIT S DIXIT, DARSHANA A	405 MAGNOLIA BIRCH CT	CARY NC 27519-9359	0720043850
FRYE, COURTNEY S	2663 IMPULSION DR	NEW HILL NC 27562-9344	0720052061
GAUTAM, NITIN GAUTAM, DEEPALI	2106 ADDENBROCK DR	MORRISVILLE NC 27560-8635	0720043821
GORREY, PURUSHOTHAM	612 BAUCOM CREEK CT	CARY NC 27519-7623	0720043779
GRIFFIN, ALISHIA N GRIFFIN, JACQWAYNE	3210 RETAMA RUN	NEW HILL NC 27562-9346	0720042710
HARRIS, SHAUNA HEMINGWAY	2693 IMPULSION DR	NEW HILL NC 27562-9344	0720046817
HEPBURN, DAVID	1976 OLD BYRE WAY	APEX NC 27502-9113	0710852768
JAGANATHAN, SHANMUGAM RAMASAMY, UMADEVI	136 HILDA GRACE LN	CARY NC 27519-8757	0720044914
JIA, NAN NI, XIWEN	2617 JAZZY ST	NEW HILL NC 27562-9327	0710857158
KATUPILLA, HAMSAVENI KATUPILLA, ANANTH M	1825 BALDHEAD ISLAND DR	APEX NC 27502-8573	0720041879
KEARNS, MICHAEL T TRUSTEE KEARNS, SUSAN A TRUSTEE	2571 COLLECTION CT	NEW HILL NC 27562-9330	0710857378
KEHS, ANNE F HAYNES, JONATHAN R	2564 COLLECTION CT	NEW HILL NC 27562-9330	0710855474
KING, SHAWN M KING, ROSANNA	2669 IMPULSION DR	NEW HILL NC 27562-9344	0720043937
KOVACS, KAREN ANN LITTLEJOHN, CHRISTOPHER JOSEPH	2672 IMPULSION DR	NEW HILL NC 27562-9344	0720042882
LINNA, STACEY A	3216 RETAMA RUN	NEW HILL NC 27562-9346	0720041745
MANCUSO, KATHLEEN F MANCUSO, PETER	2548 KYLEWYND PL	NEW HILL NC 27562-9331	0710859521
MARTIN, NICHOLAS P	2689 IMPULSION DR	NEW HILL NC 27562-9344	0720045869
MCKINNISH, TIMOTHY D	PO BOX 58232	RALEIGH NC 27658-8232	0710865906
MYERS, SHELLEY M	2687 IMPULSION DR	NEW HILL NC 27562-9344	0720045930
NEMCHIK, ANDREW CLAYTON	2666 IMPULSION DR	NEW HILL NC 27562-9344	0720042826
PARRISH, GENE JR PARRISH, BEVERLY M	2567 COLLECTION CT	NEW HILL NC 27562-9330	0710857473
POOLE, DAVID N POOLE, MEREDITH A	2683 IMPULSION DR	NEW HILL NC 27562-9344	0720044991
PULTE HOME COMPANY, LLC	1225 CRESCENT GREEN DRIVE	CARY, NC 27513	Multiple
RALEY, ARNOLD ROBERT RALEY, SUSAN MARY	2552 KYLEWYND PL	NEW HILL NC 27562-9331	0710859436
RAUER, ANGELA L	2668 IMPULSION DR	NEW HILL NC 27562-9344	0720042854
RHINES, SEAN	2679 IMPULSION DR	NEW HILL NC 27562-9344	0720044933
ROSE, NANCY A ROSE, CRAIG H	2504 COLLECTION CT	NEW HILL NC 27562-9330	0710866286
SAVAGE, PAUL SAVAGE, TABATHA	2613 JAZZY ST	NEW HILL NC 27562-9327	0710856199
SHETTY, PRIYANKA SHETTY, SURAJ	2056 POPLAR HIGH PL	CARY NC 27519-8960	0720052080
VANCE, TREVOR D VANCE, ALINA	2695 IMPULSION DR	NEW HILL NC 27562-9344	0720046845
VINCENT, LINDA SHARLEEN	211 BEAR TREE CRK	CHAPEL HILL NC 27517-7640	0720043918
XIA, RAN	2681 IMPULSION DR	NEW HILL NC 27562-9344	0720044962
YOUNG, LINDA DENISE	2544 KYLEWYND PL	NEW HILL NC 27562-9331	0710859506
ZEGERMAN PROPERTIES LLC	1661 SALEM VILLAGE DR	APEX NC 27502-4731	0720045898

NC GRID COORDINATES
NAD 83 (2011)

A: N 704439.11
E 2021147.03

B: N 704440.50
E 2021209.37

C: N 704675.40
E 2021369.64

D: N 704711.75
E 2021245.02

E: N 704717.14
E 2021242.88

F: N 704682.82
E 2021370.00

G: N 704809.29
E 2021177.41

H: N 704981.83
E 2020961.89

I: N 704988.31
E 2020836.15

J: N 704983.08
E 2020881.16

K: N 704992.11
E 2020952.21

L: N 704810.00
E 2021183.29

M: N 704990.19
E 2021384.71

N: N 705011.28
E 2021385.72

O: N 706436.97
E 2021453.96

P: N 706493.41
E 2021432.78

Q: N 706500.02
E 2021430.23

R: N 706639.49
E 2021384.68

S: N 706676.91
E 2021368.73

T: N 706797.81
E 2021136.79

U: N 706812.96
E 2021277.54

V: N 706660.55
E 2021464.66

W: N 706525.99
E 2020419.20

X: N 706526.69
E 2020405.78

Y: N 706552.49
E 2019910.31

Z: N 706559.54
E 2019774.82

AA: N 706659.55
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MM: N 704602.10
E 2019683.11

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E 2019646.78

OO: N 704419.34
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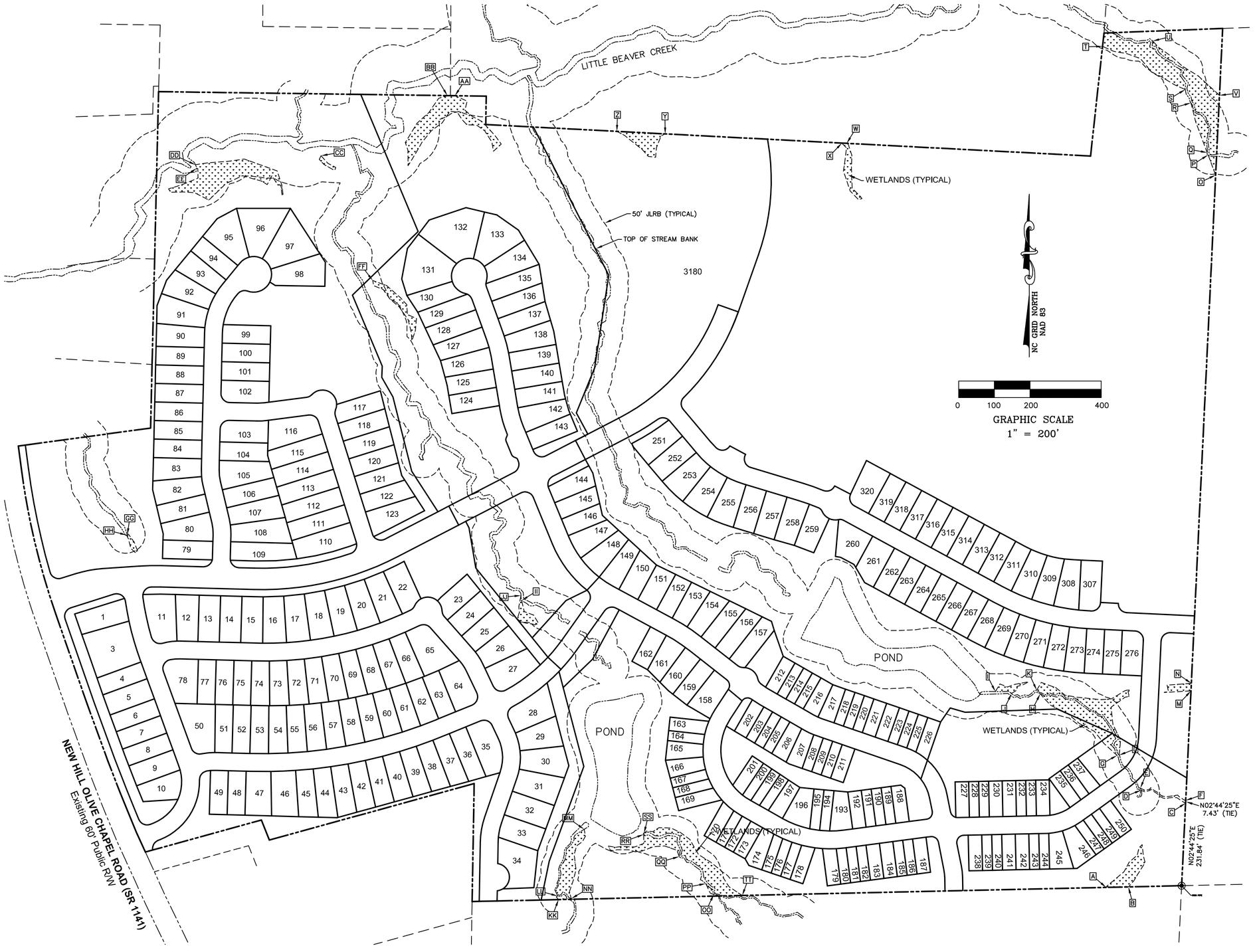


From A to B
N28°53'49"E 4.18'
N50°03'02"E 62.62'
N28°21'12"E 30.10'
N48°09'44"E 31.04'
N12°00'33"E 20.27'
N45°15'25"E 12.75'
S06°21'48"E 31.72'
S14°06'11"E 19.34'
S32°15'03"W 33.49'
S30°57'17"W 26.53'
S41°24'52"W 22.81'
Area: 0.102 Ac.±

From C to D
N63°03'25"W 9.18'
N55°24'23"W 16.85'
N57°53'25"W 3.06'
N86°06'05"W 8.28'
S85°30'54"W 14.91'
S66°00'28"W 6.24'
N78°30'15"W 9.83'
N62°34'54"W 9.57'
N44°46'43"W 10.65'
N57°28'29"W 11.97'
N51°54'46"W 10.46'
S34°09'22"W 3.43'
S71°07'33"W 15.16'
N65°08'14"W 12.03'

From E to F
S65°08'14"E 14.72'
N75°15'33"E 12.57'
N34°09'22"E 5.58'
S51°54'46"E 13.46'
S62°12'02"E 12.29'
S44°46'43"E 10.44'
S69°00'29"E 8.27'
S78°30'15"E 7.91'
N75°53'16"E 5.32'
N81°48'21"E 15.54'
N81°40'44"E 11.15'
S43°39'36"E 5.51'
S55°24'23"E 16.02'
S70°16'27"E 5.97'
Area: 0.015 Ac.±

From G to H
N47°31'43"W 50.79'
N38°00'46"W 41.83'
N62°35'32"W 47.30'
N49°41'45"W 43.55'
N63°48'53"W 54.07'
N42°13'58"W 42.52'
Area: 0.213 Ac.±

From I to J
N30°41'09"E 24.91'
S67°36'26"E 22.67'
N69°58'09"E 20.21'

N79°05'23"E 41.54'
S61°22'36"W 18.34'
S75°22'38"W 16.25'
S06°28'58"W 10.77'
S59°06'38"W 17.95'
Area: 0.026 Ac.±

From K to L
N30°03'53"E 25.16'
S70°17'48"E 43.90'
S50°30'21"E 33.03'
S80°41'55"E 36.70'
S84°04'18"E 64.48'
N85°18'17"E 29.90'
N58°59'23"E 17.10'
N58°59'23"E 26.98'
N76°19'11"E 11.95'
S07°02'38"E 3.78'
S78°41'42"W 3.48'
S11°18'18"E 14.78'
S80°12'29"W 11.04'
S54°22'57"W 28.42'
S54°22'57"W 20.07'
S05°53'07"E 48.38'
S25°51'12"E 49.64'
S05°40'04"W 41.85'
Area: 0.158 Ac.±

From M to N
S86°41'46"W 75.36'

N78°41'42"E 12.31'
N11°18'18"W 18.59'
N85°57'24"E 67.99'
Area: 0.031 Ac.±

From O to P
N20°34'08"W 60.28'
Area: 0.014 Ac.±

From Q to R
N20°34'08"W 91.05'
N14°06'17"W 55.92'
Area: 0.048 Ac.±

From S to T
N66°18'27"W 32.33'
N58°57'01"W 44.96'
N63°19'50"W 30.44'
N39°32'55"W 47.77'
N69°42'40"W 40.54'
N80°25'25"W 36.76'
N66°14'11"W 34.89'
Area: 0.260 Ac.±

From U to V
S42°26'23"E 24.15'
S55°13'41"E 39.60'
S48°41'27"E 45.63'
S58°08'32"E 35.14'
S58°47'26"E 17.49'

S47°29'47"E 80.31'
Area: 0.263 Ac.±

From W to X
S58°50'18"E 5.14'
S18°16'28"E 27.11'
S18°16'28"E 4.88'
S01°42'15"W 39.59'
S02°26'53"E 53.75'
S44°55'11"E 33.10'
S35°33'18"E 6.47'
S71°30'51"W 9.92'
N43°43'54"W 33.81'
N18°46'50"W 58.98'
N07°56'46"E 38.34'
N06°54'57"E 10.73'
N06°54'57"E 16.50'
N43°29'56"W 18.75'
Area: 0.056 Ac.±

