



AGENDA | REGULAR TOWN COUNCIL MEETING

March 09, 2021 at 6:00 PM
Council Chamber at Apex Town Hall, 73 Hunter Street

Town Council and Administration

Mayor: Jacques K. Gilbert | Mayor Pro Tem: Nicole L. Dozier
Council Members: Brett D. Gantt; Audra M. Killingsworth; Cheryl F. Stallings; Terry Mahaffey
Town Manager: Drew Havens | Assistant Town Managers: Shawn Purvis and Marty Stone
Town Clerk: Donna B. Hosch, MMC | Town Attorney: Laurie L. Hohe

COMMENCEMENT

Call to Order | Invocation | Pledge of Allegiance

PRESENTATIONS

- [PR1](#) Jason Morado, Senior Project Manager, ETC
Presentation of citizen satisfaction survey results.
- [PR2](#) Roy Jones, CEO Electricities
Presentation of the 2020 Public Power Award of Excellence in the areas of Grid Modernization and Workforce Development.

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 February 9, 2021 Regular Council Meeting
- [CN2](#) Tesa Silver, Deputy Town Clerk
Motion to approve Council Meeting Minutes of the February 12, 2021 Regular Meeting, the February 15, 2021 Special Council Meeting, and the February 17, 2021 Special Council Meeting
- [CN3](#) Donna Hosch, Town Clerk
Motion to approve the Apex Tax Report dated January 5, 2021
- [CN4](#) Council Member Terry Mahaffey
Motion to approve an ordinance amending Section 2.2 of the Code of Ordinances in reference to the Town's municipal filing fees
- [CN5](#) Liz Loftin, Senior Planner
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 for March 23, 2021 on the Question of Annexation – Apex Town Council's intent to annex Edwin A. Goodwin, Testamentary Trust/Judy G. Hackney, Trustee (Hackney Tracts) property containing 2.867 acres located at 2600 Olive Chapel Road, Annexation #701 into the Town's corporate limits.

[CN6](#) Lauren Staudenmaier, Planner I

Motion to approve Statement of the Town Council for Rezoning Case #20CZ16, Joseph D. Cusumano, petitioner, for the property located on 2609 New Hill Olive Chapel Road.

[CN7](#) Sarah Van Every, Senior Planner

Motion to approve Statement of the Town Council and Ordinance for Rezoning Case #21CZ01 Wolfe Properties PUD Amendment, Josh Swindell, Envision Homes, LLC. petitioner, for the properties located on 1405, 1409, 1209, & 1401 Wimberly Road and 1012 & 1000 Double Helix Road.

[CN8](#) Liz Loftin, Senior Planner

Motion to set Public Hearing for the March 23, 2021 Town Council meeting regarding Rezoning Application #20CZ14 Hackney PUD and Ordinance. The applicant, Brendie Vega, WithersRavenel, seeks to rezone approximately 79.79 acres located at 0, 2500, and 2600 Olive Chapel Rd (PINs 0721492629, 0722406699, & 0722411102) from Rural Residential (RR) and Wake County R-80W to Planned Unit Development-Conditional Zoning (PUD-CZ).

[CN9](#) Liz Loftin, Senior Planner

Motion to set Public Hearing for the March 23, 2021 Town Council meeting regarding Rezoning Application #21CZ02 Abbey Spring PUD. The applicant, Isabel Worthy Mattox, Mattox Law Firm, seeks to rezone approximately 5.01 acres located at 0 W. Williams Street (PIN 0742026247) from Planned Unit Development-Conditional Use (PUD-CU #02CU13) to Planned Unit Development-Conditional Zoning (PUD-CZ).

[CN10](#) Amanda Bunce, Current Planning Manager

Motion to set the Public Hearing for the March 23, 2021 Town Council meeting regarding amendments to the Unified Development Ordinance related to variance standards in the Watershed Protection Overlay Districts.

[CN11](#) Marty Stone – Assistant Town Manager

Motion to approve an encroachment agreement between the Town and property owner Bond Building & Design, Inc. to install 75 S.F. of private driveway that will encroach onto the Town's 20'Public Utility Drainage Easement and authorize the Town Manager to execute the same.

[CN12](#) Vance Holloman, Finance Director

Motion to approve contract for audit services for the fiscal year ending June 30, 2021 with Cherry Bekaert LLP of Raleigh, North Carolina.

[CN13](#) Vance Holloman, Finance Director and Michael Deaton, Water Resources Director

Motion to approve Budget Ordinance Amendment No. 15 appropriating funds for the purpose of reimbursing the developer of Children's Lighthouse Daycare located at

2001 Apex Peakway. This reimbursement is in accordance with a December 2011 agreement executed by the Town of Apex, Brookfield Properties, LLC (Brookfield), and Vineyard Development, LLC (Vineyard).

[CN14](#) Mary Beth Manville, Human Resources Director

Motion to approve the addition of one full-time equivalent Recreation Customer Service Specialist, salary grade 15, to staff the Senior Center.

[CN15](#) Vance Holloman, Finance Officer

Motion to adopt Temporary Ordinance Modifications extending the current suspension of utility disconnections and application of penalties and fees for unpaid utility balances

REGULAR MEETING AGENDA

Mayor Gilbert will call for additional Agenda items from Council or Staff and set the Regular Meeting Agenda prior to Council actions.

PUBLIC FORUM

Public Forum allows the public an opportunity to address the Town Council. The speaker is requested not to address items that appear as Public Hearings 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](#) Dianne Khin, Director of Planning and Community Development

Public hearing and possible motion to adopt an Ordinance on the Question of Annexation – Apex Town Council's intent to annex Lufkin Leased Fee, LLC (3050 Lufkin Road) property containing 3.33 acres located at 3050 Lufkin Road, Annexation #707 into the Town's corporate limits.

[PH2](#) Amanda Bunce, Current Planning Manager

Public Hearing and possible motion regarding an amendment to the Unified Development Ordinance related to Resource Conservation Area in North Carolina Certified Sites.

[PH3](#) Shannon Cox, Long Range Planning Manager

Public hearing and possible motion regarding proposed amendments to the Thoroughfare and Collector Street Plan map related to the site known as Cash Corporate Center, south of Production Drive and Burma Drive and north of Pristine Water Drive.

[PH4](#) Shannon Cox, Long Range Planning Manager

Public hearing and possible motion regarding proposed amendments to the Thoroughfare and Collector Street Plan map along and in the vicinity of New Hill Olive Chapel Road near Old US 1 Highway.

OLD BUSINESS

UNFINISHED BUSINESS

- [UB1](#) Jenna Shouse, Long Range Planner II & John Bosio, MERJE
Staff will present updates on the Town of Apex Wayfinding Signage Program, including public input received on the gateway design options and updates made to the sign designs; and request any input from Town Council in order to finalize the Wayfinding sign design package.

NEW BUSINESS

- [NB1](#) Shelly Mayo, Planner II
Possible motion to approve revisions to the Design and Development Manual Native and Adaptive Plant List.
- [NB2](#) Vance Holloman, Finance Director
Possible motion to approve resolution authorizing the filing of an application with the Local Government Commission to issue \$42 million of GO Bonds for Street and Sidewalk Improvements.

PRESENTATION BY TOWN MANAGER

- [TM1](#) Ralph Clark, Interim Town Manager
Update on Town operations by Interim Town Manager Ralph Clark

CLOSED SESSION

WORK SESSION

ADJOURNMENT

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PRESENTATION

Meeting Date: March 06, 2021

Item Details

Presenter(s): Jason Morado, Senior Project Manager, ETC

Department(s): Administration

Requested Motion

Presentation of citizen satisfaction survey results.

Approval Recommended?

N/A

Item Details

In late 2020, ETC Institute administered the town's second citizen satisfaction survey. The purpose of the survey was to gather input from residents on service quality, priorities, and overall performance. Jason Morado, Senior Project Manager with ETC, will present the results to Council.

Attachments

- N/A



| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PRESENTATION

Meeting Date: March 09, 2021

Item Details

Presenter(s): Roy Jones, CEO ElectriCities

Department(s): Electric

Requested Motion

Presentation of the 2020 Public Power Award of Excellence in the areas of Grid Modernization and Workforce Development.

Approval Recommended?

N/A

Item Details

The Town of Apex has been recognized for its 2020 efforts in the area of Grid Modernization and Workforce Development by ElectriCities of North Carolina. Each year the selection board evaluates the efforts of its member in various areas of importance to the safe and reliable delivery of this vital service to its communities. Awards are considered for 5 critical areas of importance:

- Value of Public Power
- Grid Modernization
- Workforce Planning and Development
- Wholesale Power Cost
- Continuous Improvement

In 2019, the Town of Apex received the award for Workforce Development, but due to COVID restrictions in place at that time we were unable to present to the Town Council. That award was sent to the Electric Department and will be proudly displayed when they take occupancy of their new facility later this year.

Attachments

- N/A



| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Donna Hosch, Town Clerk

Department(s): Office of the Town Clerk

Requested Motion

Motion to approve Minutes of the February 9, 2021 Regular Council Meeting

Approval Recommended?

Yes

Item Details

N/A

Attachments

- February 9, 2021 Minutes





REGULAR TOWN COUNCIL MEETING

Tuesday, February 09, 2021 at 6:00 PM

~~Council Chamber at Apex Town Hall, 73 Hunter Street~~

THIS MEETING WAS HELD VIRTUALLY

Council and Administration

Mayor: Jacques K. Gilbert | Mayor Pro Tem: Nicole L. Dozier

Council Members: Brett D. Gantt; Audra M. Killingsworth; Cheryl F. Stallings; Terry Mahaffey

Town Manager: Drew Havens | Assistant Town Managers: Shawn Purvis and Marty Stone

Town Clerk: Donna B. Hosch, MMC | Town Attorney: Laurie L. Hohe

In attendance were Mayor Pro Tem Nicole L. Dozier, and Council Members Audra M. Killingsworth, Brett D. Gantt, Terry Mahaffey, and Cheryl F. Stallings. Also in attendance were Interim Town Manager Ralph Clark, Assistant Town Managers Shawn Purvis and Marty Stone, Town Clerk Donna B. Hosch, and Town Attorney Laurie L. Hohe.

Absent was Mayor Jacques K. Gilbert.

COMMENCEMENT

Mayor Pro Tem Dozier called the meeting to order and asked for a moment of silence to honor those affected by COVID-19. She led the Pledge of Allegiance.

PRESENTATIONS

PR1 Mayor Pro Tem Dozier

Presentation of the Government Finance Officers Association's (GFOA's) Distinguished Budget Presentation Award to Shawn Purvis, Assistant Town Manager. MPT Dozier stated this was the second year in a row that Apex has won this award because of our high principles of government budgeting. She stated the four categories of the award, for which we were proficient in all. Assistant Town Manager Purvis stated this was a teamwork project. Vance Holloman, Amanda Grogan, and Jessica Hoffman and her team did the bulk of the work. He stated that we are continuing to work to make sure that this document serves all and that it is transparent.

PR2 John Lynde, Apex Leos (Youth Club of Lions International)

Presentation by member of the Apex Leos regarding a mental health program

Mayor Pro Tem Dozier stated that the presenter asked for this item to be heard at a later date.

PR3 Nicole Bernard

Presentation by Nicole Bernard, Director, Shield NC

Ms. Bernard stated they are partnered with Apex PD; Officer Kenneth Ragland, Community Policing and Crime Prevention Officer, would do the first part of the presentation. The Officer explained what Shield NC is about and what they do to protect people from human trafficking through prevention and awareness. In 2019, Shield NC and the Police Department made a decision to bring together non-profits, service providers, and leaders in the community to build a network to empower those involved in human trafficking.

The Officer presented their Mission and Vision statements. He spoke about human trafficking issues and their organization's involvement in such related to education to help reduce vulnerabilities. They have been able to identify several victims of human trafficking and assisted local victims who had been human trafficked. He thanked Council and all others involved in their efforts.

Ms. Bernard spoke about their community prevention model. It has been used in the human trafficking field as one of the best practices. She explained how they strategically select speakers for their meetings and how they follow up with the attendees of the meetings. She explained how others in the community can get involved. Ms. Bernard thanked Council for the time and opportunity to present tonight.

Council stated she has sat in on most of their meetings and was impressed and appreciative of the professional job they do. This is a great community service.

Council asked how others can get involved in a different way. Ms. Bernard stated that if someone is serving any group of people, they would be happy to have them join.

Council stated she has attended a few of the meetings virtually and appreciated the opportunity to attend in this way.

MPT Dozier stated she asked Ms. Bernard and others to join her in speaking with Senator Burr's office related to what local governments needed to help support people, especially small business owners. Ms. Bernard brought to the table the piece about people being unprotected during COVID-19, which was a good prospective to take to the Senator's office.

PR4 Nicole Powell

Presentation by Nicole Powell regarding the Carbon Dividend Act

Ms. Powell stated she was a member of the citizens climate lobby, a non-profit, non-partisan advocacy organization. There are currently volunteers across the county reaching out to organizations and individuals forming relationships on common ground to create sustainable climate solutions. Their main focus is to support the passage of an act in Congress to support their goals.

Ms. Powell asked Council to pass a resolution supporting EDICA and explained what this would do related to fuels and how the fees would be distributed. If an act was implemented, there would be a 90% reduction of carbon emissions by 2050, and it would create jobs and economic growth and lower public health risks. Apex would join 128 other local governments, organizations, and individuals who have joined, including with several surrounding municipalities. Passing of the resolution would show Congress that the bill is supported nationwide. Support for the law would benefit the entire town.

Council asked if there was a resolution template, Sharon Bagatel responding 'yes' and that she would share it with us. She stated she has worked with Chapel Hill and Durham on their resolutions. Council asked if there was a sponsor in Congress to introduce this, Ms. Bagatel stating 'yes', they do have bi-partisan sponsors. She added they have support in both Houses.

Council asked how this went with the Environmental Advisory Board. Ms. Powell stated she had spoken with them, there were a few questions, and the Board would not say whether or not the Town would be supported in this. They were there primarily to listen.

Mayor Pro Tem Dozier conducted a roll call of those Council Members present.

CONSENT AGENDA

CN1 Sarah Van Every, Senior Planner

Statement of the Town Council and Ordinance for Rezoning Case #20CZ11, Justin Michela/Matthew & Michelle Michela, Justin & Maryann Michela and Matthew & Michelle Michela, and Justin & Maryanne Michela petitioners, for the property located on 7517 Roberts Road, 2310 Pollard Place and 2000 Cabin Cove Road.

CN2 Sarah Van Every, Senior Planner

Statement of the Town Council for Rezoning Case #20CZ13, Bill Zahn, Humie Olive Associates/Yumeewarra Farm, LLC, petitioners, for the property located on 0 and 8633 Humie Olive Road.

- CN3 Lauren Staudenmaier, Planner I
Statement of the Town Council and Ordinance for Rezoning Case #20CZ15, Spencer B. Terry III, P.E, Carolina Land Development Group, Inc., petitioners, for the property located on 5920 and 0 Old Smithfield Road.
- CN4 Lauren Staudenmaier, Planner I
Resolution Directing the Town Clerk to Investigate Petition Received, Certificate of Sufficiency by the Town Clerk, and Resolution Setting Date of Public Hearing for February 23, 2021 on the Question of Annexation – Apex Town Council's intent to annex Joseph D. Cusumano and Reagan L. Cusumano property containing 1.914 acres located at 2609 New Hill Olive Chapel Road, Annexation #705 into the Town's corporate limits.
- CN5 Lauren Staudenmaier, Planner I
Set Public Hearing for the February 23, 2021 Town Council meeting regarding Rezoning Application #20CZ16 Cusumano Property and Ordinance. The applicant, Joseph D. Cusumano, seeks to rezone approximately 1.90 acres for the property located at 2609 New Hill Olive Chapel Road (PIN 0710847078), from Wake County Residential-40W (R-40W) to Medium Density-Conditional Zoning (MD-CZ).
- CN6 Sarah Van Every, Senior Planner
Set Public Hearing for the February 23, 2021 Town Council meeting regarding Rezoning Application #21CZ01 Wolfe Properties PUD Amendment. The applicant Josh Swindell, Envision Homes, LLC., seeks to rezone approximately 43.52 acres located at 1405, 1409, 1209, & 1401 Wimberly Road and 1012 & 1000 Double Helix Road (PINs 0722595328, 0722598851, 0723406397, 0723504154, 0723508938, & 0723601654) from Planned Unit Development-Conditional Zoning (PUD-CZ #19CZ22) to Planned Unit Development-Conditional Zoning (PUD-CZ).
- CN7 Shelly Mayo, Planner II
Set the Public Hearing for the February 23, 2021 Town Council meeting regarding Rezoning Application #20CZ12 Felton Grove High School. The applicant, Wake County Board of Education, seeks to rezone approximately 60.68 acres from Medium Density – Conditional Zoning (MD-CZ) to Medium Density – Conditional Zoning (MD-CZ). The proposed rezoning is located at 8550 Stephenson Road.
- CN8 Shelly Mayo, Planner II
Resolution Directing the Town Clerk to Investigate Petition Received, Certificate of Sufficiency by the Town Clerk, and Resolution Setting Date of Public Hearing for February 23, 2021 on the Question of Annexation – Apex Town Council's intent to annex Wake County Board of Education (Felton Grove High School) property containing 68.06 acres located at 8550 Stephenson Road, Annexation #700 into the Town's corporate limits.

- CN9 Marty Stone – Assistant Town Manager
Encroachment agreement between the Town and Matthew Paul Donohue and wife Kacie Smith Donohue to install 75 SF of a 3' wide concrete walkway and 203 SF of concrete driveway that will encroach onto the Town's 20' Public Sanitary Sewer Easement and authorize the Town Manager to execute the same.
- CN10 Marty Stone, Assistant Town Manager
Encroachment agreement between the Town and Tri Pointe Homes Holdings, Inc. to install 11 SF of private sidewalk and 13 SF of a private driveway that will encroach onto the Town's 20' Public Storm Drainage Easement and authorize the Town Manager to execute the same.
- CN11 Marty Stone, Assistant Town Manager
Encroachment agreement between the Town and Tri Pointe Homes Holdings, Inc. to install 52 SF of private sidewalk and 64 SF of private driveway that will encroach onto the Town's 20' Public Storm Drainage Easement and authorize the Town Manager to execute the same.
- CN12 Shawn Purvis, Assistant Town Manager
Appointment of Assistant Town Manager Shawn Purvis as commissioner for the Town of Apex on the North Carolina Eastern Municipal Power Agency Board of Commissioners and Assistant Town Manager Marty Stone as first alternate to the NCEMPA Board of Commissioners.
- CN13 Adam Stephenson, Engineering Supervisor
Construction contract and authorization for the Town Manager to execute same, and corresponding Budget Ordinance Amendment No. 2021-11 and Capital Project Ordinance Amendment 2021-05 for U-5537 Lake Pine Drive Improvements.
- CN14 Mary Beth Manville, Human Resources Director
Revisions to the Town's Drug & Alcohol Testing Policy.
- CN15 Mary Beth Manville, Human Resources Director
Increasing the authorized FTE of the Fire Department's Senior Program Support Specialist position from .875 (35 hours/week) to 1.00 (40 hours/week).
- CN16 Mary Beth Manville, Human Resources Director
Addition of the Athletics & Grounds Maintenance Worker I and II (Grade 13), Athletics Technician (Grade 14), and Parks Operations Worker I and II (Grade 15) to the Town's Position Classification Plan. Reclassification of the Athletics and Grounds Specialist position from Grade 14 to 15, the reclassification of the Parks Operations Technician position from Grade 16 to 15, and the Parks Operations Specialist position from Grade 15 to 16.
- CN17 Mayor Jacques Gilbert
Reappointment of Chair and Vice Chair positions on the Environmental Advisory Board.

Mayor Pro Tem Dozier stated there was Interest in removing Consent 14.

Mayor Pro Tem Dozier called for a motion to adopt the Consent Agenda. Council Member Killingsworth made the motion with the removal of Consent 14;
Council Member Gantt seconded the motion.
The motion carried by a 5-0 roll call vote.

REGULAR MEETING AGENDA

Mayor Pro Tem Dozier stated there was the request for an additional Closed Session: To consult with the Town Attorney pursuant to GS 143-318.11(a)(3) and the removal of Closed Session 2.

Mayor Pro Tem Dozier called for a motion to adopt the Regular Meeting Agenda.
Council Member Killingsworth made the motion with the stated modifications;
Council Member Stallings seconded the motion.
The motion carried by a 5-0 roll call vote.

PUBLIC FORUM

No one wished to speak during Public Forum.

PUBLIC HEARINGS

PH1 Russell Dalton, Sr. Transportation Engineer
Modifying Jessie Drive Phase 1 final design plans to remove the proposed U-turn bulb-out and include the Sweetgum Access Alternative while keeping Sweetgum Drive connected to Jessie Drive as a right-in/right-out access as presented; and, Possible Motion to recommend continuing the 10-foot side path westward along the north side of Jessie Drive in the Phase 1 final design plans to the intersection at future Production Drive/Horton Park Drive.

Staff stated responses from the public had been posted online. He oriented Council to the project, presenting the highlights. He overviewed the process timeline, the public meeting map highlighting Sweetgum Drive, resident comments and concerns, preliminary access alternatives, NCDOT comments, public outreach, and next steps – Sweetgum access alternative and the 10-foot side path.

Council conversation ensued with staff about long-term and full access points, Council wanting to be certain that this was possible and/or sustained, the 10-foot side path and its

use, the necessity of the cul-de-sac, permanence of the options, possible further studies, and environmental issues.

Mayor Pro Tem Dozier declared the Public Hearing open.

Staff summarized the public comments received related to Sweetgum Drive, those comments incorporated by reference.

Mayor Pro Tem Dozier declared the Public Hearing closed.

Mayor Pro Tem Dozier reminded that this item would be left open for 24 hours.

OLD BUSINESS

There were no Old Business items for consideration.

UNFINISHED BUSINESS

There were no Unfinished Business items for consideration.

NEW BUSINESS

There were no Old Business items for consideration.

PRESENTATION BY TOWN MANAGER

Mayor Pro Tem Dozier welcomed Interim Town Manager Ralph Clark. Mr. Clark stated it was an honor to serve in this position. He has been impressed with the quality of the staff that will take Apex forward. He was looking forward to being a part of this effort.

CLOSED SESSION

- CS1 Steve Adams, Utilities Acquisition Specialist
Closed session to establish the Town's negotiation position for acquisition of real property pursuant to NCGS 143-318.11(a)(5).
- CS2 REMOVED FROM THE AGENDA - Drew Havens, Former Town Manager
Closed Session per Council direction to discuss approving vacation leave payout to retired Police Chief John Letteney for 96 hours of leave accumulated in excess of what is allowed by policy.

ADDED CS3 Closed Session to consult with the Town Attorney pursuant to GS 143-318.11(a)(3).

Mayor Pro Tem Dozier called for a motion to go into Closed Session. Council Member Stallings made the motion; Council Member Killingsworth seconded the motion.

The motion carried by a 5-0 roll call vote.

Mayor Pro Tem Dozier stated that Council would not return to Open Session, that Council would adjourn from Closed Session.

WORK SESSION

There were no Work Session items for consideration.

ADJOURNMENT

With no further business and without objection from Council, Mayor Pro Tem Dozier adjourned the meeting from Closed Session.

Donna B. Hosch, MMC, Town Clerk

ATTEST:

Nicole L. Dozier, Mayor Pro Tem

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Tesa Silver, Deputy Town Clerk

Department(s): Office of the Town Clerk

Requested Motion

Motion to approve Council Meeting Minutes of the February 12, 2021 Regular Meeting, the February 15, 2021 Special Council Meeting, and the February 17, 2021 Special Council Meeting

Approval Recommended?

Yes

Item Details

Motion to approve Minutes of the following Council meetings:

- February 12, 2021 Regular Meeting
- February 15, 2021 Special Meeting
- February 17, 2021 Special Meeting

Attachments

- February 12, February 15, and February 17 Meeting Minutes





TOWN COUNCIL BUDGET RETREAT

Friday, February 12, 2021 at 8:30 AM

~~Council Chamber at Apex Town Hall, 73 Hunter Street~~

THIS WAS A VIRTUAL MEETING

Council and Administration

Mayor: Jacques K. Gilbert | Mayor Pro Tem: Nicole L. Dozier

Council Members: Brett D. Gantt; Audra M. Killingsworth; Cheryl F. Stallings; Terry Mahaffey

Town Manager: Drew Havens | Assistant Town Managers: Shawn Purvis and Marty Stone

Town Clerk: Donna B. Hosch, MMC | Town Attorney: Laurie L. Hohe

In attendance were Mayor Jacques K. Gilbert, Mayor Pro Tem Nicole L. Dozier, and Council Members Audra M. Killingsworth, Brett D. Gantt, Terry Mahaffey, and Cheryl F. Stallings. Also in attendance were interim Town Manager Ralph Clark, Assistant Town Manager Shawn Purvis and Marty Stone, Town Clerk Donna B. Hosch, Town Attorney Laurie L. Hohe, Deputy Town Clerk Tesa Silver, Budget and Management Analyst Amanda Grogan, Budget Technician Jessica Hoffman, Budget LSE Kathryn Paquet, Finance Director Vance Holloman, Inspections Director Rudy Baker, Economic Development Director Joanna Helms, Electric Utilities Director Eric Neumann, Fire Chief Keith McGee, Human Resources Director Mary Beth Manville, Director of Information Technology Erika Sacco, Parks, Recreation, & Cultural Resources Director John Brown, Planning Director Dianne Khin, Interim Police Chief Tony Godwin, Public Works and Transportation Director Jose Martinez, Water Resources Director Michael Deaton, and Communications Manager Stacie Galloway.

COMMENCEMENT

Mayor Gilbert called the meeting to order and called roll call for attendance. He welcomed everyone in attendance. Assistant Town Manager Purvis stated the purpose of the meeting, and explained the structure of the meeting.

Stormwater Utility

Assistant Town Manager Stone reviewed the current utility fee and the stormwater utility program. Council expressed concern over the current program and fee structure, at last year's meeting. Staff outlined three different options that could be utilized to address Council's concerns. Staff provided pros and cons for continuing to fund the Stormwater Utility Program through the General Fund, by dedicating a percentage of funds annually, or by using a tiered fee structure.

Council Member Mahaffey made the motion to direct staff to move forward with setting up the utility fee starting January 1, 2022, to lower the tax rate by approximately half of the savings that would be provided, and to prepare the budget to direct half the other savings to ApexCares or The Affordable Housing Project as the needs direct. Council Member Killingsworth seconded the motion and added that the program should be reevaluated every 5 years. The motion carried by a 5-0 vote by roll call vote.

Sidewalk Needs

Staff provided a presentation on how sidewalk needs are identified and prioritized. Staff outlined the walking and biking school needs projects that are anticipated to begin in 2021. Staff will continue to look for additional funding sources to complete additional projects, and to communicate more information about these projects to the public through the Town's website.

Sidewalk Needs

Vance Holloman, Finance Director, explained how the Town would benefit financially by issuing \$5,000,000 in debt through private placement. This would allow the Town to complete half of its' paving projects. He explained why it would be beneficial to proceed with private placement opposed to issuing a bond. He explained the proposed bond referendum. Staff needs direction on how to proceed with projects and if Council would like to issue the \$5,000,000 in the current fiscal year or the next fiscal year.

Mayor Gilbert called a break.

Council came to a consensus to move forward with Staff's recommendations.

Financial Condition Review

Vance Holloman, Finance Director, reviewed the financial condition of the Town Fiscal Year Ending June 30, 2020 including fund reserves and the Town's debt status.

Capital Project Prioritizations Results and Discussion

Staff stated that the Town created and received results from its' first Citizen Budget Priority Survey. The survey provided the public with an opportunity to provide input on the budget without coming to Town Hall. The survey increased transparency in how the budget is developed. Staff explained how the survey was conducted and the results received from the survey. Staff discussed areas identified within in the seven categories identified by staff:

Housing Affordability, Economic Stability and Growth, Environmental Sustainability, Vibrant and Accessible Downtown, Public Safety, Recreation and Cultural Opportunities, and Transportation & Infrastructure.

Staff explained that the CIP is the planning mechanism that Council uses to allocate financial resources to achieve long term goals. Staff outlined the project prioritization results from Council for 34 projects.

Mayor Gilbert called a break.

Staff reviewed the strategic goals and objects, and outlined initiatives currently underway. Council reviewed the identified initiatives, and expressed the importance of continuing to be as accessible as possible for all citizens. Council identified priorities for next steps to be taken.

ADJOURNMENT

With there being no further business and without objection from Council, Mayor Gilbert adjourned the meeting.

Tesa Silver CMC, NCCMC
Deputy Town Clerk

ATTEST:

Jacques K. Gilbert, Mayor

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SPECIAL TOWN COUNCIL MEETING

Monday, February 15, 2021 at 4:30 PM

~~Council Chamber at Apex Town Hall, 73 Hunter Street~~

THIS WAS A VIRTUAL MEETING

Council and Administration

Mayor: Jacques K. Gilbert | Mayor Pro Tem: Nicole L. Dozier

Council Members: Brett D. Gantt; Audra M. Killingsworth; Cheryl F. Stallings; Terry Mahaffey

Town Manager: Drew Havens | Assistant Town Managers: Shawn Purvis and Marty Stone

Town Clerk: Donna B. Hosch, MMC | Town Attorney: Laurie L. Hohe

In attendance were Mayor Jacques K. Gilbert, Mayor Pro Tem Nicole L. Dozier, and Council Members Audra M. Killingsworth, Brett D. Gantt, Terry Mahaffey, and Cheryl F. Stallings. Also in attendance were Assistant Town Manager Shawn Purvis, Town Attorney Laurie L. Hohe, Deputy Town Clerk Tesa Silver, and Economic Development Director Joanna Helms.

COMMENCEMENT

Mayor Gilbert called the meeting to order and called roll call for attendance.

PRESENTATIONS

There were no Presentations to be made.

CONSENT AGENDA

There were no Consent Agenda items.

REGULAR MEETING AGENDA

There were no Regular Meeting Agenda items.

PUBLIC FORUM

There were no Public Forum comments.

PUBLIC HEARINGS

PH1 Joanna Helms, Economic Development Director

Public Hearing to receive public input on the acquisition of +/-2.3 acres of the Cash Corporate Center located at 2100 Production Drive for Economic Development Purposes.

Staff proposed that the Town acquire 2.3 acres of property at Cash Corporate Center with the intent to extend Burma Drive. The extension and realignment would tie into what already exists at Cash Corporate Center. The cost to acquire the property is \$59,056 per acre totaling \$136, 879. Assistant Town Manager Purvis explained that the cost will be covered once the Town sells the property.

Mayor Gilbert declared the Public Hearing opened. There were no comments. Mayor Gilbert declared the Pubic Hearing closed. Mayor Gilbert explained no decision would be made today. The public comment period for the Public Hearing would be held open for an additional 24 hours. Council would vote on the Public Hearing at the meeting scheduled for 5:00 pm on February 17, 2021.

OLD BUSINESS

There were no Old Business items to discuss.

UNFINISHED BUSINESS

There were no Unfinished Business items to discuss.

NEW BUSINESS

There were no New Business items to discuss.

PRESENTATION BY TOWN MANAGER

There were no presentations.

CLOSED SESSION

There was no Closed Session.

WORK SESSION

There was no work session.

ADJOURNMENT

With there being no further business and without objection from Council, Mayor Gilbert adjourned the meeting.

Tesa Silver CMC, NCCMC
Deputy Town Clerk

ATTEST:

Jacques K. Gilbert, Mayor

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SPECIAL TOWN COUNCIL MEETING

Wednesday, February 17, 2021 at 5:00 PM

~~Council Chamber at Apex Town Hall, 73 Hunter Street~~

THIS WAS A VIRTUAL MEETING

Council and Administration

Mayor: Jacques K. Gilbert | Mayor Pro Tem: Nicole L. Dozier

Council Members: Brett D. Gantt; Audra M. Killingsworth; Cheryl F. Stallings; Terry Mahaffey

Town Manager: Drew Havens | Assistant Town Managers: Shawn Purvis and Marty Stone

Town Clerk: Donna B. Hosch, MMC | Town Attorney: Laurie L. Hohe

In attendance were Mayor Pro Tem Nicole L. Dozier, and Council Members Audra M. Killingsworth, Brett D. Gantt, Terry Mahaffey, and Cheryl F. Stallings. Also in attendance were Assistant Town Managers Shawn Purvis and Marty Stone, Town Attorney Laurie L. Hohe, Deputy Town Clerk Tesa Silver, and Economic Development Director Joanna Helms.

COMMENCEMENT

Mayor Pro Tem Dozier called the meeting to order and called roll call for attendance.

PRESENTATIONS

There were no Presentations to be made.

CONSENT AGENDA

There were no Consent Agenda items.

REGULAR MEETING AGENDA

There were no Regular Meeting Agenda items.

PUBLIC FORUM

There were no Public Forum comments.

PUBLIC HEARINGS

PH1 Joanna Helms, Economic Development Director
Public Hearing to receive public input on the acquisition of +/-2.3 acres of the Cash Corporate Center located at 2100 Production Drive for Economic Development Purposes.

Staff reported that no additional comments were submitted.

Council Member Killingsworth made the motion to approve the acquisition of approximately 2.3 acres of the Cash Corporate Center and appropriate funds for Economic Development in the amount of \$136, 879; Council Member Gantt seconded the motion. The motion carried by a 5-0 vote by roll call.

OLD BUSINESS

There were no Old Business items to discuss.

UNFINISHED BUSINESS

There were no Unfinished Business items to discuss.

NEW BUSINESS

There were no New Business items to discuss.

PRESENTATION BY TOWN MANAGER

There were no presentations.

CLOSED SESSION

There was no Closed Session.

WORK SESSION

There was no work session.

ADJOURNMENT

Council Member Stallings made the motion to adjourn; Council Member Killingsworth seconded the motion. The motion carried by a 5-0 vote by roll call.

Tesa Silver CMC, NCCMC
Deputy Town Clerk

ATTEST:

Jacques K. Gilbert, Mayor

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Donna Hosch, Town Clerk

Department(s): Office of the Town Clerk

Requested Motion

Motion to approve the Apex Tax Report dated January 5, 2021

Approval Recommended?

Yes

Item Details

In regular session on February 1, 2021, the Wake County Board of Commissioners approved and accepted the Apex Tax Report dated January 5, 2021.

Attachments

- Tax Report



Tax Committee Meeting: 01/14/2021

Board of Commissioners Meeting: 02/01/2021

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:

Kim Lorbacher

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
- 6. Provided proof of timely listing

Item #	Taxpayer(s)	Description Jurisdiction	Account # / Year For Payment Status	Late List Appealed	Appeal/Request Type	Recommendation	Relief Code
17289	DELL MARKETING LP PROPERTY TAX DEPT ONE DELL WY RRI-35 ROUND ROCK TX 78682	BUSINESS PERSONAL PROPERTY APEX	0006809832 2020 Paid in Full	\$332.78	Late List Penalty	Granted	6
17245	LIGHT WAVE DENTAL MANAGEMENT NC LLC ATTN ACCOUNTING 13580 GROUPE DR. #305 WOODBRIDE, VA 22192	BUSINESS PERSONAL PROPERTY APEX	0006920043 2020 Not Paid	\$595.00	Late List Penalty	<i>Granted</i>	

This List Requires Board Action

Tax Committee Members: Natasha Baldwin, City Of Raleigh
Michelle Brooks, Town Of Cary
Kim Lorbacher, Wake County Finance

M Kinrade

Marcus Kinrade, Tax Administrator

Board Report


Return

Date : 02/01/2021

Approved By : Kim Dabacher

TO : WAKE COUNTY BOARD OF COMMISSIONERS

RE: CONSIDERATION OF REFUND FOR TAXES, INTEREST AND PENALTIES FOR APEX

No.	Name of Tax Payer	Account Number	Tax and Penalties	Total Rebate	Total Refund	Request Status
1	CAFFERA, LINDA 1858 HAMMOCKS BEACH TRL APEX NC, 27502 - 9694	0000434333- 2020- 2020- 000000	City 102.35 County 161.60	263.95	263.95	Refund
2	CARBON3D INC 1089 MILLS WAY REDWOOD CITY CA, 94063 - 3119	0006807413- 2020- 2020- 000000	City 109.00 County 172.10	281.10	281.10	Refund
3	CONCEPT 8 INC 307 S SALEM ST STE 200 APEX NC, 27502 - 1845	0006791962- 2020- 2020- 000000	City 122.10 County 192.80	314.90	314.90	Refund
4	CORELOGIC PO BOX 9202 COPPELL TX, 75019 - 9760	0000441016- 2020- 2020- 000000	City 85.46 County 134.94	220.40	220.40	Refund
5	LAW OFFICE OF KAREN DONALDSON PLLC 102-C COMMONWEALTH CT CARY NC, 27511	0000300677- 2020- 2020- 000000	City 62.83 County 99.20	162.03	162.03	Refund
6	WILLIAMS, HAROLD L III WILLIAMS, ALZIRA M 2615 BORDWELL GRANT DR NEW HILL NC, 27562 - 9727	0000448345- 2020- 2020- 000000	City 108.73 County 171.69	280.42	280.42	Refund
Marcus D. Kinrade			Total City Rebated	590.47		
Wake County Tax Administrator			Total County Rebated	932.33		
			Total Rebate/Refund	1,522.80	1,522.80	

CC:

*Refund amount may differ from rebated total due to released interest or application of payment to any balance due on the account.

Printed on 02/01/2021



Wake County Tax Administration

Rebate Details
12/01/2020 - 12/31/2020

APEX

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01/05/2021

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REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER	
BUSINESS ACCOUNTS												
775002	4.11	0.00	0.00	0.00	4.11	12/23/2020	0006752205	2020	2020	006000	FIFTH THIRD BANK NATIONAL ASSOCIATION	
773386	6.31	0.00	0.63	0.00	6.94	12/08/2020	0006602352	2020	2020	000000	PAMELA D TAYLOR CPA PLLC	
772917	118.18	0.00	11.82	0.00	130.00	12/03/2020	0006886463	2020	2020	000000	COLLINS, QU FAN	
772911	118.75	0.00	11.88	0.00	130.63	12/03/2020	0006886673	2020	2020	000000	WENLI ZHANG	
774991	99.09	0.00	9.91	0.00	109.00	12/23/2020	0006807413	2020	2020	000000	CARBON3D INC	
773560	0.00	0.00	7.23	0.00	7.23	12/09/2020	0006150517	2020	2020	006000	DISH NETWORK LLC	
773824	94.15	0.00	9.42	0.00	103.57	12/14/2020	0006884431	2020	2020	000000	ARTFUL LIBATIONS LLC	
773823	102.96	0.00	10.30	0.00	113.26	12/14/2020	0006884431	2019	2019	000000	ARTFUL LIBATIONS LLC	
773718	130.32	0.00	0.00	0.00	130.32	12/10/2020	0006819873	2020	2020	000000	NVR INC	
772793	295.76	0.00	0.00	0.00	295.76	12/02/2020	0006107776	2020	2020	006000	CANON FINANCIAL SERVICES INC	
772799	96.32	0.00	9.63	0.00	105.95	12/03/2020	0006856821	2020	2020	000000	ATTICUS FRANCHISE GROUP ME LLC #439	
774990	111.00	0.00	11.10	0.00	122.10	12/23/2020	0006791962	2020	2020	000000	CONCEPT 8 INC	
SUBTOTALS FOR BUSINESS ACCOUNTS		1,176.95	0.00	81.92	0.00	1,258.87	12	Properties Rebated				

BUSINESS REAL ESTATE ACCOUNTS											
773134	2,726.86	0.00	0.00	0.00	2,726.86	12/04/2020	0000064848	2020	2020	000000	SAMPSON BLADEN OIL CO INC
772502	17,748.12	0.00	0.00	0.00	17,748.12	12/01/2020	0000467815	2020	2020	000000	WESTFORD MASTER OWNERS ASSC INC
772478	4,426.84	0.00	0.00	0.00	4,426.84	12/01/2020	0000456659	2020	2020	000000	BEAVER CREEK CROSSING LLC
772475	1,853.65	0.00	0.00	0.00	1,853.65	12/01/2020	0000434967	2020	2020	000000	BEAVER CREEK CROSSING LLC



Wake County Tax Administration
Rebate Details
 12/01/2020 - 12/31/2020
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REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER	
BUSINESS REAL ESTATE ACCOUNTS												
772476	1,838.29	0.00	0.00	0.00	1,838.29	12/01/2020	0000451851	2020	2020	000000	BEAVER CREEK CROSSING LLC	
774749	2,153.99	0.00	0.00	0.00	2,153.99	12/21/2020	0000189840	2020	2020	000000	CIRCLE K STORES INC	
774742	1,439.95	0.00	0.00	0.00	1,439.95	12/21/2020	0000065347	2020	2020	000000	APEX HOUSING PARTNERSHIP	
774163	85.09	0.00	0.00	0.00	85.09	12/15/2020	0000464016	2020	2020	000000	ANGST, CORY STEFAN	
774161	484.85	0.00	0.00	0.00	484.85	12/15/2020	0000230515	2020	2020	000000	PINNACLE PARK INVESTMENTS LLC	
774159	134.08	0.00	0.00	0.00	134.08	12/15/2020	0000304771	2020	2020	000000	PINNACLE PARK INVESTMENTS LLC	
773592	107.02	0.00	0.00	0.00	107.02	12/10/2020	0000292245	2020	2020	000000	HH TRINITY APEX INVESTMENTS LLC	
773405	11,738.46	0.00	0.00	0.00	11,738.46	12/08/2020	0000070264	2020	2020	000000	APEX POINTE LLC	
773404	538.11	0.00	0.00	0.00	538.11	12/08/2020	0000439043	2020	2020	000000	APEX POINTE OUTPARCELS, LLC	
<hr/>												
SUBTOTALS FOR BUSINESS REAL ESTATE ACCOUNTS	45,275.31	0.00	0.00	0.00	45,275.31		13	Properties Rebated				
<hr/>												
INDIVIDUAL PROPERTY ACCOUNTS												
772648	9.65	0.00	0.96	0.00	10.61	12/01/2020	0006863602	2020	2020	000000	HUSSEY, LEON ANDREW	
774888	13.61	0.00	0.00	0.00	13.61	12/22/2020	0006888045	2020	2019	000000	KONDAVEETI, JAYADEV	
772639	6.95	0.00	0.70	0.00	7.65	12/01/2020	0006749404	2020	2020	000000	DENSUCCESS 6625 LLC	
772640	5.54	0.00	0.55	0.00	6.09	12/01/2020	0006863919	2020	2020	000000	E., MANN TRANSPORTATION,LLC	



Wake County Tax Administration
Rebate Details
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REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	BILLING YEAR	FOR TYPE	OWNER	
SUBTOTALS FOR INDIVIDUAL PROPERTY ACCOUNTS												
	35.75	0.00	2.21	0.00	37.96	4	Properties Rebated					
INDIVIDUAL REAL ESTATE ACCOUNTS												
774128	112.22	0.00	0.00	0.00	112.22	12/15/2020	0000438726	2020	2020	000000	WALKER, JEREMY NEPHI	
774094	76.25	0.00	0.00	0.00	76.25	12/15/2020	0000461737	2020	2020	000000	CHERIYAN, THARUN THOMAS	
773939	66.45	0.00	0.00	0.00	66.45	12/14/2020	0000438709	2020	2020	000000	WHITEHURST, MICHAEL THOMAS	
772789	350.10	0.00	0.00	0.00	350.10	12/02/2020	0000352242	2020	2020	000000	GAEBEL, MINDY	
773235	158.66	0.00	0.00	0.00	158.66	12/07/2020	0000434154	2020	2020	000000	VASISHT, SATISH	
772901	42.20	0.00	0.00	0.00	42.20	12/03/2020	0000448387	2020	2020	000000	MAIN, NICHOLAS D	
773360	235.92	0.00	0.00	0.00	235.92	12/08/2020	0000458942	2020	2020	000000	KALAGARA, PHANI	
773536	108.73	0.00	0.00	0.00	108.73	12/09/2020	0000448345	2020	2020	000000	WILLIAMS, HAROLD L III	
773535	85.46	0.00	0.00	0.00	85.46	12/09/2020	0000441016	2020	2020	000000	TIMM, JOHN THOMAS	
773534	102.35	0.00	0.00	0.00	102.35	12/09/2020	0000434333	2020	2020	000000	CAFFERA, LINDA	
773531	62.83	0.00	0.00	0.00	62.83	12/09/2020	0000300677	2020	2020	000000	SWAN, HARMANUS III	
774877	130.02	0.00	0.00	0.00	130.02	12/22/2020	0000285084	2020	2020	000000	KINNEY, MICHAEL	
772941	105.09	0.00	0.00	0.00	105.09	12/04/2020	0000424558	2020	2020	000000	HISCOE, RYAN ALAN	
SUBTOTALS FOR INDIVIDUAL REAL ESTATE ACCOUNTS												
	1,636.28	0.00	0.00	0.00	1,636.28	13	Properties Rebated					
WILDLIFE BOAT ACCOUNTS												
773539	39.47	0.00	0.00	0.00	39.47	12/09/2020	0004194423	2020	2020	000000	WILLIAMS, JOHN	



Wake County Tax Administration
 Rebate Details
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REBATE NUMBER	PROPERTY	CITY TAG	LATE LIST	BILLED INTEREST	TOTAL REBATED	PROCESS DATE	ACCOUNT NUMBER	TAX YEAR	YEAR FOR	BILLING TYPE	OWNER	
WILDLIFE BOAT ACCOUNTS												
772634	100.16	0.00	0.00	0.00	100.16	12/01/2020	0004197370	2020	2020	000000	GODFREY, JAMES ROBERT	
SUBTOTALS FOR WILDLIFE BOAT ACCOUNTS												
	<u>139.63</u>	<u>0.00</u>	<u>0.00</u>	<u>0.00</u>	<u>139.63</u>		2	Properties Rebated				
TOTAL REBATED FOR APEX												
	<u>48,263.92</u>	<u>0.00</u>	<u>84.13</u>	<u>0.00</u>	<u>48,348.05</u>		44	Properties Rebated for City				

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: February 9, 2021

Item Details

Presenter(s): Council Member Terry Mahaffey

Department(s): Governing Body

Requested Motion

Motion to approve an ordinance amending Section 2.2 of the Code of Ordinances in reference to the Town's municipal filing fees

Approval Recommended?

Yes

Item Details

At the February 23, 2021 Regular Council Meeting, Council consensus was to amend Sec. 2.2 of the Code of Ordinances to set the municipal filing fees at \$75 for mayoral candidates and \$50 for council member candidates.

Council was of the opinion that these fees should not be tied to salary compensation.

Attachments

- Ordinance



ORDINANCE NO. 2021-0309-05

AN ORDINANCE TO AMEND SECTION 2.2 OF THE CODE OF ORDINANCES RELATED TO MUNICIPAL FILING FEES

BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF APEX AS FOLLOWS:

Section 1. That Section 2.2 of the Town of Apex Code of Ordinances is hereby amended as shown immediately below with deletions being shown by struck-through text and additions being shown by underlined text:

Sec. 2-2. - Same—Filing fee.

The filing fee for a primary or election shall conform to the General Statutes of the state and shall be ~~a sum equal to one percent of the annual salary of the office sought, unless one percent of the annual salary of the office set is less than \$5.00 in which case the fee will be \$5.00.~~ \$75.00 for the office of the Mayor and \$50.00 for Town Council Members.

Section 2. The Town Clerk 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. Severability, Conflict of Laws. If this ordinance or application thereof to any person or circumstances is held invalid, such invalidity shall not affect other provisions or applications of the ordinance which can be given separate effect and to the end the provisions of this ordinance are declared to be severable. All ordinances or parts of ordinances in conflict with this ordinance are hereby repealed.

Section 4. Effective Date. This ordinance shall be effective upon adoption.

Introduced by Council Member: _____

Seconded by Council Member: _____

This the 9th day of March 2021

Jacques K. Gilbert
Mayor

ATTEST

Donna B. Hosch, MMC, NCCMC
Town Clerk

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: March 9, 2021

Item Details

Presenter: Liz Loftin, Senior Planner

Department: Planning and Community Development

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 for March 23, 2021 on the Question of Annexation – Apex Town Council's intent to annex Edwin A. Goodwin, Testamentary Trust/Judy G. Hackney, Trustee (Hackney Tracts) property containing 2.867 acres located at 2600 Olive Chapel Road, Annexation #701 into the Town's corporate limits.

Approval Recommended?

Yes, by the Planning and Community Development Department.

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.

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# 701
Edwin A. Goodwin Testamentary Trust and Judy G. Hackney, Trustee (Hackney
Tracts)

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 9th day of March 2021.

Jacques K. Gilbert
Mayor

ATTEST:

Donna B. Hosch, MMC, NCCMC
Town Clerk



CERTIFICATE OF SUFFICIENCY BY THE TOWN CLERK

Annexation Petition #701
Edwin A. Goodwin Testamentary Trust and Judy G. Hackney, Trustee (Hackney
Tracts)

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 9th day of March 2021.

Donna B. Hosch, MMC, NCCMC
Town Clerk

(Seal)

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 #: 701
 Fee Paid: \$ 200.00

Submittal Date: 11/2/2020
 Check #: Visa

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

Edwin A. Goodwin <u>Testamentary Trust</u>	<u>0721492629</u>
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u>913-362-7372</u>	
Phone	E-mail Address
<u>Judy G. Hackney, Trustee</u>	
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u>of the Edwin A. Goodwin Testamentary Trust</u>	
Phone	E-mail Address
	Property PIN or Deed Book & Page #
Owner Name (Please Print)	E-mail Address
Phone	

Surveyor Information

Surveyor: WithersRavenel
 Phone: _____ Fax: _____
 E-mail Address: _____

Annexation Summary Chart

Property Information	Reason(s) for annexation (select all that apply)
Total Acreage to be annexed: <u>2.867</u>	Need water service due to well failure <input type="checkbox"/>
Population of acreage to be annexed: <u>0 ac.</u>	Need sewer service due to septic system failure <input type="checkbox"/>
Existing # of housing units: <u>0</u>	Water service (new construction) <input checked="" type="checkbox"/>
Proposed # of housing units: <u>Approx. 5</u>	Sewer service (new construction) <input checked="" type="checkbox"/>
Zoning District*: <u>R-80W</u>	Receive Town Services <input checked="" type="checkbox"/>

*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 at 919-249-3426 for questions.

PETITION FOR VOLUNTARY ANNEXATION

Application #: 701

Submittal Date: 11/2/2020

COMPLETE IF SIGNED BY INDIVIDUALS:

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

Judy G Hackney, Trustee of
Please Print

Judy G. Hackney - Trustee
Signature

The Edwin A. Goodwin Testamentary Trust
Please Print

Signature

Please Print

Signature

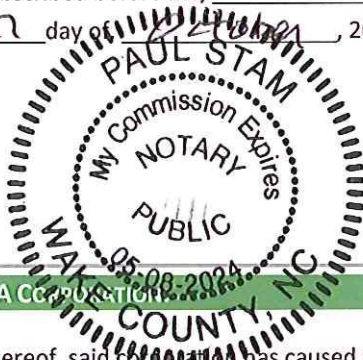
Please Print

Signature

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Paul Stam, a Notary Public for the above State and County,
this the 27 day of February, 2020.

SEAL



Paul Stam
Notary Public

My Commission Expires: May 8 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____.

SEAL Corporate Name _____

Attest: _____
By: _____
President (Signature)

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____.

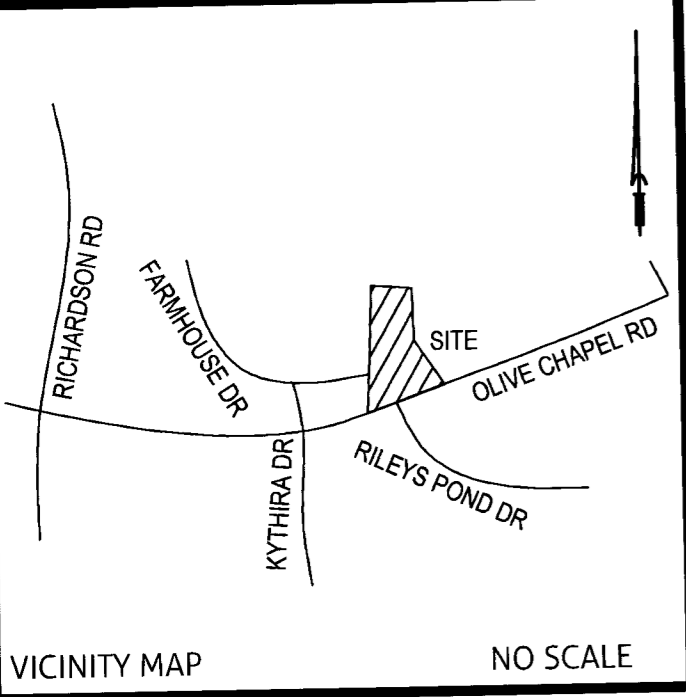
SEAL

Notary Public

My Commission Expires: _____

Hackney Annexation Legal Description

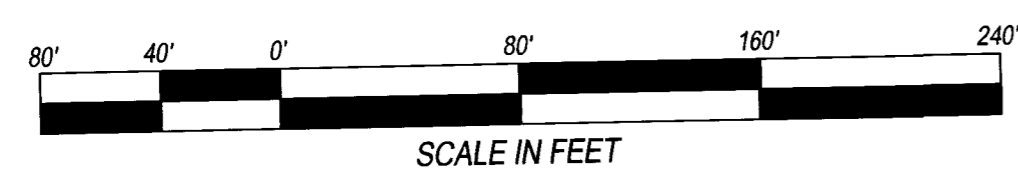
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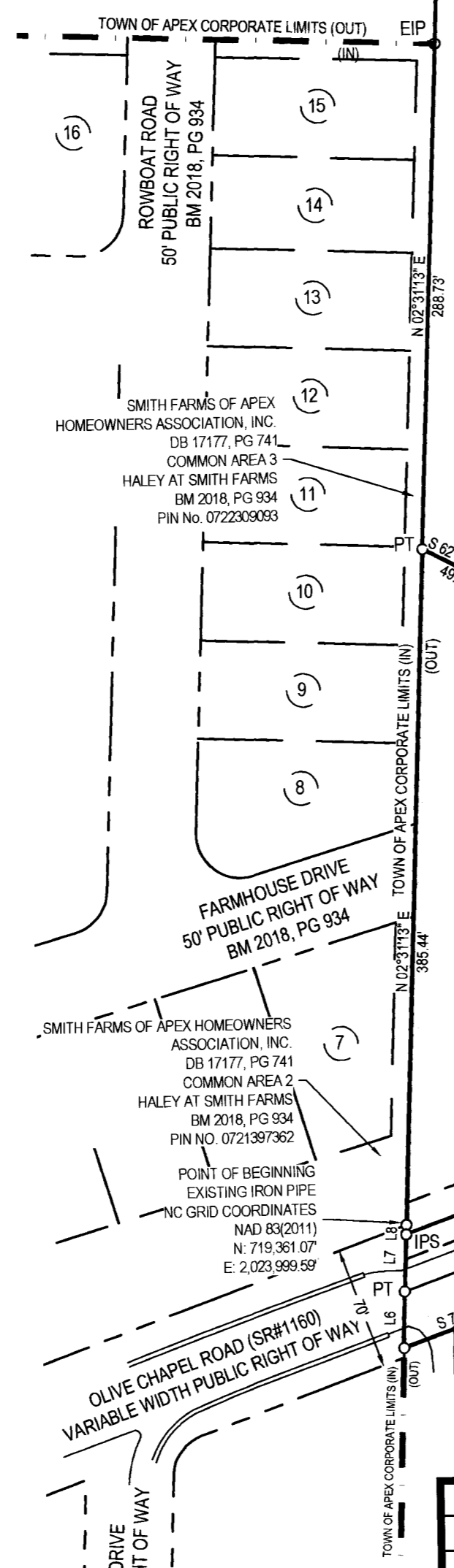
VICINITY MAP NO SCALE

OWNER(S):
 JUDY G. HACKNEY, TRUSTEE OF THE EDWIN A. GOODWIN TESTAMENTARY TRUST
 2505 OLIVE CHAPEL ROAD
 APEX, NC 27502

- LEGEND**
- (EIP)-EXISTING IRON PIPE
 - (IPS)-IRON PIPE SET
 - (PT)-COMPUTED POINT (NO MONUMENT FOUND OR SET)
 - (FHYD)-FIRE HYDRANT
 - (WV)-WATER VALVE
 - (LP)-LIGHT POLE
 - (PP)-POWER POLE
 - (EPD)-ELECTRIC PEDESTAL
 - (WM)-WATER METER
 - (MB)-MAILBOX
 - (EOP)-EDGE OF PAVEMENT
 - (TLP)-TELEPHONE PEDESTAL
 - (SSMH)-SANITARY SEWER MANHOLE
 - (CMP)-CORRUGATED METAL PIPE
 - (RCP)-REINFORCED CONCRETE PIPE



PIN No. 0722411102
 JUDY G. HACKNEY
 DB 1400, PG 236
 BM 1983, PG 57



PIN No. 0721492629
 JUDY G. HACKNEY, TRUSTEE OF THE EDWIN A. GOODWIN TESTAMENTARY TRUST
 DB 3195, PG 149
 BM 1983, PG 57
 9.526 ACRES (OUTSIDE R/W)
 0.481 ACRES (WITHIN R/W)
 10.007 (TOTAL ACRES)
 ADDRESS: 2600 OLIVE CHAPEL ROAD

ANNEXATION AREA (HATCHED AREA)
 2.867 ACRES
 124,897 SF

LINE	DIRECTION	DISTANCE
L1	S 44°47'18" E	6.65'
L2	S 44°47'18" E	33.43'
L3	S 70°19'56" W	26.36'
L4	S 01°02'11" W	37.60'
L5	N 03°31'36" W	5.21'
L6	N 02°31'13" E	32.27'
L7	N 02°31'13" E	32.69'
L8	N 02°31'13" E	5.41'
L9	S 34°12'20" E	31.27'

PIN No. 0722406699
 CHARLES L. HACKNEY
 JUDY G. HACKNEY
 DB 3195, PG 151
 BM 1982, PG 1057

- GENERAL NOTES**
1. BASIS OF BEARINGS: NC STATE PLANE GRID COORDINATES, NAD83(2011).
 2. ALL DISTANCES ARE HORIZONTAL GROUND DISTANCES IN U.S. SURVEY FEET UNLESS OTHERWISE NOTED.
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 8. SUBJECT PROPERTY IS NOT LOCATED WITHIN A FLOOD HAZARD AREA ACCORDING TO FLOOD INSURANCE RATE MAP 3720072200J DATED MAY 2, 2006.
 8. IRON PIPES SET AT ALL CORNERS UNLESS OTHERWISE NOTED.

PIN No. 0722411102
 JUDY G. HACKNEY
 DB 1400, PG 236
 BM 1983, PG 57

SURVEYOR'S CERTIFICATE
 "I, BENJAMIN E. DAYTON, CERTIFY THAT THIS PLAT WAS DRAWN UNDER MY SUPERVISION FROM AN ACTUAL SURVEY MADE UNDER MY SUPERVISION (DEED DESCRIPTION RECORDED IN BOOK SEE MAP, PAGE _____, THAT THE BOUNDARIES NOT SURVEYED ARE CLEARLY INDICATED AS DRAWN FROM INFORMATION FOUND IN BOOK SEE MAP, PAGE _____; THAT THE RATIO OF PRECISION OR POSITIONAL ACCURACY AS CALCULATED IS 1:40,000+; THAT THIS PLAT WAS PREPARED IN ACCORDANCE WITH G.S. 47-30 AS AMENDED. WITNESS MY ORIGINAL SIGNATURE, LICENSE NUMBER AND SEAL THIS 23RD DAY OF NOVEMBER, A.D., 2020.

DocuSigned by:
 Benjamin Dayton
 3BB0AAE5AEB4E7
 BENJAMIN E. DAYTON, PLS L-4390



11/23/2020

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 _____, 20____, BY THE TOWN COUNCIL. I SET MY HAND AND SEAL OF THE TOWN OF APEX, _____ DAY/MONTH/YEAR

DONNA B. HOSCH, MMC, NCCMC, TOWN CLERK

-SEAL-

REVISED 11-13-2020 - REVISE PIN NUMBER IN TITLE BLOCK

DATE: 11/2/2020	ANNEXATION MAP for the TOWN OF APEX	
SCALE: 1"=80'	JUDY G. HACKNEY, TRUSTEE OF THE EDWIN A. GOODWIN TESTAMENTARY TRUST	
SURVEYED BY: AB	TOWNSHIP: WHITE OAK	COUNTY: WAKE
DRAWN BY: BD	STATE: NORTH CAROLINA	
CHECK & CLOSURE BY: BD	ZONE: RR and R-80W (PER GIS)	P.I.N. 0721492629
CAD FILE: ANNEXATION PLAT.DWG		
PROJECT NO: 02180517.10		

WithersRavenel
 Engineers | Planners | Surveyors
 115 MacKean Drive | Cary, NC 27511
 t: 919.469.3340 | license #: C-0832 | www.withersravenel.com



[Home](#)

Wake County Real Estate Data Account Summary

[iMaps](#)
[Tax Bills](#)

Real Estate ID **0129575** PIN # **0721492629**

Account Search

Location Address Property Description
2600 OLIVE CHAPEL RD PROP THELMA H GOODWIN BM1983-00057

[Pin/Parcel History](#) [Search Results](#) [New Search](#)



NORTH CAROLINA [Account](#) | [Buildings](#) | [Land](#) | [Deeds](#) | [Notes](#) | [Sales](#) | [Photos](#) | [Tax Bill](#) | [Map](#)

Property Owner GOODWIN, EDWIN A (Use the Deeds link to view any additional owners)	Owner's Mailing Address JUDY HACKNEY 2505 OLIVE CHAPEL RD APEX NC 27502-6788	Property Location Address 2600 OLIVE CHAPEL RD APEX NC 27502-6789
---	--	---

Administrative Data	Transfer Information	Assessed Value
Old Map # 645-00000-0031 Map/Scale 0721 01 VCS 20AP900 City Fire District 23 Township WHITE OAK Land Class VACANT ETJ AP Spec Dist(s) Zoning RR History ID 1 History ID 2 Acreage 10.01 Permit Date Permit #	Deed Date 11/7/1983 Book & Page 03195 0149 Revenue Stamps Pkg Sale Date Pkg Sale Price Land Sale Date Land Sale Price Improvement Summary Total Units 0 Recycle Units 0 Apt/SC Sqft Heated Area	Land Value Assessed \$655,350 Bldg. Value Assessed Tax Relief Land Use Value Use Value Deferment Historic Deferment Total Deferred Value Use/Hist/Tax Relief Assessed Total Value Assessed* \$655,350

*Wake County assessed building and land values reflect the market value as of January 1, 2020, which is the date of the last county-wide revaluation. Any inflation, deflation or other economic changes occurring after this date does not affect the assessed value of the property and cannot be lawfully considered when reviewing the value for adjustment.

The January 1, 2020 values will remain in effect until the next county-wide revaluation. Until that time, any real estate accounts created or new construction built is assessed according to the 2020 Schedule of Values.

For questions regarding the information displayed on this site, please contact the Department of Tax Administration at Taxhelp@wakegov.com or call 919-856-5400.



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

Annexation Petition #701
Edwin A. Goodwin Testamentary Trust and Judy G. Hackney, Trustee (Hackney
Tracts)

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 6 o'clock p.m. on the 23rd day
of March 2021.

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 9th day of March 2021.

Jacques K. Gilbert, Mayor

ATTEST:

Donna B. Hosch, MMC, NCCMC, Town Clerk

Hackney Annexation Legal Description

Beginning at an Existing Iron Pipe Located on the Northern Right of Way of Olive Chapel Road (SR#1160) and having North Carolina Grid Coordinates (NAD83, 2011), N: 719,361.07', E: 2,023,999.59'; said Iron Pipe also being the Southeast corner of Common Area 2, "Haley at Smith Farms", Book of Maps 2018, Page 934, Wake County Registry. Thence leaving said Right of Way, North 02°31'13" East, 385.44' to a point, Thence South 62°35'47" East, 49.52' to a point, Thence South 64°57'29" East, 454.32' to a point, Thence South 44°47'17" East, 40.09' feet to a point located in the centerline of Olive Chapel Road, Thence South 70°19'56" West, 26.36' feet to a point in the centerline of the road, Thence South 01°02'11" West, 37.60' feet to a point located on the Southern Right of Way of Olive Chapel Road, Thence continuing along the Right of Way of Olive Chapel Road, South 70°23'37" West, 98.86' feet to a point, Thence South 70°22'07" West, 100.00' feet to a point, Thence South 70°21'56" West, 214.57' feet to a point, Thence North 03°31'36" West, 5.21' feet to a point, Thence South 70°19'30" West, 94.12' feet to a point, Thence Leaving the Southern Right of Way of Olive Chapel Road North 02°31'13" East, 32.27' feet to a point, Thence North 02°31'13" East, 32.69' feet to a point, Thence North 02°31'13" East, 5.41' feet to an Existing Iron Pipe, the point and place of **Beginning** and containing an area of 2.867 Acres, (124,897 sf), more or less.

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 #: 701
 Fee Paid: \$ 200.00

Submittal Date: 11/2/2020
 Check #: Visa

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

Edwin A. Goodwin <u>Testamentary Trust</u>	<u>0721492629</u>
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u>913-362-7372</u>	
Phone	E-mail Address
<u>Judy G. Hackney, Trustee</u>	
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u>of the Edwin A. Goodwin Testamentary Trust</u>	
Phone	E-mail Address
	Property PIN or Deed Book & Page #
Owner Name (Please Print)	E-mail Address
Phone	

Surveyor Information

Surveyor: WithersRavenel
 Phone: _____ Fax: _____
 E-mail Address: _____

Annexation Summary Chart

Property Information	Reason(s) for annexation (select all that apply)
Total Acreage to be annexed: <u>2.867</u>	Need water service due to well failure <input type="checkbox"/>
Population of acreage to be annexed: <u>0 ac.</u>	Need sewer service due to septic system failure <input type="checkbox"/>
Existing # of housing units: <u>0</u>	Water service (new construction) <input checked="" type="checkbox"/>
Proposed # of housing units: <u>Approx. 5</u>	Sewer service (new construction) <input checked="" type="checkbox"/>
Zoning District*: <u>R-80W</u>	Receive Town Services <input checked="" type="checkbox"/>

*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 at 919-249-3426 for questions.

PETITION FOR VOLUNTARY ANNEXATION

Application #: 701

Submittal Date: 11/2/2020

COMPLETE IF SIGNED BY INDIVIDUALS:

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

Judy G Hackney, Trustee of
Please Print

Judy G. Hackney - Trustee
Signature

The Edwin A. Goodwin Testamentary Trust
Please Print

Signature

Please Print

Signature

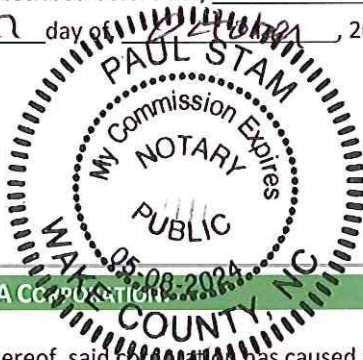
Please Print

Signature

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Paul Stam, a Notary Public for the above State and County,
this the 27 day of November, 2020.