From Y to Z
S63°57'03"W 13.14'
S21°08'41"W 35.48'
S04°54'23"W 26.84'
N83°14'50"W 20.96'
N40°41'33"W 25.94'
N52°06'24"W 27.62'
N51°11'11"W 34.70'
N61°48'16"W 24.98'
Area: 0.099 Ac.±

From AA to BB
S65°54'01"E 37.59'
S15°01'50"W 25.98'
S49°43'08"E 25.87'
N61°38'14"E 31.52'
S44°12'56"E 30.81'
S41°03'28"E 28.17'
S36°00'26"E 25.15'
S47°48'43"W 29.65'
N09°05'36"W 25.51'
N32°25'47"W 38.02'
N55°01'31"W 27.06'
N86°33'25"W 28.36'
N42°15'23"W 19.29'
N33°22'41"W 25.16'
N83°16'51"W 20.07'
S34°13'02"W 39.42'
S53°46'12"W 37.45'
S39°13'58"W 40.44'
S30°17'30"W 35.77'
S30°25'28"W 25.13'
S33°13'07"W 16.78'
N00°10'39"W 43.01'
N18°46'43"W 23.05'
N31°07'08"E 63.26'
N47°56'51"E 44.67'
N34°34'46"E 48.71'
N72°55'53"E 25.54'
Area: 0.295 Ac.±

From CC to CC (CW)
S41°30'24"E 28.06'
S62°15'57"E 25.79'
S21°22'10"W 9.16'
N60°29'13"W 34.66'
N42°35'28"W 19.18'
N26°01'08"E 11.52'
Area: 0.012 Ac.±

From DD to EE
N64°38'19"E 1.48'
N81°33'01"E 36.67'
N85°56'39"E 54.30'
N81°45'59"E 45.65'
S69°59'53"E 98.03'
S18°24'36"E 41.64'
S07°22'42"E 29.93'
N74°59'49"W 3.24'
N07°22'42"W 29.19'
N88°02'25"W 8.54'
N31°57'44"W 30.79'
S27°12'04"W 28.43'
N58°26'25"W 18.96'
N74°19'18"W 55.81'
S64°22'46"W 50.68'
S46°06'18"W 66.85'
N62°45'48"W 45.11'
N86°29'37"W 30.75'
S89°10'57"W 36.43'
N32°25'25"W 10.87'

N72°25'04"E 41.09'
N67°37'47"E 47.06'
N01°22'49"W 26.93'
N79°40'32"W 3.47'
Area: 0.362 Ac.±

From FF to FF (CW)
S70°23'49"E 41.14'
S48°40'44"E 51.84'
S42°31'03"E 26.69'
S03°11'07"E 27.53'
S66°27'37"E 27.97'
S05°12'11"W 33.83'
S19°15'40"W 30.67'
N02°58'34"W 21.21'
N13°16'07"W 38.61'
N35°04'48"W 44.21'
N49°13'57"W 34.70'
N35°25'17"W 32.24'
N68°14'40"W 28.86'
N10°05'52"W 14.65'
Area: 0.075 Ac.±

From GG to HH
N63°42'01"E 3.30'
S36°15'21"E 27.84'
S20°46'10"E 26.57'
S57°39'31"W 8.00'
N46°09'31"W 16.70'
N14°14'46"W 27.30'

N26°56'49"W 12.30'
Area: 0.014 Ac.±

From II to JJ
S13°27'36"E 31.64'
S69°00'14"E 28.55'
S29°45'52"E 26.67'
S69°10'14"W 11.13'
N68°00'00"W 12.30'
N68°00'00"W 4.89'
N87°00'21"W 20.29'
N87°00'21"W 3.53'
N48°49'23"W 12.77'
N17°37'57"E 6.97'
N17°37'57"E 13.41'
N05°46'36"W 6.91'
N05°46'36"W 8.63'
N10°48'40"E 31.88'
Area: 0.040 Ac.±

From KK to LL
N39°25'42"W 9.69'
N57°47'32"E 4.74'
Area: 0.007 Ac.±

From MM to NN
S10°04'55"E 19.60'
S28°01'25"W 17.16'
S53°57'37"W 20.88'
S15°10'52"W 25.05'

S06°42'54"E 43.57'
S14°49'18"W 29.73'
S18°35'10"W 33.60'
S13°56'06"E 20.64'
Area: 0.132 Ac.±

From OO to PP
N70°05'28"W 10.35'
N25°16'04"W 29.74'
Area: 0.004 Ac.±

From QQ to RR
N20°17'19"W 18.82'
N70°44'20"W 37.11'
S85°19'10"W 31.51'
S69°36'56"W 33.84'
S83°38'21"W 18.79'
N72°17'01"W 18.52'
S89°50'13"W 33.51'
S76°20'52"W 17.40'
N27°53'09"W 16.24'
S80°52'11"E 21.35'
N80°56'55"E 16.25'
S87°16'20"E 36.39'
N68°50'27"E 27.65'
N00°35'36"E 18.63'
N02°46'34"W 6.91'
Area: 0.096 Ac.±

From SS to TT
N51°03'23"E 9.06'
S85°26'42"E 17.97'
N56°24'27"E 20.09'
S88°14'27"E 33.94'
S63°59'59"E 29.88'
S53°23'10"E 32.44'
S29°51'31"E 48.73'
S58°01'41"E 40.44'
S50°55'26"E 41.57'
S10°31'36"E 18.74'
S32°30'11"E 28.50'
S56°34'44"E 44.47'
Area: 0.212 Ac.±

Refer to Page 1 of this multi-page plat for notes, restrictions and other requirements pertaining to this plat.

BOOK _____, PAGE _____

Sheet 7 of 7

NORTH CAROLINA PROFESSIONAL LAND SURVEYOR
PRELIMINARY
NOT FOR RECORDATION, CONVEYANCES, OR SALES
STEVEN A. HAYES
08/21/19

LEGEND

	Existing Monumentation
	Iron Pipe Set
	Mathematical Point
Esm't	Easement
JLRB	Jordan Lake Riparian Buffer
	Minimum Building Setback
TOA	Town of Apex
PrRWE	Private Retaining Wall Esm't
Pr	Private
Pu	Public
DE	Drainage Easement
SE	Storm Easement
UE	Utility Easement
SWE	Sidewalk Easement
R/W	Right-of-Way
SFHA	Special Flood Hazard Area
OS	Open Space
(0.00')	Tie Distance (Chord Distance)
	Matchlines
	Resource Conservation Area
	Wetlands
	Type 'A' Streetscape Buffer
	Type 'A' Permimeter Buffer

MAJOR SUBDIVISION FINAL PLAT
WOODBURY SUBDIVISION
PHASE 3A
Lands of Pulte Home Company
Site Address: 2521 New Hill Olive Chapel Road

Town of Apex	Buckhorn Township	Wake County	North Carolina

Date: Mar 16, 2019
Drawn by: BAO
Checked by: MAH

SURVEYED by

MSS LAND CONSULTANTS
6118 Saint Giles St. Suite E
Raleigh, NC 27612
Phone (919) 510-4464
Fax (919) 510-9102
Email: gowersrw@mssland.com
Firm License #: C-2070

"Committed to Total Quality Service"

O:_PULTE\PHI-17-02\dwg\Boundary\Woodbury-Ph3A-Subd.dwg

O:_PULTE\PHI-17-02\dwg\Boundary\Woodbury-Ph3A-Subd.dwg, 7, 8/21/2019 2:37:50 PM, hayssm, 1:1

July 19, 2019

NEIGHBORHOOD MEETING NOTICE

Dear Property Owner:

On Tuesday, July 30th at 6:00 PM, a neighborhood meeting is planned to discuss the proposed minor change to the current zoning PUD 16CZ01 for the subject properties outlined on the enclosed map. The meeting is being held at the Woodbury Sales Center at 2606 Lex Lane in Apex.

We have scheduled the meeting to provide information on the proposed rezoning which is limited to a text change in the architectural requirements to allow side entry garages. Representatives will be available until 8:00 PM.

If you have any questions or cannot attend the neighborhood meeting and would like further information about the proposed rezoning, please feel free to contact me either at 919-816-1155 or via email at craig.duerr@pultegroup.com.

We look forward to seeing you on Tuesday, July 30th at 6:00 PM.

Sincerely,

Craig Duerr
Manager, Land Planning & Entitlements

1225 Crescent Green Drive, Suite 250, Cary, North Carolina 27518
Telephone: (919) 816-1100

SUMMARY OF DISCUSSION FROM THE NEIGHBORHOOD MEETING

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Property Owner(s) name(s): Pulte Home Company, LLC

Applicant(s): Craig Duerr

Contact information (email/phone): craig.duerr@pultegroup.com / 919-816-1155

Meeting Address: 2606 Lex Lane (Woodbury Sales Center) in Apex

Date of meeting: Tuesday, July 30, 2019 Time of meeting: 6:00 PM to 8:00 PM

Please summarize the questions/comments and your response from the Neighborhood Meeting in the spaces below (attach additional sheets, if necessary). Please state if/how the project has been modified in response to any concerns. The response should not be "Noted" or "No Response". There has to be documentation of what consideration the neighbor's concern was given and justification for why no change was deemed warranted.

Question/Concern #1:

Will the Town of Apex approved building permits for already sold homes on Lots 82 and 117 with the knowledge Pulte will be submitting the change to the rezoning condition?

Applicant's Response:

Unfortunately, the Town of Apex Planning Department was not willing to sign-off on these building permits.

Question/Concern #2:

Are there any other homes with side entry garages for sale at Woodbury?

Applicant's Response:

Current, the Castle Rock Courtyard is the only model with a side entry garage. Other homes in the 38' single family series could change to a side entry garage and add a 3rd car garage if sold on a wider lot, but Pulte currently does not have plans to add this option.

Question/Concern #3:

Why is the address New Hill?

Applicant's Response:

Woodbury is part of the Corporate limits of the Town of Apex. Public water and sewer from the Town of Apex will be provided to all homes in Woodbury. U.S. Postal Service is the government agency responsible for designation of zip code and post office.

Question/Concern #4:

Adjacent property owner David Hepburn asked if sewer can be extended between lots to service his property.

Applicant's Response:

Pulte had previously responded to this inquiry that it was not possible for sewer to be provided, however, it may be feasible for Mr. Hepburn to connect to the 24" sewer outfall with an easement from the property owner adjacent north of his property. A segment of aerial sewer may be required.

AFFIDAVIT OF CONDUCTING A NEIGHBORHOOD MEETING, SIGN-IN SHEET AND ISSUES/RESPONSES SUBMITTAL

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

I, Craig Duerr, do hereby declare as follows:
Print Name

1. I have conducted a Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Master Subdivision Plan, or Special Use Permit in accordance with UDO Sec. 2.2.7 *Neighborhood Meeting*.

2. The meeting invitations were mailed to the Apex Planning Department, all property owners within 300 feet of the subject property and any neighborhood association that represents citizens in the area via first class mail a minimum of 10 days in advance of the Neighborhood Meeting.

3. The meeting was conducted at 2606 Lex Lane (Woodbury Sales Center) in Apex (location/address) on Tuesday, July 30, 2019 (date) from 6:00 PM (start time) to 8:00 PM (end time).

4. I have included the mailing list, meeting invitation, sign-in sheet, issue/response summary, and zoning map/reduced plans with the application.

5. I have prepared these materials in good faith and to the best of my ability.

7/31/19
Date

By: _____

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, James C. Hughey, a Notary Public for the above State and County, on this the 31st day of July, 2019.

SEAL

JAMES C. HUGHEY
NOTARY PUBLIC
WAKE COUNTY, NORTH CAROLINA

James C. Hughey
Notary Public

James C. Hughey
Print Name

My Commission Expires: 2-20-22

NEIGHBORHOOD MEETING SIGN-IN SHEET

This document is a public record under the North Carolina Public Records Act and may be published on the Town's website or disclosed to third parties.

Meeting Address: 2606 Lex Lane (Woodbury Sales Center) in Apex

Date of meeting: Tuesday, July 30, 2019 Time of meeting: 6:00 PM to 8:00 PM

Property Owner(s) name(s): Refer to attached list

Applicant(s): Pulte Home Company, LLC

Please print your name below, state your address and/or affiliation with a neighborhood group, and provide your phone number and email address. Providing your name below does not represent support or opposition to the project; it is for documentation purposes only.

	NAME/ORGANIZATION	ADDRESS	PHONE #	EMAIL	SEND PLANS & UPDATES
1.	Linda Barbour	3312 old US 1		[redacted]	
2.	Lauren Barbour	P.O Box 252			
3.	ED RADOMSKI	6404 Fayetteville Ste. 120-318			
4.	JOAN RADOMSKI	Durham, NC 27			
5.	Geoffrey Hayes	108 Orvis Dr			
6.	Kate Hayes	Holly Springs NC 27540			
7.	KATHY MANCUSO	2548 KYLEWYND PL			
8.	PETER MANCUSO	2548 KYLEWYND PL			
9.	SUSAN + DENIE RALEY	2552 KYLEWYND PL			
10.	Anne Kens/Jon Haynes	2564 Collection Ct			
11.					
12.					
13.					
14.					

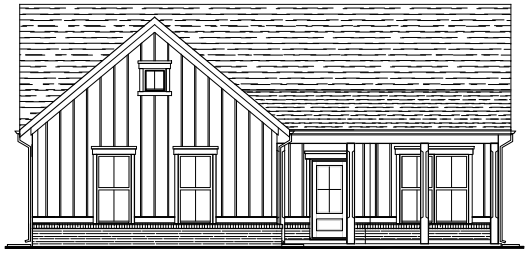
Use additional sheets, if necessary.

Section 7: Architectural Standards

The architecture for this community will reflect the residential scale and character of traditional Apex building styles. Building materials within each residential building type will be selected from a similar palette but will provide enough variety and diversity to add individuality and character amongst the product types. Further detailing shall be provided at the time of Residential Master Subdivision submittal.

Single Family Residential:

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. Up to 30% of the total number of single family detached dwelling units may be ranch style homes with slab on grade foundations.
3. All other single family home types shall have a crawl space, basement, or turned-down slab foundation with a minimum of 20-inches from grade to front elevation finished floor. On front elevations, the 20-inches will have masonry such as brick or stone. The side and rear of houses do not have to meet these requirements.
3. Garage doors must be painted to match the house trim or siding color and have either windows, decorative details, or carriage style adornments.
4. Homes shall include a front porch or stoop with a minimum depth of 4-feet.
5. The roof for primary structures (i.e., excluding porches, bay windows, etc.) shall be pitched at 5:12 or greater.
6. The garage cannot protrude more than 1-foot from either the front façade or porch, except that the garage may protrude up to 5-feet from the front façade or porch with the inclusion of windows in the garage door and one (1) architectural feature such as a variation in roof form, balcony, trimmed window or decorative vent over the door area to minimize the impact of the garage façade. ***No more than 15% of the total number of homes shall be side entry garages with 'J' drives. Homes with 'J' drives shall not be located on immediately adjacent lots to other homes with 'J' drives."***
7. The side and rear of a home that is visible from a public street must include at least two (2) of the following elements:
    - Window with shutters
    - Masonry for at least 10% of wall area
    - Variation in siding material pattern for at least 20% of the wall area.
    - Bay, transom or casement window
    - Decorative trim, shake, cornice, or air vents on gables
8. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of four (4) color families for siding and shall include varied trim, shutter, and accent colors complementing the siding color.
9. Single family detached homes will be prepared for solar photovoltaic (PV) systems by the installation of a 1.5 inch metal conduit from the attic to a point near the electrical distribution box.



Elevation NC1G - Courtyard



Elevation NC2H - Courtyard



Elevation NC2I - Courtyard



Elevation NC2J - Courtyard



Elevation NC2K - Courtyard



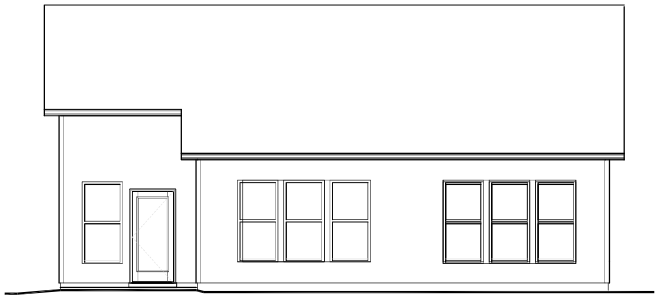
Elevation NC3H - Courtyard

PulteGroup™

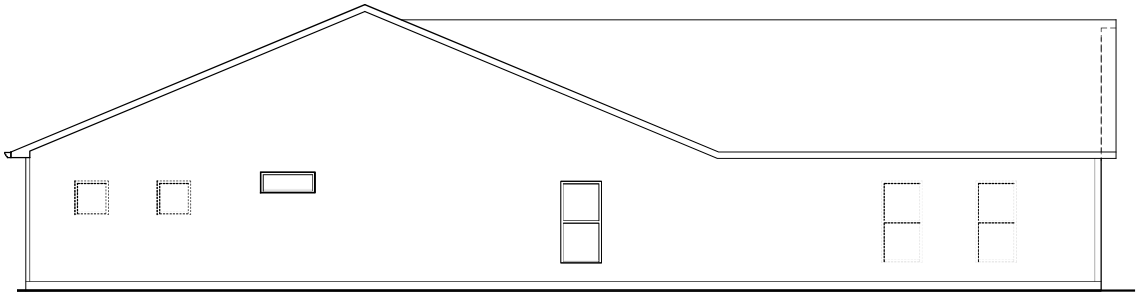
NPC #46206

CASTLE ROCK - COURTYARD

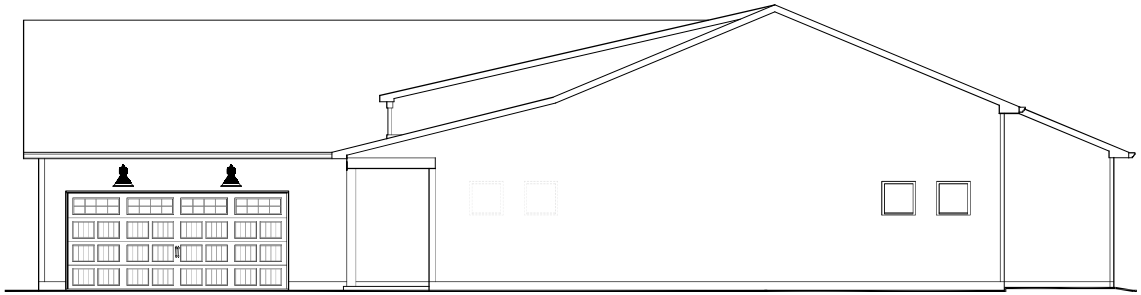
(c) Copyright 2015 PulteGroup, Inc.



REAR ELEVATION - Courtyard



SIDE ELEVATION - Courtyard



SIDE ELEVATION - Courtyard

PulteGroup™

NPC #46206

CASTLE ROCK - COURTYARD

(c) Copyright 2015 PulteGroup, Inc.

Woodbury Lots subject to Rezoning for 'J' Drives

Lot #	House #	Street	City, State, Zip	PIN	Real Estate
Phase 1 - Owned by Residents. Recorded in BM2018, Pages 326-333					
80	2564	COLLECTION COURT	NEW HILL, NC 27562	0710855474	0455233
108	2567	COLLECTION COURT	NEW HILL, NC 27562	0710857473	0455261
111	2552	KYLEWYND PLACE	NEW HILL, NC 27562	0710859436	0455264
Phase 1 - Owned by Pulte Home Company, LLC. Recorded in BM2018, Pages 326-333					
82	2556	COLLECTION COURT	NEW HILL, NC 27562	0710855545	0455235
83	2552	COLLECTION COURT	NEW HILL, NC 27562	0710855631	0455236
84	2548	COLLECTION COURT	NEW HILL, NC 27562	0710855646	0455237
85	2544	COLLECTION COURT	NEW HILL, NC 27562	0710855742	0455238
86	2540	COLLECTION COURT	NEW HILL, NC 27562	0710855747	0455239
87	2536	COLLECTION COURT	NEW HILL, NC 27562	0710855842	0455240
88	2532	COLLECTION COURT	NEW HILL, NC 27562	0710855847	0455241
89	2528	COLLECTION COURT	NEW HILL, NC 27562	0710855942	0455242
92	2516	COLLECTION COURT	NEW HILL, NC 27562	0710865171	0455245
100	2527	COLLECTION COURT	NEW HILL, NC 27562	0710857933	0455253
101	2531	COLLECTION COURT	NEW HILL, NC 27562	0710857838	0455254
103	2545	COLLECTION COURT	NEW HILL, NC 27562	0710857731	0455256
115	2536	KYLEWYND PLACE	NEW HILL, NC 27562	0710858676	0455268
117	2531	KYLEWYND PLACE	NEW HILL, NC 27562	0710950758	0455270
121	2547	KYLEWYND PLACE	NEW HILL, NC 27562	0710951508	0455274
Phase 2B - Owned by Pulte Home Company, LLC. Recorded in BM2018, Pages 2237-2243					
124	2532	IMPULSION DRIVE	NEW HILL, NC 27562	0710953870	0462599
125	2528	IMPULSION DRIVE	NEW HILL, NC 27562	0710953865	0462600
126	2524	IMPULSION DRIVE	NEW HILL, NC 27562	0710953950	0462601
127	2520	IMPULSION DRIVE	NEW HILL, NC 27562	0710953946	0462602
128	2516	IMPULSION DRIVE	NEW HILL, NC 27562	0710963010	0462603
129	2512	IMPULSION DRIVE	NEW HILL, NC 27562	0710962095	0462604
130	2508	IMPULSION DRIVE	NEW HILL, NC 27562	0710962069	0462605
131	2504	IMPULSION DRIVE	NEW HILL, NC 27562	0710962137	0462606
132	2500	IMPULSION DRIVE	NEW HILL, NC 27562	0710963227	0462607
133	2501	IMPULSION DRIVE	NEW HILL, NC 27562	0710964235	0462608
134	2505	IMPULSION DRIVE	NEW HILL, NC 27562	0710964179	0462609
135	2511	IMPULSION DRIVE	NEW HILL, NC 27562	0710964183	0462610
136	2515	IMPULSION DRIVE	NEW HILL, NC 27562	0710965008	0462611
137	2519	IMPULSION DRIVE	NEW HILL, NC 27562	0710965013	0462612
138	2523	IMPULSION DRIVE	NEW HILL, NC 27562	0710955937	0462613
139	2527	IMPULSION DRIVE	NEW HILL, NC 27562	0710955942	0462614
140	2531	IMPULSION DRIVE	NEW HILL, NC 27562	0710955857	0462615
141	2535	IMPULSION DRIVE	NEW HILL, NC 27562	0710955852	0462616
142	2539	IMPULSION DRIVE	NEW HILL, NC 27562	0710955766	0462617
143	2543	IMPULSION DRIVE	NEW HILL, NC 27562	0710955791	0462618
Lots 277-306 and Lots 321-400 in Phases 3B, 3C, and 3D - Owned by Pulte Home Company, LLC					
-	2701	OLD US HIGHWAY 1	APEX , NC 27562	0720057756	0071205
** Excluding Lots 251 to 276 and Lots 307-320 in Phase 3A*					

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Pulte Home Company, LLC is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☒ Rezoning Woodbury Phase 3 (Lots 251 to 400)
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property address is: 2701 Old US 1 Highway

The agent for this project is: _____

■ I am the owner of the property and will be acting as my own agent

Agent Name: _____

Address: _____

Telephone Number: _____

E-Mail Address: _____

Signature(s) of Owner(s)

Chi Raughley

CHRIS RAUGHLEY, VP LAND — Type or print name

7/26/19 — Date

_____

_____ Type or print name _____ Date

_____

_____ Type or print name _____ Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Pulte Home Company, LLC is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☒ Rezoning Woodbury Phases 1 and 2
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property address is: See attached list

The agent for this project is: _____

■ I am the owner of the property and will be acting as my own agent

Agent Name: _____

Address: _____

Telephone Number: _____

E-Mail Address: _____

Signature(s) of Owner(s)

Chris Rawley

CHRIS RAWLEY, VP LAND — Type or print name

7/26/19 — Date

_____

_____ — Type or print name — _____ Date

_____

_____ — Type or print name — _____ Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Arnold Robert Raley and Susan Mary Raley is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☒ Rezoning Woodbury Lot 111
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property address is: 2552 Kylewynd, New Hill, NC 27562

The agent for this project is: Pulte Home Company, LLC

☐ I am the owner of the property and will be acting as my own agent

Agent Name: Craig Duerr

Address: 1225 Crescent Green Drive, Suite 250, Cary, NC 27513

Telephone Number: 919-816-1155

E-Mail Address: craig.duerr@pultegroup.com

Signature(s) of Owner(s)

Susan M Raley

SUSAN M RALEY — Type or print name — 7/30/2019 — Date

Arnold R Raley

ARNOLD R. RALEY — Type or print name — 7/30/2019 — Date

_____

_____ Type or print name _____ Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Gene Parrish Jr. and Beverly M. Parrish is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☒ Rezoning Woodbury Lot 108
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property address is: 2567 Collection Court, New Hill, NC 27562

The agent for this project is: Pulte Home Company, LLC

☐ I am the owner of the property and will be acting as my own agent

Agent Name: Craig Duerr

Address: 1225 Crescent Green Drive, Suite 250, Cary, NC 27513

Telephone Number: 919-816-1155

E-Mail Address: craig.duerr@pultegroup.com

Signature(s) of Owner(s)

☆ Gene Parrish Jr

Gene Parrish — Type or print name — 8-1-19 — Date

☆ Beverly M Parrish

Beverly Parrish — Type or print name — 8-1-19 — Date

_____

_____ Type or print name _____ Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Anne F. Kehs and Jonathan R. Haynes is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☒ Rezoning Woodbury Lot 80
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☐ Other: _____

The property address is: 2564 Collection Court, New Hill, NC 27562

The agent for this project is: Pulte Home Company, LLC

☐ I am the owner of the property and will be acting as my own agent

Agent Name: Craig Duerr

Address: 1225 Crescent Green Drive, Suite 250, Cary, NC 27513

Telephone Number: 919-816-1155

E-Mail Address: craig.duerr@pultegroup.com

Signature(s) of Owner(s)

Jonathan Haynes — 7-30-19

Type or print name — Date

Anne Kehs — 30 JULY 19

Type or print name — Date

_____ _____

Type or print name — Date

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

PLANNING BOARD REPORT TO TOWN COUNCIL

Rezoning #19CZ17 Woodbury PUD Amendment

September 9, 2019 Planning Board Meeting

Report Requirements:

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Per NCGS 160A-383, the Planning Board shall advise and comment on whether the proposed zoning amendment is consistent with all applicable officially adopted plans, and provide a written recommendation to the Town Council that addresses plan consistency and other matters as deemed appropriate by the Planning Board, but a comment by the Planning Board that a proposed amendment is inconsistent with the officially adopted plans shall not preclude consideration or approval of the proposed amendment by the Town Council.