SEAL



Paul Stam
Notary Public

My Commission Expires: May 8 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____.

SEAL Corporate Name _____

Attest: By: _____
President (Signature)

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____.

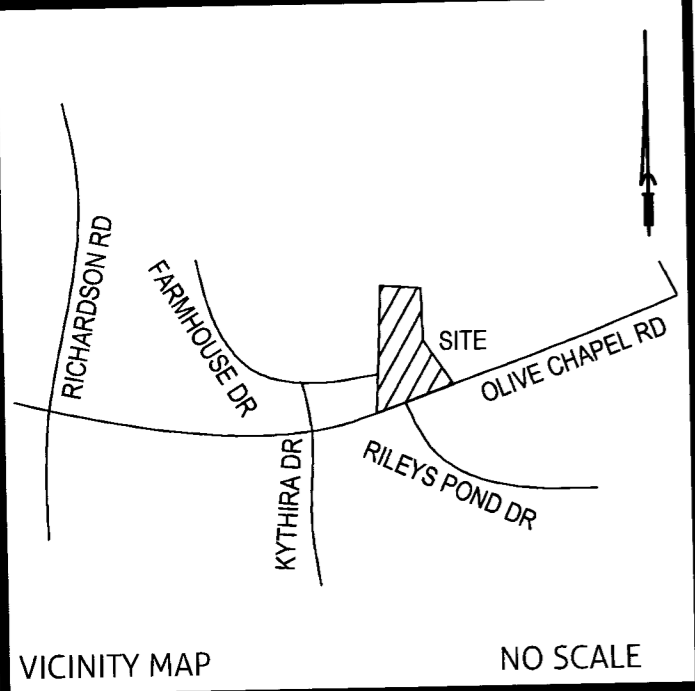
SEAL

Notary Public

My Commission Expires: _____

Hackney Annexation Legal Description

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 DB 1400, PG 236
 BM 1983, PG 57

PIN No. 0722406699
 CHARLES L. HACKNEY
 JUDY G. HACKNEY
 DB 3195, PG 151
 BM 1982, PG 1057

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DocuSigned by:
 Benjamin Dayton

BENJAMIN E. DAYTON, PLS L-4390

11/23/2020



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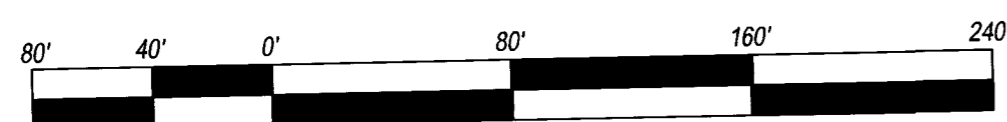
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ANNEXATION # _____

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DONNA B. HOSCH, MMC, NCCMC, TOWN CLERK

-SEAL-

REVISED 11-13-2020 - REVISE PIN NUMBER IN TITLE BLOCK

DATE: 11/2/2020
SCALE: 1"=80'
SURVEYED BY: AB
DRAWN BY: BD
CHECK & CLOSURE BY: BD
CAD FILE: ANNEXATION PLAT.DWG
PROJECT NO: 02180517.10

ANNEXATION MAP for the TOWN OF APEX		
JUDY G. HACKNEY, TRUSTEE OF THE EDWIN A. GOODWIN TESTAMENTARY TRUST		
TOWNSHIP: WHITE OAK	COUNTY: WAKE	STATE: NORTH CAROLINA
ZONE: RR and R-80W (PER GIS)	P.I.N. 0721492629	

WithersRavenel
 Engineers | Planners | Surveyors
 115 MacKean Drive | Cary, NC 27511
 t: 919.469.3340 | license #: C-0832 | www.withersravenel.com



Annexation #701

Smith Farm, Phase 1

Cornfield Aly

Great Lawn Rd

Everbloom Aly

Millhills Aly

Sunflower Rd

Barn Door Dr

Hayride Aly

Livestock Aly

Farmhouse Dr

Haley Farms

Rowboat Rd

Olive Chapel Rd

Arcadia West

Tinos Overlook Way

Kythira Dr

Lemnos Dr

Thassos Dr

Braden Overlook Ct

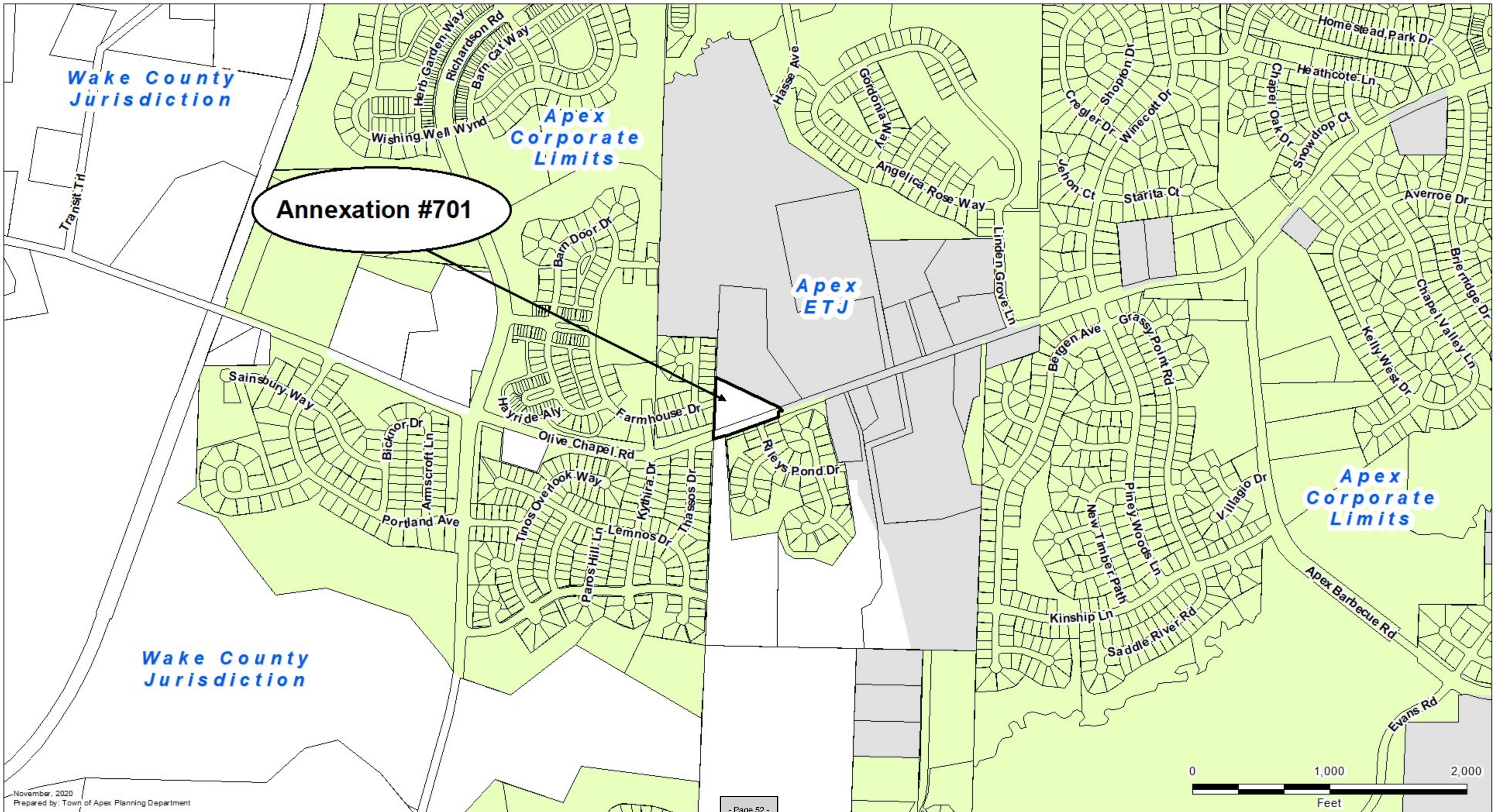
Riley's Pond

Rileys Pond Dr

Baxter Ridge Ct



November, 2020
September 2020 Aerial Photography
Prepared by: Town of Apex Planning Department



Wake County
Jurisdiction

Apex
Corporate
Limits

Annexation #701

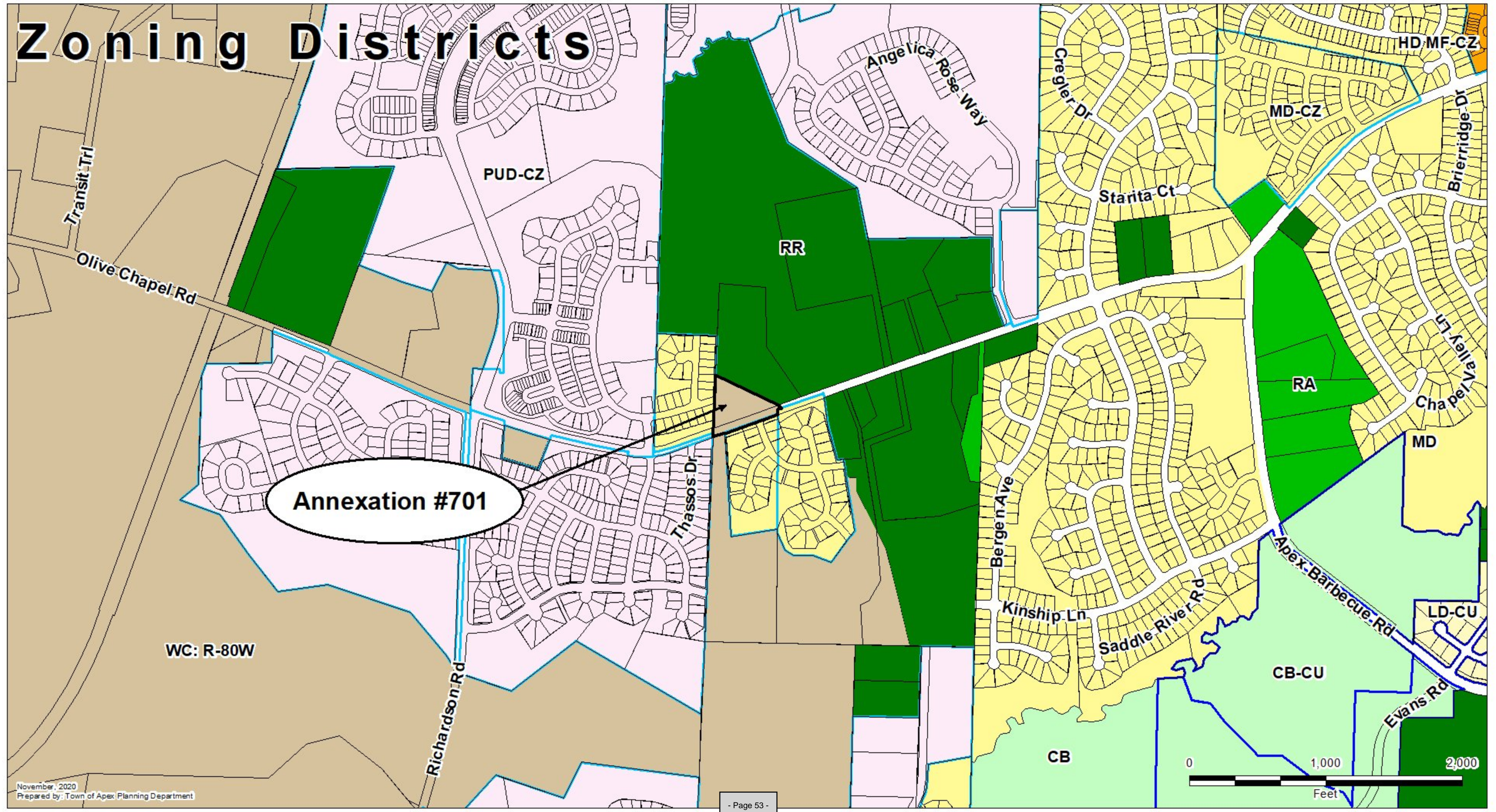
Apex
ETJ

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Zoning Districts



Hackney Annexation Legal Description

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| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Lauren Staudenmaier, Planner I

Department(s): Planning & Community Development

Requested Motion

Motion to approve Statement of the Town Council for Rezoning Case #20CZ16, Joseph D. Cusumano, petitioner, for the property located on 2609 New Hill Olive Chapel Road.

Approval Recommended?

Planning and Community Development Department recommends approval.

Item Details

Rezoning Case #20CZ16 and Ordinance was approved at the February 25, 2021 Town Council meeting.

Attachments

- Statement of the Town Council



**STATEMENT OF THE APEX TOWN COUNCIL PURSUANT TO G.S. 160A-383
ADDRESSING ACTION ON ZONING PETITION #20CZ16**

Joseph D. Cusumano, owner/applicant (the “Applicant”), submitted a completed application for a conditional zoning on the 1st day of December 2020 (the “Application”). The proposed conditional zoning is designated #20CZ16.

The Director of Planning & Community Development for the Town of Apex, Dianne Khin, caused proper notice to be given (by publication and posting) of a public hearing on #20CZ16 before the Planning Board held on the 8th day of February 2021.

Pursuant to G.S. §160A-384 and Sec. 2.2.11(E) of the Unified Development Ordinance, the Director of Planning & Community Development caused proper notice to be given (by publication and posting), of a public hearing on #20CZ16 before the Town Council on the 23rd day of February 2021.

The Apex Planning Board held a public hearing on the 8th day of February 2021, gathered facts, received public comments and, following a 24-hour public comment period, on the 10th day of February 2021, formulated a recommendation regarding the application for conditional zoning #20CZ16. A motion was made at the Apex Planning Board to recommend approval; the motion passed unanimously for the application for #20CZ16.

The Apex Town Council held a public hearing on 23rd day of February 2021. Lauren Staudenmaier, Planner I, presented the Planning Board's recommendation at the public hearing.

All persons who desired to present information relevant to the application for #20CZ16 and who were residents of Apex or its extraterritorial jurisdiction, or who owned property adjoining the property for which the conditional zoning is sought, were allowed to present evidence at the public hearing before the Apex Town Council. No one who wanted to speak was turned away.

The Town Council, following a 24-hour public comment period, on the 25th day of February 2021 by a vote of 5 to 0 approved Application #20CZ16 rezoning the subject tract located at 2609 New Hill Olive Chapel Road from Wake County Residential (R-40W) to Medium Density Residential-Conditional Zoning (MD-CZ).

The Apex Town Council finds that the approval of the rezoning is consistent with the 2045 Land Use Plan and other adopted plans in that: The 2045 Land Use Map designates this area as Medium Density Residential. This designation on the 2045 Land Use Map includes the zoning district Medium Density Residential-Conditional Zoning (MD-CZ) and the Apex Town Council has further considered that the proposed rezoning to Medium Density Residential-Conditional Zoning (MD-CZ) will maintain the character and appearance of the area and provide the flexibility to accommodate the growth in population, economy, and infrastructure consistent with that contemplated by the 2045 Land Use Map.

The Apex Town Council finds that the approval of the rezoning is reasonable and in the public interest in that it will permit single-family residential development consistent and compatible with the surrounding area. In addition, the proposed rezoning will allow the property to connect to Town water and sewer services.

Jacques K. Gilbert
Mayor

ATTEST:

Donna B. Hosch, MMC, NCCMC
Town Clerk

Date

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #:

20CZ14

Submittal Date:

Insert legal description below.

EXHIBIT A
LEGAL DESCRIPTION

BEGINNING at a bolt in the center line of the paved SR 1141, the New Hill-Olive Chapel Road, said bolt also being in Pauline Lashlee's line and runs thence with her line South 84 degrees 30 minutes East 309 feet to a railroad rail stake, said Lashlee's corner; thence another line with said Lashlee South 5 degrees 30 minutes West 396 feet to an iron shaft; thence another line with said Lashlee and past her corner with E.C. Olive's line North 84 degrees 30 minutes West 110.6 feet to an iron in the center line of said paved road; thence along the center line of said road North 21 degrees 15 minutes West 444.3 feet to the point of BEGINNING, containing 1.9 acres, more or less, according to survey of E.C. Smith, RLS, dated September 23, 1970 and being a part of the land described in a deed from Mrs. L.T. Holt, et al to E.C. Olive and wife, dated January 2, 1938 and recorded in Book 769, Page 403, Wake County Registry.

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Sarah Van Every, Senior Planner

Department(s): Planning & Community Development

Requested Motion

Motion to approve Statement of the Town Council and Ordinance for Rezoning Case #21CZ01 Wolfe Properties PUD Amendment, Josh Swindell, Envision Homes, LLC. petitioner, for the properties located on 1405, 1409, 1209, & 1401 Wimberly Road and 1012 & 1000 Double Helix Road.

Approval Recommended?

Planning and Community Development Department recommends approval.

Item Details

Rezoning Case #21CZ01 was approved at the February 25, 2021 Town Council meeting.

Attachments

- Statement of the Town Council
- Ordinance to Amend the Official Zoning District Map



**STATEMENT OF THE APEX TOWN COUNCIL PURSUANT TO G.S. 160A-383
ADDRESSING ACTION ON ZONING PETITION #21CZ01**

Josh Swindell, Envision Homes, LLC/Tony Streeter & Timothy V. Karr, Billy Ray Wolfe, Sarah W. Ronk, Willie T. Jr and Donna G. Wolfe, William D. II and Gaile E. Bunce, and John Terry Paton, owner/applicant (the "Applicant"), submitted a completed application for a conditional zoning on the 4th day of January 2021 (the "Application"). The proposed conditional zoning is designated #21CZ01.

The Director of Planning & Community Development for the Town of Apex, Dianne Khin, caused proper notice to be given (by publication and posting) of a public hearing on #21CZ01 before the Planning Board held on the 8th day of February 2021.

Pursuant to G.S. §160A-384 and Sec. 2.2.11(E) of the Unified Development Ordinance, the Director of Planning & Community Development caused proper notice to be given (by publication and posting), of a public hearing on #21CZ01 before the Town Council on the 23rd day of February 2021.

The Apex Planning Board held a public hearing on the 8th day of February 2021, gathered facts, received public comments and, following a 24-hour public comment period, on the 10th day of February 2021, formulated a recommendation regarding the application for conditional zoning #21CZ01. A motion was made at the Apex Planning Board to recommend approval; the motion passed unanimously for the application for #21CZ01.

The Apex Town Council held a public hearing on the 23rd day of February 2021. Sarah Van Every, Senior Planner, presented the Planning Board's recommendation at the public hearing.

All persons who desired to present information relevant to the application for #21CZ01 and who were residents of Apex or its extraterritorial jurisdiction, or who owned property adjoining the property for which the conditional zoning is sought, were allowed to present evidence at the public hearing before the Apex Town Council. No one who wanted to speak was turned away.

The Town Council, following a 24-hour public comment period, on the 25th day of February 2021 by a vote of 5 to 0 approved Application #21CZ01 rezoning the subject tract located at 1405, 1409, 1209, & 1401 Wimberly Road and 1012 & 1000 Double Helix Road from Planned Unit Development-Conditional Zoning (PUD-CZ #19CZ22) to Planned Unit Development-Conditional Zoning (PUD-CZ).

The Apex Town Council finds that the approval of the rezoning is consistent with the 2045 Land Use Plan and other adopted plans in that: The 2045 Land Use Map designates this area as Low Density Residential. This designation on the 2045 Land Use Map includes the zoning district Planned Unit Development-Conditional Zoning (PUD-CZ) and the Apex Town Council has further considered that the proposed rezoning to Planned Unit Development-Conditional Zoning (PUD-CZ) will maintain the character and appearance of the area and provide the flexibility to accommodate the growth in population, economy, and infrastructure consistent with that contemplated by the 2045 Land Use Map.

The Apex Town Council finds that the approval of the rezoning is reasonable and in the public interest in that: it is consistent with the 2045 Land Use Map, which classifies the subject property as Low Density Residential. The proposed rezoning allows flexibility necessary to ensure cohesive development plans for future Capital Projects.

Jacques K. Gilbert
Mayor

ATTEST:

Donna B. Hosch, MMC, NCCMC
Town Clerk

Date

ORDINANCE AMENDING THE OFFICIAL ZONING DISTRICT MAP OF THE TOWN OF APEX TO CHANGE THE ZONING OF APPROXIMATELY 43.52 ACRES LOCATED ON 1405, 1409, 1209, & 1401 WIMBERLY ROAD AND 1012 & 1000 DOUBLE HELIX ROAD FROM PLANNED UNIT DEVELOPMENT-CONDITIONAL ZONING (PUD-CZ #19CZ22) TO PLANNED UNIT DEVELOPMENT-CONDITIONAL ZONING (PUD-CZ)

#21CZ01

WHEREAS, the application of Josh Swindell, Envision Homes, LLC/Tony Streeeter & Timothy V. Karr, Billy Ray Wolfe, Sarah W. Ronk, Willie T. Jr and Donna G. Wolfe, William D. II and Gaile E. Bunce, and John Terry Paton, petitioner, for the rezoning of lands hereinafter described was duly filed with the office of the Planning Director and thereafter a public hearing was held hereon on the 8th day of February 2021 before the Planning Board and on the 10th day of February 2021 the Planning Board voted. Thereafter, the Planning Board submitted its final report to the Town Council recommending approval of said application for the rezoning of the lands hereinafter described, all in accordance with the requirements of the Town of Apex Unified Development Ordinance and the provisions of Chapter 160A, Article 19, of the North Carolina General Statutes. A public hearing was held on the 23rd day of February 2021, before the Town Council. All public hearings were held pursuant to due notice mailed and published pursuant to G.S. § 160A-384; **NOW, THEREFORE,**

BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF APEX

Section 1: The lands that are the subject of the Ordinance are those certain lands described in Attachment “A” – Legal Description which is incorporated herein by reference, and said lands are hereafter referred to as the “Rezoned Lands.”

Section 2: The Town of Apex Unified Development Ordinance, including the Town of Apex North Carolina Official Zoning District Map which is a part of said Ordinance, is hereby amended by changing the zoning classification of the “Rezoned Lands” from Planned Unit Development-Conditional Zoning (PUD-CZ#19CZ22) to Planned Unit Development-Conditional Zoning (PUD-CZ) District, subject to the conditions stated herein.

Section 3: The Planning and Community Development Director is hereby authorized and directed to cause the said Official Zoning District Map for the Town of Apex, North Carolina, to be physically revised and amended to reflect the zoning changes ordained by this Ordinance.

Section 4: The “Rezoned Lands” are subject to the conditions in Attachment “B” Wolfe Properties PUD Amendment which are imposed as part of this rezoning.

Section 5: The “Rezoned Lands” shall be perpetually bound to the conditions imposed including the uses authorized, unless subsequently changed or amended as provided for in the Unified Development Ordinance. Site plans for any development to be made pursuant to this amendment to the

Ordinance Amending the Official Zoning District Map #21CZ01

Page Two

Official Zoning District Map shall be submitted for site plan approval as provided for in the Unified Development Ordinance.

Section 6: This ordinance shall be in full force and effect from and after its adoption.

Motion by Council Member _____

Seconded by Council Member _____

With ____ Council Member(s) voting "aye."

With ____ Council Member(s) voting "no."

This the ____ day of _____ 2021.

TOWN OF APEX

Mayor

ATTEST:

Town Clerk

APPROVED AS TO FORM:

Town Attorney

Application #:

Submittal Date:

Insert legal description below.

1209 Wimberly Road

BEGINNING at a point on the north-eastern right-of-way margin of Wimberly Road, said point having North Carolina State Plane Coordinates of North: 730,593.08 and East 2,024,286.65; thence from said beginning point, the following calls:

- S 86°11'46" E a distance of 182.99' to a point;
- S 85°45'45" E a distance of 769.81' to a point;
- S 01°58'45" W a distance of 328.13' to a point;
- S 89°21'41" W a distance of 740.23' to a point;
- N 28°28'40" W a distance of 63.48' to a point;
- a curve turning to the right with an arc length of 307.65', with a radius of 3895.50', with a chord bearing of N 26°12'54" W, with a chord length of 307.57' to a point;
- N 23°57'09" W a distance of 80.40' to the Point of Beginning.

The above described tract containing 309,217 square feet (7.099 acres)

Application #:

Submittal Date:

Insert legal description below.

1401 Wimberly Road

BEGINNING at an existing iron pipe having North Carolina State Plane Coordinates of North: 730,196.13 and East 2,025,225.6; thence from said beginning point, the following calls:

- N 01°58'45" E a distance of 328.13' to a point;
- S 85°45'45" E a distance of 349.08' to a point;
- S 85°46'48" E a distance of 99.95' to a point;
- S 00°17'40" W a distance of 355.27' to a point;
- S 03°11'05" W a distance of 537.08' to a point;
- S 89°38'42" W a distance of 291.42' to a point;
- N 00°34'26" W a distance of 130.32' to a point;
- S 89°41'26" W a distance of 150.96' to a point;
- N 01°58'45" E a distance of 469.32' to the Point of Beginning.

The above described tract containing 392,670 square feet (9.014 acres)

Application #:

Submittal Date:

Insert legal description below.

1405 Wimberly Road

BEGINNING at a point on the north-eastern right-of-way margin of Wimberly Road, said point having North Carolina State Plane Coordinates of North: 729,291.13 and East 2,025,364.73; thence from said beginning point, the following calls:

- N 00°34'26" W a distance of 306.48' to a point;
- N 89°38'42" E a distance of 291.42' to a point;
- S 00°12'43" E a distance of 516.89' to a point;
- A curve turning to the right with an arc length of 162.31', with a radius of 4171.73', with a chord bearing of N 54°51'15" W, with a chord length of 162.30' to a point;
- N 54°07'46" W a distance of 77.08' to a point;
- N 53°37'44" W a distance of 118.09' to a point;
- N 00°34'26" W a distance of 306.48' to the Point of Beginning.

The above described tract containing 119,882 square feet (2.752 acres)

Application #:

Submittal Date:

Insert legal description below.

1409 Wimberly Road

BEGINNING at a point on the north-eastern right-of-way margin of Wimberly Road, said point having North Carolina State Plane Coordinates of North: 728,871.53 and East 2,026,004.45; thence from said beginning point, the following calls:

- N 62°13'45" W a distance of 45.22' to a point;
- A curve turning to the right with an arc length of 363.19', with a radius of 4171.73', with a chord bearing of N 58°27'47" W, with a chord length of 363.07' to a point;
- N 00°12'43" W a distance of 516.89' to a point;
- N 03°11'05" E a distance of 537.08' to a point;
- N 89°00'32" E a distance of 296.40' to a point;
- S 06°41'35" E a distance of 419.20' to a point;
- S 01°35'27" W a distance of 853.23' to a point;
- N 62°13'45" W a distance of 45.22' to the Point of Beginning.

The above described tract containing 410,586 square feet (9.426 acres)

Application #:

Submittal Date:

Insert legal description below.

1000 Double Helix Road

BEGINNING at an existing iron pipe having North Carolina State Plane Coordinates of North: 730,146.11 and East 2,026,310.56; thence from said beginning point, the following calls:

- S 89°04'35" W a distance of 331.33' to a point;
- S 89°00'32" W a distance of 296.40' to a point;
- N 00°17'40" E a distance of 160.60' to a point;
- N 58°39'41" E a distance of 373.67' to a point;
- N 04°43'53" W a distance of 584.42' to a point;
- S 83°51'56" E a distance of 49.88' to a point;
- S 65°54'24" E a distance of 85.43' to a point;
- N 41°41'56" E a distance of 69.17' to a point;
- S 32°39'55" E a distance of 219.03' to a point;
- S 50°46'48" E a distance of 91.31' to a point;
- S 00°32'58" W a distance of 696.25' to the Point of Beginning.

The above described tract containing 358,904 square feet (8.239 acres)

Application #:

Submittal Date:

Insert legal description below.

1012 Double Helix Road

BEGINNING at an existing iron pipe having North Carolina State Plane Coordinates of North: 731,418.45 and East 2,025,687.51; thence from said beginning point, the following calls:

- S 67°39'28" E a distance of 247.90' to a point;
- S 49°40'39" E a distance of 166.19' to a point;
- S 32°39'55" E a distance of 157.06' to a point;
- S 41°41'56" W a distance of 69.17' to a point;
- N 65°54'24" W a distance of 85.43' to a point;
- N 83°51'56" W a distance of 49.88' to a point;
- S 04°43'53" E a distance of 584.42' to a point;
- S 58°39'41" W a distance of 373.67' to a point;
- N 00°17'40" E a distance of 194.66' to a point;
- N 00°10'17" E a distance of 927.55' to the Point of Beginning;

The above described tract containing 304,410 square feet (6.988 acres)

Prepared for:

ENVISION HOMES, LLC

4441 Six Forks Road
Suite 106-117
Raleigh, NC 27609

PD PLAN

Wolfe Properties PUD

A PLANNED UNIT DEVELOPMENT

Town of Apex, North Carolina

October 1, 2019

Revised December 6, 2019

Revised February 14, 2020

Revised March 13, 2020

Revised May 6, 2020

FINAL VERSION – June 18, 2020

Amended – January 4, 2021

Amended – January 27, 2021



Prepared by:

Andrew Petty, PE
The Curry Engineering Group, PLLC
PO Box 2018
205 S. Fuquay Avenue
Fuquay-Varina, N
(919)552-0849

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2.0 Vicinity Map

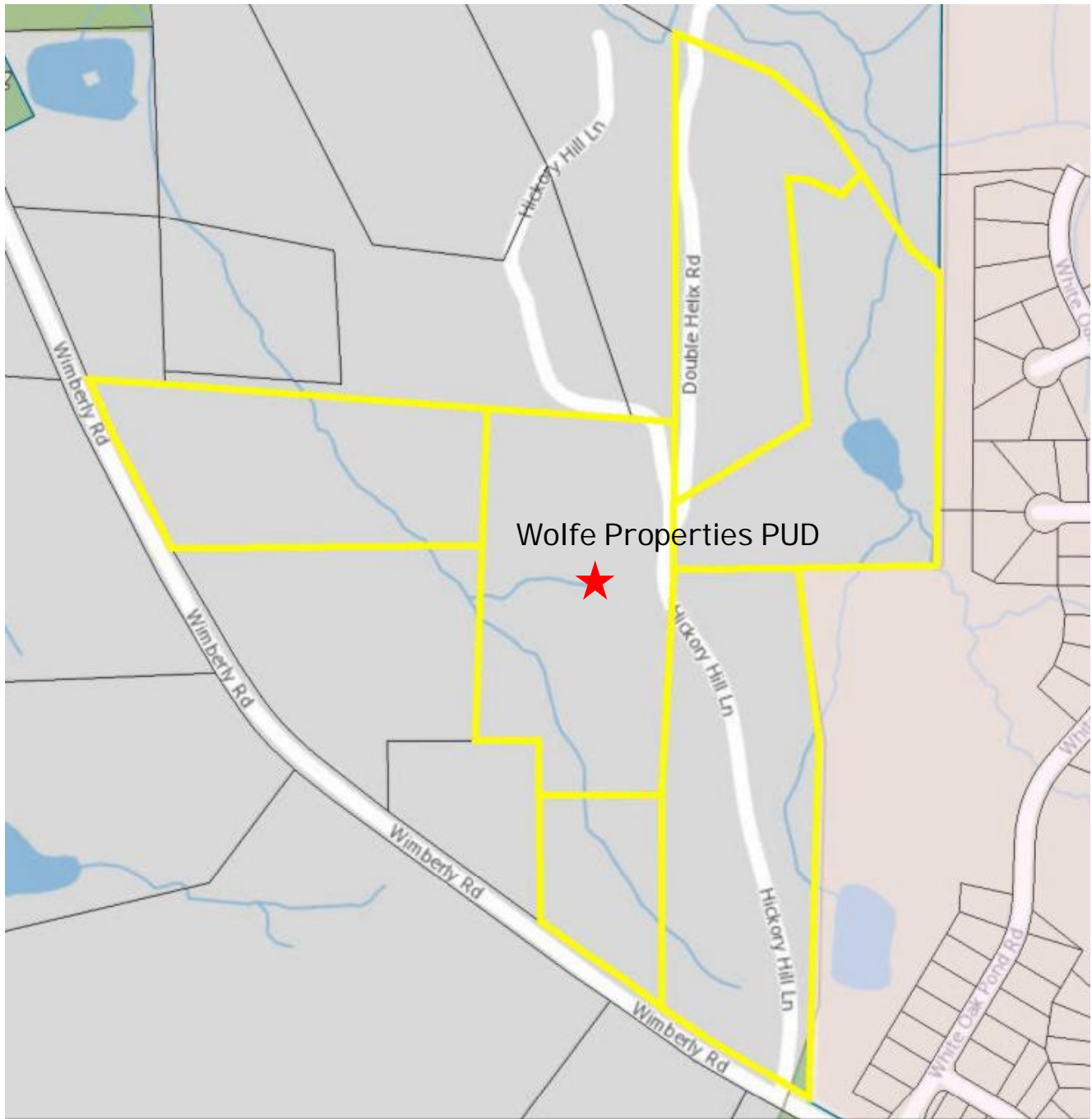


Figure 1 - Vicinity Map – Courtesy of Wake County iMaps 2019

3.0 Project Data

3.1 Project Name: Wolfe Properties PUD

3.2 Owner/Developer: Envision Homes, LLC
4441 Six Forks Road, Suite 106-117
Raleigh, NC 27609
(919) 389-7595

3.3 Prepared By: The Curry Engineering Group, PLLC
205 S Fuquay Avenue
Fuquay-Varina, NC 27526
(919) 552-0849

3.4 Designated Single Point of Contact: Andrew Petty, PE
The Curry Engineering Group, PLLC

3.5 Current and Proposed Zoning of the Property:

Current Zoning: PUD-CZ (#19CZ22)
Proposed Zoning: PUD-CZ

3.6 Current and Proposed Land Uses:

Current: Residential, Vacant
Proposed: Residential

3.7 Current and Proposed 2045 Land Use Designation:

Current: Low Density Residential
Proposed: Low Density Residential

4.0 Purpose Statement

Wolfe Properties PUD is a proposed residential project to be developed under the Town of Apex ordinance as a Planned Unit Development (PUD). The project contains six parcels under contract by Envision Homes, LLC. The project is located along Wimberly Road and adjacent to the Preserve at White Oak development. These parcels are all designated as Low Density Residential on the 2045 Land Use Map.