PROJECT DESCRIPTION:

Acreage:	±42 acres
PINs:	0710855474, 0710857473, 0710855545, 0710855631, 0710855646, 0710855742, 0710855747, 0710855842, 0710855847, 0710855942, 0710865171, 0710857933, 0710857838, 0710857731, 0710859436, 0710858676, 0710950758, 0710951508, 0710953870, 0710953865, 0710953950, 0710953946, 0710963010, 0710962095, 0710962069, 0710962137, 0710963227, 0710964235, 0710964179, 0710964183, 0710965008, 0710965013, 0710955937, 0710955942, 0710955857, 0710955852, 0710955766, 0710955791, 0720057756 (portion of)
Current Zoning:	Planned Unit Development Conditional Zoning (PUD-CZ #16CZ01)
Proposed Zoning:	Planned Unit Development Conditional Zoning
2045 Land Use Map:	Medium Density Residential
Town Limits:	Inside Town Limits

Applicable Officially Adopted Plans:
The Board must state whether the project is consistent or inconsistent with the following officially adopted plans, if applicable. Applicable plans have a check mark next to them.

☒ 2045 Land Use Map
☒ Consistent ☐ Inconsistent Reason: _____

☒ Apex Transportation Plan
☒ Consistent ☐ Inconsistent Reason: _____

☒ Parks, Recreation, Open Space, and Greenways Plan
☒ Consistent ☐ Inconsistent Reason: _____

Legislative Considerations:
The applicant shall propose site-specific standards and conditions that take into account the following considerations, which are considerations that are relevant to the legislative determination of whether or not the proposed conditional zoning district rezoning request is in the public interest. These considerations do not exclude the legislative consideration of any other factor that is relevant to the public interest.

1. *Consistency with 2045 Land Use Plan*. The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and consistency with the purposes, goals, objectives, and policies of the 2045 Land Use Plan.
   ☒ Consistent ☐ Inconsistent Reason: _____

2. *Compatibility.* The proposed Conditional Zoning (CZ) District use's appropriateness for its proposed location and compatibility with the character of surrounding land uses.
☒ Consistent ☐ Inconsistent Reason: _____

3. *Zoning district supplemental standards*. The proposed Conditional Zoning (CZ) District use's compliance with Sec. 4.4 *Supplemental Standards*, if applicable.
☒ Consistent ☐ Inconsistent Reason: _____

4. *Design minimizes adverse impact.* The design of the proposed Conditional Zoning (CZ) District use's minimization of adverse effects, including visual impact of the proposed use on adjacent lands; and avoidance of significant adverse impacts on surrounding lands regarding trash, traffic, service delivery, parking and loading, odors, noise, glare, and vibration and not create a nuisance.
☒ Consistent ☐ Inconsistent Reason: _____

5. *Design minimizes environmental impact.* The proposed Conditional Zoning District use's minimization of environmental impacts and protection from significant deterioration of water and air resources, wildlife habitat, scenic resources, and other natural resources.
☒ Consistent ☐ Inconsistent Reason: _____

6. *Impact on public facilities.* The proposed Conditional Zoning (CZ) District use's avoidance of having adverse impacts on public facilities and services, including roads, potable water and wastewater facilities, parks, schools, police, fire and EMS facilities.
☒ Consistent ☐ Inconsistent Reason: _____

7. *Health, safety, and welfare.* The proposed Conditional Zoning (CZ) District use's effect on the health, safety, or welfare of the residents of the Town or its ETJ.
   ☒ Consistent ☐ Inconsistent Reason: _____

8. *Detrimental to adjacent properties.* Whether the proposed Conditional Zoning (CZ) District use is substantially detrimental to adjacent properties.
   ☒ Consistent ☐ Inconsistent Reason: _____

9. *Not constitute nuisance or hazard.* Whether the proposed Conditional Zoning (CZ) District use constitutes a nuisance or hazard due to traffic impact or noise, or because of the number of persons who will be using the Conditional Zoning (CZ) District use.
   ☒ Consistent ☐ Inconsistent Reason: _____

10. *Other relevant standards of this Ordinance.* Whether the proposed Conditional Zoning (CZ) District use complies with all standards imposed on it by all other applicable provisions of this Ordinance for use, layout, and general development characteristics.
    ☒ Consistent ☐ Inconsistent Reason: _____

Planning Board Recommendation:

Motion: To recommend Approval with conditions as submitted.

Introduced by Planning Board member: Michael Marks

Seconded by Planning Board member: Mark Steele

☐ *Approval*: the project is consistent with all applicable officially adopted plans and the applicable legislative considerations listed above.

☒ *Approval with conditions*: the project is not consistent with all applicable officially adopted plans and/or the applicable legislative considerations as noted above, so the following conditions are recommended to be included in the project in order to make it fully consistent:

Conditions as submitted by applicant.

☐ *Denial*: the project is not consistent with all applicable officially adopted plans.

With 7 Planning Board Member(s) voting "aye"

With 0 Planning Board Member(s) voting "no"

Reasons for dissenting votes:

This report reflects the recommendation of the Planning Board, this the 9th day of September 2019.

Attest:

Margo Bills, Planning Board Chair

Dianne Khin, Planning Director

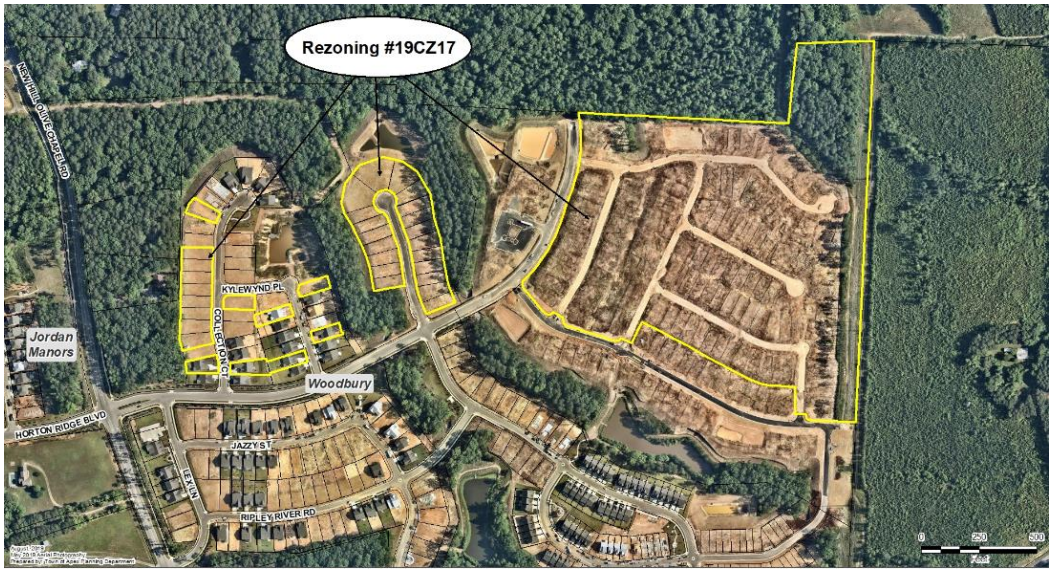
TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #19CZ17
Woodbury PUD Amendment

Pursuant to the provisions of North Carolina General Statutes Section 160A-364 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Planning Board and Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

Applicant/Authorized Agent: Pulte Home Company, LLC
Property Addresses: 2564, 2567, 2556, 2552, 2548, 2544, 2540, 2536, 2532, 2528, 2516, 2527, 2531, 2545 Collection Court; 2552, 2536, 2531, 2547 Kylewynd Place; 2532, 2528, 2524, 2520, 2516, 2512, 2508, 2504, 2500, 2501, 2505, 2511, 2515, 2519, 2523, 2527, 2531, 2535, 2539, 2543 Impulsion Drive; 2701 Old US Highway 1 (portion of)
Acreage: ±42 Acres
Property Identification Numbers (PINs):
0710855474, 0710857473, 0710855545, 0710855631, 0710855646, 0710855742, 0710855747, 0710855842, 0710855847, 0710855942, 0710865171, 0710857933, 0710857838, 0710857731, 0710859436, 0710858676, 0710950758, 0710951508, 0710953870, 0710953865, 0710953950, 0710953946, 0710963010, 0710962095, 0710962069, 0710962137, 0710963227, 0710964235, 0710964179, 0710964183, 0710965008, 0710965013, 0710955937, 0710955942, 0710955857, 0710955852, 0710955766, 0710955791, 0720057756 (portion of)
2045 Land Use Map Designation: Medium Density Residential
Current Zoning of Property: Planned Unit Development Conditional Zoning (PUD-CZ #16CZ01)
Proposed Zoning of Property: Planned Unit Development Conditional Zoning (PUD-CZ) to amend architectural standards
Public Hearing Location: Apex Town Hall
73 Hunter Street, Apex, North Carolina
Council Chambers, 2nd Floor
Planning Board Public Hearing Date and Time: September 9, 2019 4:30 P.M.
Town Council Public Hearing Date and Time: September 17, 2019 7:00 P.M.
Vicinity Map:



Property owners within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may appear at the public hearing and be heard with respect to the application. Maps showing the location for the above site(s) to be considered in addition to a copy of the 2045 Land Use Map can be inspected at the Apex Town Hall or call 919-249-3426, Department of Planning and Community Development, for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/28563.

Dianne F. Khin, AICP
Planning Director

Published Dates: August 23, 2019- September 17, 2019

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

AFFIDAVIT CERTIFYING
Public Notification – Written (Mailed) Notice

Section 2.2.11
Town of Apex Unified Development Ordinance

Project Number and/or Name:	Woodbury PUD Amendment
Project Location:	2564, 2567, 2556, 2552, 2548, 2544, 2540, 2536, 2532, 2528, 2516, 2527, 2531, 2545 Collection Court; 2552, 2536, 2531, 2547 Kylewynd Place; 2532, 2528, 2524, 2520, 2516, 2512, 2508, 2504, 2500, 2501, 2505, 2511, 2515, 2519, 2523, 2527, 2531, 2535, 2539, 2543 Impulsion Drive; 2701 Old US Highway 1
Applicant or Authorized Agent:	Pulte Home Company, LLC/ Craig Duerr
Firm:	Pulte Home Company, LLC

This is to certify that I as Planning Director, mailed or caused to have mailed by first class postage for the above mentioned project on August 23, 2019, a notice containing the time and place, location, nature and scope of the application, where additional information may be obtained, and the opportunity for interested parties to be heard, to the property owners within 300' of the land subject to notification. I further certify that I relied on information provided to me by the above-mentioned person as to accuracy and mailing addresses of property owners within 300' of the land subject to notification.

8/23/19
Date

Dianne F. Khin
Planning Director

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Jeri Chastain Pederson, a Notary Public for the above State and County, this the 23 day of August, 2019.

JERI CHASTAIN PEDERSON
Notary Public
Wake County, North Carolina
My Commission Expires
March 10, 2024
SEAL

Jeri Chastain Pederson
Notary Public

My Commission Expires: 03/10/2024

https://www.apexnc.org/DocumentCenter/View/28781/19CZ17-Public-Notice
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TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARINGS

CONDITIONAL ZONING #19CZ17
Woodbury PUD Amendment

Pursuant to the provisions of North Carolina General Statutes Section 160A-364 and to the Town of Apex Unified Development Ordinance (UDO) Section 2.2.11, notice is hereby given of public hearings before the Planning Board and Town Council of the Town of Apex. The purpose of these hearings is to consider the following:

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Acreage: ±42 Acres
Property Identification Numbers (PINs):
0710855474, 0710857473, 0710855545, 0710855631, 0710855646, 0710855742, 0710855747, 0710855842, 0710855847, 0710855942, 0710865171, 0710857933, 0710857838, 0710857731, 0710859436, 0710858676, 0710950758, 0710951508, 0710953870, 0710953865, 0710953950, 0710953946, 0710963010, 0710962095, 0710962069, 0710962137, 0710963227, 0710964235, 0710964179, 0710964183, 0710965008, 0710965013, 0710955937, 0710955942, 0710955857, 0710955852, 0710955766, 0710955791, 0720057756 (portion of)
2045 Land Use Map Designation: Medium Density Residential
Current Zoning of Property: Planned Unit Development Conditional Zoning (PUD-CZ #16CZ01)
Proposed Zoning of Property: Planned Unit Development Conditional Zoning (PUD-CZ) to amend architectural standards
Public Hearing Location: Apex Town Hall
73 Hunter Street, Apex, North Carolina
Council Chambers, 2nd Floor
Planning Board Public Hearing Date and Time: September 9, 2019 4:30 P.M.
Town Council Public Hearing Date and Time: September 17, 2019 7:00 P.M.
Vicinity Map:



Property owners within 300 feet of the proposed conditional zoning have been sent this notice via first class mail. All interested parties may appear at the public hearing and be heard with respect to the application. Maps showing the location for the above site(s) to be considered in addition to a copy of the 2045 Land Use Map can be inspected at the Apex Town Hall or call 919-249-3426, Department of Planning and Community Development, for further information. To view the petition and related documents on-line: https://www.apexnc.org/DocumentCenter/View/28563.

Dianne F. Khin, AICP
Planning Director

Published Dates: August 23, 2019- September 17, 2019

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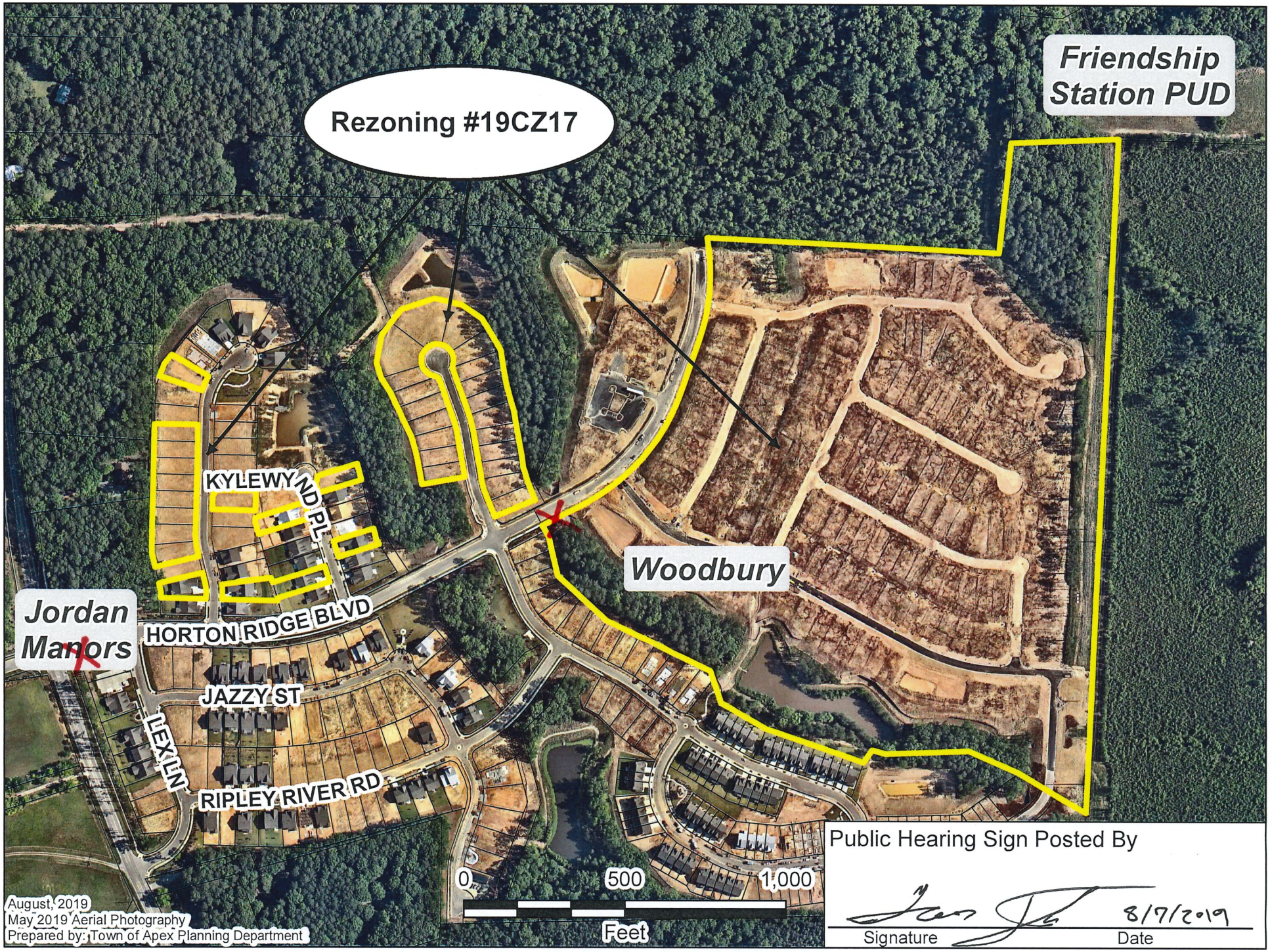
8/23/2019



Public Hearing Sign Posted By

8/7/2019

Signature Date

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: September 17, 2019

Item Details

Presenter(s): Shannon Cox, Long Range Planning Manager

Department(s): Planning Department

Requested Motion

Public hearing and possible motion regarding proposed amendments to the Bicycle, Pedestrian, and Equestrian Plan map of the Comprehensive Transportation Plan and the Comprehensive Bike Network map of the Comprehensive Bicycle Plan.

Approval Recommended?

The Planning Department recommends approval.

The Parks and Recreation Department recommends approval.

The Parks, Recreation, and Cultural Resources Advisory Commission recommends approval.

The Planning Board heard the proposed amendments at their September 9, 2019 meeting and unanimously recommended approval.

Item Details

The purpose of this hearing is to consider numerous amendments to the Bicycle, Pedestrian, and Equestrian Plan map of the Comprehensive Transportation Plan and the Comprehensive Bike Network map of the Comprehensive Bicycle Plan. These amendments are the result of staff review of data provided by the consultant teams supporting the Bike Apex and Advance Apex plans and fall into three main categories: (1) Substantive changes identified by staff or through proposed development following adoption of the plans, (2) Changes that were approved through development plans or by advancing designs for greenways that were not captured during the planning process, and (3) Clean-up changes that are the result of mapping errors or omissions.

Attachments

- Staff report
- Map of proposed amendments

STAFF REPORT

Bicycle Plan and Transportation Plan Amendments

September 17, 2019 Town Council Meeting

The purpose of the public hearing is to consider the facts in order to formulate a decision.

The Bicycle, Pedestrian, and Equestrian Plan map of the Comprehensive Transportation Plan and the Comprehensive Bike Network map of the Comprehensive Bicycle Plan represent a network of current and future bicycle facilities that provide guidance on what is likely to be suitable for long term growth. The plans do not require a schedule for implementation nor do they set aside funding for improvements. Instead, the plans help the Town establish long term priorities. The Bicycle, Pedestrian, and Equestrian Plan map of the Comprehensive Transportation Plan was adopted in February 2019 and the Comprehensive Bike Network map of the Comprehensive Bicycle Plan map was adopted in January 2019.

Proposed Amendments:

Numerous amendments are requested to the Bicycle, Pedestrian, and Equestrian Plan map and the Comprehensive Bike Network map. Over 2017 and 2018, the Town, with assistance from two consultant teams, was simultaneously working on both a Comprehensive Bicycle Plan and an update to the Comprehensive Transportation Plan. The spatial data supporting those plans was delivered to the Town following adoption of the plans in early 2019. Quality review of the detailed data by staff revealed that numerous changes are needed.

Proposed amendments fall into three main categories: (1) Substantive changes identified by staff or through proposed development following adoption of the plans, (2) Changes that were approved through development plans or by advancing designs for greenways that were not captured during the planning process, and (3) Clean-up changes that are the result of mapping errors or omissions. The first category of changes warrant the most consideration and are presented first below. These changes will also be the focus of the Planning Board public hearing presentation. The second and third categories are included for completeness, and can be discussed during the public hearing if desired, but will not be the focus of the presentation.

The proposed amendments below are organized by category then geography. The numbers associated with each amendment match reference numbers included on the attached map. The map is also available online at: https://www.apexnc.org/DocumentCenter/View/28775.

Category 1 – Proposed Substantive Amendments:

Northwest Apex, in the vicinity of:

4. Crestmont – Replace proposed greenway road crossing with proposed side path crossing and show existing sidewalk
5. US 64 Highway and the American Tobacco Trail – Shift the proposed Goodwin Road side path to east side of road and remove the proposed US 64 Highway side path connection to the American Tobacco Trail
9. US 64 Highway and Vision Drive – Add proposed side path along Vision Drive and remove proposed greenway along US 64 and ramps to NC 55
12. Charleston Village Greenway and Holt Road – Show existing private access and realign proposed greenway and side path for consistency with subdivision plans, to minimize environmental impacts, and plan for improved roadway crossings
13. Howell Road – Change proposed connection to Town of Cary greenway system from proposed side path to proposed greenway
17. Haddon Hall Greenway – Add proposed greenway extension to connect with existing public greenway easement

Southwest Apex, in the vicinity of:

19. Kinship Lane – Remove proposed side path and greenway along future Kinship Lane
27. Friendship Station – Realign proposed greenway to match side path design per proposed subdivision plans
28. Old US 1 Highway – Change designation of proposed side path to proposed street-side greenway

Southeast Apex, in the vicinity of:

36. NC 55 at Nationwide Plaza – Remove detached proposed greenway through parking lot
38. Big Branch Greenway at Wake Acres Apartments – Realign proposed greenway and add proposed access
39. Big Branch Greenway and US 1 Highway – Revise alignment of greenway and add proposed grade-separated crossing
41. Future Commuter Rail Corridor – Remove proposed side path along future corridor
45. Middle Creek Greenway at Horton Park – Realign Middle Creek Greenway per proposed subdivision plans

Category 2 – Proposed Amendments to reflect Approved Plans and Advancing Designs

Northwest Apex, in the vicinity of:

1. Castleberry Trails – Add approved greenway access to the American Tobacco Trail
3. Wimberly Road and Secluded Acres Road – Revise proposed redundant greenway access within The Preserve at White Oak Creek and add approved neighborhood greenway access and side path
7. Richardson Road and future Reedy Branch Greenway – Add multiple greenway connections to match approved subdivision plans for Smith Farm, Sweetwater, and Linden
10. Thorn Hollow Drive – Change proposed side path to proposed greenway for short section and realign proposed greenway to match development plans
11. Charleston Village Greenway and Old Jenks Road – Realign proposed greenway onto Town property
14. Salem Middle and Salem Elementary schools – Realign proposed greenway to reflect Wake County Public School System preferences
15. Salem Pond Park – Add existing stairs connection to existing trail and park

Southwest Apex, in the vicinity of:

18. Beaver Creek Greenway and Buckhorn Preserve – Realign proposed greenway to match approved subdivision plans and greenway design
20. Beaver Creek Greenway and Hollands Crossing – Consolidate proposed greenway access points into one access point along Town access easement
21. Beaver Creek Greenway and Apex Nature Park – Realign proposed greenway to match approved design
22. Beaver Creek Greenway, Kelly West, and Greenbrier – Add greenway access to match approved design and add proposed side path along existing public greenway easements connecting Greenbrier and Kelly West
23. Beaver Creek Greenway and NC 540 – Show realignment of existing greenway out of floodway
25. Jordan Vistas – Add proposed Jordan Vistas side path to match approved subdivision plans
26. Olive Ridge PUD – Change section of proposed greenway to proposed side path per approved PUD
30. Bella Casa – Realign proposed greenway and access points to use existing access and utility easements
31. Old US 1 Highway and West Village – Add proposed side path to match approved subdivision plans
32. S Salem Street and Apex Peakway SW – Add side path and revise alignment for consistency with proposed Apex Peakway SW plans and to complete gap along S Salem Street
33. Salem Creek Townhomes – Add proposed greenway access to match approved subdivision plans

Southeast Apex, in the vicinity of:

37. Apex Peakway SE Connector – Revise proposed side path to match feasibility study alignment

44. Middle Creek Greenway at Miramonte – Add proposed neighborhood greenway access per approved design plans
46. Symphony Lake – Realign proposed greenway and street-side greenway connection to Town of Cary system

Category 3 – Proposed Amendments to address Errors and Omissions

Northwest Apex, in the vicinity of:

2. Weddington – Revise alignment of White Oak Creek Greenway connection to American Tobacco Trail
6. US 64 Highway and Jenks Road – Realign proposed side path to match proposed above-grade interchange
8. Woodridge and future Reedy Branch Greenway – Realign proposed side path along reserved road alignment
16. N Salem Street and US 64 – Add proposed side path along N Salem Street (per previous plan) to show connection under US 64

Southwest Apex, in the vicinity of:

24. Beaver Creek Greenway and Pearson Farms – Add proposed greenway access per previous plan
29. Richardson Road – Realign proposed side path and proposed street-side greenway to match proposed future road alignment

Northeast Apex, in the vicinity of:

34. Shepherds Vineyard – Change proposed greenway extension from public to private
35. Community Center – Remove proposed greenway through Community Center parking lot

Southeast Apex, in the vicinity of:

40. Prince Dead End Road – Add proposed greenway to match existing greenway easement
42. Veridea Parkway – Extend proposed side path through interchange
43. Future High School – Realign proposed side path to follow proposed road corridor and reduce impacts to existing neighborhood