The proposal to rezone this property to PUD-CZ is in keeping with the town's objectives to create high quality developments with a small town feel. This development will be a pedestrian friendly community with sidewalks along both sides of the internal public streets and sidewalk stubs to the future Town of Apex Park. The project will cluster small lots and townhome units near the future town park to create a community feel and ensure the future park is an amenity to the community. This development will enhance the value of the surrounding properties by providing quality residential development for the areas as a mixed residential development.

5.0 Permitted Uses

The Town of Apex UDO allows a mixture of uses in the PUD zoning district and the owners have chosen to further restrict the allowable uses as listed below:

Residential Uses

Single family (Minimum Lot Size = 6,000 sf)

Townhome (Minimum Width = 20')

Accessory Apartment

Utilities

Utility, minor

Recreational Uses

Greenway

Park, active

Park, passive

Recreational facility, private

Government Services – Limited to Parcel #1 and #2 as shown on the PUD Plan.

6.0 Design Controls

6.1 Maximum Densities

Maximum residential density for the project is 3.0 units per gross acre or a maximum of 130 units. The total gross acreage for the property is 43.52. This development proposes 130 units.

6.2 Proposed Maximum Height of the Buildings and Number of Stories

Single Family Maximum Height – 42'	Single Family Maximum Stories – 2
Townhouses – Maximum Height – 50'	Townhouses Maximum Stories – 3

6.3 Proposed Minimum Building Setbacks

Residential Single Family Detached

From Buffer or RCA – 10'
Front Yard – 10' Minimum
Side Yard – 5' Minimum (no aggregate)
Corner Side Yard – 10' Minimum
Rear Yard – 10' Minimum
Driveways from Back of Sidewalk to Garage – 20' (12' minimum width)

Townhouses

From Buffer or RCA – 10'
Front Yard – 10' Minimum
Side Yard (end units) – 5' Minimum
Rear Yard – 5' Minimum
From Public Right-of-Way to Garage – 20' Minimum where sidewalk is present
Building Side to Side – 10'
Building Side to Rear – 30'
Building Rear to Rear – 40'

Government Service

From Buffer or RCA – 0'
Where there is no Buffer or RCA – 10'

6.4 Percentage of Built upon Area

The UDO allows for a maximum 70 percent of built upon area in PUD project and the Wolfe Properties PUD will not exceed that amount.

6.5 Perimeter Buffers

The PD plans show buffers around the site to provide visual breaks between uses and public roads. We are proposing a 30' Type B buffer along Wimberly Road. The perimeter buffers have been shown to be a 20' Type B buffer with the exception of property that abuts Town property;

this shall be 10' Type B buffer. If Government Services are proposed, the buffers shall be a Type A. However, in no case shall a buffer be required between existing Town property and land dedicated to or planned for dedication to the Town. A 100' no clear cut buffer is a deed restriction buffer along the property line that abuts property with PIN: 0723-51-7896. The only disturbance permitted within this buffer shall be public infrastructure, a driveway to serve the referenced PIN, and the installation of a fence within the buffer near the common property line. Such fence shall not be chain link.

No buffer shall be required along major or minor collector streets. However, street trees, located outside of the right of way shall be planted along Mirkwood Avenue, from the entrance at Wimberly Road to the first single-family residential lot.

In instances where the private play lawn exceeds 2% slope, a dog-waste station shall be installed. Maximum slope for a private play lawn shall be 10%,

6.6 Economy Housing Condition

Where economy housing is housing that can be purchased by a household that earns approximately the median household income for Wake County, Wolfe Properties PUD will address economy housing by providing a minimum of 10% of the total number of units of the development, as determined at the master subdivision phase. The townhouse units shall have a minimum width of 18' and a maximum width of 20' with no garages and allowable parking in compliance with Section 8.3 however they shall adhere to all other setback and architectural conditions set forth in the PUD plan.

7.0 Architectural Standards

7.1 Single Family Detached Residential Standards

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. Garage doors must contain windows, decorative details or carriage-style adornments.
3. House entrances for homes with front facing single-car garages must have a covered porch/stoop area leading to the front door.
4. The garage cannot protrude more than one foot out from the front façade or front porch unless it is a side entry garage.
5. The visible side of a home on a corner lot facing the public street shall contain at least 2 decorative elements such as, but not limited to, the following elements.
 - Windows
 - Bay Window
 - Recessed Window
 - Decorative Window
 - Trim around the Windows
 - Wrap around porch or Side Porch

- Two or More Building Materials
 - Decorative Brick/Stone
 - Decorative Trim
 - Decorative Shake
 - Decorative Air Vents on Gable
 - Decorative Gable
 - Decorative Cornice
 - Column
 - Portico
 - Balcony
 - Dormer
6. All windows on a side elevation shall have decorative trim, shutters or shall be a bay window.
 7. Front porches, when provided, shall be at least six-feet (6') deep.
 8. A varied color palette shall be utilized on homes throughout the subdivision to include a minimum of three color families for siding and shall include varied trim, shutter, and accent colors complimenting the siding color.
 9. Eaves shall project at least 12 inches from the wall of the structure.
 10. The roof shall be pitched at 5:12 or greater for 75% of the building designs. These lots will be identified on the plat.

7.2 Residential Townhome Standards

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. There shall be one roof element such as a gable or dormer on each unit.
3. Garage doors must contain windows, decorative details or carriage-style adornments.
4. House entrances for units with front facing single-car garages must have a covered porch/stoop area leading to the front door.
5. The garage cannot protrude more than one foot out from the front façade or front porch.
6. All exterior windows shall have decorative trim on all four sides.
7. On corner lots, the side elevation facing the public street shall contain at least two decorative elements such as but not limited to:
 - Trim around windows
 - Two or more building materials
 - Decorative brick/stone
 - Side Entry

7.3 Additional Residential Standards

1. All homes shall provide conduit for the future installation of roof top solar panels, including townhomes and economy housing units.
2. Conducting a solar site orientation analysis to provide for at least six (6) homes in the development built with 3KW active solar systems on the roof, which is approximately 5-6% of the overall units. These units will be identified on the plat.
3. All homes shall have an "Energy Star" Certification offered as a buyer selected option during or prior to construction.
4. All homes with garages shall have the option if a buyer selects to add an electric vehicle charging station installed in the garage.

7.4 Non-Residential Use Standards

1. EIFS or synthetic stucco shall not be used in the first four feet above grade.
2. The building exterior shall have more than one (1) material color.
3. The building shall have more than one parapet height.
4. The following exterior materials shall not be permitted: vinyl siding, painted, smooth-faced concrete block (decorative blocks are acceptable).

8.0 Parking and Loading

Parking and loading requirements for the residential areas shall conform to the parking standards listed in the Town of Apex UDO Section 8.3.

9.0 Signs

Signage for this project will comply with UDO section 8.7. The developer shall submit a master sign plan that shows signage locations and details of signage patterns throughout the development.

10.0 Natural Resource and Environmental Data

- 10.1 This project is located in the Jordan Lake drainage basin which is in the Cape Fear Basin. This project currently falls just outside the primary watershed protection overlay district as shown on the Town of Apex watershed maps; however once annexed it will be in the primary watershed protection overlay district.
- 10.2 There is no FEMA mapped floodplain on the site as shown on FEMA FIRM Map Number 3720072300 or 3720072201, dated May 2, 2006.
- 10.3 There are no known historic structures on this project.
- 10.4 The PUD is required to provide at least 25% of the total area for Resource Conservation Area and landscape buffers. If the residential single family lots are mass graded, then the project shall dedicate an additional 5% RCA. For this project that will equate to 10.88 acres of required RCA area. This project proposes to dedicate 10.90 acres and will increase that area if mass graded.
- 10.5 Existing deciduous trees greater than 18" in diameter that are removed by site development shall be replaced by planting a 1.5" caliper native tree from the Town of Apex Design and Development Manual either on-site or at an alternative site location approved by Town Planning Staff.

11.0 Stormwater Management

Wolfe Properties PUD will meet all applicable requirements and standards as described in section 6.1 of the Apex UDO. This project will meet all stormwater reduction requirements including limiting the post-development stormwater flows to not exceed the pre-development stormwater runoff for the 1 year and 10 year storm events. This project will commit to providing attenuation for the 2 year and 25 year storms as well.

Wolfe Properties PUD will use approved devices to control the stormwater sediment runoff. These devices may include wet detention basins, constructed wetlands, bioretention areas, sand filters or any other approved stormwater control measure. Stormwater control devices shall be landscaped and constructed to be an amenity to the development and shall blend into the surroundings.

12.0 Parks and Recreation

The Wolfe Properties PUD was reviewed by the Parks, Recreation and Cultural Resources Advisory Commission on February 26th, 2020 and they unanimously recommended a land dedication in the location provided in the PUD Plan, located contiguous to the southern boundary of the future park property along the frontage of Wimberly Road to comply with Sec 14.1.3 Standards of Dedication. The total acreage to be dedicated will be determined by the total unit count at the time of Master Subdivision Plan approval. They also recommended the reservation of a Public Greenway Easement along one of the Utility Easement corridors to

provide access to the Park for the Wolfe Properties PUD as well as the Preserve at White Oak Creek with the location being determined at the time the Master Subdivision Plan approval.

Additionally, to assist the Town of Apex with future plans, the project offers the following conditions:

1. Zoning condition for environmental assessment: A Phase I environmental assessment will be completed on the property to be dedicated to the Town and provided to the Town prior to construction plan approval.
2. Zoning condition for land dedication: Since the Town of Apex determined that it wants the land dedication for the purposes of a public safety station versus park land, the land dedication will occur by April 30, 2021.
3. Zoning condition for road improvements: Since the Town of Apex determined that it wants the land dedication for the purposes of a public safety station versus park land, road construction for Mirkwood Avenue from Wimberly Road to just past the easternmost planned public safety station driveway for access only no later than July 31, 2021. Final construction and acceptance of the roadway shall be determined in a developer's agreement between the Town of Apex and the developer.
4. Zoning condition for timing of CD approval: Because the Town of Apex determined that it wants the land dedication for the purposes of a public safety station versus park land, a temporary driveway permit signed by NCDOT will suffice for Construction Drawing approval, provided the final driveway permit application has been submitted to NCDOT; any changes from the temporary driveway permit to the final driveway permit will be the responsibility of the developer, and this shall in no way release the developer from all other applicable requirements prior to Construction Drawing approval.

13.0 Public Facilities

All internal public streets will have sidewalks on both sides of the street. Roadway improvements will be required along Wimberly Road and these improvements will be coordinated with the Town of Apex and NCDOT. The roadway widening along Wimberly Road shall be based on the Town of Apex's thoroughfare plan. The project will provide a minor collector street through the subdivision that will stub to north for future extension as shown on the town's thoroughfare plan. Bicycle and pedestrian improvements associated with subdivision 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 subdivision plan approval as provided for in the UDO.

In compliance with the Town of Apex's UDO Section 13.19.4, the project offers, subject to NCDOT review and approval the following off-site roadway improvements:

1. Green Level West and Wimberly Road Intersection: The developer shall construct a northbound taper right turn lane on Wimberly Road with 50-foot of full width deceleration and a 100-foot taper prior to the first plat. Construction of curb and gutter will be limited to only along the 50-foot deceleration along the sidewalk and storm drainage structures will only be placed in areas as necessary to continue existing drainage patterns and not restrict existing structures.
2. Wimberly Road and Jenks Road Intersection: The developer shall construct a southbound taper right turn lane on Wimberly Road with 50-foot of full width deceleration and a 100-foot taper prior to the first plat. No curb & gutter will be installed. Vegetated conveyances will be utilized to stay consistent with current conditions and no upgrades to existing storm drainage infrastructure.
3. Pay fee in lieu for 450 linear feet of sidewalk so that connectivity can be made in the future from our northern property line to the park entrance along Wimberly Road. Area in blue on map as presented to Town Council.

All landscaping to be located within the rights-of-way bordering Public Safety Station #6 (Wimberly Road and Mirkwood Avenue) shall be delayed until after the C.O. of Public Safety Station #6; plantings shall be installed and inspected by a zoning compliance officer within three (3) months of the C.O.

As shown on the PUD Utility Plan, the sanitary sewer connection will connect to an existing sewer manhole and line near the northern end of Double Helix Road. Water distribution service will be provided to this project by eight inch waterline connection to the existing twelve inch waterline along Wimberly Road.

14.0 Phasing

The project shall be developed in multiple phases and construction would likely start in 2021.

15.0 Consistency with Land Use Plan

The Town of Apex 2045 Land Use Map currently designates these parcels as Low Density Residential. We believe this PUD is appropriate for the area and is consistent with the current intent of the Town Council.

16.0 Compliance with the UDO

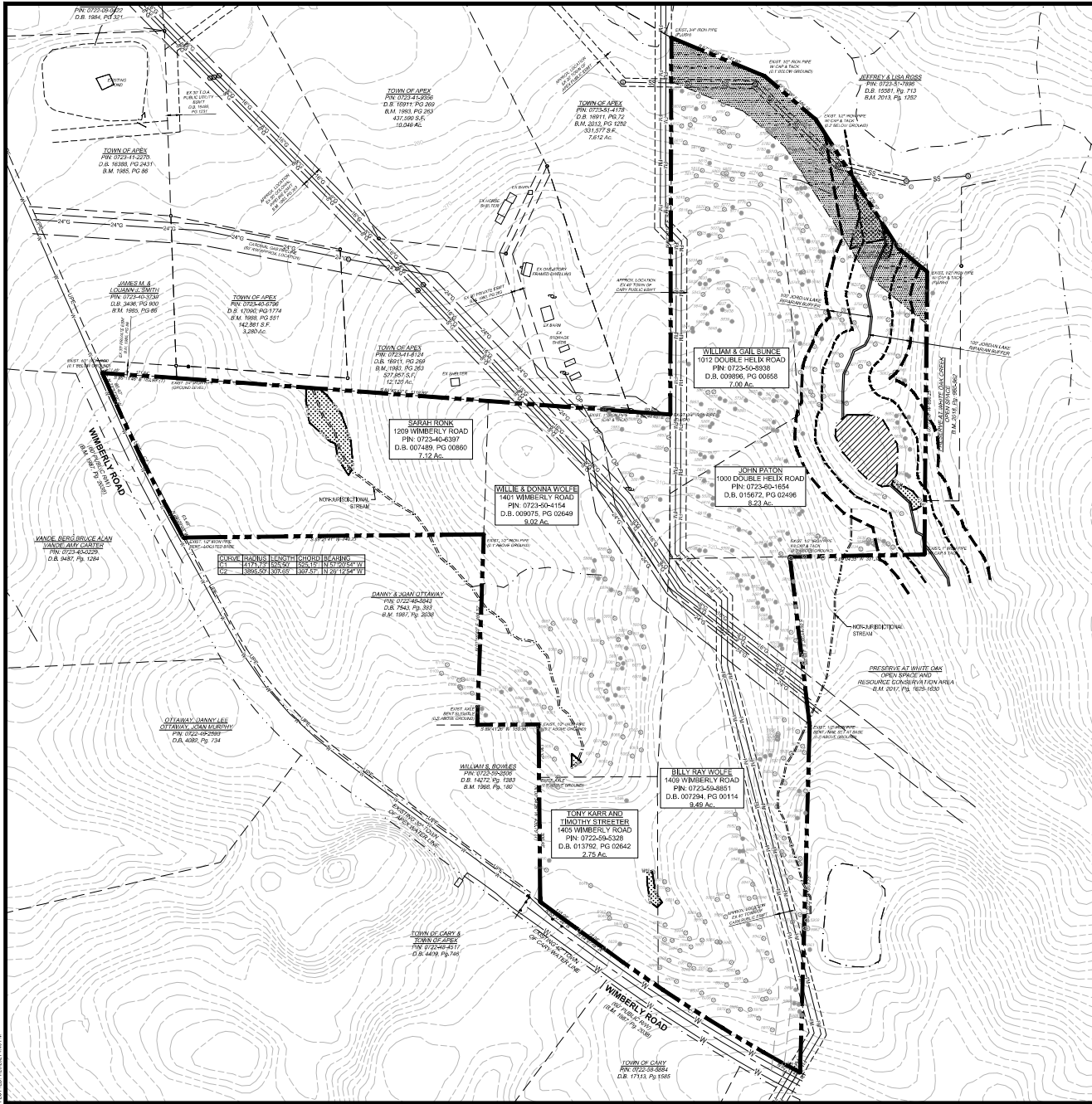
The proposed plans for Wolfe Properties PUD are in compliance with the standards and allowances provided in the current approved version of the Town of Apex Unified Development Ordinance. Any variance from UDO requirements has been noted in this plan.

17.0 Land Use Notes

17.1 This project will require the formation of a Homeowners Association which will handle the maintenance of common areas, buffers, RCA, stormwater devices, etc.

17.2 Any existing structures on the subject properties will be either moved or removed from the site. Additionally, all private wells and septic tanks shall be removed and/or abandoned per federal, state and local standards.

END OF REPORT



Surveyor:

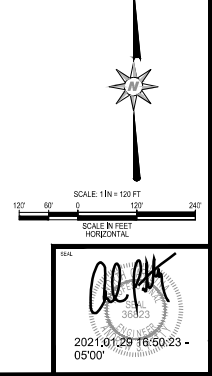
Taylor Land Consultants
 5446 Apex Parkway
 Apex, NC 27502
 919.801.1104 (o)
 919.337.7988 (m)
 Contact: Jeremy Taylor, PLS

GENERAL NOTES:

1. THIS PLAN IS NOT INTENDED FOR PLATTING OR RECORDATION. THE INTENT OF THIS PLAN IS TO ILLUSTRATE THE EXISTING FEATURES, STRUCTURES AND TOPOGRAPHY OF THE PROPERTY. TOPOGRAPHY SHOWN ON THIS IS PLAN IS PER WAKE COUNTY GIS - FOR PRELIMINARY USE ONLY.
2. THE INFORMATION SHOWN ON THIS PLAN WAS PROVIDED AND DEVELOPED BY OTHERS. CURRY ENGINEERING DOES NOT GUARANTEE THE ACCURACY OF THE INFORMATION. THE INFORMATION SHOWN REPRESENTS A FIELD SURVEY CONDUCTED SEPTEMBER 2019.
3. THE ENGINEER UNDERSTANDS THE SURVEY INFORMATION PROVIDED TO MEET THE FOLLOWING CRITERIA:
 - ENCLOSURE WAS DISTRIBUTED BY THE COMPASS METHOD, THE DISTANCES ON THE MAP ARE ADJUSTED HORIZONTAL. GROUND DISTANCES UNLESS OTHERWISE NOTED. ALL AREA CALCULATED BY COORDINATE COMPUTATION.
 - THIS PLAN HAS BEEN PREPARED FOR LAYOUT AND PERMITTING PURPOSES ONLY.
 - ALL DISTANCES ARE HORIZONTAL. GROUND DISTANCES UNLESS OTHERWISE NOTED.
 - PROPERTY IS SUBJECT TO ALL EASEMENTS AND RESTRICTIONS OF RECORD.
 - THIS SURVEY WAS PERFORMED WITHOUT THE BENEFIT OF A TITLE COMMITMENT.
4. EXISTING CONDITIONS SHOWN DOES NOT CERTIFY TO THE EXISTENCE OR NON-EXISTENCE OF UNDERGROUND UTILITIES THAT MAY OR MAY NOT BE PRESENT ON SITE. CONTRACTOR TO FIELD VERIFY AND LOCATE ALL UNDERGROUND UTILITIES PRIOR TO START OF EXCAVATION.
5. PROPERTY IS LOCATED WITHIN THE PRIMARY WATERSHED OVERLAY DISTRICT.
6. PROPERTIES ARE NOT LOCATED IN A HISTORIC DISTRICT NOR CONTAIN ANY HISTORIC STRUCTURES PER THE WAKE COUNTY INVENTORY OF HISTORIC STRUCTURES - APEX JURISDICTION.
7. FOR SURFACE WATER INFORMATION, REFER TO APEX STREAM BUFFER DETERMINATION LETTER APEX #1504

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 TOWNSHIP ENGINEERING 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.



7. THESE SETS OF PLANS ARE THE PROPERTY OF CURRY ENGINEERING AND SHALL REMAIN THE PROPERTY OF CURRY ENGINEERING UNLESS OTHERWISE SPECIFIED. ANY REUSE OF THESE SETS OF PLANS WITHOUT THE WRITTEN PERMISSION OF CURRY ENGINEERING IS STRICTLY PROHIBITED.

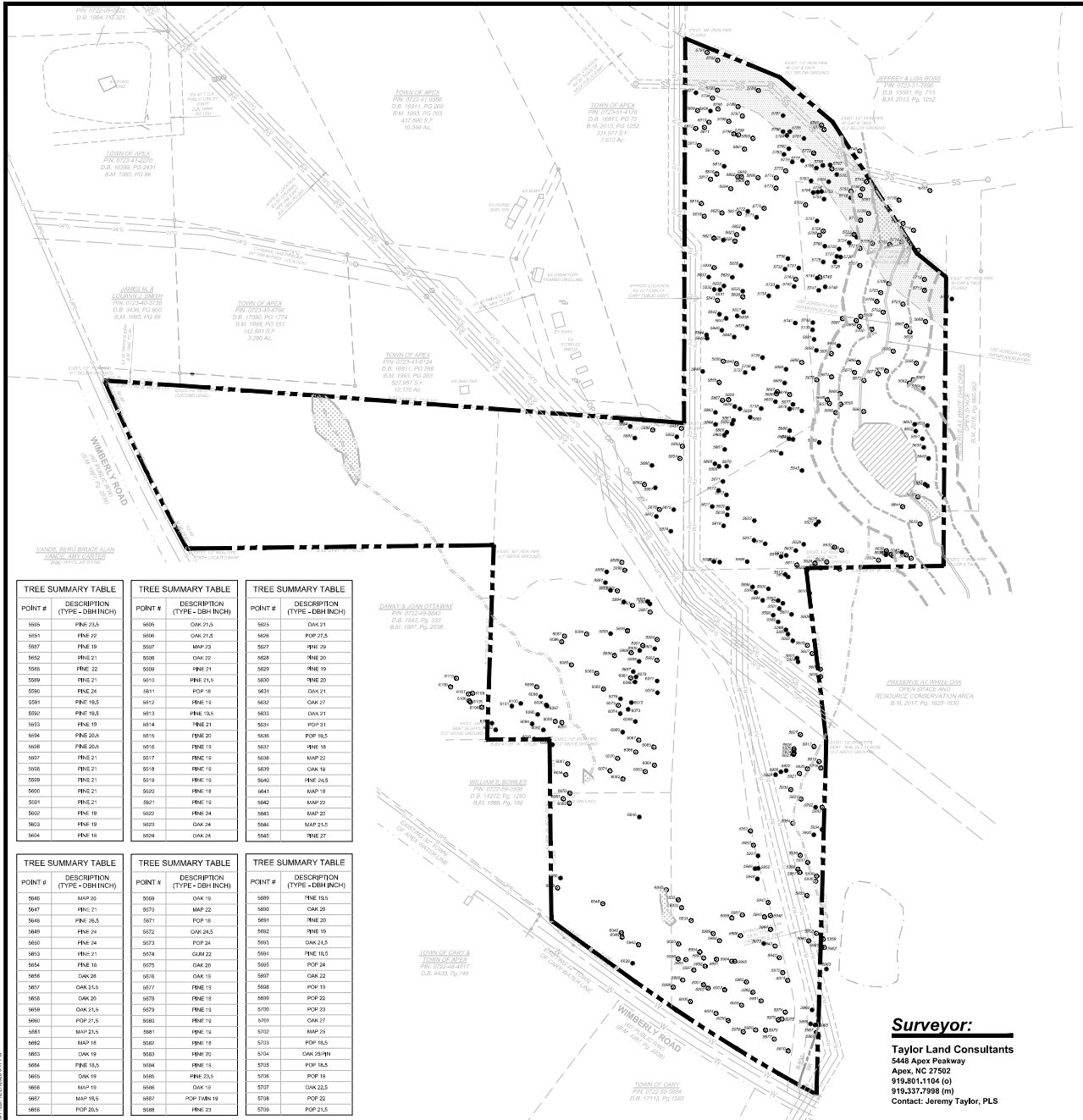
DATE	DESCRIPTION
11/02/2019	FINAL PLAN
10/29/2019	REVISED PLAN
10/29/2019	REVISED PLAN
10/29/2019	REVISED PLAN
10/29/2019	REVISED PLAN

WOLFE PROPERTIES PUD - PD PLANS
EXISTING CONDITIONS PLAN

CURRY ENGINEERING
 1110 BROADWAY
 SUITE 200
 WAKE FOREST, NC 27158
 (919) 853-2222
 www.curryeng.com

C-01

C:\ADMIN\GIS\GIS\PROJECTS\GIS\PROJECTS\APR\WOLFEPROPERTIESPUD\LANDSET\RECORDTREE\SURV.DWG



TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5710	MAP 18.5
5711	OAK 20.5
5712	OAK 19.5
5713	OAK 20.5
5714	POP 18.5
5715	OAK 18.5FN
5716	GUM 27.0
5717	DT 21
5718	FNE 21
5719	OAK 23.5
5720	POP 20
5721	POP 19
5722	FNE 21
5723	OAK 22
5724	FNE 27
5725	FNE 19.5
5726	FNE 19.5
5727	FNE 18
5728	FNE 21.5
5729	FNE 20.5

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5730	FNE 23.5
5731	FNE 20
5732	FNE 18
5733	FNE 18
5734	FNE 18
5735	FNE 18
5736	FNE 18
5737	FNE 19
5738	FNE 18
5739	FNE 19
5740	FNE 19
5741	FNE 18.5
5742	FNE 18
5743	OAK 18.5
5744	FNE 22
5745	POP 18
5746	FNE 21
5747	POP 18
5748	POP 18

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5750	OAK 18
5751	POP 20
5752	FNE 26
5753	FNE 20.5
5754	FNE 19
5755	FNE 18
5756	FNE 18
5757	FNE 20
5758	OAK 19
5759	POP 20
5760	FNE 20
5761	FNE 19
5762	OAK 18
5763	FNE 18.5
5764	FNE 22.5
5765	FNE 16.5
5766	POP 18
5767	FNE 30
5768	FNE 23.5
5769	FNE 30

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5770	OAK 19
5771	FNE 20.5
5772	FNE 20
5773	POP 22.5
5774	OAK 18.5
5775	OAK 18.25FN
5776	FNE 20.2
5777	FNE 21
5778	POP 22
5779	OAK 19
5780	POP 20
5781	FNE 18
5782	FNE 20
5783	FNE 21
5784	OAK 21
5785	FNE 20
5786	FNE 23
5787	FNE 21
5788	OAK 18
5789	OAK 20.5

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5791	POP 20
5792	OAK 20.5
5793	DT 20
5794	OAK 18
5795	OAK 20.5
5796	OAK 18
5797	OAK 18.5
5798	OAK 20.5
5799	OAK 19
5800	POP 21
5801	OAK 18.0
5802	DT 21FN
5803	OAK 18
5804	OAK 21
5805	MAP 15
5806	OAK 25FN
5807	FNE 18
5808	FNE 20.5
5809	OAK 24
5810	OAK 19

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5811	OAK 19.5
5812	OAK 20.5
5813	OAK 18.5
5814	OAK 24
5815	FNE 19
5816	OAK 22
5817	OAK 18.5
5818	OAK 18.5
5819	OAK 19
5820	OAK 19
5821	POP 18
5822	FNE 19
5823	POP 22
5824	FNE 21
5825	FNE 21
5826	POP 20.5
5827	OAK 22.5
5828	FNE 16.5
5829	FNE 18.5
5830	FNE 19
5831	FNE 19

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5832	FNE 18
5833	FNE 21
5834	OAK 18.5
5835	FNE 18.5
5836	OAK 19
5837	FNE 19
5838	FNE 18
5839	FNE 18.5
5840	FNE 19
5841	FNE 20
5842	FNE 19.5
5843	OAK 20
5844	FNE 19
5845	FNE 21
5846	FNE 27
5848	FNE 25
5849	OAK 18FN
5850	MAP 23.5
5851	OAK 21
5852	FNE 20

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5853	OAK 22
5854	OAK 19
5855	OAK 18.5
5856	OAK 21
5857	OAK 18.25FN
5858	FNE 18
5859	FNE 21
5860	FNE 19
5861	FNE 21
5862	FNE 19.5
5863	FNE 20
5864	FNE 20
5865	FNE 20
5866	FNE 20
5867	FNE 18
5868	FNE 18.5
5869	FNE 19
5870	OAK 18
5871	FNE 18
5872	FNE 19

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5873	FNE 18
5874	FNE 20
5875	FNE 18.5
5876	OAK 27.5
5877	FNE 16.5
5880	FNE 23
5881	FNE 20
5882	OAK 24.5
5883	FNE 19
5884	FNE 20
5885	FNE 25
5888	OAK 22.5
5889	FNE 23
5890	FNE 20.5
5893	OAK 20
5894	OAK 20
5895	FNE 23
5896	OAK 23.5
5898	FNE 18.5
5899	OAK 18
5900	OAK 18
5904	FNE 21

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5905	FNE 18.5
5906	OAK 18.5
5907	FNE 18.5
5908	FNE 18
5909	MAP 20.5
5910	FNE 21.5
5911	OAK 20.5
5912	OAK 22.5
5913	FNE 20
5914	DT 21
5915	OAK 18
5917	OAK 19
5918	FNE 22
5919	FNE 20.5

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5915	FNE 23.5
5916	FNE 22
5917	FNE 21
5918	FNE 21
5919	FNE 21
5920	FNE 21
5921	FNE 21
5922	FNE 21
5923	FNE 21
5924	FNE 21
5925	FNE 21
5926	FNE 21
5927	FNE 21
5928	FNE 21
5929	FNE 21
5930	FNE 21
5931	FNE 21
5932	FNE 21
5933	FNE 21
5934	FNE 21
5935	FNE 21
5936	FNE 21
5937	FNE 21
5938	FNE 21
5939	FNE 21
5940	FNE 21
5941	FNE 21
5942	FNE 21
5943	FNE 21
5944	FNE 21
5945	FNE 21
5946	FNE 21
5947	FNE 21
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5950	FNE 21
5951	FNE 21
5952	FNE 21
5953	FNE 21
5954	FNE 21
5955	FNE 21

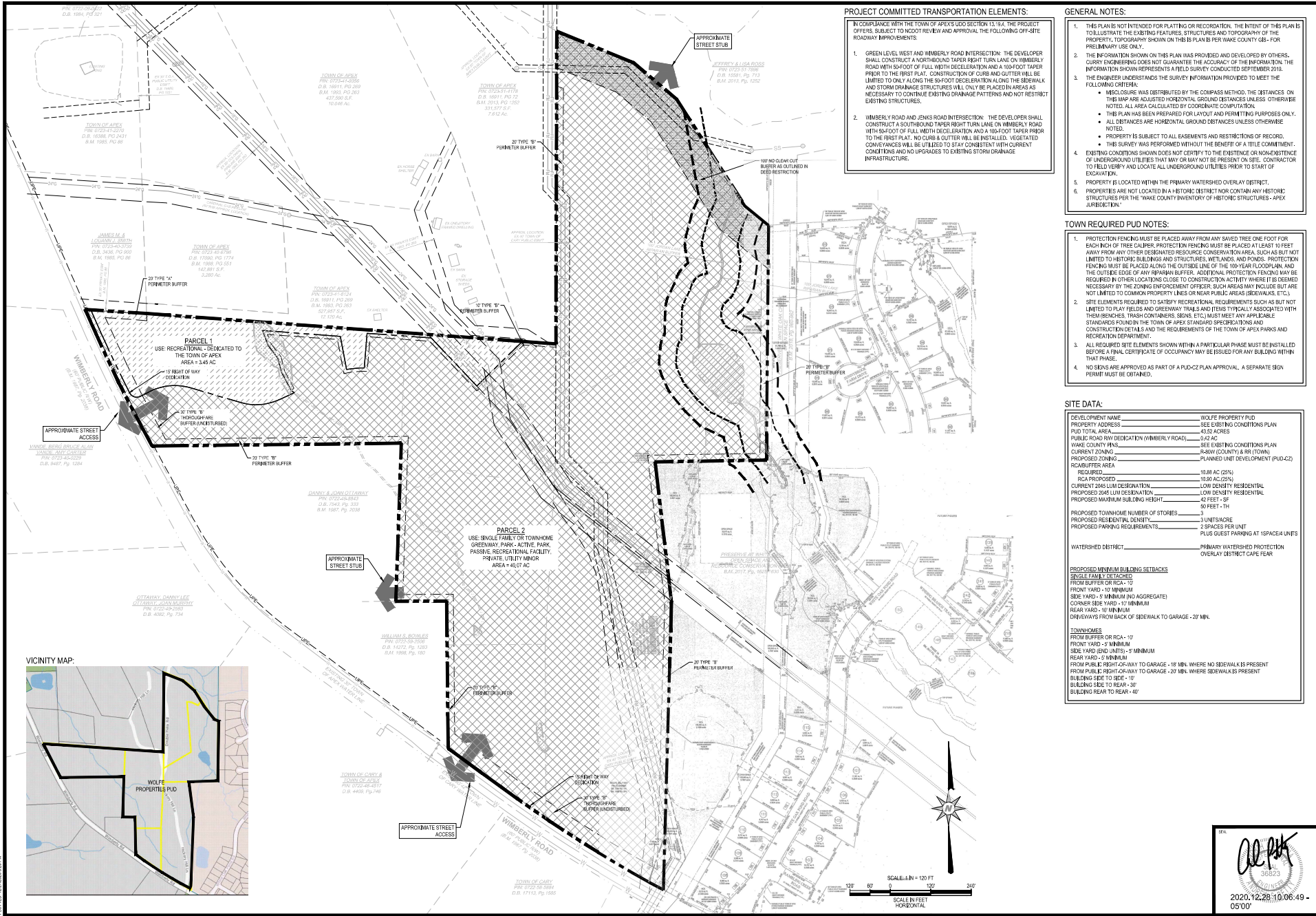
TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5956	OAK 21.5
5958	OAK 21.5
5959	MAP 20
5962	OAK 22
5969	FNE 21
5970	FNE 21.5
5971	POP 19
5972	FNE 19
5973	FNE 18.5
5974	FNE 21
5975	FNE 20
5976	FNE 19
5977	FNE 19
5978	FNE 19
5979	FNE 19
5980	FNE 19
5981	FNE 19
5982	FNE 19
5983	FNE 19
5984	FNE 19
5985	FNE 19
5986	FNE 19
5987	FNE 19
5988	FNE 19
5989	FNE 19
5990	FNE 19
5991	FNE 19
5992	FNE 19
5993	FNE 19
5994	FNE 19
5995	FNE 19