Planning Board Recommendation

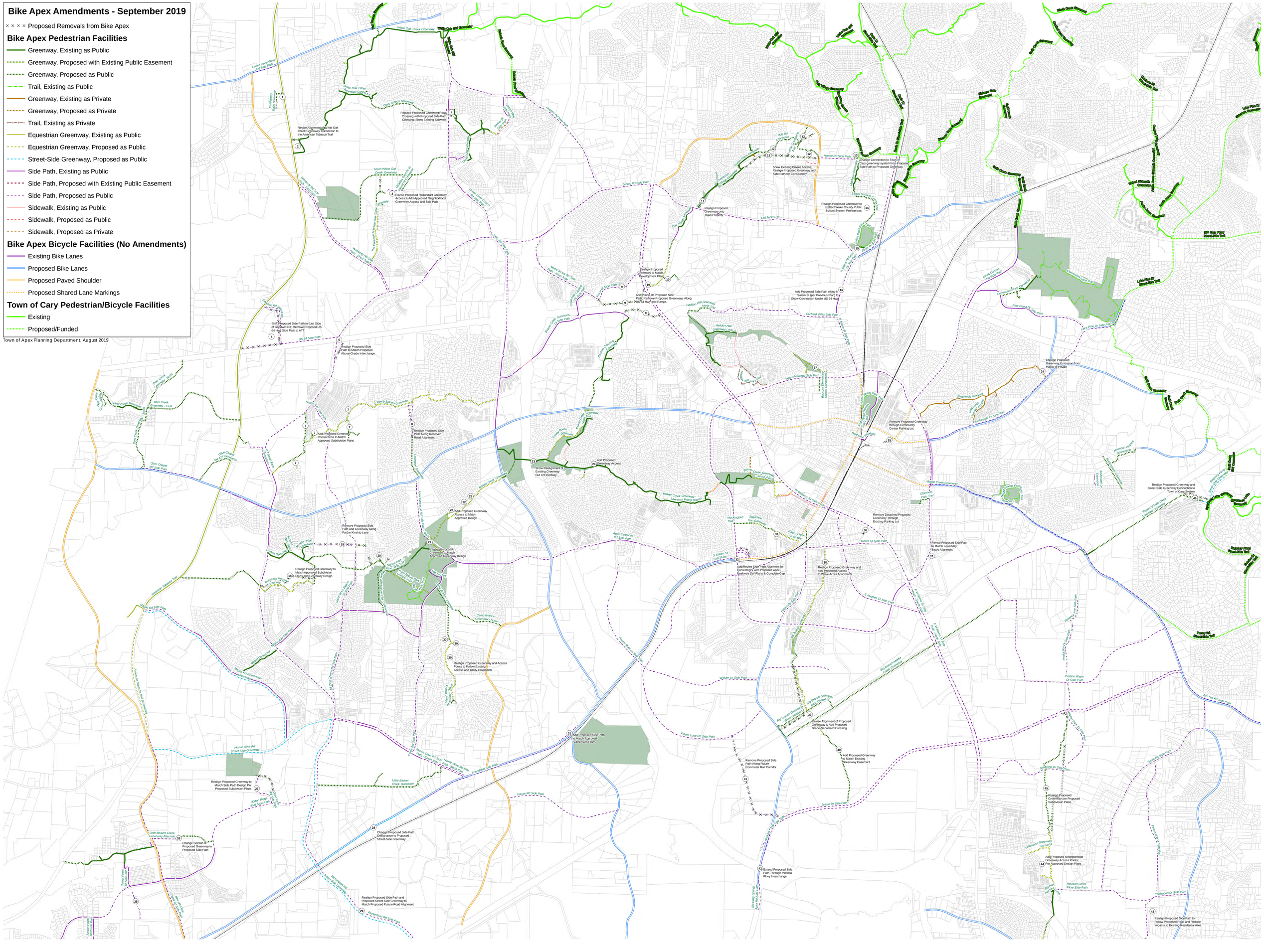
The Planning Board reviewed the proposed amendments at their September 9, 2019 meeting and unanimously recommended approval.

Parks and Recreation Advisory Commission Recommendation:

The Parks and Recreation Advisory Commission have reviewed all proposed amendments and recommend approval.

Staff Recommendation:

Planning staff and Parks and Recreation staff recommend approval of the proposed amendments.


Bike Apex Amendments - September 2019
Proposed Removals from Bike Apex
Bike Apex Pedestrian Facilities
Greenway, Existing as Public
Greenway, Proposed with Existing Public Easement
Greenway, Proposed as Public
Trail, Existing as Public
Greenway, Existing as Private
Greenway, Proposed as Private
Trail, Existing as Private
Equestrian Greenway, Existing as Public
Equestrian Greenway, Proposed as Public
Street-Side Greenway, Proposed as Public
Side Path, Existing as Public
Side Path, Proposed with Existing Public Easement
Side Path, Proposed as Public
Sidewalk, Existing as Public
Sidewalk, Proposed as Public
Sidewalk, Proposed as Private
Bike Apex Bicycle Facilities (No Amendments)
Existing Bike Lanes
Proposed Bike Lanes
Proposed Paved Shoulder
Proposed Shared Lane Markings
Town of Cary Pedestrian/Bicycle Facilities
Existing
Proposed/Funded
Town of Apex Planning Department, August 2019

Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: September 17, 2019

Item Details

Presenter(s): Amanda Bunce, Current Planning Manager

Department(s): Planning Department

Requested Motion

Public Hearing and possible motion meeting regarding amendments to the Unified Development Ordinance related to the size of menu board signs.

Approval Recommended?

The Planning Department recommends denial.

The Planning Board heard these amendments at their September 9, 2019 meeting recommended approval by a vote of 4-3.

Item Details

UDO Amendment Summary:

Requested by Springfield Sign:

Amendments to Sec. 8.7.1.A.13 *Menu Board* in order to increase the maximum sign area for a menu board from 32 square feet to 40 square feet with the condition that only one menu board sign be permitted if the larger sign area is used.

Attachments

- Staff Report
- Application

STAFF REPORT
Amendments to the Unified Development Ordinance
September 17, 2019 Town Council Meeting

Requested by Springfield Sign:

1. **Amendment to Sec. 8.7.1.A.13 *Menu Board* in order to increase the maximum sign area for a menu board from 32 square feet to 40 square feet with the condition that only one menu board sign be permitted if the larger sign area is used.**

8.7.1 Permitted Signs: Location, Size, and Number

A) *Conditions*

…

13) *Menu Board*

An accessory sign providing items and price associated with a drive-thru window or walk-up window and meets the conditions below:

Changeable menu boards shall be allowed provided that:

a) Such signs shall not exceed ~~thirty-two (~~32~~)~~ square feet in area**, except as provided in subsection c. below,** and six (6) feet in height.

b) **Except as provided in subsection c. below,** ~~T~~two (2) signs shall be permitted per drive-through not to exceed ~~sixty-four (~~64~~)~~ combined square feet.

c) **One (1) menu board sign up to 40 square feet in area and six (6) feet in height shall be allowed, as opposed to two (2) menu board signs as referenced in subsections a. and b. above.**

~~c)~~ **d)** Such signs shall not be legible from a public right-of-way or adjacent property.

~~d)~~ **e)** Such signs may be internally and externally illuminated per Sec. 8.7.6.~~(~~B~~),~~ *Sign Illumination*.

~~e)~~ **f)** Also subject to Sec. 8.7.4 *Sign Design and Color* and 8.7.5 *Master Sign Plan Requirement*.

PLANNING STAFF RECOMMENDATION:
Planning staff recommends denial of the proposed UDO amendment.

PLANNING BOARD RECOMMENDATION:
The Planning Board heard these amendments at their September 9, 2019 meeting and recommended approval by a vote of 4-3. The Planning Board report to Town Council is attached.

APPLICATION INFORMATION

Application #: 2019-01 Submittal Date: 8/1/2019

Fee Paid $600.00 Check # 73660

Hard Copy Submittal Requirements:

☑ One (1) copy of Amendment to the Unified Development Ordinance Application

☑ Amendment to the Unified Development Ordinance fee

Applicant Information

Applicant: Springfield Sign

Address: 4825 E Kearney St.

City: Springfield State: MO Zip: 65803

Phone: 417.862.2454 Email: loram@springfieldsign.com

The applicant does hereby make application and does petition the Town Council to amend the Unified Development Ordinance of the Town of Apex for the following: **(Attach additional sheets as necessary)**

UDO Section(s): 8.7.1.A.13 Menu Board Requirements

(Example: Section 5.2.7(D) Dimensional Standards for Accessory Structures, Corner Lot)

Proposed Change(s):

Please see attached

Describe how the proposed amendment(s) is **compatible with existing uses surrounding the subject land.**

Please see attached

What changed or changing conditions justify the passage of the UDO amendment(s)?

Please see attached

How will the proposed change(s) effect the natural environment?

Please see attached

APPLICATION INFORMATION

Application #: _____ Submittal Date: _____

Will the proposed amendment(s) provide a community need? ☑ yes ☐ no

If yes, please describe Please see attached

Will the proposed amendments provide an orderly development pattern?

Please see attached

Describe whether the proposed amendment(s) will be adequately served by public facilities.

Please see attached

Describe how the amendment is consistent with the 2030 Land Use Map.

Please see attached

I hereby acknowledge that proposed amendments to the Unified Development Ordinance is a matter of legislative discretion of the Town Council. As the applicant, I am responsible for presenting the proposed amendments to the Planning Board and Town Council respectively.

Lora Martinson
Signature

7/31/2019
Date

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

RCH Apex, LLC is the owner of the property for which the attached application is being submitted:

- ☐ Land Use Amendment
- ☐ Rezoning
- ☐ Site Plan
- ☐ Subdivision
- ☐ Variance
- ☑ Other: Amendment to the UDO

The property is located at: 1401 Kelly Rd. Apex, NC 27502

The agent for this project is: Springfield Sign

☐ I am the owner of the property and will be acting as my own agent

Name: Springfield Sign - Mark Wessell/Lora Martinson

Address: 4825 E Kearney St. Springfield, MO 65803

Telephone Number: 417.862.2454

Fax Number: 417.862.1887

E-Mail Address: loram@springfieldsign.com

Signature(s) of Owner(s)

Jay Campbell

Type or print name

Type or print name

Type or print name

Attach additional sheets if there are additional owners.

***Owner of record as shown on the latest equalized assessment rolls of Wake County. (An option to purchase does not constitute ownership). If ownership has been recently transferred, a copy of the deed must accompany this authorization.**

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design | build | install | service

ADDRESS
4825 E Kearney St
Springfield, MO 65803

CONTACT US
800.845.9927
springfieldsign.com

Culver's of Apex, NC
1401 Kelly Rd.
Apex, NC 27502

UDO Amendment – Responses

Proposed Changes

Existing UDO section ***8.7.1.A.13 Menu Board Requirements***
An accessory sign providing items and price associated with a drive-thru window or walk-up window and meets the conditions below:
Changeable menu boards shall be allowed provided that:
a) Such signs shall not exceed thirty-two (32) square feet in area and six (6) feet in height.
b) Two (2) signs shall be permitted per drive-through not to exceed sixty-four (64) combined square feet.
c) Such signs shall not be legible from a public right-of-way or adjacent property.
d) Such signs may be internally and externally illuminated per Sec.8.7.6(B), *Sign Illumination*.
e) Also subject to Sec. 8.7.4. *Sign Design and Color* and 8.7.5 *Master Sign Plan Requirement*

Proposed Change to UDO section ***8.7.1.A.13 Menu Board Requirements*** (shown in Blue and **Bold**)
An accessory sign providing items and price associated with a drive-thru window or walk-up window and meets the conditions below:
Changeable menu boards shall be allowed provided that:
a) Such signs shall not exceed thirty-two (32) square feet in area and six (6) feet in height.
b) Two (2) signs shall be permitted per drive-through not to exceed sixty-four (64) combined square feet.
c) Such signs shall not be legible from a public right-of-way or adjacent property.
d) Such signs may be internally and externally illuminated per Sec.8.7.6(B), *Sign Illumination*.
e) Also subject to Sec. 8.7.4. *Sign Design and Color* and 8.7.5 *Master Sign Plan Requirement*
f) Alternatively, one (1) menu board sign, as opposed to two (2) menu board signs (section b) would be allowed but sign shall not exceed forty (40) square feet in area and 6' in height.

Describe how the proposed amendment(s) is compatible with existing uses surrounding the subject land:

The proposed amendment in general does not alter the existing uses surrounding the subject land. If a single menu board is allowed, a positive effect is found in that there is a reduction of signage as well as that the overall sizing of such sign is smaller than otherwise allowed, both a positive effect.

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Springfield, MO 65803

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springfieldsign.com

What changed or changing conditions justify the passage of the UDO amendment(s)?

In general, when a city has a vision for unified development, the goal and result often is to attract new opportunities (commercial, residential, recreational, and the like) to their community, from a commercial perspective this comes with many different branded/franchised entities across all walks of life. To answer the question here, the change is success and new opportunity that comes to town so-to-speak. The UDO is driven by the needs of the community as a whole and governing entities must quantify and define many aspects of development <codes> to be successful for, and to align to, their visions and goals. However, to the overall needs of the community (private citizens and businesses alike) some areas of any ordinance can be overly specific creating incompatibility or inflexible specifications, a somewhat "one-size-fits-all" limitation. The specific amendment proposed herein allows another "flexible" solution while actually having a side benefit of limiting the number and sizing of this particular type of sign (menu board). Menu boards in general are as unique as each and every business is, this simple and minor amendment allows for one more way for the next unique business to fit in.

How will the proposed change(s) effect the natural environment?

In general, I suspect that most people find that a proliferation of signs is distracting from the natural environment, so to that point, having this amendment option available, the reduction of quantity and sizing positively impacts this point of view and the natural environment, additionally with smaller signs less light "pollution" is at hand during the evening hours.

Will the proposed amendment(s) provide a community need?

Yes, as stated above a more flexible UDO is of value to all members of the community. Additionally, and specifically from a Culver's (petitioner's) point of view, hardships are reduced and specific limitations of not having a brand standard menu board are alleviated, some of these hardships/issues are:

(a) The entire Culver's system (approximately 700 locations) is based upon one menu board and only one option is available to franchisees as described herein.
(b) Without the brand standard menu board this location would be incompatible and not cohesive with franchising standards, point of purchase (POP) information available and marketing ties-ins such as TV and radio broadcast.
(c) In general, items would have to be eliminated from the menu board display, the POP panels are standard throughout the entire system and custom panels are not available. A custom size menu board cabinet is not available.
(d) Sales for any eliminated product would be significantly and negatively impacted.
(e) Lower sales volumes create higher per piece purchase costs for the consumer and is harmful from a cost-of-living point of view for the general public.
(f) Increased costs, especially those not similarly experienced by competitors, leads to less competitive selling and could ultimately compromise the integrity of the business model.

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(g) Of the items that would not be able to be displayed, salads would be one. This is also a detriment to the general health of the public, it is well known that there are many arguments on the limited availability for quality and health balanced meals for the general public, this would add to that general concern and negative pressure.
(h) The efficient operation of the drive-thru is impacted as marketing messages and general consumer education/understanding with respect to menu board items are not being aligned, creating longer times for order placement and increasing the amount of time to utilize the drive-thru ordering system and therefore often times creating congestion and lane back-up.

Will the proposed amendment(s) provide an orderly development pattern?

Yes.

Describe whether the proposed amendment(s) will be adequately served by public facilities.

From this regard, there are no changes associated with the approval of the proposed amendment change.

Describe how the amendment(s) is consistent with the 2030 Land Use Map.

There are no changes associated with the approval of the amendment as proposed.

***Color information is included, black and white copies of this response may not convey the information needed.*

I think when this is looked at objectively, we satisfy the standards required for an UDO Amendment request and that the proposed amendment will be found to be consistent with the spirit, purpose and intent of the sign ordinances governing Apex while offering some new advantages. I have over 30+ years of experience and have sat on a lot of local/national review committees with the specific purpose of modification or development of codes and ordinances for unified development. This proposal is consistent with many other communities we have been involved in. I truly thank you for your insight and time to this issue, thanks as always.

AMENDMENT TO THE UNIFIED DEVELOPMENT ORDINANCE
Town of Apex, North Carolina

AMENDMENT TO THE UNIFIED DEVELOPMENT ORDINANCE APPLICATION: Applications are due by 12:00 pm on the first business day of each month.
AMENDMENT TO THE UNIFIED DEVELOPMENT ORDINANCE FEE: $600.00

An amendment to the text of the Unified Development Ordinance may be proposed by the Town Council, the Planning Board, the Board of Adjustment, the Planning Director, by the owner, or any other person having a recognized interest in the land for which a development is proposed, or their authorized agent.

Standards:

The advisability of amending the text of the Unified Development Ordinance is a matter committed to the legislative discretion of the Town Council and is not controlled by any one factor. In determining whether to adopt or disapprove proposed amendments to the text of the Unified Development Ordinance, the Town Council shall consider the following factors:

1. *Compatible with surrounding uses.* Whether and the extent to which the proposed amendment is compatible with existing and proposed uses surrounding the subject land.
2. *Changed conditions.* Whether and the extent to which there are changed conditions that require an amendment.
3. *Effect on natural environment.* Whether and the extent to which the proposed amendment would result in significantly adverse impacts on the natural environment, including but not limited to water, air, noise, storm water management, wildlife, vegetation, wetlands, and the natural functioning of the environment.
4. *Community need.* Whether and the extent to which the proposed amendment addresses a demonstrated community need.
5. *Development patterns.* Whether and the extent to which the proposed amendment would result in a logical and orderly development pattern and not constitute spot zoning.
6. *Public facilities.* Whether and the extent to which the proposed amendment would result in development that is adequately served by public facilities (roads, potable water and sewage, schools, parks, police, and fire and emergency medical facilities).
7. *Consistency with 2030 Land Use Map.* Consistency with the 2030 Land Use Map.

MB-DT-46 CUSTOM EXTERIOR MENU BOARD

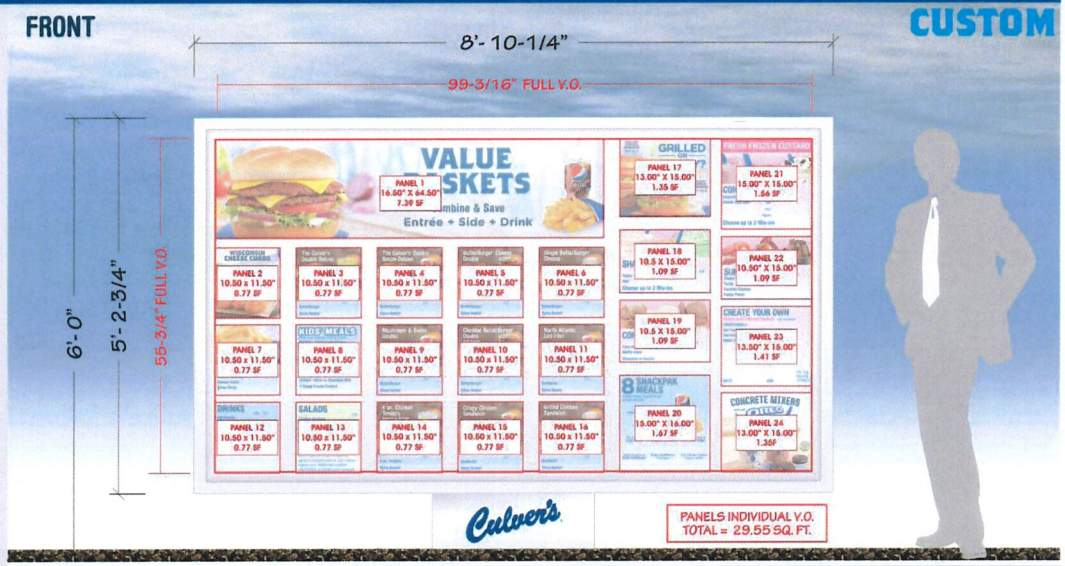
APEX, NC
1401 Kelly Road

Blue Outdoor Drive-Thru Menu Board

MB-DT-46-C

- Standard Menu Board for Drive-Thru Lane
- LED Internal Illumination
- POP Graphic panels must be purchased separately
- POPP-Out magnet access panels included for easy in & out of POP panels
- "-CS" option for 160mph coastal wind standards available
- Locking rear access doors (4)

FRONT — **CUSTOM**



REAR

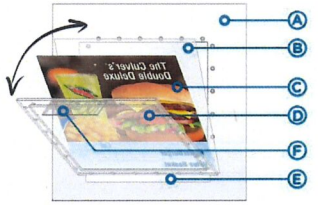


SCALE: 3/8" = 1'

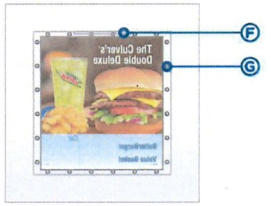
*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

POPP-Out — Point Of Purchase Panel System

INTERIOR VIEW OF MENU BOARD
PANEL BEING REMOVED



PANEL IN PLACE



- **A** - INSIDE BACK OF MENU BOARD FACE (ONLY ONE PANEL SHOWN FOR CLARITY)
- **B** - FRONT PANEL IS ANTI-GLARE (CLEAR) FOR INCREASED VISIBILITY
- **C** - POP PANEL - PRODUCT GRAPHIC
- **D** - REAR PANEL FITTED WITH POPP-Out PANEL
- **E** - SUPPORTING "TIP TRAY" FOR PANELS (SELF ALIGNING)
- **F** - POPP-Out TAB HANDLE
- **G** - PAIRED MAGNETIC "LATCH" (MAGNETS EMBEDDED IN POP-Out PANEL & BACK OF MENU BOARD)

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J WILSON	17914

DATE CREATED / REVISION HISTORY
12/12/18 - NEW
3/22/19 - Permitting

FILE PATH:
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www.springfieldsign.com

MB-DT-46 CUSTOM EXTERIOR MENU BOARD

APEX, NC
1401 Kelly Road

Blue Outdoor Drive-Thru Menu Board

MB-DT-46-C

Standard Menu Board for Drive-Thru Lane

LED Internal Illumination

POP Graphic panels must be purchased separately

POPP-Out magnet access panels included for easy in & out of POP panels

"-CS" option for 160mph coastal wind standards available

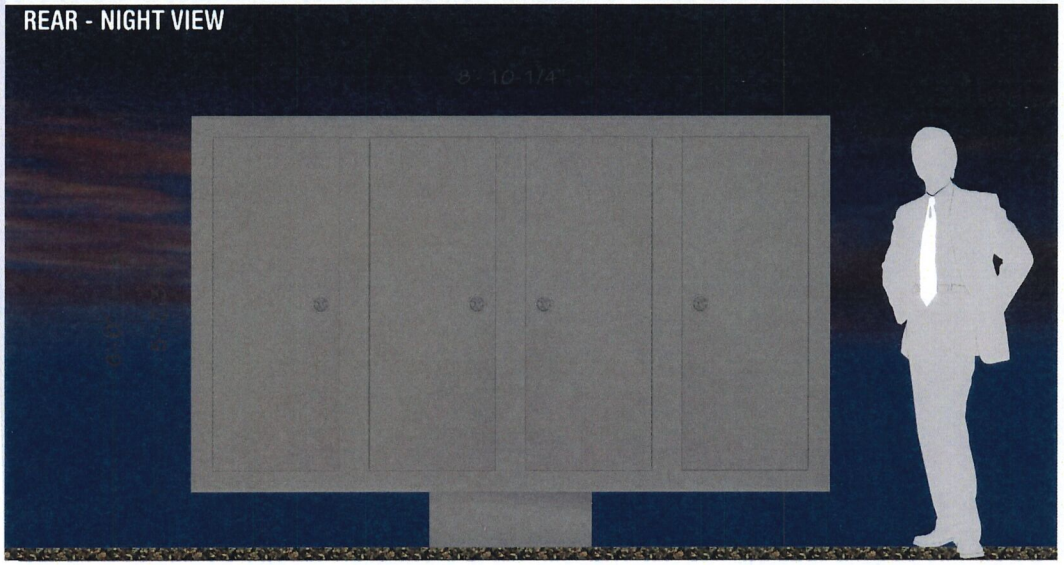
Locking rear access doors (4)

FRONT - NIGHT VIEW

CUSTOM



REAR - NIGHT VIEW

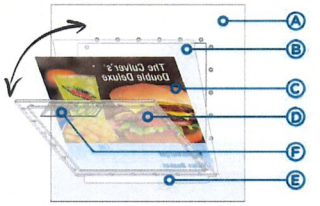


SCALE: 3/8" = 1'

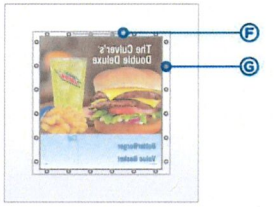
*SCALE AND COLORS NOT REPRESENTATIVE FROM EMAIL ATTACHMENTS
*ALL MEASUREMENTS ARE APPROXIMATE

POPP-Out — Point Of Purchase Panel System

INTERIOR VIEW OF MENU BOARD
PANEL BEING REMOVED



PANEL IN PLACE



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- **G** - PAIRED MAGNETIC "LATCH" (MAGNETS EMBEDDED IN POP-Out PANEL & BACK OF MENU BOARD)

SALES PERSON:	DESIGNED BY:	AO:
MARK WESSELL	J WILSON	17914

DATE CREATED / REVISION HISTORY	
12/12/18 - NEW	
3/22/19 - Permitting	
4/29/19 - NIGHT VIEW	

FILE PATH:
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Menu Board Signs

PLANNING BOARD REPORT TO TOWN COUNCIL

Unified Development Ordinance Amendments

September 9, 2019 Planning Board Meeting

Report Requirements:

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Planning Board Recommendation:

Motion: To recommend approval

Introduced by Planning Board member: Michael Marks

Seconded by Planning Board member: Reginald Skinner

☒ Approval of the proposed UDO amendment(s)

☐ Approval of the proposed UDO amendment(s) with the following conditions:

☐ Denial of the proposed UDO amendment(s)

With 4 Planning Board Member(s) voting "aye"

With 3 Planning Board Member(s) voting "no"

Reasons for dissenting votes:

Margo Bills, Tina Sherman, and Mark Steele agree with staff.

This report reflects the recommendation of the Planning Board, this the 9th day of September 2019.

Attest:

Margo J Bills
Margo Bills, Planning Board Chair

Dianne Khin
Dianne Khin, Planning Director

http://www.apexnc.org/[Search...
Legal Notice of Public Hearings ... apexnc.org
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Convert Select
Executime iMAPS Page Safety Tools

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARING

AMENDMENTS TO THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

Notice is hereby given of a public hearing before the Town Council of the Town of Apex for the purpose of soliciting comments relative to the following amendment(s) to the Unified Development Ordinance:

Requested by Springfield Sign:

1. Amendments to Sec. 8.7.1.A.13 *Menu Board* in order to increase the maximum sign area for a menu board from 32 square feet to 40 square feet with the condition that only one menu board sign be permitted if the larger sign area is used.

Requested by Administration:

2. The addition of Sec. 2.1.9 *Environmental Advisory Board* in order to include provisions for the new Environmental Advisory Board in the Unified Development Ordinance.

Requested by Planning Staff:

3. Amendments to Sec. 8.3 *Off-Street Parking and Loading* in order to clarify that neither parking located under a building nor more than one level of structured parking counts toward the maximum parking calculation; increase the maximum parking allowed for Church or place of worship, Assembly hall nonprofit, and Assembly hall for-profit; and amend the minimum drive-aisle width in parking areas based on the angle and design of the parking lot.