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5996	OAK 21
5998	POP 27.5
5999	FNE 20
6000	FNE 20
6001	FNE 20
6002	OAK 21
6003	OAK 21
6004	OAK 21
6005	POP 31
6006	POP 18.5
6007	FNE 18
6008	MAP 22
6009	OAK 18
6010	FNE 24.5
6011	MAP 18
6012	MAP 22
6013	MAP 21
6014	MAP 24
6015	MAP 24.5
6016	FNE 27

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5945	MAP 20
5947	FNE 21
5948	FNE 20.5
5949	FNE 24
5950	FNE 24
5953	FNE 21
5954	FNE 18
5956	OAK 28
5957	OAK 21.5
5958	OAK 20
5959	OAK 21.5
5960	POP 21.5
5961	MAP 18
5962	OAK 19
5963	OAK 18
5964	FNE 18.5
5965	OAK 18
5966	MAP 19
5967	MAP 18.5
5968	POP 20.5

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5970	MAP 22
5972	OAK 24.5
5973	POP 24
5974	GUM 22
5975	OAK 20
5976	OAK 19
5977	OAK 19
5978	FNE 19
5979	FNE 19
5980	FNE 19
5981	FNE 19
5982	FNE 19
5983	FNE 19
5984	FNE 19
5985	FNE 19
5986	FNE 19
5987	FNE 19
5988	FNE 19
5989	FNE 19
5990	FNE 19
5991	FNE 19
5992	FNE 19
5993	FNE 19
5994	FNE 19
5995	FNE 19
5996	FNE 19
5997	FNE 19
5998	FNE 19
5999	FNE 19
6000	FNE 19

TREE SUMMARY TABLE	
POINT #	DESCRIPTION (TYPE - DBH INCH)
5980	FNE 19.5
5981	OAK 20
5982	OAK 19
5983	OAK 20
5984	OAK 20
5985	OAK 20
5986	OAK 20
5987	OAK 20
5988	OAK 20
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6083	OAK 20
6084	OAK 20
6085	OAK 20
6086	OAK 20
6087	OAK 20
6088	OAK 20
6089	OAK 20
6090	OAK 20
6091	OAK 20
6092	OAK 20
609	



PROJECT COMMITTED TRANSPORTATION ELEMENTS:

IN COMPLIANCE WITH THE TOWN OF APEX'S UDC SECTION 13.18, THE PROJECT OFFERS, SUBJECT TO NEXT REVIEW AND APPROVAL, THE FOLLOWING OFF-SITE ROADWAY IMPROVEMENTS:

- GREEN LEVEL WEST AND WIMBERLY ROAD INTERSECTION:** THE DEVELOPER SHALL CONSTRUCT A NORTHBOUND TAPER RIGHT TURN LANE ON WIMBERLY ROAD WITH 50-FOOT OF FULL WIDTH DECELERATION AND A 10-FOOT TAPER PRIOR TO THE FIRST PLAT. CONSTRUCTION OF CURBS AND GUTTERS WILL BE LIMITED TO ONLY ALONG THE 50-FOOT DECELERATION ALONG THE SIDEWALK AND STORM DRAINAGE STRUCTURES WILL ONLY BE PLACED IN AREAS AS NECESSARY TO CONTINUE EXISTING DRAINAGE PATTERNS AND NOT RESTRICT EXISTING STRUCTURES.
- WIMBERLY ROAD AND JENKS ROAD INTERSECTION:** THE DEVELOPER SHALL CONSTRUCT A SOUTHBOUND TAPER RIGHT TURN LANE ON WIMBERLY ROAD WITH 100-FOOT OF FULL WIDTH DECELERATION AND A 100-FOOT TAPER PRIOR TO THE FIRST PLAT. NO CURB & GUTTER WILL BE INSTALLED. VEGETATED CONVEYANCES WILL BE UTILIZED TO STAY CONSISTENT WITH CURRENT CONDITIONS AND NO UPDATES TO EXISTING STORM DRAINAGE INFRASTRUCTURE.

GENERAL NOTES:

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TOWN REQUIRED PUD NOTES:

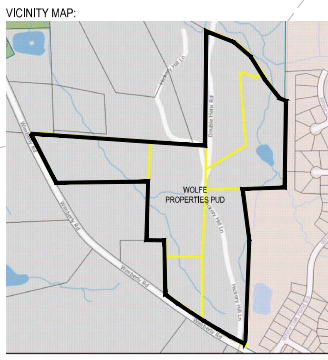
- PROTECTION FENCING MUST BE PLACED AROUND FROM ANY SAVED TREE ONE FOOT FOR EACH INCH OF TREE CALIPER. PROTECTION FENCING MUST BE PLACED AT LEAST 10 FEET AWAY FROM ANY OTHER DESIGNATED RESOURCE CONSERVATION AREA, SUCH AS BUT NOT LIMITED TO HISTORIC BUILDINGS AND STRUCTURES, WETLANDS, AND PONDS. PROTECTION FENCING MUST BE PLACED ALONG THE OUTSIDE LINE OF THE 100-YEAR FLOODPLAIN, AND THE OUTSIDE EDGE OF ANY STREAM 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.).
- SITE ELEMENTS REQUIRED TO SATISFY RECREATIONAL REQUIREMENTS SUCH AS BUT NOT LIMITED TO PLAY FIELDS AND GREENWAY TRAILS AND ITEMS TYPICALLY ASSOCIATED WITH THESE USES. TRASH CONTAINERS, BENS, 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.
- 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.
- NO SEXES ARE APPROVED AS PART OF A PUD-C2Z PLAN APPROVAL. A SEPARATE SEX PERMIT MUST BE OBTAINED.

SITE DATA:

DEVELOPMENT NAME	WOLFE PROPERTY PUD
PROPERTY ADDRESS	SEE EXISTING CONDITIONS PLAN
PUD TOTAL AREA	43.52 ACRES
PUBLIC ROAD ROW DESIGNATION (WIMBERLY ROAD)	0.42 AC
WAKE COUNTY PHS	SEE EXISTING CONDITIONS PLAN
CURRENT ZONING	SUBDIVISION & RES (TOWN)
PROPOSED ZONING	PLANNED UNIT DEVELOPMENT (PUD-C2Z)
RECREATION BUFFER AREA	19.89 AC (25%)
REQUIRED	19.90 AC (25%)
RCA PROPOSED	19.90 AC (25%)
CURRENT 2006 LUM DESIGNATION	LOW DENSITY RESIDENTIAL
PROPOSED 2006 LUM DESIGNATION	LOW DENSITY RESIDENTIAL
PROPOSED MAXIMUM BUILDING HEIGHT	42 FEET - 5F
PROPOSED TOWNHOME NUMBER OF STORES	50 FEET - 1F
PROPOSED RESIDENTIAL DENSITY	3 UNITS/ACRE
PROPOSED PARKING REQUIREMENTS	2 SPACES PER UNIT PLUS GUEST PARKING AT 1SPACE/4 UNITS
WATERSHED DISTRICT:	PRIMARY WATERSHED PROTECTION OVERLAY DISTRICT CAPE FEAR

PROPOSED MINIMUM BUILDING SETBACKS
 SINGLE FAMILY DETACHED
 FROM BUFFER OR RCA - 10'
 FRONT YARD - 10' MINIMUM
 SIDE YARD (END UNITS) - 5' MINIMUM
 REAR YARD - 5' MINIMUM
 FROM PUBLIC RIGHT-OF-WAY TO GARAGE - 18' MIN. WHERE NO SIDEWALKS IS PRESENT
 FROM PUBLIC RIGHT-OF-WAY TO GARAGE - 20' MIN. WHERE SIDEWALKS IS PRESENT
 BUILDING SIDE TO SIDE - 12'
 BUILDING SIDE TO REAR - 3F'
 BUILDING REAR TO REAR - 4F'

TOWNHOMES
 FROM BUFFER OR RCA - 10'
 FRONT YARD - 5' MINIMUM
 SIDE YARD (END UNITS) - 5' MINIMUM
 REAR YARD - 5' MINIMUM
 FROM PUBLIC RIGHT-OF-WAY TO GARAGE - 18' MIN. WHERE NO SIDEWALKS IS PRESENT
 FROM PUBLIC RIGHT-OF-WAY TO GARAGE - 20' MIN. WHERE SIDEWALKS IS PRESENT
 BUILDING SIDE TO SIDE - 12'
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 BUILDING REAR TO REAR - 4F'



DATE	10/20/2020
SCALE	1" = 100'
DATE	OCTOBER 19, 2020
FILE NO.	2020-12-28
PROJECT	WOLFE PROPERTIES PUD - PD PLANS
DATE	10/20/2020
SCALE	1" = 100'
DATE	OCTOBER 19, 2020
FILE NO.	2020-12-28
PROJECT	WOLFE PROPERTIES PUD - PD PLANS

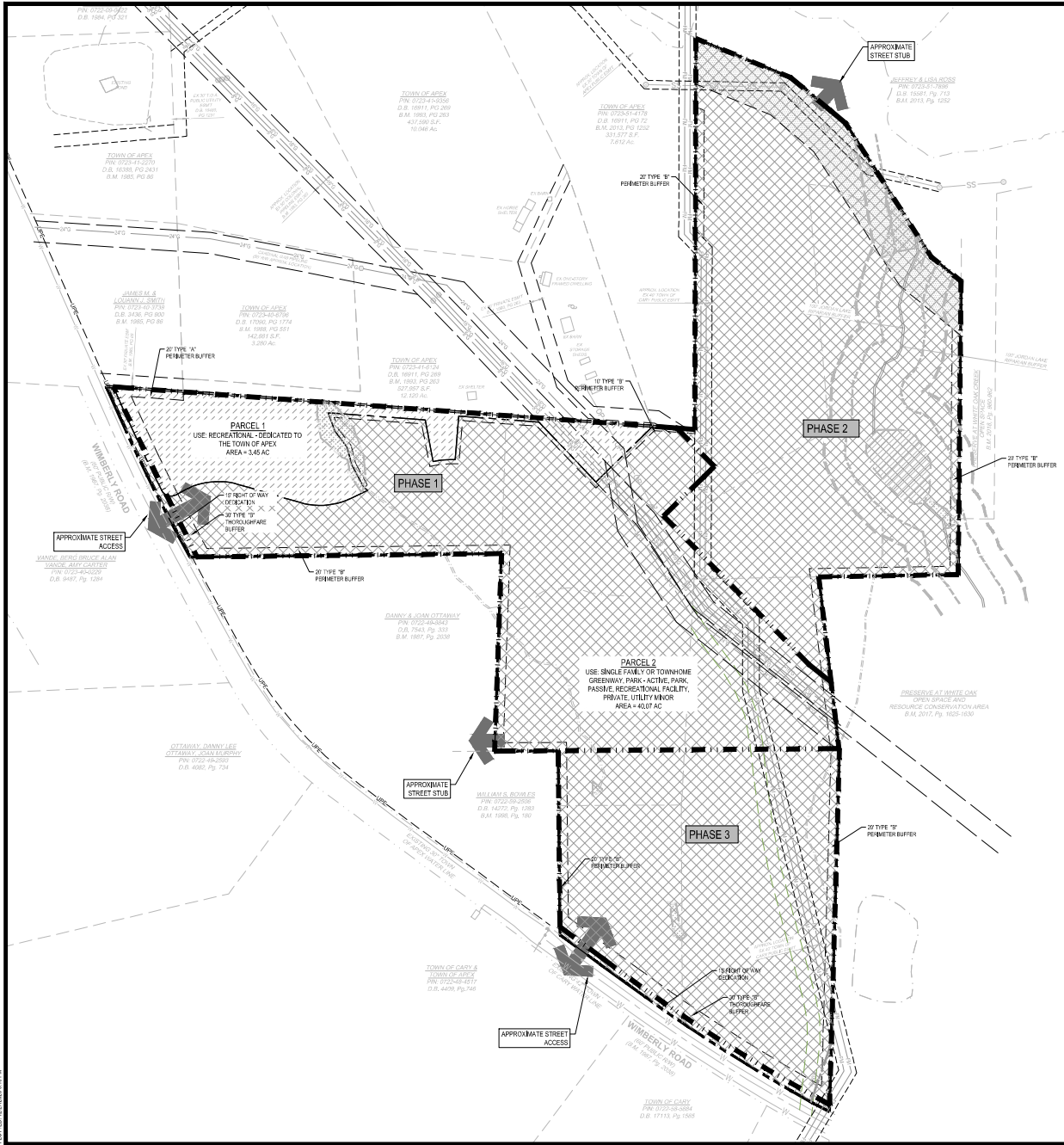
WOLFE PROPERTIES PUD - PD PLANS

PUD PLAN

CURRY ENGINEERING

C-03

CURRY ENGINEERING, 1000 WEST 10TH AVENUE, SUITE 100, DENVER, COLORADO 80202
 TEL: (303) 733-1111 FAX: (303) 733-1112
 WWW.CURRYENGINEERING.COM

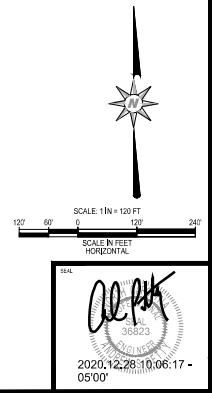


PHASING NOTES:

1. THE PHASE LINES SHOWN ARE APPROXIMATE AND ARE SUBJECT TO CHANGE DURING THE MASTER SUBMISSION PLAN PROCESS.
2. THE PHASE NUMBERS ARE SUGGESTIVE AND ARE NOT NECESSARILY THE ORDER IN WHICH THE PHASES WILL BE CONSTRUCTED. THE DEVELOPER HAS THE ABILITY TO DEVELOP THESE PHASES IN ANY ORDER DEPENDING ON THE AVAILABILITY OF MUNICIPAL SERVICES.

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 WITH A PARTICULAR PHASE MUST BE INSTALLED BEFORE A FINAL CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR ANY BUILDINGS WITHIN THAT PHASE.
4. NO SIGNS ARE APPROVED AS PART OF A PUD-CC PLAN APPROVAL. A SEPARATE SIGN PERMIT MUST BE OBTAINED.



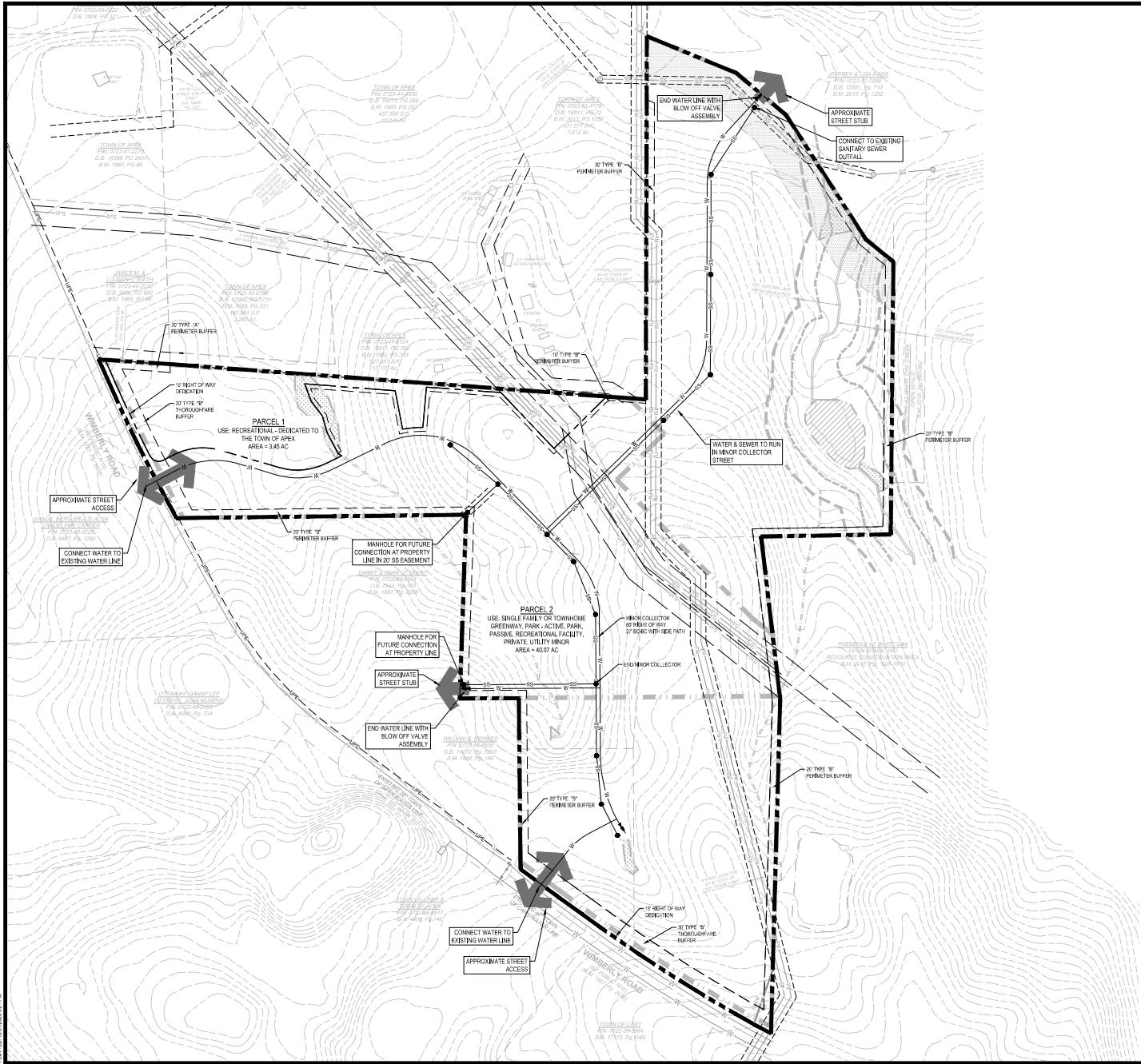
DATE: 10/27/2020	SCALE: 1" = 120'
PROJECT: WOLFE PROPERTIES PUD - PD PLANS PHASING PLAN	SHEET: 08
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PROJECT: WOLFE PROPERTIES PUD - PD PLANS PHASING PLAN	SHEET: 08

WOLFE PROPERTIES PUD - PD PLANS PHASING PLAN

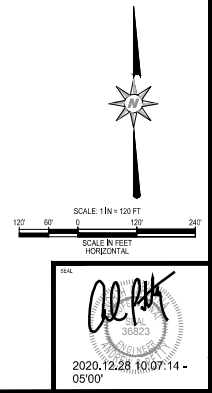
Curry
ENGINEERING

C-04

SUBMITTAL: CURRY ENGINEERING INC. 36623 WILBERLY ROAD, SUITE 100, WILBERLY, NC 27588. DATE: 10/07/14. PROJECT: WOLFE PROPERTIES PUD - PD PLANS UTILITY PLAN. SHEET: 10/20/0010.PLD



- GENERAL NOTES:**
- PLANNING NOTES:**
1. THE PARCEL AREAS AND RCA AREAS ARE APPROXIMATE AND MAY CHANGE AT THE TIME OF MASTER SUBDIVISION PLAN APPROVALS.
 2. THE LOCATION AND ALIGNMENT OF THE MINOR RESIDENTIAL STREET SHOWN HEREON ARE PRELIMINARY AND MAY CHANGE AT THE TIME OF MASTER PLAN APPROVAL.
 3. THE MAINTENANCE OF RCA, COMMON AREAS AND THE STORMWATER DEVICES SHALL BE MAINTAINED BY THE OWNER/OWNER OF EACH PARCEL.
 4. THE MINOR RESIDENTIAL STREET SHALL HAVE SIDEWALK ON ONE SIDE OF THE STREET INTERNAL PUBLIC STREET CONNECTIONS TO THE MINOR RESIDENTIAL STREET SHALL MEET TOWN OF APEX STANDARDS AND SPECIFICATIONS.
 5. 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 ILLUSTRATED TO SHOW CONNECTIONS AND SENSING.
 6. CONSTRUCTION VEHICLE PAVING 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.
 7. ONCE THE FIRST LIFT OF ASPHALT IS PASSABLE BY VEHICLES, TEMPORARY STREET SIGNS ARE REQUIRED.
 8. INSTALLATION OF SILT FENCE SHALL MAINTAIN 3' OF CLEARANCE AROUND FIRE HYDRANTS.
 9. TOWN OF APEX ELECTRIC UTILITIES CONTACT IS RODNEY SMITH AT 919-216-3342.
- 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 10-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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WOLFE PROPERTIES PUD - PD PLANS
UTILITY PLAN

CURRY ENGINEERING INC. 36623 WILBERLY ROAD, SUITE 100, WILBERLY, NC 27588. PHONE: 919-216-3342. FAX: 919-216-3343. EMAIL: INFO@CURRYENGINEERING.COM. WEBSITE: WWW.CURRYENGINEERING.COM

Curry ENGINEERING

C-05

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Liz Loftin, Senior Planner

Department(s): Planning and Community Development

Requested Motion

Motion to set Public Hearing for the March 23, 2021 Town Council meeting regarding Rezoning Application #20CZ14 Hackney PUD and Ordinance. The applicant, Brendie Vega, WithersRavenel, seeks to rezone approximately 79.79 acres located at 0, 2500, and 2600 Olive Chapel Rd (PINs 0721492629, 0722406699, & 0722411102) from Rural Residential (RR) and Wake County R-80W to Planned Unit Development-Conditional Zoning (PUD-CZ).

Approval Recommended?

The Planning and Community Development Department recommends approval.

Item Details

Attachments

- Vicinity Map
- Application





Rezoning #20CZ14

PLANNED UNIT DEVELOPMENT-CONDITIONAL ZONING DISTRICT PETITION 2045 LAND USE MAP AMENDMENT PROCESS INFORMATION



PD PLAN/PUD-CZ PETITION SUBMISSION: Applications are due by 12:00 pm on the first business day of each month. See the [PUD Plan Schedule](#) on the website for more details.

PD PLAN/PUD-CZ PETITION FEES:

PUD-CZ Request: \$1,500.00 + \$10 an acre
 PD Plan Amendment not requiring full TRC Review: \$500.00
 2045 Land Use Map Amendment: \$700.00

PRE-APPLICATION MEETING: A pre-application meeting with members of the Technical Review Committee is required to be scheduled prior to the submittal of a PD Plan for PUD-CZ. Pre-application meetings are typically scheduled on the 1st, 2nd and 5th Thursdays of the month.

To schedule a meeting, applicants must e-mail a pdf map, drawing, model, site or sketch plan to Planner Lauren Staudenmaier (lauren.staudenmaier@apexnc.org) no

later than five (5) working days prior to the desired meeting day.

PURPOSE OF A PUD-CZ (UDO Section 3.3.3(C)): The purpose of the PUD-CZ is to permit variations in order to allow flexibility for landowners to creatively plan for a site specific, higher quality overall development of their land in a way that is not possible through the strict application of the minimum standards of this Ordinance. This is done through the application of performance standards that: integrate and mix uses where a mix of uses is proposed, possess interconnectivity, reflect the small-town character of Apex, expand opportunities for public transportation, preserve of natural features, integrate resource conservation area into plan for development, and that public facilities are available.

NEIGHBORHOOD MEETING: Neighborhood meetings are required per UDO Section 2.2.7 prior to application submission. The applicant is required to notify property owners and any neighborhood association that represents citizens within that area within 300 feet of the subject property via first class mail a minimum of 10 days in advance of the neighborhood meeting. The applicant shall use their own return address on the envelopes as the meeting is a private meeting between the developer and the neighbors. The applicant shall submit the "Certified List of Property Owners" and "Neighborhood Meeting Packet" forms included in this application packet with their initial submittal. The Neighborhood Meeting Packet is located at the very end of this document.

ANNEXATION REQUIREMENTS: If a property or portion thereof subject to the PUD is outside the corporate limits and ETJ, an [annexation petition](#) is **REQUIRED** to be submitted on the same day as this application.

Electronic Submittal Requirements (submit in IDT): [Click here to access IDT Plans Website](#)

- | | |
|--|--|
| <ul style="list-style-type: none"> • PUD-CZ Application • PD Plan Text (pdf & Word versions) • Colored Rendering of Building Elevations – 11"x17" • Transportation Impact Analysis | <ul style="list-style-type: none"> • Site Plan Set • 24" x 36" size • Scale not less than: 1" = 50' horizontal, 1" = 5' vertical • Saved as pdf – no scanned plans |
|--|--|

Hard Copy Submittal Requirements: Submit to Planning Department

- | | |
|--|--|
| <ul style="list-style-type: none"> • PUD-CZ Petition Application • Petition Fee • One (1) hardcopy PD Plan Text • Three (3) bound Site Plan Sets – 24" x 36" size • Colored Rendering of Building Elevations • Legal Description (metes and bounds) • Certified List of Property Owners within 300 feet of subject property • Development Name Approval Application • Town of Apex Utilities Offer & Agreement • Agent Authorization Form • WCPSS Residential Development Notice • Neighborhood Meeting Packet • If applicable: Annexation Petition, map, legal description and \$200.00 fee • Two (2) bound copies of the Transportation Impact Analysis and 1 copy of the TIA & traffic analysis files | <ul style="list-style-type: none"> • on disk or FTP site at first submittal (if applicable) • One (1) set of envelopes addressed to Certified List of Property Owners within 300 feet of subject property and all the HOAs of those properties within 300' of the subject property. Planning staff may require an additional set of envelopes based on the timing of the Planning Board and Town Council meetings. • Addresses must be from a current list obtained from the Wake County GIS Map Services. A buffer report service is offered for \$1 per page. Please contact them at 919-856-6360 or http://www.wakegov.com/tax/Pages/default.aspx • Affixed with first class stamps & the following return address:
 Town of Apex Planning Department
 P.O. Box 250
 Apex, NC 27502 |
|--|--|

PETITION PROCESS INFORMATION

NEIGHBORHOOD MEETING: Neighborhood meetings are required per UDO Section 2.2.7 prior to application submission. The applicant is required to notify property owners and any neighborhood association that represents citizens within that area within 300 feet of the subject property via first class mail a minimum of 10 days in advance of the neighborhood meeting. The applicant shall use their own return address on the envelopes as the meeting is a private meeting between the developer and the neighbors. The applicant shall submit the “Certified List of Property Owners” and “Neighborhood Meeting Packet” forms included in this application packet with their initial submittal. The Neighborhood Meeting Packet is located at the very end of this document.

REVIEW FOR SUFFICIENCY: Incomplete plans will be returned to the applicant and sufficiently complete applications are forwarded to the planning staff for review.

REVIEW BY STAFF: Planning staff reviews the application to determine compliance with the Unified Development Ordinance (UDO). If the application is determined not to be compliant with the UDO, comments will be sent to the applicant. The applicant must address all staff comments before any public hearings are scheduled.

PUBLIC HEARING NOTIFICATION: Notification of the public hearing will take place by three different methods. A written notice will be sent to nearby property owners not more than 25 days nor less than 14 days prior to the public hearings, as required by the UDO. The Planning Department will prepare these written notifications for all property owners of the land subject to the application and all property owners within 300 feet of the land subject to the application. A notice will be published on the Town of Apex website (www.apexnc.org) no less than 10 days, but not more than 25 days, prior to the public hearings, and a notice will be posted at the land subject to the application at least 14 days prior to the public hearings.

1ST PUBLIC HEARING/PLANNING BOARD MEETING: The Planning Board will consider the application, relevant support materials, the Staff Report and public testimony given at the public hearing. After the public hearing the Planning Board will make a recommendation to the Town Council. The Planning Board may recommend approval, approval with conditions or disapproval. The application is then forwarded to the Town Council. The Planning Board meets at 4:30 p.m. in the Town Hall Council Chambers on the date indicated on the Rezoning Schedule.

2ND PUBLIC HEARING/TOWN COUNCIL MEETING: The Town Council will consider the application, relevant support materials, the Staff Report, the Planning Board recommendation and public testimony given at the public hearing. After the public hearing the Town Council will vote to approve, approve with conditions or disapprove the rezoning. The Town Council meets at 6:00 p.m. in the Town Council Chambers on the date indicated on the Rezoning Schedule.

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: Hackney Tracts
Address(es): 2600 Olive Chapel Road, 2500 Olive Chapel Road, & 0 Olive Chapel Road
PIN(s) 0721492629, 0722406699, & 0722411102

_____ Acreage: 79.79 ac.
Current Zoning: RR & R-80W Proposed Zoning: PUD-CZ
Current 2045 LUM Designation: Med. Density Residential
Requested 2045 LUM Designation: Med. 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 2045 Land Use Map) provide the following:

Area classified as mixed use: Acreage: 0 ac.
Area proposed as non-residential development: Acreage: 0 ac.
Percent of mixed use area proposed as non-residential: Percent: 0%

Applicant Information

Name: WithersRavenel
Address: 137 S. Wilmington Street, Suite 200
City: Raleigh State: NC Zip: 27601
Phone: 919.469.3340 E-mail: bvega@withersravenel.com

Owner Information

PIN: 0721492629 Owner: GOODWIN, EDWIN A Address: Judy Hackney. 2505 Olive Chapel Rd., Apex, NC 27502	PIN: 0722406699 Owner: HACKNEY, CHARLES LEON HACKNEY, JUDY G Address: 2505 Olive Chapel Rd., Apex, NC 27502	PIN: 0722411102 Owner: HACKNEY, JUDY G Address: 2505 Olive Chapel Rd., Apex, NC 27502
--	---	---

Agent Information

Name: Brendie Vega, WithersRavenel
Address: 137 S. Wilmington Street, Suite 200
City: Raleigh State: NC Zip: 27601
Phone: 919.469.3340 E-mail: bvega@withersravenel.com
Other contacts: Glenda Toppe

PLANNED UNIT DEVELOPMENT APPLICATION

Application #: _____

Submittal Date: _____

2045 LAND USE MAP AMENDMENT (if applicable)

The applicant does hereby respectfully request the Town Council amend the 2045 Land Use Map. In support of this request, the following facts are shown:

The area sought to be amended on the 2045 Land Use Map is located at:

Not applicable. No proposed change in classification.

Current 2045 Land Use Classification: Med. Density Residential

Proposed 2045 Land Use Classification: Med. Density Residential

What conditions justify the passage of the amendment to the 2045 Land Use Map? Discuss the existing use classifications of the subject area in addition to the adjacent land use classifications.

Not applicable. No proposed change in classification.

Legal description for Tract 1 Hackney Property

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Geringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road, Thence, following the Northern Margin of Olive Chapel Road; South 70°32'42" West, 65.39 feet to a point, said point being the **True Point of Beginning**. Thence, following the Northern Margin of Olive Chapel Road, South 70°31'17" West, 649.92 feet to a point, Thence, Leaving Said Road, North 34°12'20" West, 445.67 feet to a point; Thence, North 00°58'41" West, 436.43 feet to a point; Thence, North 85°35'51" West, 339.02 feet to an Existing Iron Pipe; Thence, South 02°31'45" West, 382.15 feet to an Existing Iron Pipe; Thence, North 87°46'36" West, 443.92 feet to an Existing Iron Pipe; Thence, North 01°42'56" East, 1,191.60 feet to an Existing Iron Pipe; Thence, North 01°42'19" East, 635.94 feet to a point located in the centerline of a creek, Said point being located South 01°42'19" West, 8.02 feet from an Existing Iron Pipe found on the North bank of the creek; Thence, along the centerline of the creek the following seventy-eight (78) calls:
North 62°12'20" East, 26.95 feet to a point; Thence, North 85°25'51" East, 12.16 feet to a point; Thence, South 89°25'18" East, 9.95 feet to a point; Thence, North 72°42'15" East, 16.28 feet to a point; Thence, North 35°12'38" East, 17.29 feet to a point; Thence, North 04°12'00" East, 12.96 feet to a point; Thence, North 21°34'14" West, 18.72 feet to a point; Thence, North 09°03'47" West, 8.16 feet to a point, Thence, North 41°28'27" East, 26.53 feet to a point, Thence, South 84°15'14" East, 11.15 feet to a point, Thence, South 44°43'11" East, 19.83 feet to a point, Thence, South 71°15'05" East, 13.95 feet to a point, Thence, South 74°11'34" East, 15.85 feet to a point, Thence, South 74°44'51" East, 12.72 feet to a point, Thence, South 83°49'13" East, 3.99 feet to a point, Thence, North 64°08'10" East, 16.34 feet to a point, Thence, North 47°07'30" East, 15.60 feet to a point, Thence, South 78°20'55" East, 15.26 feet to a point, Thence, South 56°02'16" East, 5.33 feet to a point, Thence, South 19°19'09" East, 6.90 feet to a point, Thence, South 56°44'29" East, 12.49 feet to a point, Thence, South 83°31'01" East, 16.05 feet to a point, Thence, North 59°49'27" East, 15.58 feet to a point, Thence, North 16°43'28" East, 6.92 feet to a point, Thence, North 01°57'42" West, 8.52 feet to a point, Thence, North 19°34'33" West, 8.53 feet to a point, Thence, North 22°27'53" West, 25.52 feet to a point, Thence, North 08°13'00" West, 17.60 feet to a point, Thence, North 13°08'01" West, 25.39 feet to a point, Thence, North 19°34'33" West, 12.83 feet to a point, Thence, North 00°51'00" East, 8.68 feet to a point, Thence, North 37°09'53" East, 11.70 feet to a point, Thence, North 49°22'35" East, 26.46 feet to a point, Thence, North 62°21'20" East, 30.37 feet to a point, Thence, North 67°46'29" East, 19.95 feet to a point, Thence, North 02°19'02" West, 8.02 feet to a point, Thence, North 48°37'20" West, 9.79 feet to a point, Thence, North 51°28'51" West, 14.82 feet to a point, Thence, North 10°18'42" West, 10.15 feet to a point, Thence, North 29°53'30" East, 7.06 feet to a point, Thence, North 67°41'49" East, 9.59 feet to a point, Thence, South 56°14'07" East, 5.77 feet to a point, Thence, South 63°24'14" East, 9.29 feet to a point, Thence, South 76°41'34" East, 9.25 feet to a point, Thence, North 77°10'45" East, 14.30 feet to a point, Thence, North 49°00'07" East, 13.34 feet to a point, Thence, North 10°50'19" West, 12.26 feet to a point, Thence, North 64°58'17" West, 15.90 feet to a point, Thence, North 31°59'29" West, 7.02 feet to a point, Thence, North 01°03'18" West, 7.87 feet to a point, Thence, North 17°34'16" East, 24.60 feet to a point, Thence, North 26°59'18" East, 8.17 feet to a point, Thence, South 81°51'44" East, 16.60 feet to a point, Thence, South 33°48'00" East, 15.96 feet to a point, Thence, South 49°25'00" East, 16.68 feet to a point, Thence, North 78°59'30" East, 12.42 feet to a point, Thence, North 50°28'53" East, 20.42 feet to a point, Thence, North 70°44'43" East, 46.11 feet to a point, Thence, South 89°01'57" East, 16.84 feet to a point, Thence, South 73°56'31" East, 11.76 feet to a point, Thence, North 66°33'30" East, 13.41 feet to a point, Thence, North 10°20'58" East, 8.36 feet to a point, Thence, North 17°44'49" West, 19.09 feet to a point, Thence, North 07°53'24" East, 12.39 feet to a point, Thence, North 59°58'19" East, 13.53 feet to a point, Thence, South 42°16'28" East, 13.69 feet to

a point, Thence, South 04°17'52" West, 12.70 feet to a point, Thence, South 10°35'03" West, 9.31 feet to a point, Thence, South 32°25'41" East, 5.70 feet to a point, Thence, South 46°46'35" East, 17.73 feet to a point, Thence, South 60°06'25" East, 16.74 feet to a point, Thence, North 86°29'56" East, 19.64 feet to a point, Thence, North 81°25'49" East, 16.54 feet to a point, Thence, South 80°06'27" East, 29.38 feet to a point, Thence, South 84°39'29" East, 22.26 feet to a point, Thence, North 58°33'23" East, 13.24 feet to a point, Thence, North 74°43'49" East, 8.91 feet to a point, Thence, leaving the centerline of said creek, South 20°58'05" East, 22.05 feet to a point, Thence, South 20°45'12" East, 790.03 feet to an Existing Iron Pipe, Thence, South 56°33'25" East, 611.03 feet to an Existing Iron Pipe, Thence, South 78°41'14" West, 615.50 feet to a point, Thence, South 11°18'46" East, 791.04 feet to a point, Thence, North 78°41'14" East, 566.96 feet to a point, Thence, South 09°38'52" East, 536.92 feet to a point, being the **True Point of Beginning**, and having an area of 51.280 Acres, more or less.

Together with the following area located within the public right of way of Olive Chapel Road

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Gerringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road, Thence, following the Northern Margin of Olive Chapel Road; South 70°32'42" West, 65.39 feet to a point, said point being the **True Point of Beginning**. Thence, South 70°29'55" West, 636.77 feet to a point; Thence, North 34°12'20" West, 31.27 feet to a point; Thence, North 70°31'17" East, 649.92 feet to a point; Thence, South 09°38'52" East, 30.43 feet to a point; being the **True Point of Beginning**, and having an area of 0.445 Acres (19,375 sf), more or less.

Legal description for Tract 2 Hackney Property

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Geringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road, Thence, following the Northern Margin of Olive Chapel Road; South 70°32'42" West, 65.39 feet to a point; Thence, South 70°31'17" West, 649.92 feet to a point, said point being the **True Point of Beginning**.

Thence, following the Northern Margin of Olive Chapel Road, South 70°19'56" West, 682.58 feet to a New Iron Pipe, Thence, Leaving Said Right of Way, Thence, North 02°31'13" East, 5.41 feet to an Existing Iron Pipe; Thence, North 02°31'13" East, 674.17 feet to an Existing Iron Pipe; Thence, North 02°31'45" East, 382.15 feet to an Existing Iron Pipe; Thence, South 85°35'51" East, 339.02 feet to a point, Thence, South 00°58'41" East, 436.43 feet to a point; Thence, South 34°12'20" East, 445.67 feet to a point, being the **True Point of Beginning**, and having an area of 9.526 Acres, more or less.

Together with the following area located within the public right of way of Olive Chapel Road

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Geringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road, Thence, following the Northern Margin of Olive Chapel Road; South 70°32'42" West, 65.39 feet to a point; Thence, South 70°31'17" West, 649.92 feet to a point, said point being the **True Point of Beginning**.

Thence, South 34°12'20" East, 31.27 feet to a point; Thence, South 70°19'56" West, 702.77 feet to a point; Thence, North 02°31'13" East, 32.69 feet to a New Iron Pipe; Thence, North 70°19'56" East, 682.58 feet to a point; being the **True Point of Beginning**, and having an area of 0.481 Acres (20,967 sf), more or less.

Legal description for Tract 3 Hackney Property

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Gerringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road, Thence, following the Northern Margin of Olive Chapel Road; South 70°32'42" West, 65.39 feet to a point; Thence, Leaving said Right of Way, North 09°38'52" West, 536.92 feet to a point; Thence, South 78°41'14" West, 566.96 feet to a point; Thence, North 11°18'46" West, 791.04 feet to a point; Thence, North 78°41'14" East, 615.50 feet to an Existing Iron Pipe; Thence, South 11°18'46" East, 500.58 feet to an Existing Iron Pipe; Thence, South 11°21'53" East, 392.29 feet to an Existing Iron Pipe; Thence, South 11°20'41" East, 425.59 feet to an Existing Iron Pipe, being the Point of **Beginning**, and having an area of 11.871 Acres, more or less.

Together with the following area located within the public right of way of Olive Chapel Road

Beginning at an Existing Iron Pipe located at the Southwest corner of Lot 1, "William E. Gerringer Subdivision", Recorded at Map Book 1982, Page 24, Wake County Registry. Said Existing Iron Pipe having North Carolina Geodetic Coordinates (NAD 83, 2011) N: 719,823.90', E: 2,025,316.49' Said point is also located on the Northern Margin of Olive Chapel Road; Thence, South 11°20'41" East, 30.29 feet to a point; Thence, South 70°32'42" West, 66.30 feet to a point; Thence, North 09°38'52" West, 30.43 feet to a point; Thence, North 70°32'42" East, 65.39 feet to an Existing Iron Pipe, being the Point of Beginning, and having an area of 0.045 acres (1,975 sf), more or less.

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Hackney, Charles Leon Hackney, Judy G is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 2500 Olive Chapel Road (PIN 0722406699)

The agent for this project is: WithersRavenel

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

Agent Name: Brendie Vega

Address: 137 S. Wilmington Street, Suite 200

Telephone Number: 919.535.5212

E-Mail Address: bvega@withersravenel.com

Signature(s) of Owner(s)*

Charles Leon Hackney, Sr
Charles Leon Hackney
 Type or print name

Oct 27, 2020
Date

Judy G. Hackney
Judy G. Hackney
 Type or print name

Oct 27, 2020
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.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Hackney, Judy G _____ is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 0 Olive Chapel Road (PIN 0722411102)

The agent for this project is: WithersRavenel

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

Agent Name: Brendie Vega

Address: 137 S. Wilmington Street, Suite 200

Telephone Number: 919.535.5212

E-Mail Address: bvega@withersravenel.com

Signature(s) of Owner(s)*

Judy G. Hackney
Judy G. Hackney
Type or print name

Oct 27, 2020
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.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AFFIDAVIT OF OWNERSHIP

Application #: _____

Submittal Date: _____

The undersigned, Judy G. Hackney (the "Affiant") first being duly sworn, hereby swears or affirms as follows:

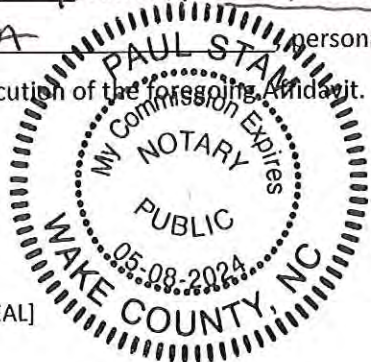
- Affiant is over eighteen (18) years of age and authorized to make this Affidavit. The Affiant is the sole owner, or is the authorized agent of all owners, of the property located at _____ and legally described in Exhibit "A" attached hereto and incorporated herein (the "Property").
- This Affidavit of Ownership is made for the purpose of filing an application for development approval with the Town of Apex.
- If Affiant is the owner of the Property, Affiant acquired ownership by deed, dated _____, and recorded in the Wake County Register of Deeds Office on _____, in Book _____ Page _____.
- If Affiant is the authorized agent of the owner(s) of the Property, Affiant possesses documentation indicating the agency relationship granting the Affiant the authority to apply for development approval on behalf of the owner(s).
- If Affiant is the owner of the Property, from the time Affiant was deeded the Property on _____, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on _____, no one has questioned Affiant's ownership or right to possession nor demanded any rents or profits. To Affiant's knowledge, no claim or action has been brought against Affiant (if Affiant is the owner), or against owner(s) (if Affiant is acting as an authorized agent for owner(s)), which questions title or right to possession of the property, nor is any claim or action pending against Affiant or owner(s) in court regarding possession of the Property.

This the 27 day of October, 2020.

Judy G. Hackney (seal)
Judy G. Hackney individually and as Trustee
 Type or print name
Charles Leon Hackney, Sr.

STATE OF NORTH CAROLINA
COUNTY OF Wake

I, the undersigned, a Notary Public in and for the County of Wake, hereby certify that Judy G. Hackney and Charles Leon Hackney Sr. Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's N/A personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.



[NOTARY SEAL]

Paul Stam
 Notary Public
 State of North Carolina
 My Commission Expires: May 8, 2024

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 Attachment.	
2.	_____	_____
3.	_____	_____
4.	_____	_____
5.	_____	_____
6.	_____	_____
7.	_____	_____
8.	_____	_____
9.	_____	_____
10.	_____	_____
11.	_____	_____
12.	_____	_____
13.	_____	_____
14.	_____	_____
15.	_____	_____

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

Date: 11/2/2020

By: *Brendie Vega*

COUNTY OF WAKE STATE OF NORTH CAROLINA

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

SEAL

Notary Public

Print Name

My Commission Expires: _____

Certified List of Neighboring Property Owners

#	OWNER	PIN
1	GARWOOD, MARGARET GARWOOD, JOHN J	721396377
2	CENIS, NATHAN T CENIS, EMILY ANNE	721396585
3	HURLEY, SONIA R HURLEY, ROBERT	721397152
4	HORNEY, DIANNA HORNEY, JOEY MICHAEL	721397339
5	SMITH FARM OF APEX HOMEOWNERS ASSOCIATION, INC.	721397362
6	RILEY, JAMES EDWARD JR DODSON, JILLIAN SMITH	721397491
7	KOSHY, SIBY VARKEY KOSHY, THARU SARA	721397536
8	ZHOU, QUAN LIU, SHUZHANG	721397599
9	LABRU, VINEET UCHIL, SHRUTI KARUNAKAR	721398442
10	KONAKATI, VIKRAM BHIMAVARAPU, PRATHYUSHA	721399015
11	SAMPATH, PRABHU PRABHU, DEEPA	721399121
12	MATTHEWS, JOHN HENRY III	721399127
13	ARCADIA RIDGE HOMEOWNERS ASSOCIATION, INC.	721399233
14	LACOSTE, FABRICE SANROMAN, STEPHANIE	721399404
15	DE SOUSA, ALDO SILVIO CARNEIRO	721399466
16	LEDESMA, FELIPE ATENCIO, IBELISE MARIA	721399630
17	MARKS, REBECCA R MARKS, JONATHAN A	721399646
18	RUBIN, BEVERLY L	721482119
19	AUSTVOLD, SHAWN AUSTVOLD, JENNIFER	721491084
20	RILEY'S POND HOMEOWNERS ASSOCIATION INC	721491103
21	CAVERO, CLAUDIA MARIANA BENAVIDES	721491270
22	RILEY'S POND HOMEOWNERS ASSOCIATION INC	721491342
23	LEWIS, ANGEL SPENCE LEWIS, COURTNEY DEVON	721492100
24	RILEY'S POND HOMEOWNERS ASSOCIATION INC	721492366
25	WEBB, XAVIER JOHAN	721492372
26	JOYCE, JOHN D JOYCE, ROSEMARY	721493109
27	ALJADER, MAYSAM ALJADER, LORI	721493206
28	LEARY, BRAD LEARY, BRENDA	721494283
29	BAKER, SCOTT J BAKER, MARLO L H	721495137
30	SMITH FARM OF APEX HOMEOWNERS ASSOCIATION, INC.	721396648
31	RAJAN, SUNIL KUMAR OLIPARAMBIL PREMRAJ, RITHU	721396847
32	GANJI, BHAGYA LATHA RAMPA, IMMANUEL	721396870
33	GARABEDIAN, MATTHEW KANG, EY JUNG	721396975
34	BALAPURE, LAXMIKANT MALVI, VISHAKHA	721397746
35	ESBJORN, ROBERT ESBJORN, AUDREY	721397948
36	CHEN, DANDAN WANG, YANG	721398717
37	MCCALL, NATHAN RF GIULIANI, TRACY J	721398917
38	SIDDIQUI, ALI SIDDIQUI, TARANNUM	721399742
39	PANDEY, ROSHAN RAJ	721399757
40	WILSON, BENJAMIN THOMAS THOMAS, JULIE ELIZABETH	721399853
41	PANDEY, NAMIT JOSHI, TARA	721399859
42	BRUMFIELD, RYAN MATTHEW BRUMFIELD, AMANDA PLOCH	721399954
43	MOCK, CHRISTOPHER RICHARD MOCK, ELENA BARRIO	721399969
44	BOLJESIC, JONATHON ELLIS BOLJESIC, VINCA PURI	721494337
45	MARTIN, JOANNE H	721494350

Certified List of Neighboring Property Owners

#	OWNER	PIN
46	RILEY'S POND HOMEOWNERS ASSOCIATION INC	721494411
47	DONALDSON, MARK R DONALDSON, HEATHER M	721495361
48	GOTUR, RAGHAVENDER THAMMISSETTY, RADHIKA	721495379
49	KENT, THOMAS L. KENT, LEIGH R.	721496224
50	CHOI, KENNY JUNG, JIN	721496464
51	SINGH, SUNIL SINGH, PANCHALI	721497298
52	LEDESMA, ROBERTO LEDESMA, CARMEN	721497385
53	RILEY'S POND HOMEOWNERS ASSOCIATION INC	721497414
54	KUMAR VARMA, CHITRA DILEEP ADUKKATH, BISHAK	721497452
55	KNAPP, GEARY W KNAPP, SUSAN	721499346
56	LENNAR CAROLINAS, LLC	722219077
57	LENNAR CAROLINAS, LLC	722229350
58	LENNAR CAROLINAS, LLC	722303175
59	SMITH FARM OF APEX HOMEOWNERS ASSC INC	722303478
60	BAITER, STEVE MICHAEL BAITER, REAGAN	722303663
61	JOSEPH, BIKKU B VALIYAVEETIL, SAJIN J	722303770
62	BROCK, SIMON PAUL BROCK, ELISA SAYURI JISAK	722303779
63	NICOLAU, DANIEL NICOLAU, MARIA SIMONA	722303837
64	SANDBERG, GEOFFREY ERIK SANDBERG, RACHEL ANN	722304905
65	PITMAN, WESLEY SZYDLOWSKI, JESSICA	722305447
66	DYK, SHAUN M BIGELOW DYK, MELINDA M	722305656
67	SMITH FARM OF APEX HOMEOWNERS ASSOCIATION, INC.	722309093
68	PIKULIK, KENNETH CHARLES GUARD-PIKULIK, MEGAN THAYER	722313076
69	KLEIN, CAROLINE KLEIN, STEVEN	722327144
70	FEDERICO, MICHELLE EDERY, ARIEL	722327201
71	SWEETWATER PROPERTY OWNERS ASSOCIATION, INC	722327341
72	RUTIGLIANO, JOHN P RUTIGLIANO, KAREN E	722327354
73	PAYNE, DEAN ALAN PAYNE, LISA O'HARA	722327358
74	CLEARY, MICHAEL CLEARY, MAUREEN	722327452
75	FERGUSON, MICHAEL R FERGUSON, JESSICA J	722327455
76	FAIRHURST, JOSHUA FAIRHURST, AMANDA L	722327459
77	DUFFMAN, MARY WEBB	722329579
78	BENNETT, JESSICA SOPHIA BENNETT, RYAN CLARK	722416567
79	SMITH, SCOTT ROBERT SMITH, KIMBERLY DAWN	722416644
80	CRESCENT APEX LLC	722416751
81	CRESCENT APEX LLC	722416778
82	CRESCENT APEX LLC	722416847
83	VLADIMIROVA, ANNA V HOBBS, MERLIN E	722417467
84	DUDDUKURI, VENKATA SANDEEP KUMAR ALLU, SOWMYA	722417511
85	CRESCENT APEX LLC	722418579
86	CRESCENT APEX LLC	722418624
87	CRESCENT APEX LLC	722419526
88	CRESCENT APEX LLC	722419572
89	CRESCENT APEX LLC	722419696

Certified List of Neighboring Property Owners

#	OWNER	PIN
90	LAHRMAN, GREGORY E TRUSTEE GREGORY E. LAHRMAN REVOCABLE LIVING TRUST	722420650
91	SWEETWATER PROPERTY OWNERS ASSOCIATION, INC	722421400
92	FUNNA, KUCHI FUNNA, KUCHI M	722421612
93	CRESCENT APEX LLC	722424038
94	CRESCENT APEX LLC	722429361
95	PILLA, ANTHONY MICHAEL PILLA, ANGELA	722510428
96	ASPNES, DAVID E BALL, CYNTHIA J	721487120
97	GOODWIN, EDWIN A	721492629
98	FOSTER FARM LLC	721585231
99	MICHALSKI, TIMOTHY MICHALSKI, RHIANNON	721590573
100	FOSTER FARM LLC	721592562
101	FOSTER, FRANK A COPELAND, REBECCA	721595134
102	HACKNEY, CHARLES LEON HACKNEY, JUDY G	722406699
103	HACKNEY, JUDY G	722411102
104	CRESCENT APEX LLC	722418369
105	PALANIAPPAN, RAMANATHAN VIJAYAKUMAR, HARIPRABHA	722418413
106	CRESCENT APEX LLC	722419315
107	MULLEN, RICHARD ANDREW MULLEN, ELIZABETH CATHERINE	722419361
108	PERKINS, ELIZABETH E	722503152
109	BASS, MICHAEL E BASS, SHERRIE L	722503445
110	BASS, MICHAEL E	722505167
111	DUGGAN, KIM-MARIE DUGGAN, DOMINICK	722510237
112	CRESCENT APEX LLC	722510474
113	MONGONE, MERRIDITH MONGONE, FRANK	722511203
114	CRESCENT APEX LLC	722511431
115	CRESCENT APEX LLC	722512006
116	TRUSTEES OF THE PINOT PARTNERS REVOCABLE LIVING TR	722512179
117	OGNIBENE, DOMINICK OGNIBENE, MARIE ELENA	722512201
118	CRESCENT APEX LLC	722513145
119	CRESCENT APEX LLC	722513341
120	CRESCENT APEX LLC	722514101
121	CRESCENT APEX LLC	722528250

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: _____

Submittal Date: _____

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 #: _____ Submittal Date: _____

Proposed Subdivision/Development Information

Description of location: 2600, 2500, & 0 Olive Chapel Road

Nearest intersecting roads: Olive Chapel Road / Kythira Drive

Wake County PIN(s): 0721492629, 0722406699, & 0722411102

Township: Apex

Contact Information (as appropriate)

Contact person: Brendie Vega

Phone number: 919.535.5212 Fax number: _____

Address: 137 S. Wilmington Street, Suite 200

E-mail address: bvega@withersravenel.com

Owner: _____

Phone number: _____ Fax number: _____

Address: _____

E-mail address: _____

Proposed Subdivision/Development Name

1st Choice: TBD at time of Subdivision

2nd Choice (Optional): _____

Town of Apex Staff Approval:

Town of Apex Planning Department Staff

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

Wake County PINs: 0721492629, 0722411102, 0722406699

0, 2500, 2600 Olive Chapel Road

(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.

Hackney, Judy et al, 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: Hackney, Judy, et. al

TOWN OF APEX

BY: Brendie Vega *Brendie Vega*
Authorized Agent

BY: _____
Authorized Agent

DATE: 11/2/2020

DATE: _____

AGENT AUTHORIZATION FORM

Application #: _____ Submittal Date: _____

Goodwin, Edwin A _____ is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 2600 Olive Chapel Road (PIN 0721492629)

The agent for this project is: WithersRavenel

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

Agent Name: Brendie Vega

Address: 137 S. Wilmington Street, Suite 200

Telephone Number: 919.535.5212

E-Mail Address: bvega@withersravenel.com

Signature(s) of Owner(s)*

Judy G. Hackney, Trustee
Judy G. Hackney, Trustee of the Edwin
A. Goodwin Testamentary Trust Type or print name _____ Date _____

Charles Leon Hackney, Sr
Charles Leon Hackney, Sr Type or print name _____ Date Oct 27, 2020

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.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

NOTICE OF ELECTRONIC 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.

10/16/2020

Date

Dear Neighbor:

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

2600, 2500, and 0 Olive Chapel Road

0721492629, 0722406699, & 0722411102

Address(es)

PIN(s)

in accordance with the Town of Apex Electronic Neighborhood Meeting procedures. This meeting is intended to be 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. If you are unable to attend, you may contact the applicant before or after the meeting is held. 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. If at all feasible given emergency declarations, limits on in-person gatherings, and social distancing, an additional in-person Neighborhood Meeting may be scheduled and held prior to a public hearing or staff decision on the application.

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

Application Type	Approving Authority
<input checked="" type="checkbox"/> Rezoning (including Planned Unit Development)	Town Council
<input type="checkbox"/> Major Site Plan	Town Council (QJPH*)
<input type="checkbox"/> Special Use Permit	Town Council (QJPH*)
<input type="checkbox"/> Residential Master Subdivision Plan (excludes exempt subdivisions)	Technical Review Committee (staff)

*Quasi-Judicial Public Hearing: The Town Council cannot discuss the project prior to the public hearing.

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

This project involves the proposed rezoning of parcels zoned RR and R-80W to be zoned to PUD-CZ.

The proposed development is intended to be a residential development with a mix of housing products.

(A concept plan will be posted on the project website the day of the meeting.)

Estimated submittal date: 11.02.2020

MEETING INFORMATION:

Property Owner(s) name(s): Goodwin, Edwin A; Hackney, Charles Leon Hackney, Judy G; & Hackney, Judy G

Applicant(s): WithersRavenel

Contact information (email/phone): bvega@withersravenel.com / 919.535.5212

Electronic Meeting invitation/call in info: Meeting Website: <https://withersravenel.com/meeting/hackney-tracts-rezoning-neighborhood-meeting/>
Call-In Option: 1-415-655-0001
Event number: 171 659 8744

Date of meeting**: 10.29.2020

Time of meeting**: 5:00pm - 7:00pm

MEETING AGENDA TIMES:

Welcome: 5:00pm Project Presentation: 5:10pm Question & Answer: 6:30pm

**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>.

PROJECT CONTACT INFORMATION

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.

Development Contacts:

Project Name: Hackney Tracts Zoning: RR & R-80W (Prop. PUD-CZ)
 Location: 2600, 2500, & 0 Olive Chapel Road
 Property PIN(s): 0721492629, 0722406699, & 0722411102 Acreage/Square Feet: 79.79 ac. / 3,475,652 sq. ft.

Property Owner: Goodwin, Edwin A; Hackney, Charles Leon Hackney, Judy G; & Hackney, Judy G
 Address: 2505 Olive Chapel Road
 City: Apex State: NC Zip: 27502
 Phone: _____ Email: _____

Developer: Glenda S. Toppe and Associates
 Address: 4139 Gardenlake Drive
 City: Raleigh State: NC Zip: 27612
 Phone: _____ Fax: _____ Email: _____

Engineer: WithersRavenel
 Address: 137 S. Wilmington Street, Suite 200
 City: Raleigh State: NC Zip: 27601
 Phone: 919.535.5212 Fax: _____ Email: bvega@withersravenel.com

Builder (if known): _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____ Email: _____

Please note that Town staff will not have complete information about a proposed development until the application is submitted for review. If you have a question about Town development standards and how they relate to the proposed development, please contact the appropriate staff person listed below.

Town of Apex Department Contacts

Planning Department Main Number (Provide development name or location to be routed to correct planner)	(919) 249-3426
Parks, Recreation & Cultural Resources Department Angela Reincke, Parks Planner	(919) 249-7468
Public Works - Transportation Russell Dalton, Senior Transportation Engineer	(919) 249-3358
Water Resources Department Jessica Bolin, Senior Engineer (Stormwater, Sedimentation & Erosion Control) Stan Fortier, Senior Engineer (Stormwater, Sedimentation & Erosion Control) James Gregg, Utility Engineer (Water & Sewer)	(919) 249-3537 (919) 249-1166 (919) 249-3324
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Providing Input to Town Council:

Each Town Council meeting agenda includes a Public Forum time when anyone is permitted to speak for three (3) minutes on any topic with the exception of items listed as Public Hearings for that meeting. The Town Council meets on the 1st and 3rd Tuesdays of each month at 6:00 p.m. (except for holidays, see schedule of meetings at <http://www.apexnc.org/838/Agendas-Minutes>). You may also contact Town Council by e-mail at AllCouncil@apexnc.org.

Private Agreements and Easement Negotiation:

The Town of Apex cannot enforce private agreements between developers and neighbors and is not a party to the easement and right-of-way negotiation that occurs between developers and neighboring property owners for easements or rights-of-way that are necessary to build the project.

It is recommended that all private agreements be made in writing and that if a property owner feels it necessary, they should obtain private legal counsel in order to protect their interests in both private agreements and during easement negotiations. The only conditions that the Town of Apex can enforce are those conditions that are made a part of the conditional zoning of the property by agreement of the developer and the Town.

As an example, if a developer offers to build a fence for a neighbor to mitigate some impact, the Town can only enforce the construction of the fence if the fence becomes a condition of the rezoning. This would occur by the developer offering the condition as part of their conditional zoning application package or at the Town Council public hearing on the conditional zoning and the Town accepting it as a condition. Private agreements regarding a fence being constructed will not be enforced by the Town.

To request that any agreement with a developer is made a part of the conditional zoning at the time of approval, you may ask at the Town Council public hearing if the agreement is included in the conditions. If it is not, you may request that the Town Council not approve the rezoning without the agreement being included in the conditions (note that it is up to Town Council whether to approve or deny the rezoning but they cannot impose conditions that the applicant does not agree to add). The developer's proposed conditions can be viewed any time after a rezoning is submitted on the Interactive Development Map at: <http://apexnc.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=fa9ba2017b784030b15ef4da27d9e795>

Documentation:

Neighbors to a requested new development and/or rezoning are strongly encouraged to fully document (such as through dated photographs) the condition of their property before any work is initiated for the new development. Stormwater controls installed on developed property are not designed to and will likely not remove 100% of the soil particles transported by stormwater runoff. As a result, creeks and ponds could become cloudy for a period of time after rain events.

COMMON CONSTRUCTION ISSUES & WHO TO CALL

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.

Noise & Hours of Construction: Non-Emergency Police 919-362-8661

Noise from tree removal, grading, excavating, paving, and building structures is a routine part of the construction process. The Town generally limits construction hours from 7:00 a.m. to 8:30 p.m. so that there are quiet times even during the construction process. Note that construction outside of these hours is allowed with special permission from the Town when it makes more sense to have the construction occur at night, often to avoid traffic issues. In addition, the Town limits hours of blasting rock to Monday through Friday from 8:00 a.m. to 5:00 p.m. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic: James Misciagno 919-372-7470

Construction truck traffic will be heavy throughout the development process, including but not limited to removal of trees from site, loads of dirt coming in and/or out of the site, construction materials such as brick and wood brought to the site, asphalt and concrete trucks come in to pave, etc. The Town requires a construction entrance that is graveled to try to prevent as much dirt from leaving the site as possible. If dirt does get into the road, the Town can require they clean the street (see "Dirt in the Road" below).

Road Damage & Traffic Control: Water Resources – Infrastructure Inspections 919-362-8166

There can be issues with roadway damage, roadway improvements, and traffic control. Potholes, rutting, inadequate lanes/signing/stripping, poor traffic control, blocked sidewalks/paths are all common issues that should be reported to Water Resources – Infrastructure Inspections at 919-249-3427. The Town will get NCDOT involved if needed.

Parking Violations: Non-Emergency Police 919-362-8661

Unless a neighbor gives permission, there should be no construction parking in neighbors' driveways or on their property. Note that parking in the right-of-way is allowed, but Town regulations prohibit parking within 15 feet of driveways so as not to block sight triangles. Trespassing and parking complaints should be reported to the Non-Emergency Police phone number at 919-362-8661.

Dirt in the Road: James Misciagno 919-372-7470

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported to James Misciagno. He will coordinate the cleaning of the roadways with the developer.

**Dirt on Properties or in Streams: James Misciagno 919-372-7470
Danny Smith Danny.Smith@ncdenr.gov**

Sediment (dirt) can leave the site and get onto adjacent properties or into streams and stream buffers; it is typically transported off-site by rain events. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the appropriate repairs with the developer. Impacts to the streams and stream buffers should also be reported to Danny Smith (danny.smith@ncdenr.gov) with the State.

Dust: James Misciagno 919-372-7470

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash: James Misciagno 919-372-7470

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported to James Misciagno at 919-372-7470. He will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins: James Misciagno 919-372-7470

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported to James Misciagno at 919-372-7470 so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures: Jessica Bolin 919-249-3537

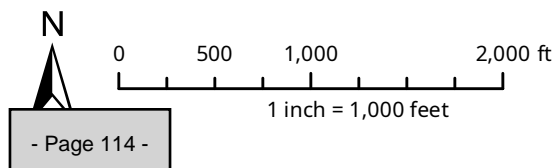
Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported to Mike Deaton at 919-249-3413.

Electric Utility Installation: Rodney Smith 919-249-3342

Concerns with electric utility installation can be addressed by the Apex Electric Utilities Department. Contact Rodney Smith at 919-249-3342.