~~4. Amendment to Sec. 2.3.14 *Vested Rights* in order to make updates based on recent changes to State law.~~

Public Hearing Location: Apex Town Hall
73 Hunter Street, Apex, North Carolina
Council Chambers, 2nd Floor

Town Council Public Hearing Date and Time: September 17, 2019 7:00 PM

The UDO can be accessed online at: http://www.apexnc.org/233.

Dianne F. Khin, AICP
Planning Director

Published Dates: August 27-September 17, 2019

11:01 AM
8/29/2019

TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARING

AMENDMENTS TO THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

Notice is hereby given of a public hearing before the Town Council of the Town of Apex for the purpose of soliciting comments relative to the following amendment(s) to the Unified Development Ordinance:

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Dianne F. Khin, AICP
Planning Director

Published Dates: August 27-September 17, 2019

AN ORDINANCE TO AMEND CERTAIN SECTIONS OF THE UNIFIED DEVELOPMENT ORDINANCE

BE IT ORDAINED by the Town Council of the Town of Apex as follows:

Section 1. **Section 8.7.1.A.13 of the Unified Development Ordinance is amended to read as follows with additions shown as bold underlined text and deletions shown as struck-through text:**

8.7.1 Permitted Signs: Location, Size, and Number

A) *Conditions*

…

13) *Menu Board*

An accessory sign providing items and price associated with a drive-thru window or walk-up window and meets the conditions below:

Changeable menu boards shall be allowed provided that:

a) Such signs shall not exceed ~~thirty-two (~~32~~)~~ square feet in area**, except as provided in subsection c. below,** and six (6) feet in height.

b) **Except as provided in subsection c. below,** ~~T~~**t**wo (2) signs shall be permitted per drive-through not to exceed ~~sixty-four (~~64~~)~~ combined square feet.

c) **One (1) menu board sign up to 40 square feet in area and six (6) feet in height shall be allowed, as opposed to two (2) menu board signs as referenced in subsections a. and b. above.**

~~c)~~ **d)** Such signs shall not be legible from a public right-of-way or adjacent property.

~~d)~~ **e)** Such signs may be internally and externally illuminated per Sec. 8.7.6**.**~~(~~B~~)~~**,** *Sign Illumination*.

~~e)~~ **f)** Also subject to Sec. 8.7.4 *Sign Design and Color* and 8.7.5 *Master Sign Plan Requirement*.

Section 2. The Planning Director and/or Town Manager are hereby authorized to renumber, revise formatting, correct typographic errors, to verify and correct cross references, indexes and diagrams as necessary to codify, publish, and/or accomplish the provisions of this ordinance or future amendments as long as doing so does not alter the terms of this ordinance.

Section 3. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed. If any section, paragraph, subdivision, clause or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to such section, paragraph, subdivision, clause or provision so adjudged and the remainder of the ordinance shall be deemed valid and effective.

Section 4. The ordinance shall be effective upon enactment on the _____ day of September 2019.

Introduced by Council Member _____

Seconded by Council Member _____

Attest:

_____
Donna Hosch, MMC, NCCMC
Town Clerk

TOWN OF APEX

_____
Lance Olive
Mayor

Approved As To Form:

_____
Laurie L. Hohe
Town Attorney

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: SEPTEMBER 17, 2019

Item Details

Presenter(s): Amanda Bunce, Current Planning Manager

Department(s): Planning Department

Requested Motion

Public Hearing and possible motion meeting regarding various amendments to the Unified Development Ordinance.

Approval Recommended?

The Planning Department recommends approval.

The Planning Board heard these amendments at their September 17, 2019 meeting and unanimously recommended approval with a suggestion to Town Council that if not already defined, the term "Environment" needs to be defined in regard to this Board.

Item Details

UDO Amendment Summary:

Requested by Administration:

1. The addition of Sec. 2.1.9 *Environmental Advisory Board* in order to include provisions for the new Environmental Advisory Board in the Unified Development Ordinance.

Requested by Planning Staff:

2. Amendments to Sec. 8.3 *Off-Street Parking and Loading* in order to clarify that neither parking located under a building nor more than one level of structured parking counts toward the maximum parking calculation and amend the minimum drive-aisle width in parking areas based on the angle and design of the parking lot. ***[Note that the legal advertisement included a request to increase the maximum parking allowed for Church or place of worship, Assembly hall nonprofit, and Assembly hall for-profit; this item will be re-advertised and presented at a later date].***

Attachments

- Staff Report
- Ordinance

STAFF REPORT
Amendments to the Unified Development Ordinance
September 17, 2019 Town Council Meeting

Requested by Administration:

1. **The addition of Sec 2.1.9 *Apex Environmental Advisory Board* in order to include provisions for the new Environmental Advisory Board in the Unified Development Ordinance.**

2.1.9 Apex Environmental Advisory Board

A) *Powers and Duties*
The Environmental Advisory Board shall have the following powers and duties under the provisions of this Ordinance:

1) Advise the Environmental Committee of the Apex Town Council regarding suggested changes to the Unified Development Ordinance related to the environment and the Planning Committee of the Apex Town Council regarding suggested changes to the Unified Development Ordinance related to the impacts of development upon the environment.

2) Review, with applicants, during the pre-application phase of a proposal, all requests for conditional rezoning and recommend zoning conditions to the applicant and Town Council that will mitigate anticipated impact to the natural environment as a result of the project under consideration.

B) *Rules Governing Board*
The rules governing the other responsibilities and procedures of the Environmental Advisory Board are established in Article IV of Chapter 2 of the Code of Ordinances, Town of Apex, North Carolina.

Requested by Planning staff:

2. **Amendments to Sec. 8.3 *Off-Street Parking and Loading* in order to clarify that neither parking located under a building nor more than one level of structured parking counts toward the maximum parking calculation and amend the minimum drive-aisle width in parking areas based on the angle and design of the parking lot.** *[Note that the legal advertisement included a request to increase the maximum parking allowed for Church or place of worship, Assembly hall nonprofit, and Assembly hall for-profit; this item will be re-advertised and presented at a later date].*

8.3 Off-Street Parking and Loading

8.3.2 Off-Street Parking Requirements

E) *Maximum Number of Spaces Allowed*
The minimum parking requirements shall not be exceeded by more than 25% for uses that require up to 100 spaces or 15% for uses that require more than 100 spaces. **The level(s) of structured parking above the ground level and parking located under a building shall not count toward the maximum number of spaces allowed.** The maximum number of spaces shall only be exceeded according to the standards below.
…

8.3.6 Parking Lot Design Standards

…

F) *Access to Parking Areas*

…

2) When an off-street parking area does not abut a public street, there shall be provided an access drive ~~not less than 24 feet in width for two-way traffic,~~ connecting the off-street parking area with a public street. **The width of the access drive shall be based on the following:**

Table 8.3-5 Minimum Drive Aisle Width

Parking configuration	Minimum Drive-Aisle Width
Two-way traffic with double-loaded 90 degree parking	**24 feet**
Two-way traffic with double-loaded parking less than 90 degrees or with single-loaded parking at any angle	**20 feet**
One-way traffic with single- or double-loaded parking less than 90 degrees	**AASHTO design standard; except 20' minimum for emergency route(s)**

The access drive shall be paved in the manner required for off-street parking lots and may not traverse property in a residential district unless the drive provides access to a parking area serving a use allowed in a residential district. Where an access or service drive is such that satisfactory turn-around is not possible, a turn-around shall be provided as required by the Fire Department.

8.3.7.A Use of Off-Street Parking Areas, Vehicle Stacking Areas

…

1) *Minimum Number of Spaces*

The minimum stacking spaces from Table 8.3-~~5~~**6** may be provided, cumulatively, by using multiple drive-through lanes. Each lane is not required to provide the minimum number of spaces. Off street stacking spaces shall be provided as follows:

Table 8.3-~~5~~**6**: Minimum Required Vehicle Stacking Spaces

…

8.3.8 Accessible Parking for Physically Handicapped Persons, Number of Spaces

…

Table 8.3-~~6~~**7**: Required Accessible Parking for Physically Handicapped Persons

…

PLANNING STAFF RECOMMENDATION:

Planning staff recommends approval of the proposed UDO amendments.

PLANNING BOARD RECOMMENDATION:

The Planning Board heard these amendments at their September 17, 2019 meeting and unanimously recommended approval with a suggestion to Town Council that if not already defined, the term "Environment" needs to be defined in regard to this Board. The Planning Board report to Town Council is attached.

PLANNING BOARD REPORT TO TOWN COUNCIL

Unified Development Ordinance Amendments

September 9, 2019 Planning Board Meeting

Report Requirements:

Per NCGS 160A-387, all proposed amendments to the zoning ordinance or zoning map shall have a written report provided from the Planning Board to the Town Council within 30 days of referral of the amendment to the Planning Board, or the Town Council may proceed in its consideration of the amendment without the Planning Board report. Furthermore, in no case is the Town Council bound by the recommendations, if any, of the Planning Board.

Planning Board Recommendation:

Motion: To recommend approval as presented

~~Introduced~~ Seconded by Planning Board member: Tina Sherman

~~Seconded~~ Introduced by Planning Board member: Beth Godfrey

☐ Approval of the proposed UDO amendment(s)

☒ Approval of the proposed UDO amendment(s) with the following conditions:

If not already defined, the term "Environment" needs to be defined in regard to this Board.

☐ Denial of the proposed UDO amendment(s)

With 7 Planning Board Member(s) voting "aye"

With 0 Planning Board Member(s) voting "no"

Reasons for dissenting votes:

This report reflects the recommendation of the Planning Board, this the 9th day of September 2019.

Attest:

Margo J Bills
Margo Bills, Planning Board Chair

Dianne F. Khin
Dianne Khin, Planning Director

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TOWN OF APEX
POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

PUBLIC NOTIFICATION OF PUBLIC HEARING

AMENDMENTS TO THE UNIFIED DEVELOPMENT ORDINANCE (UDO)

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Requested by Administration:

2. The addition of Sec. 2.1.9 *Environmental Advisory Board* in order to include provisions for the new Environmental Advisory Board in the Unified Development Ordinance.

Requested by Planning Staff:

3. Amendments to Sec. 8.3 *Off-Street Parking and Loading* in order to clarify that neither parking located under a building nor more than one level of structured parking counts toward the maximum parking calculation; increase the maximum parking allowed for Church or place of worship, Assembly hall nonprofit, and Assembly hall for-profit; and amend the minimum drive-aisle width in parking areas based on the angle and design of the parking lot.

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Public Hearing Location: Apex Town Hall
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Dianne F. Khin, AICP
Planning Director

Published Dates: August 27-September 17, 2019

11:01 AM
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Dianne F. Khin, AICP
Planning Director

Published Dates: August 27-September 17, 2019

AN ORDINANCE TO AMEND CERTAIN SECTIONS OF THE UNIFIED DEVELOPMENT ORDINANCE

BE IT ORDAINED by the Town Council of the Town of Apex as follows:

Section 1. **Section 2.1.9 of the Unified Development Ordinance is added to read as follows with additions shown as bold underlined text:**

2.1.9 Apex Environmental Advisory Board

A) ***Powers and Duties***
The Environmental Advisory Board shall have the following powers and duties under the provisions of this Ordinance:

1) **Advise the Environmental Committee of the Apex Town Council regarding suggested changes to the Unified Development Ordinance related to the environment and the Planning Committee of the Apex Town Council regarding suggested changes to the Unified Development Ordinance related to the impacts of development upon the environment.**

2) **Review, with applicants, during the pre-application phase of a proposal, all requests for conditional rezoning and recommend zoning conditions to the applicant and Town Council that will mitigate anticipated impact to the natural environment as a result of the project under consideration.**

B) ***Rules Governing Board***
The rules governing the other responsibilities and procedures of the Environmental Advisory Board are established in Article IV of Chapter 2 of the Code of Ordinances, Town of Apex, North Carolina.

Section 2. **Section 8.3 of the Unified Development Ordinance is amended to read as follows with additions shown as bold underlined text and deletions shown as struck-through text:**

8.3 Off-Street Parking and Loading

8.3.2 Off-Street Parking Requirements

E) *Maximum Number of Spaces Allowed*
The minimum parking requirements shall not be exceeded by more than 25% for uses that require up to 100 spaces or 15% for uses that require more than 100 spaces. **The level(s) of structured parking above the ground level and parking located under a building shall not count toward the maximum number of spaces allowed.** The maximum number of spaces shall only be exceeded according to the standards below.
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F) *Access to Parking Areas*

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Section 4. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed. If any section, paragraph, subdivision, clause or provision of this ordinance shall be adjudged invalid, such adjudication shall apply only to such section, paragraph, subdivision, clause or provision so adjudged and the remainder of the ordinance shall be deemed valid and effective.

Section 5. The ordinance shall be effective upon enactment on the _____ day of September 2019.

Introduced by Council Member _____

Seconded by Council Member _____

Attest:

_____
Donna Hosch, MMC, NCCMC
Town Clerk

TOWN OF APEX

_____
Lance Olive
Mayor

Approved As To Form:

_____
Laurie L. Hohe
Town Attorney

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CLOSED SESSION

Meeting Date: September 17, 2019

Item Details

Presenter(s): Governing Body

Department(s): Governing Body

Requested Motion

Possible motion to go into Closed Session to discuss personnel

Approval Recommended?

Item Details

Attachments

- None