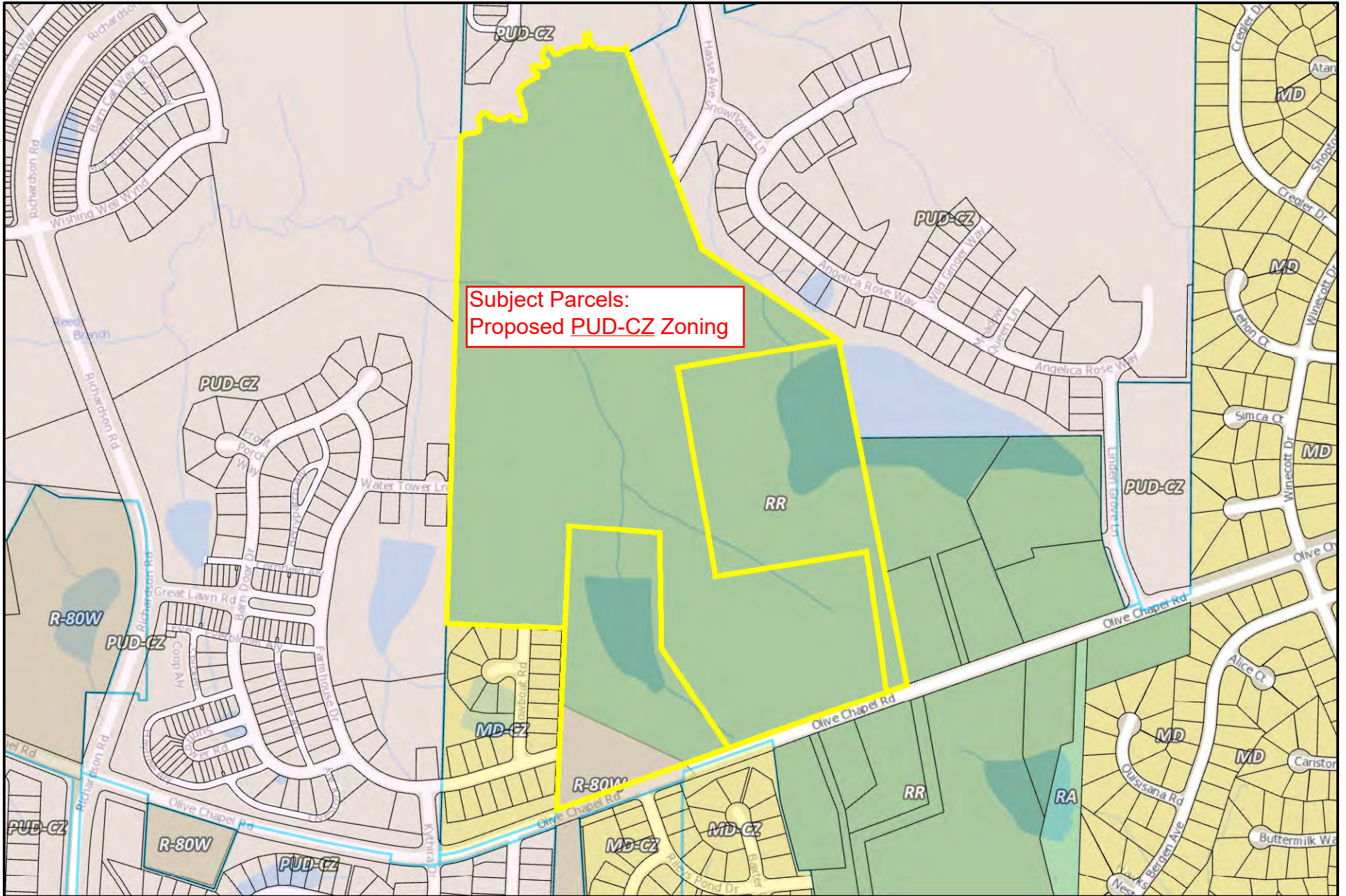


Vicinity Exhibit



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.



Subject Parcels:
Proposed PUD-CZ Zoning

Zoning Exhibit



N



0 265 530 1,060 ft

1 inch = 500 feet

Disclaimer

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Attendance Count	First Name	Last Name	Affiliation	Email
1	Brendie	Vega	Project Team	
2	Nick	Antrilli	Project Team	
3	Bryant	Inge	Project Team	
4	Glenda	Toppe	Project Team	
5	Daniel	Rauh	Project Team	
6	Jaime	Hackney	Neighbor	
7	Cynthia	Ball	Neighbor	
8	Jaime	Hackney	Neighbor	
9	Cynthia	Ball	Neighbor	
10	maysam	aljader	Neighbor	
11	Andrew	Suriano	Neighbor	
12	Randy	King	Neighbor	
13	Chris	Mock	Neighbor	
14	Melinda	Dyk	Neighbor	
15	David	Aspnes	Neighbor	
16	Ryan	Brumfield	Neighbor	
17	Thomas	Ball	Neighbor	
18	Kenny	Choi	Neighbor	
19	Beverly	Rubin	Neighbor	
20	Tracy	Giuliani	Neighbor	
21	Wes	Pitman	Neighbor	
22	Shruti	Uchil	Neighbor	
23	Maureen	Schmitt	Neighbor	
24	Fabrice	Lacoste	Neighbor	
25	Steven	McNally	Neighbor	
26	Felipe	Ledesma	Neighbor	
27	Pieter	de Ridder	Neighbor	

Hackney PUD Rezoning: Virtual Neighborhood Notification Meeting

October 29, 2020 5:00pm-7:00pm

Project Representatives:

- Brendie Vega
- Glenda Toppe
- Daniel Rauh
- Nick Antrilli
- Bryant Inge

Meeting Slides:

- Welcome
- Vicinity Map
- Jurisdiction Map
- Current Zoning
- Floodplains Map
- Future Land Use Map
- Future Transportation Maps
- Conceptual Layout
- Schedule of Project

Neighbor Questions:

Q: What does the MD-CZ zoning mean? Our house is within that so what does that mean for us?

A: Medium Density Conditional Zoning. Medium density residential zoning with specific conditions imparted on the land that are determined during the rezoning process. Your land is subject to the zoning conditions of the land.

Q: We live at 2800 Treeswing - what is happening with the piece of land behind us with the deer stand?

A: That is part of the rezoning parcels. Specific site features are not yet determined as we are early in the rezoning process.

Q: Is there any possibility the existing pond south of Hasse would be filled in?

A: It is too early to tell what features will be kept or modified on the site. There is no current intent to drain it.

Q: On the conceptual layout slide, are the lighter blue areas water retention ponds? If so, is it a city requirement that they would need to be fenced in for child safety?

A: There is no municipal requirement to fence these features.

Q: Will the 2 existing large ponds be accessible to the community?

A: It is too early to tell what the programming of the internal amenities will look like. Land will probably be turned over to the HOA.

Q: Where will the entrances be located on Olive Chapel Road? Will the road be widened?

A: The developer will be required to install ½ of the road widening as designated on the future transportation plan. The conceptual drawings show an early proposed entrance.

Q: When will a detailed road network and home layout be developed and available for review?

A: This will be up to the developers. If it happens soon, it would come out around the beginning of the year.

Q: (There were numerous questions concerning the internal connections within and throughout the site)

A: Using the Town of Apex Future Thoroughfare Map, we explained that the connections into and out of the site will be required to follow the transportation map. The conceptual layout demonstrated a conceptual internal roadway connection through the site.

Q: (There were multiple questions concerning when the project would begin.)

A: We expect the project to begin within 12 – 15 months, although this is dependent on many factors.

Q: I have a few questions. 1) is a builder planned yet. 2) We do not have a road ext sign on Water Tower Lane. We were told when we bought unless it was Lennar, other builders were not required to connect.

A: No builder planned yet. The developer generally will not have an impact on whether or not a road extension is provided. That is generally guided by the future transportation maps of the municipality.

Q: Will bordering communities have a say on the design of the community (location of Townhomes vs single family)?

A: Please reach out to us with your input and we will pass it along to the developer once one is identified.

Q: What are the construction hours in Apex.

A: 7:00am to 7:00pm during the normal work week. Weekends and holidays vary.

Q: What is going to happen to the trees in the lot?

A: There are no detailed plans for the site yet. There are certain environmental protection areas in place where trees will remain.

Q: There are some very old ok trees bordering hackney and Lennar preservation. Literally on the border. Greater than 50" diameter. Will these be preserved?

A: We are required to do a tree survey and protect trees above a certain caliper. Additionally, if the trees are located near the site border, then they should be protected.

Q: What elementary school would serve this community?

A: (Answered by another Neighbor) It's currently Olive Chapel (capped) followed by Salem (capped) and then Turner Creek.

Q: (There was a question concerning the western pond near Rowboat Road and future development.)

A: There is probably not going to be road or home development in that area, although there are no finalized plans at this time.

Q: Would perimeter buffers be maintained or would the development be opened up?

A: Buffers are required between neighborhoods.

Neighborhood Comments:

C: Don't fill the ponds.

C: Like to Like: Single-family should be designed adjacent to existing single-family homes.

C: Support townhomes along proposed main thoroughfare.

AFFIDAVIT OF CONDUCTING AN ELECTRONIC NEIGHBORHOOD MEETING 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.

Brendie Vega

I, _____, do hereby declare as follows:

Print Name

1. I have conducted an Electronic Neighborhood Meeting for the proposed Rezoning, Major Site Plan, Residential 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 Electronic Neighborhood Meeting.
3. The meeting was conducted via WebEx (indicate format of meeting) on 10/29/2020 (date) from 5 pm (start time) to 7 pm (end time).
4. I have included the mailing list, meeting invitation, attendance 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.

11/02/2020

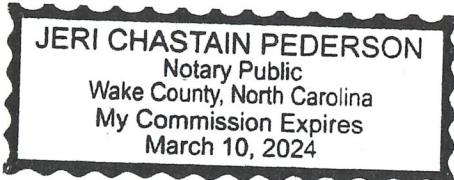
Date

By: Brendie Vega

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Jeri Chastain Pederson, a Notary Public for the above State and County, on this the 2 day of November, 2020.

SEAL



Jeri Chastain Pederson

Notary Public

Jeri Chastain Pederson

Print Name

My Commission Expires: 03/10/2024

PD PLAN

Hackney Planned Unit Development

APEX, NORTH CAROLINA

APPLICANT

WithersRavenel

137 S Wilmington Street Suite 200

Raleigh, NC 27601

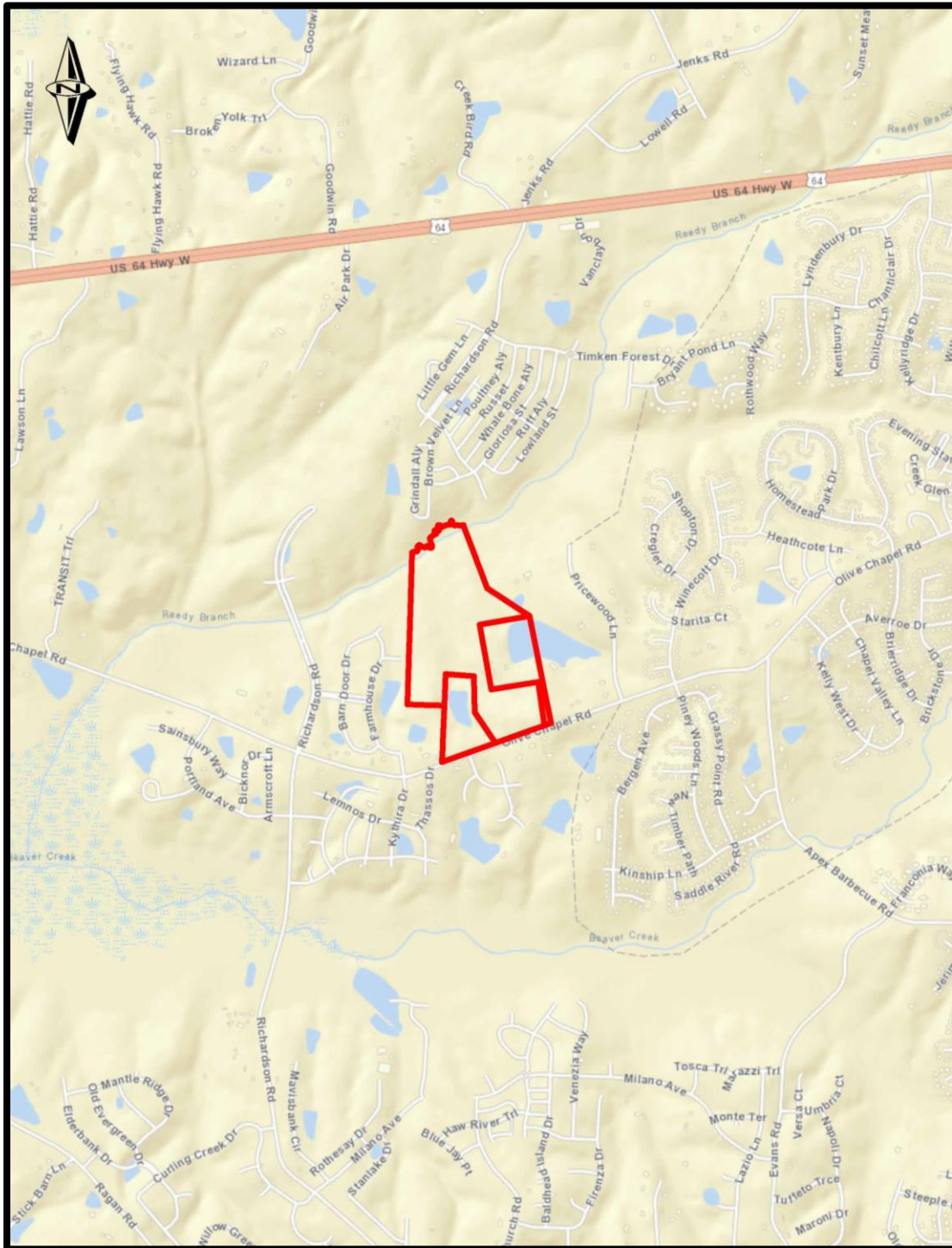
Date: March 2, 2021

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1.0 VICINITY MAP



Project Parcels: Not to Scale

137 S Wilmington Street, Suite 200 | Raleigh, NC 27601

t: 919.469.3340 | f: 919.467.6008 | www.withersravenel.com | License No. C-0832

Asheville | Cary | Greenville | Raleigh | Wilmington

2.0 PROJECT DATA

Name of Project	Hackney Planned Unit Development	
PIN(s)	0721492629 0722406699 0722411102	
Preparer/Owner Information	Prepared by	WithersRavenel 137 S. Wilmington Street, Suite 200 Raleigh, NC 27601 Phone: 919.469.3340 Fax: 919.467.6008 Email: Brendie Vega, AICP, CNU-A bvega@withersravenel.com Bryant Inge, PE binge@withersravenel.com
	Owners	Hackney, Charles Leon Hackney, Judy G Goodwin, Edwin A 2505 Olive Chapel Rd Apex, NC 27502-6788
Current Zoning Designation	Rural Residential (RR) & Residential-80W (R-80W)	
Proposed Zoning Designation	Planned Unit Development (PUD-CZ)	
Current 2045 Land Use Map Designation	Medium Density Residential	
Proposed 2045 Land Use Map Designation	No Proposed Change (Medium Density)	
Area of Tracts (ac.)	10.01, 11.91, & 57.87 (79.79 ac. total)	

3.0 PROPOSED LIST 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.

Residential

- Single-Family
- Accessory Dwelling Unit
- Townhouse

Non-Residential

- Utility, Minor
- Greenway
- Park, Active
- Park, Passive

4.0 PURPOSE STATEMENT

The Hackney Planned Unit Development Conceptual Layout has been designed in order to help establish appropriately sized residential opportunities along Olive Chapel Road. Development is intended to reflect the neighboring residential communities in both density and product. This residential development philosophy is in line with the 2045 Apex Future Land Use Plan designation of “Medium Density Residential”. The site will provide a mixture of amenities and strategic infrastructure connections for future residents to navigate the community.

5.0 PROPOSED DESIGN AND ARCHITECTURAL CONTROLS

Maximum Densities (du/Acre)	4.0 du/acre		
Maximum Height of Buildings	50 feet		
Setbacks: Single-Family	Front: 5' from façade 20' from garage to back of sidewalk	Side: 5'	Rear: 10'
		Corner Side: 8'	
Setbacks: Townhouse, Front loaded	Front: 10' from façade 20' from garage to back of sidewalk	Side: 5'	Rear: 10'
		Building to Building: 10'	
Setbacks: Townhouse, Alley loaded	Front: 10' from façade	Side: 5'	Rear: 5'
		Building to Building: 10'	
Amount and Percentage of Built Upon Area Allowed	70%		
Amount and Percentage of Proposed Built Upon Area (Max)	70%		

1. Vinyl siding is not permitted; however, vinyl windows, decorative elements and trim are permitted.
2. The roofline cannot be a single mass; it must be broken up horizontally and vertically between every unit.
3. Garage doors must have windows, decorative details or carriage-style adornments on them.
4. The rear and side elevations of the units that can be seen from the right-of-way shall have trim around the windows.

5. The visible side of a townhome on a corner lot facing the public street shall contain at least 2 decorative elements such as, but not limited to, the following elements:
- Windows
 - Bay window
 - Recessed window
 - Decorative window
 - Trim around the windows
 - Wrap-around porch or side porch
 - Two or more building materials
 - Decorative brick/stone
 - Decorative trim
 - Decorative shake
 - Decorative air vents on gables
 - Decorative gable
 - Decorative cornice
 - Column
 - Portico
 - Balcony
 - Dormer
6. The garage cannot protrude more than 1-foot from either the front façade or porch.

6.0 BUFFERS

Perimeter Buffers shall be designated as such:

North	100' Stream Buffer
East	20' Type A Buffer
South	30' Type E Buffer*
West	20' Type A Buffer

*A 30' Type B Buffer shall be provided if homes along Olive Chapel Road are not alley-loaded.

7.0 NATURAL RESOURCES AND ENVIRONMENT

Watershed

The Hackney Planned Unit Development is located within the Primary Watershed Protection Overlay District and is therefore subject to the requirements outlined in Section 6.1 of the Town of Apex Unified Development Ordinance.

Floodplain

The parcels that make up the Site do contain a small portion of FEMA designated 100-year floodplains near the site's northern termination according to FEMA FIRM Panel 3720072200J, effective 05/02/2006.

Resource Conservation

The Site is also subject to the Resource Conservation Area requirements outlined in the Town of Apex Unified Development Ordinance.

The PUD will meet the requirements of:

8.1.2.C.1 Planned Developments. The RCA for all planned developments shall be determined by the Town Council per Sec. 2.3.4.F.1.c and per Sec. 8.1.2.C.4, 5, 6, 7, or 10 as applicable.

8.1.2.C.4 Development located south and west of NC 540. All developments which do not meet the criteria of subsections 8.1.2.C.3 or 10 and which are located south and west of NC 540 shall provide buffers and RCA equal to or greater than 30% of the gross site acreage for single-family and townhome uses and 25% of the gross site acreage for multi-family, mixed-use, and non-residential uses.

Per UDO Section 7.2.5.B.8, if any mass grading is proposed in the single-family sections of the PUD, the following provision will apply to lot coverage area for single-family: An additional five percent (5%) Resource Conservation Area (RCA) shall be set aside. This requirement is added to the standard RCA percentage requirement found in Sec. 8.1.2.C Size of the RCA.

Tree Replanting

Existing deciduous trees greater than 18” in diameter (DBH), as identified in the tree survey, that are removed by site development shall be replaced by planting a 1.5” caliper native tree from the Town of Apex Design and Development Manual as a street tree or as other required landscaping. Excess required tree replacement will occur in common open space areas.

Clean Energy

Residential dwelling units will be provided with solar conduit to accommodate the future installation of solar panels.

Water Quality

Signs will be installed near SCMs in order to:

1. Reduce pet waste near SCM drainage areas.
2. Reduce fertilizer near SCM drainage areas.

Installation of Pet Waste Stations in common areas will occur within the neighborhood.

Planting and Landscaping

Install Warm Season grasses (Bermuda, Zoysia, etc) in lawn areas to reduce the need for irrigation and chemicals.

Install required Street Trees, Buffer and Re-Vegetation plantings that consist of a variety of native plant materials recognized by the New Hope Audubon Society or the NCSU manual for Landscaping for Wildlife with Native Plants as being bird and pollinator friendly; as allowed by the Town of Apex Design & Development Manual or approved by Apex Staff.

Specify pocket park plantings that are recognized by the NC Wildlife Federation as being Native Pollinator Plants as part of the Statewide Butterfly Highway initiative.

Include at least 4 native hardwood tree varieties in the proposed plantings, as allowed by the Apex Design and Development Manual.

Environmental Resources

The site will provide the following:

1. Purchase 20 bird houses from the New Hope Audubon Society (or other non-profit) and install in natural areas within the site.
2. Retain the 2 existing ponds if engineering studies confirm that the existing dams are structurally sound and meet regulatory requirements.

Historic Preservation

According to the North Carolina Historic Preservation Office's HPOWEB 2.0 Mapping application, there are no historic structures contained on the Site.

8.0 STORMWATER MANAGEMENT REQUIREMENTS

The parcels on which the development is proposed upon currently consist of a few existing structures, some cleared lands, and wooded lands. Two ponds exist on the parcels and drain to Reedy Branch Creek, eventually feeding into Jordan Lake. The proposed development plan will require stormwater management measures in accordance with Sections 6.1 and 7.5.7 in the Town of Apex Unified Development Ordinance. Stormwater captured on the site will be conveyed to proposed Stormwater Control Measures, which will be identified on plans during the major subdivision or site plan approval stage. Post-development peak runoff shall not exceed pre-development peak runoff for the 24-hour, 1-year and 10-year storm events in accordance with the Unified Development Ordinance. Treatment for the first 1-inch of runoff will be provided such that the removal of 85% Total Suspended Solids is achieved. All stormwater devices will meet the design requirements of NCDENR and the Town of Apex.

9.0 PARKS, RECREATION AND CULTURAL RESOURCES

The Apex Parks, Recreation and Cultural Resources Advisory Commission met on December 9, 2020 and unanimously recommended a fee-in-lieu of dedication with credit for construction of greenway which connects Sidepath along Hasse Ave to the west connecting to the Reedy Branch Greenway in Smith Farm. The fee rate will be set at the time of Town Council Review/ Approval and the credit for construction will be calculated prior to construction plan approval. Per the UDO Art 14, the greenway must be completed and accepted prior to 25% of the building permits for the project being issued.

10.0 PARKING AND LOADING

All parking provided on the Site will comply with the requirements outlined in Section 8.3 of the Town of Apex Unified Development Ordinance. Per 8.3.4(C) of the UDO, guest parking shall be designated within common areas and be distributed throughout residential projects. Striped on-street parking may be counted toward guest parking requirements. For Townhouse, guest parking shall be distributed so that there is at least one parking space within 200' of each townhouse lot.

11.0 SIGNAGE

All signage on the Site will comply with the requirements outlined in Section 8.7 of the Town of Apex Unified Development Ordinance.

12.0 PUBLIC FACILITIES REQUIREMENTS

All utilities shall meet the Town of Apex Master Utility Maps.

Sanitary Sewer Service

All on-site sanitary sewer lines will be extended to the property lines to allow future interconnectivity of properties. The design of the sanitary sewer will be according to the Town of Apex Engineering Standards and Specifications while accounting for downstream capacity and future upstream development. Sanitary Sewer easements will be established for public sewer outside of the Public R/W.

Gas

The Public Service Company of North Carolina (PSNC) will require a revenue analysis based on the proposed development in order to determine the applicable costs to the developer for installation of infrastructure.

Electric Service

The Site is in the service area of both the Town of Apex Electric Utilities and Progress Energy and the applicant will select the Town of Apex to serve as the electric provider.

Roadways

The Site will require an internal public roadway network and parking spaces. The onsite transportation circulation system shall be consistent with the Town of Apex Transportation Plan and the Town of Apex Standard Specifications and Standard Details and show required right-of-way widths and road sections.

Hasse Avenue will be constructed between Olive Chapel Road and its current terminus north of the project. Olive Chapel Road will be widened to include construction of a 100-foot eastbound left-turn lane with appropriate deceleration length and taper and a 100-foot westbound right-turn lane with appropriate deceleration length and taper subject to NCDOT review and approval. The Olive Chapel Road turn lane widening will be completed prior to platting Hasse Avenue access to Olive Chapel Road and the connection to Hasse Avenue north of the project will be completed prior to the last plat in the subdivision.

A 6-foot bike lane and 5-foot paved shoulder will be located on the north side of Olive Chapel Road per the bike/ped systems map.

Per the Long-Range Transportation Map, the following roadway sections apply to this development:

- Olive Chapel Road = 4-Lane with median, widening, 110' ROW, must provide 55' from centerline
- N/S = Future Major Collector, 60' ROW
- E/W = Future Local Connection, 50' ROW

Water Service

All on-site water lines will be designed according to Town of Apex Engineering Standards and Specifications.

Transit

According to the Apex 2045 Transportation Plan, there are no existing or proposed transit routes designated on or adjacent to the Site.

Pedestrian Facilities

The development plan will incorporate sidewalk infrastructure along Olive Chapel Road as well as the internal street network. A trail will serve as a connection from the western portion of the community to the Reedy Branch Greenway, thus in compliance with the future land use plan.

Sidewalks will be provided on both sides of all streets for single-family detached homes.

There will be a 10-foot side path provided along minor collector roads as show on the bike/ped plan.

13.0 PHASING PLAN

The Hackney Planned Unit Development will be constructed in phases according to economic considerations and infrastructure requirements.

Please note the following considerations for the phasing plan:

1. Access points are preliminary in nature and subject to Town of Apex and NCDOT review and approval.
2. Limits of land disturbance within each phase shall be determined at the master subdivision plan and site plan stages.
3. Public utilities shall be provided for each phase of development.

14.0 CONSISTENCY WITH 2045 LAND USE PLAN

The Apex 2045 Future Land Use Map depicts the future land use of the three parcels as Medium Density Residential. Medium Density Residential lands are described in the Land Use Plan as consisting of single-family homes, duplexes, and townhomes with densities between three (3) and seven (7) dwelling units per acre. It is intended to act as a transition between higher and lower residential densities. The maximum density proposed for the Hackney Planned Unit Development is four (4) dwelling units per acre.

The Hackney Planned Unit Development proposes medium density residential housing options appropriate to its proximity to the Olive Chapel Road thoroughfare and are consistent with uses found in the surrounding communities. The uses proposed for the site are directly in line with the uses stated in the 2045 Future Apex Land Use Plan thus the proposed rezoning is consistent with the Town's future plans for this area.

15.0 CONSISTENCY WITH UNIFIED DEVELOPMENT ORDINANCE

The proposed development is consistent with all applicable requirements of the Town of Apex Unified Development Ordinance.

16.0 ELEVATIONS

Elevations provided are representative of architecture, materials, and housing types. Final elevations submitted at Major Subdivision Plan will meet the requirements of the Architectural Controls in 5.0 of this PD Plan.

17.0 AFFORDABLE HOUSING

If the Town of Apex has a fund or other mechanism in place to receive donations to construct, subsidize, or participate in the development of affordable housing units (the "Fund"), the developer will contribute \$215 per lot to this Fund prior to the first residential Certificate of Occupancy. In the event the Fund has not been established by the Town of Apex, the money will be conveyed to a local non-profit working on affordable housing initiatives. The developer will work with the Town of Apex to identify a mutually acceptable local non-profit organization to receive these funds.

PLANNED UNIT DEVELOPMENT

HACKNEY

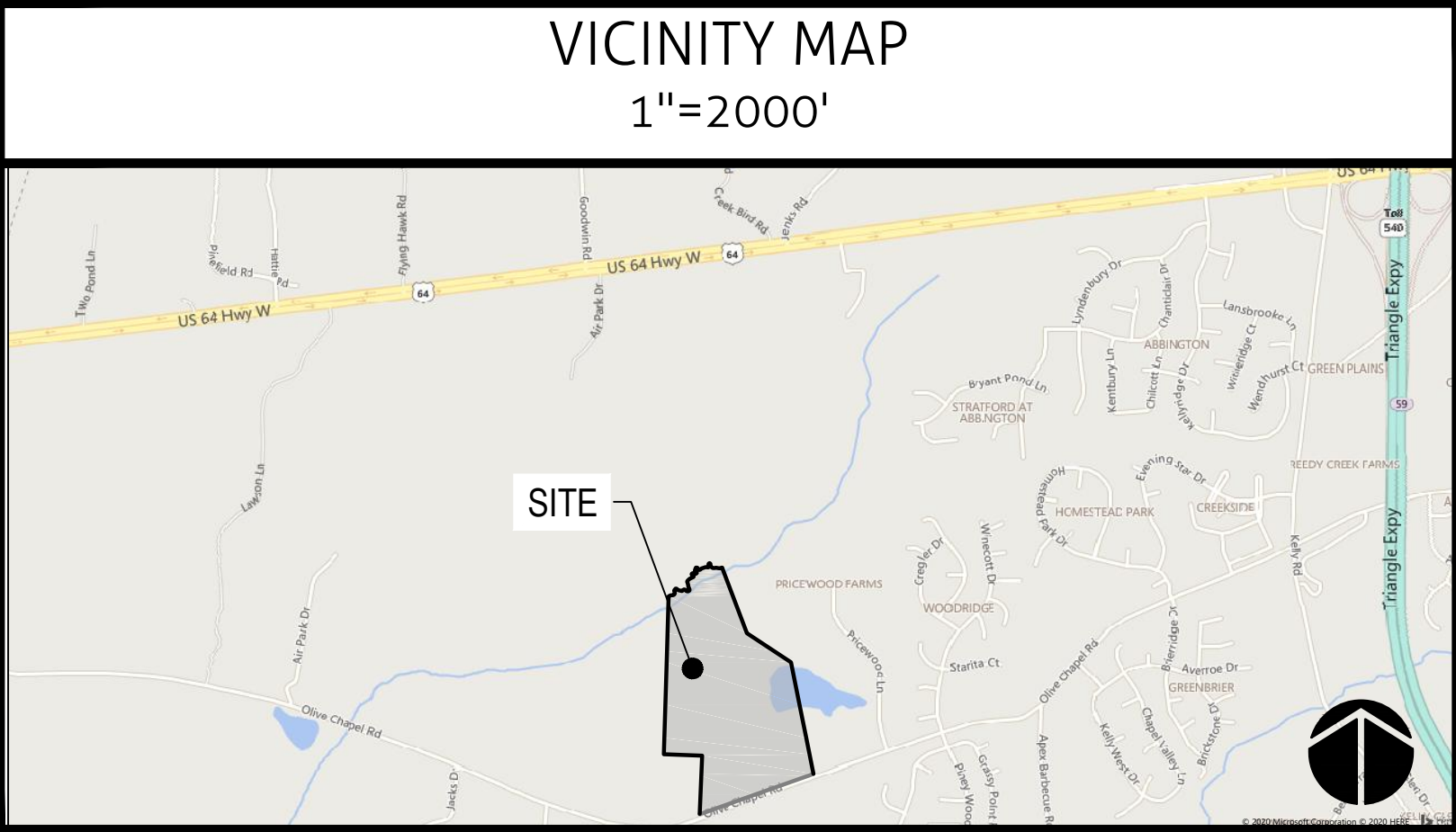
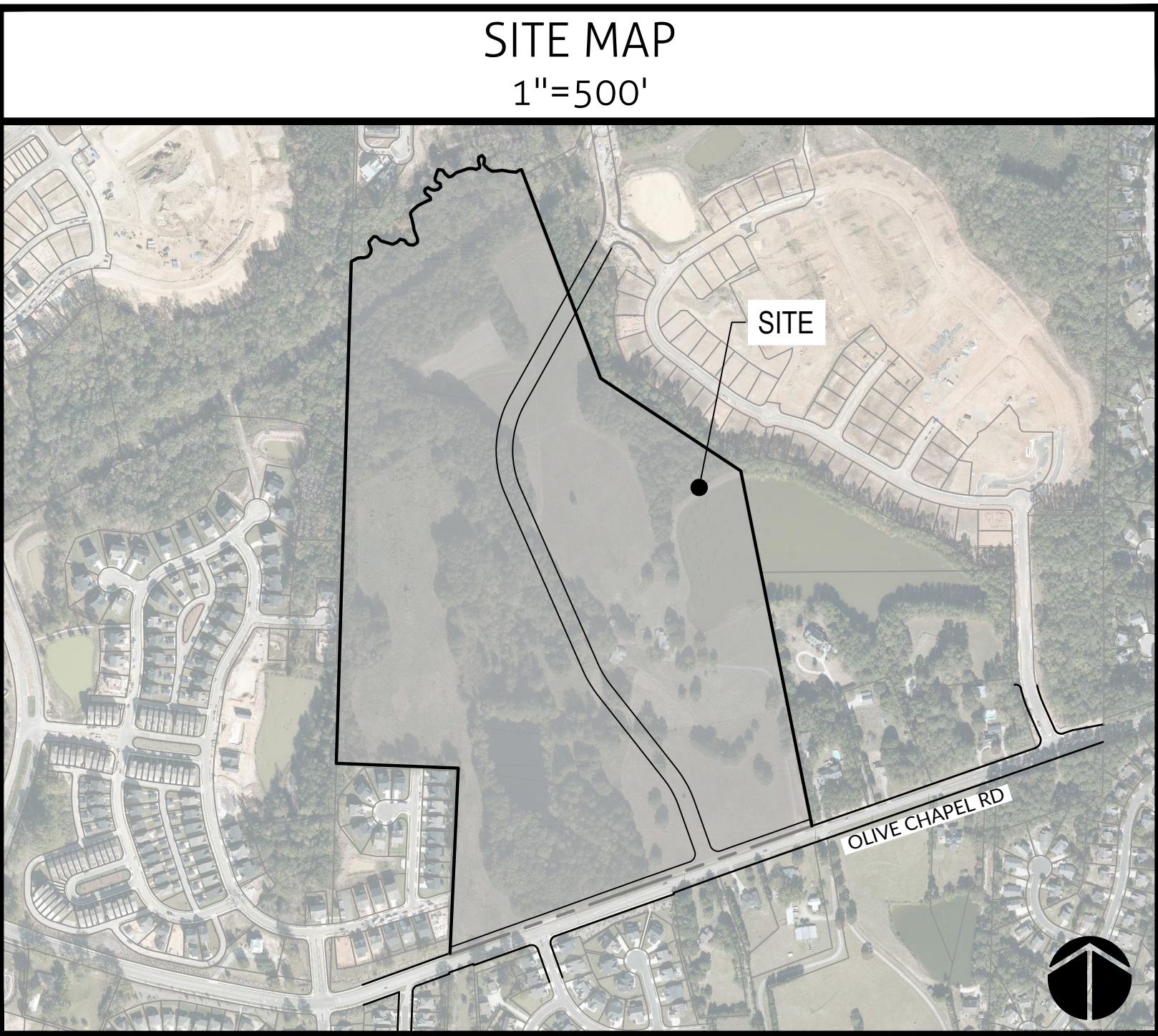
APEX, NORTH CAROLINA

FEBRUARY 26, 2021

SITE DATA				
2045 LAND USE PLAN DESIGNATION	CURRENT	MEDIUM DENSITY RESIDENTIAL		
	PROPOSED	NO CHANGE		
ZONING	CURRENT	RURAL RESIDENTIAL (RR) (R-80W)		
	PROPOSED	PLANNED UNIT DEVELOPMENT (PUD-C2)		
AREA OF TRACTS IN PROPOSED PUD	0722-41-1102	57.87 ACRES		
	0721-49-2829	10.91 ACRES		
	0722-40-6699	11.91 ACRES		
	TOTAL:	79.79 ACRES		
AREA DESIGNATED AS MIXED-USE ON 2045 LAND USE MAP	0 ACRES			
AREA OF MIXED-USE PROPERTY PROPOSED AS NON-RESIDENTIAL DEVELOPMENT	N/A			
PERCENT OF MIXED-USE PROPERTY PROPOSED AS NON-RESIDENTIAL DEVELOPMENT	N/A			
REQUESTED SEWER CAPACITY	TO BE DETERMINED			
MAXIMUM RESIDENTIAL DENSITY	4.0 DU/ACRE			
MAXIMUM BUILDING HEIGHT	50'-0"			
SETBACKS: SINGLE FAMILY	FRONT: 5 FT FROM FACADE 20 FT FROM GARAGE TO BACK OF SIDEWALK	REAR: 10 FT	SIDE: 5 FT	CORNER SIDE: 8 FT
SETBACKS: TOWNHOUSE, FRONT LOADED	FRONT: 10 FT FROM FACADE 20 FT FROM GARAGE TO BACK OF SIDEWALK	REAR: 10 FT	SIDE: 5 FT	BUILDING TO BUILDING: 10 FT
SETBACKS: TOWNHOUSE, ALLEY LOADED	FRONT: 10 FT FROM FACADE	REAR: 5 FT	SIDE: 5 FT	BUILDING TO BUILDING: 10 FT
WATERSHED	JORDAN LAKE WATERSHED, PRIMARY WATERSHED PROTECTION OVERLAY			
HISTORIC STRUCTURES	N/A			
COMMUNITY AMENITIES	COMMUNITY GATHERING SPACE WITH BENCHES, TOT LOT			
SITE BUFFERS	NORTH	100' STREAM BUFFER		
	EAST	20' TYPE A BUFFER		
	SOUTH	30' TYPE E BUFFER *A 30' TYPE B BUFFER SHALL BE PROVIDED IF HOMES ALONG OLIVE CHAPEL ROAD ARE NOT ALLEY LOADED		
	WEST	20' TYPE A BUFFER		

THE APEX PARKS, RECREATION AND CULTURAL RESOURCES ADVISORY COMMISSION MET ON DECEMBER 9, 2020 AND UNANIMOUSLY RECOMMENDED A FEE-IN-LIEU OF DEDICATION WITH CREDIT FOR CONSTRUCTION OF GREENWAY WHICH CONNECTS SIDEPATH ALONG HASSE AVE TO THE WEST CONNECTING TO THE REEDY BRANCH GREENWAY IN SMITH FARM. THE FEE RATE WILL BE SET AT THE TIME OF TOWN COUNCIL REVIEW/APPROVAL AND THE CREDIT FOR CONSTRUCTION WILL BE CALCULATED PRIOR TO CONSTRUCTION PLAN APPROVAL. PER THE UDO ART 14, THE GREENWAY MUST BE COMPLETED AND ACCEPTED PRIOR TO 25% OF THE BUILDING PERMITS FOR THE PROJECT BEING ISSUED.

HASSE AVENUE WILL BE CONSTRUCTED BETWEEN OLIVE CHAPEL ROAD AND ITS CURRENT TERMINUS NORTH OF THE PROJECT. OLIVE CHAPEL ROAD WILL BE WIDENED TO INCLUDE CONSTRUCTION OF A 100-FOOT EASTBOUND LEFT-TURN LANE WITH APPROPRIATE DECELERATION LENGTH AND TAPER AND A 100-FOOT WESTBOUND RIGHT-TURN LANE WITH APPROPRIATE DECELERATION LENGTH AND TAPER SUBJECT TO NCDOT REVIEW AND APPROVAL. THE OLIVE CHAPEL ROAD TURN LANE WIDENING WILL BE COMPLETED PRIOR TO PLATTING HASSE AVENUE ACCESS TO OLIVE CHAPEL ROAD AND THE CONNECTION TO HASSE AVENUE NORTH OF THE PROJECT WILL BE COMPLETED PRIOR TO THE LAST PLAT IN THE SUBDIVISION.



INDEX OF SHEETS	
SHEET NUMBER	SHEET TITLE
0.0	COVER
1.0	EXISTING CONDITIONS
2.0	CONCEPTUAL LAYOUT PLAN
3.0	CONCEPTUAL UTILITY PLAN
4.0	CONCEPTUAL STORMWATER MANAGEMENT PLAN

PREPARED BY:



Engineers | Planners | Surveyors

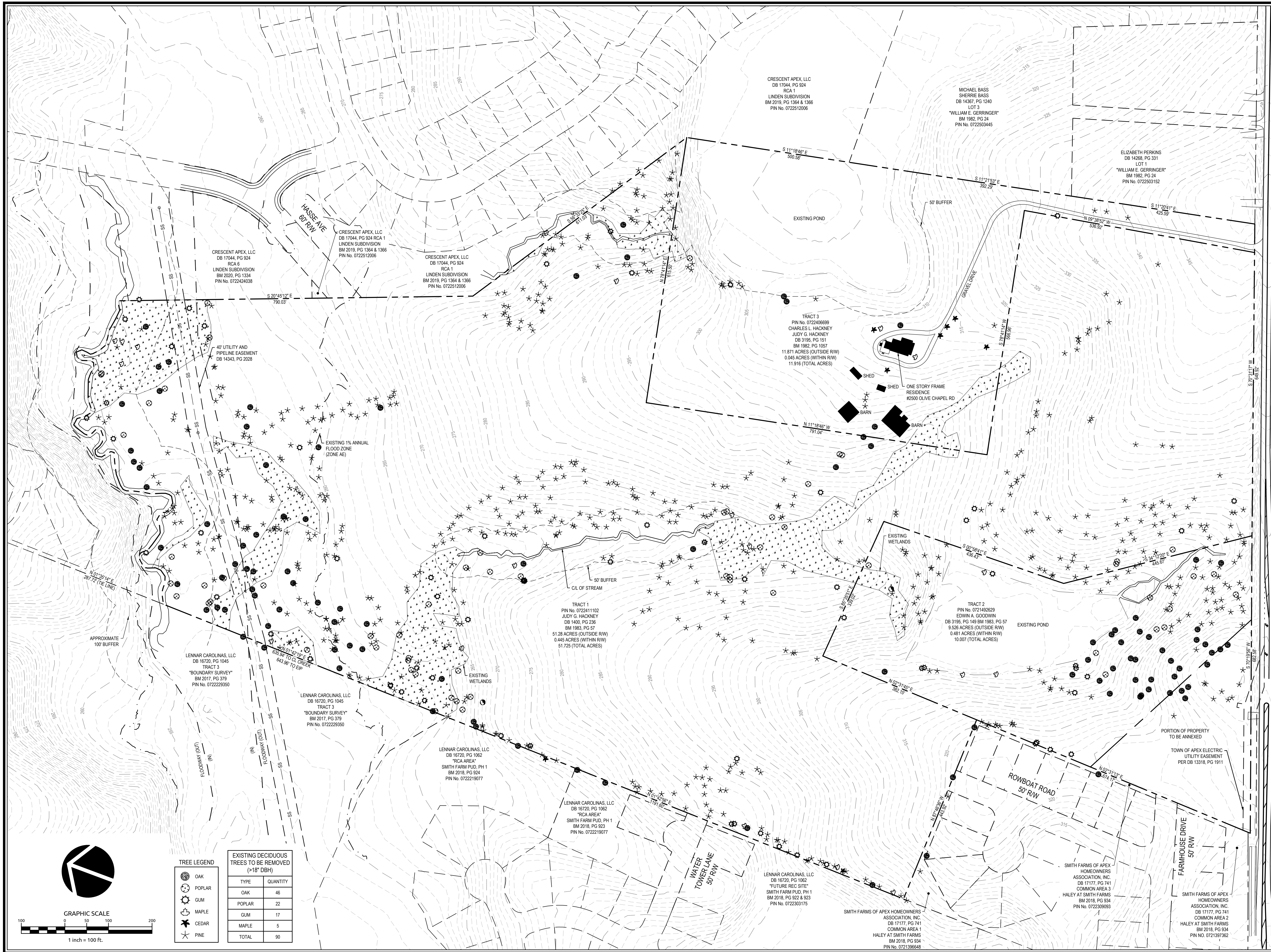
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

PLANNER: BRENDIE VEGA, AICP
BVEGA@WITHERSRAVENEL.COM

CIVIL ENGINEER: BRYANT INGE, PE
BINGE@WITHERSRAVENEL.COM

PRELIMINARY
NOT APPROVED FOR
CONSTRUCTION

- EXISTING CONDITION NOTES**
1. TOPOGRAPHIC AND UTILITY INFORMATION BASED ON AVAILABLE GIS MAPPING. PRELIMINARY BOUNDARY SURVEY PREPARED BY WITHERSRAVENEL DATED 09/25/20.
 2. WETLAND/STREAM INFORMATION BASED ON EVALUATION BY SAEC DATED 09/18/20 (APEX 20-004).
 3. REGULATORY FEMA MAPPED FLOODPLAINS EXIST ON SITE PER FIRM MAP #37007200J (5/20/6).
 4. THE SUBJECT PROPERTY IS LOCATED WITHIN THE TOWN OF APEX PRIMARY WATERSHED PROTECTION OVERLAY DISTRICT.
 5. ALL EXISTING STRUCTURES ON THE SUBJECT PROPERTY SHALL BE REMOVED PER TOWN OF APEX STANDARDS AND REQUIREMENTS.



TREE LEGEND

- OAK
- POPLAR
- GUM
- MAPLE
- CEDAR
- PINE

EXISTING DECIDUOUS TREES TO BE REMOVED (>18" DBH)

TYPE	QUANTITY
OAK	46
POPLAR	22
GUM	17
MAPLE	5
TOTAL	90

No.	Revision	Date	By

Designer	WR	Scale	1" = 100'
Drawn By	WR	Date	02/26/2021
Checked By	WR	Job No.	02180517.20

HACKNEY
WAKE COUNTY
NORTH CAROLINA

EXISTING CONDITIONS

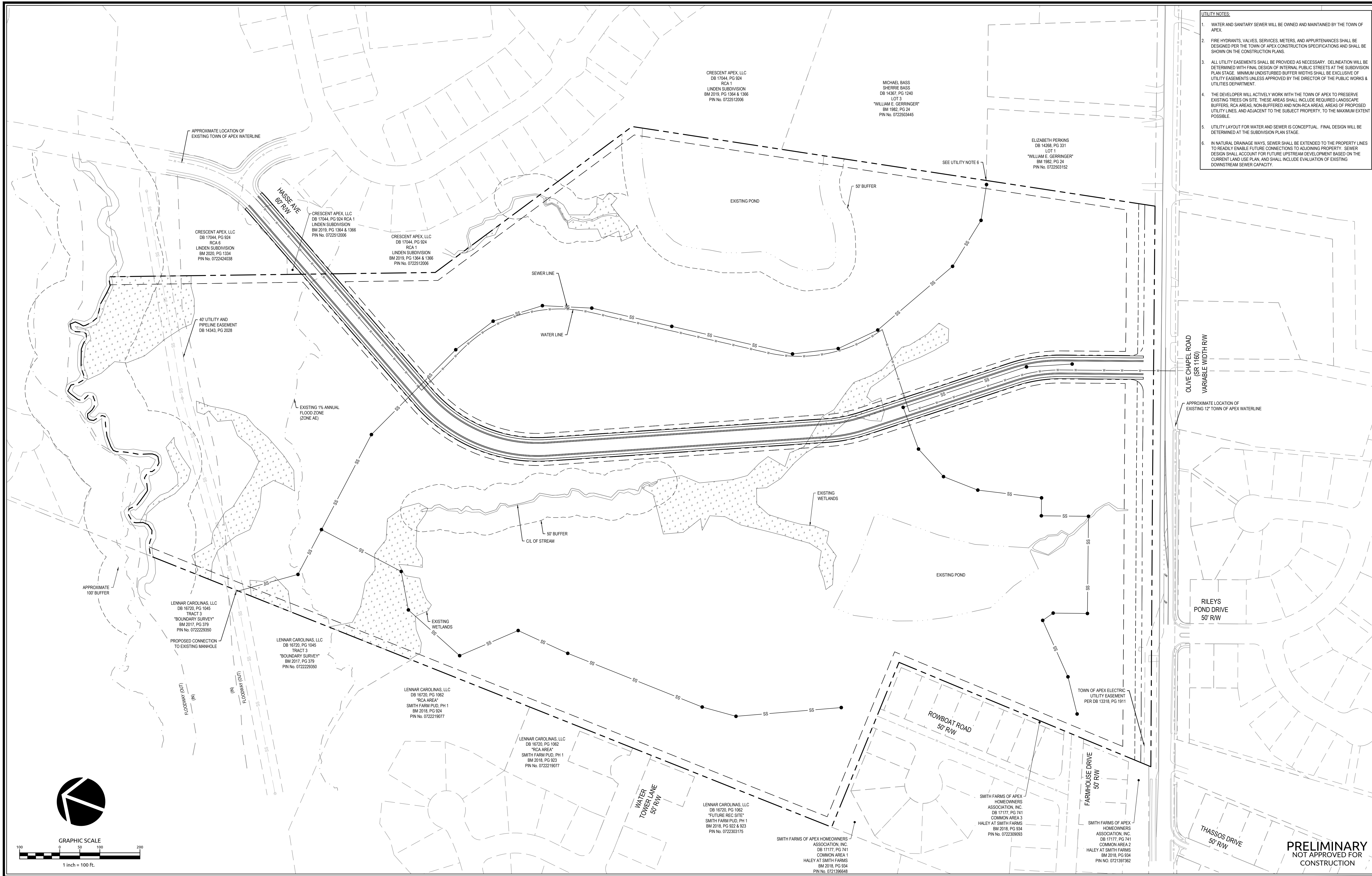
PRELIMINARY NOT APPROVED FOR CONSTRUCTION

Sheet No. **1.0**

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | f: 919.469.3340 | www.withersravenel.com

K:\18180517\18180517_20\Hackney_Plan\APX2000.dwg, Sheet 001 of 5 EXISTING CONDITIONS.dwg, Friday, February 26, 2021 10:30:20 AM, WJAE, BVP/AVT

- UTILITY NOTES:**
1. WATER AND SANITARY SEWER WILL BE OWNED AND MAINTAINED BY THE TOWN OF APEX.
 2. FIRE HYDRANTS, VALVES, SERVICES, METERS, AND APPURTENANCES SHALL BE DESIGNED PER THE TOWN OF APEX CONSTRUCTION SPECIFICATIONS AND SHALL BE SHOWN ON THE CONSTRUCTION PLANS.
 3. ALL UTILITY EASEMENTS SHALL BE PROVIDED AS NECESSARY. DELINEATION WILL BE DETERMINED WITH FINAL DESIGN OF INTERNAL PUBLIC STREETS AT THE SUBDIVISION PLAN STAGE. MINIMUM UNDISTURBED BUFFER WIDTHS SHALL BE EXCLUSIVE OF UTILITY EASEMENTS UNLESS APPROVED BY THE DIRECTOR OF THE PUBLIC WORKS & UTILITIES DEPARTMENT.
 4. THE DEVELOPER WILL ACTIVELY WORK WITH THE TOWN OF APEX TO PRESERVE EXISTING TREES ON SITE. THESE AREAS SHALL INCLUDE REQUIRED LANDSCAPE BUFFERS, RCA AREAS, NON-BUFFERED AND NON-RCA AREAS, AREAS OF PROPOSED UTILITY LINES, AND ADJACENT TO THE SUBJECT PROPERTY, TO THE MAXIMUM EXTENT POSSIBLE.
 5. UTILITY LAYOUT FOR WATER AND SEWER IS CONCEPTUAL. FINAL DESIGN WILL BE DETERMINED AT THE SUBDIVISION PLAN STAGE.
 6. IN NATURAL DRAINAGE WAYS, SEWER SHALL BE EXTENDED TO THE PROPERTY LINES TO READILY ENABLE FUTURE CONNECTIONS TO ADJOINING PROPERTY. SEWER DESIGN SHALL ACCOUNT FOR FUTURE UPSTREAM DEVELOPMENT BASED ON THE CURRENT LAND USE PLAN, AND SHALL INCLUDE EVALUATION OF EXISTING DOWNSTREAM SEWER CAPACITY.



**PRELIMINARY
NOT APPROVED FOR
CONSTRUCTION**

No.	Revision	Date	By

Designer	WR	Scale	1" = 100'
Drawn By	WR	Date	02/26/2021
Checked By	WR	Job No.	02180517.20

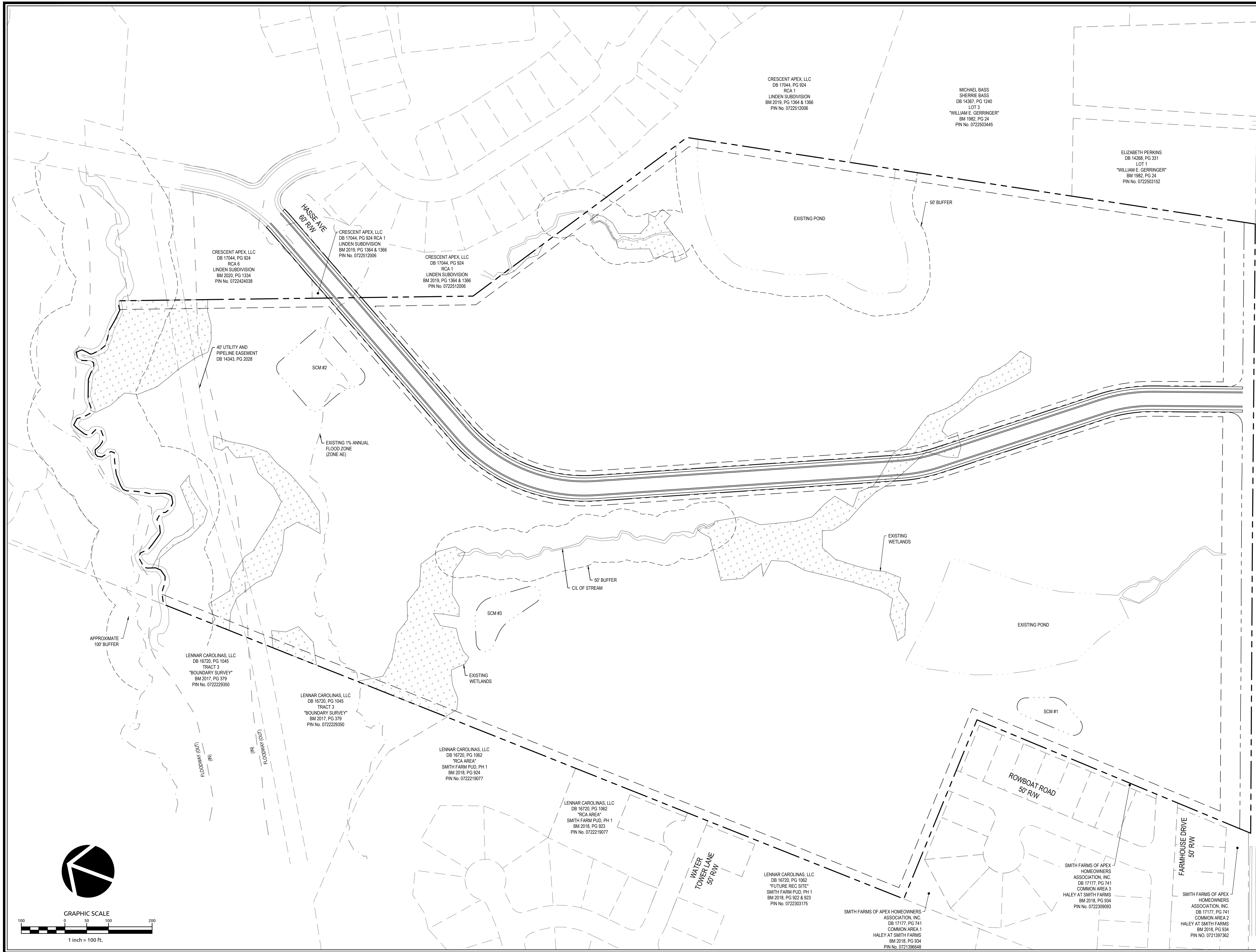
HACKNEY
WAKE COUNTY
NORTH CAROLINA

CONCEPTUAL UTILITY PLAN

WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No. **3.0**

- STORMWATER MANAGEMENT NOTES:**
1. TOPOGRAPHIC AND UTILITY INFORMATION BASED ON AVAILABLE GIS MAPPING. PRELIMINARY BOUNDARY SURVEY PREPARED BY WITHERSRAVENEL.
 2. WETLAND/STREAM INFORMATION BASED ON EVALUATION BY S&EC DATED 09/18/20.
 3. REGULATORY FEMA MAPPED FLOODPLAINS EXIST ON SITE PER FIRM MAP #372072200J (5/2/06).
 4. THE SUBJECT PROPERTY IS LOCATED WITHIN THE TOWN OF APEX PRIMARY WATERSHED PROTECTION OVERLAY DISTRICT.
 5. STORMWATER MANAGEMENT FACILITIES SHALL BE DESIGNED PER THE TOWN OF APEX STANDARDS AND REGULATIONS FOR STORMWATER QUANTITY AND QUALITY (UDO SECTION 6.1.7 B).
 6. ALL APPLICABLE LOCAL AND STATE ENVIRONMENTAL PERMITS SHALL BE OBTAINED PRIOR TO START OF CONSTRUCTION.
 7. STORMWATER TREATMENT WILL BE HANDLED BY INDIVIDUAL OR REGIONAL FACILITIES WITHIN THE SUBJECT PROPERTY OR ADJACENT OFF-SITE DRAINAGE EASEMENT.
 8. THE POST DEVELOPMENT PEAK FLOW RATE OF ON-SITE STORMWATER WILL NOT EXCEED THE PRE-DEVELOPMENT PEAK FLOW RATE IN ACCORDANCE WITH THE UDO.



**PRELIMINARY
NOT APPROVED FOR
CONSTRUCTION**

No.	Revision	Date	By

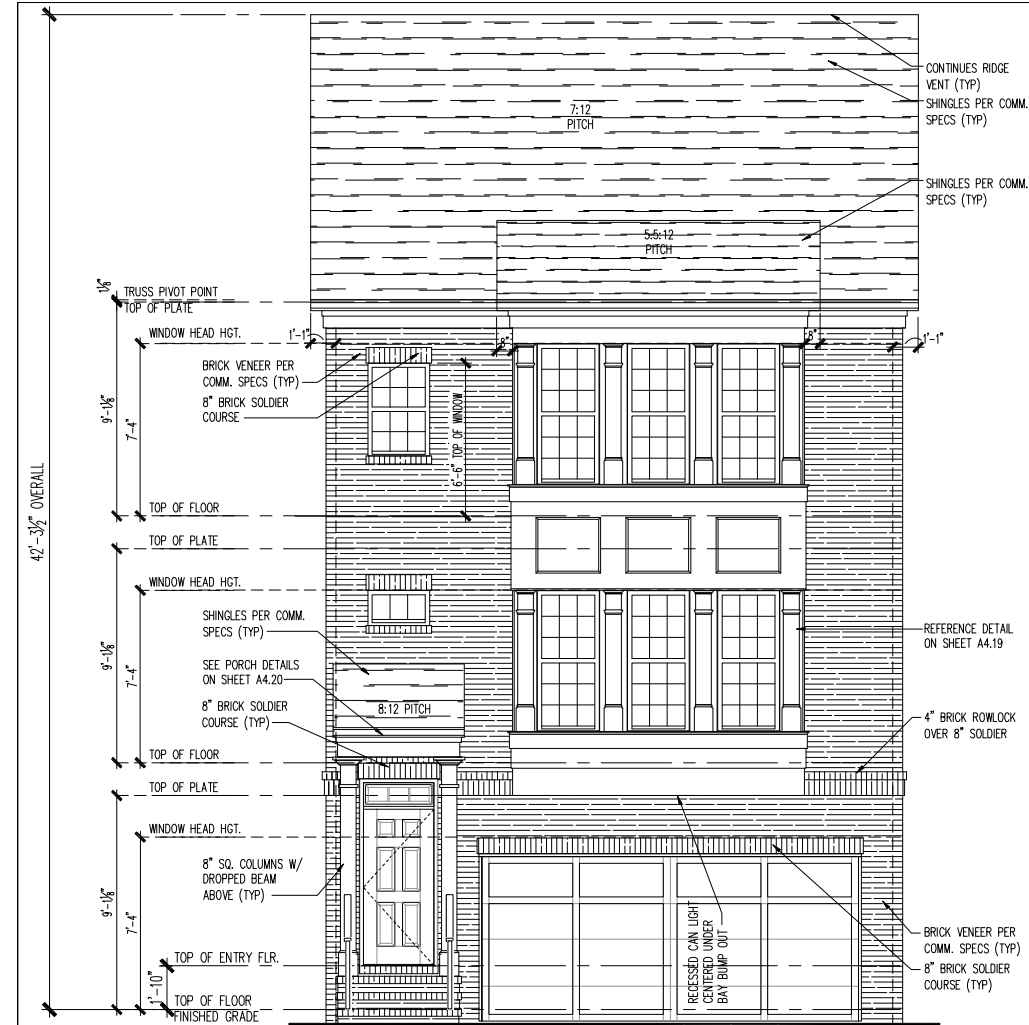
Designer	WR	Scale	1" = 100'
Drawn By	WR	Date	02/26/2021
Checked By	WR	Job No.	02180517.20

HACKNEY
WAKE COUNTY
NORTH CAROLINA

CONCEPTUAL STORMWATER MANAGEMENT PLAN

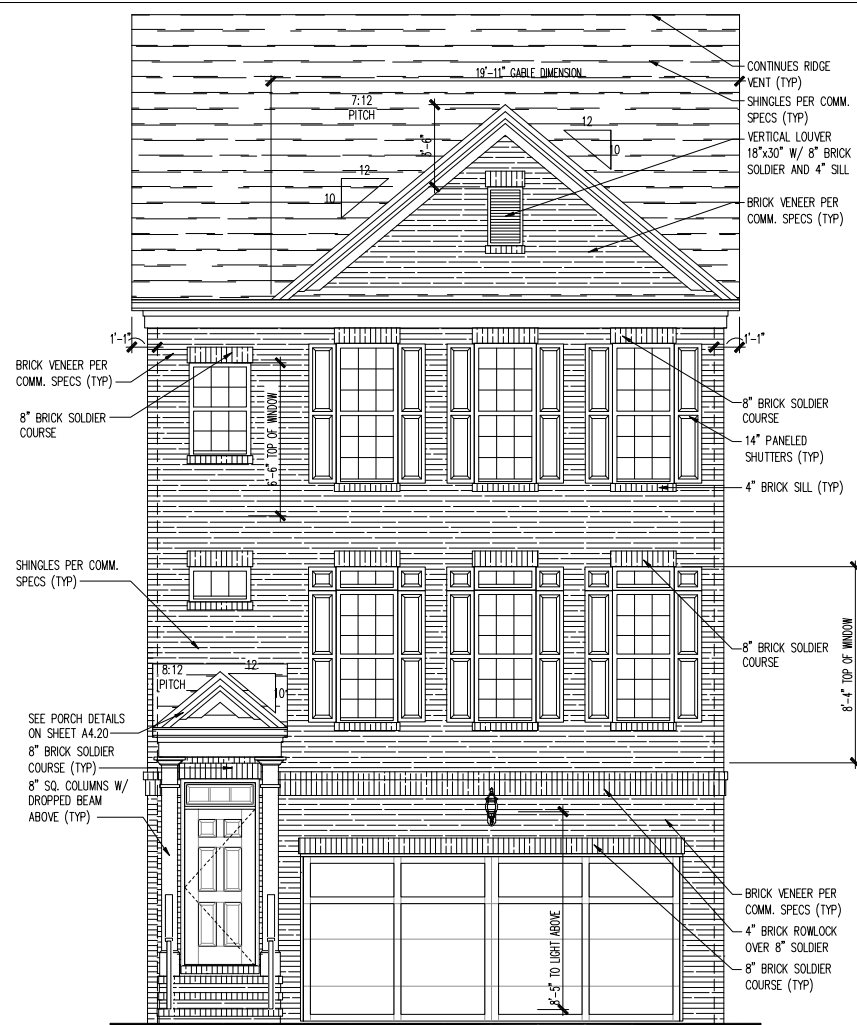
WithersRavenel
Engineers | Planners | Surveyors
115 MacKenan Drive | Cary, NC 27511 | t: 919.469.3340 | license #: C-0832 | www.withersravenel.com

Sheet No.
4.0



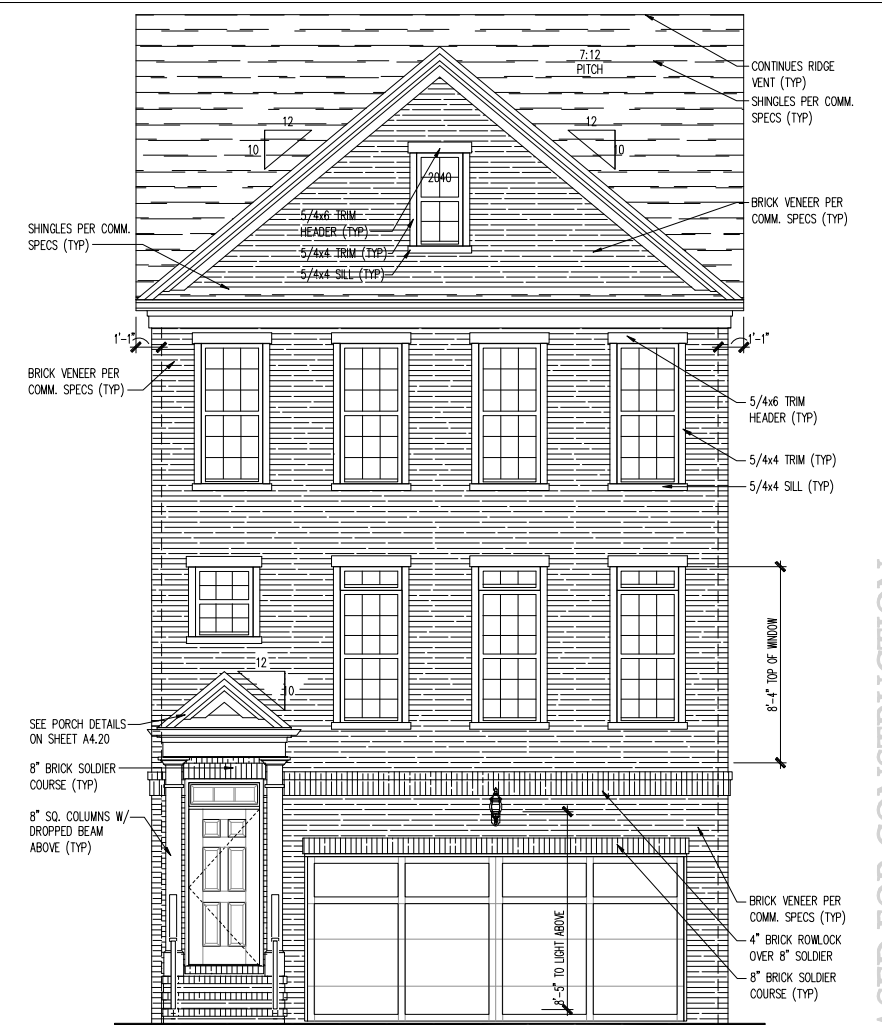
ELEVATION 64

SCALE: 1/4" = 1'-0"



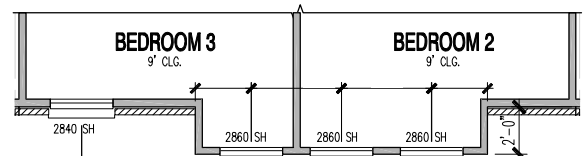
ELEVATION 65

SCALE: 1/4" = 1'-0"



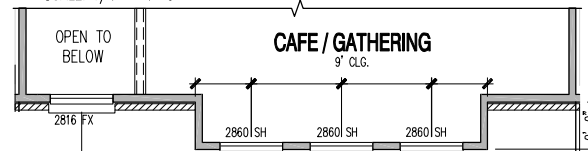
ELEVATION 66

SCALE: 1/4" = 1'-0"



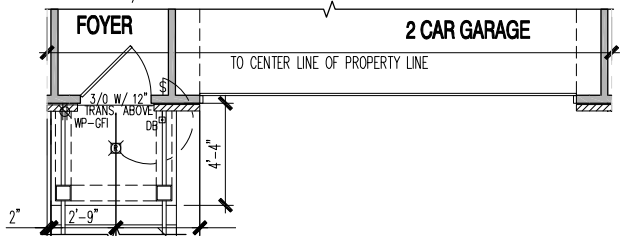
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



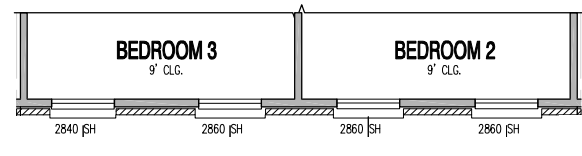
SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



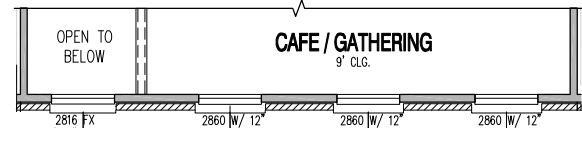
FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



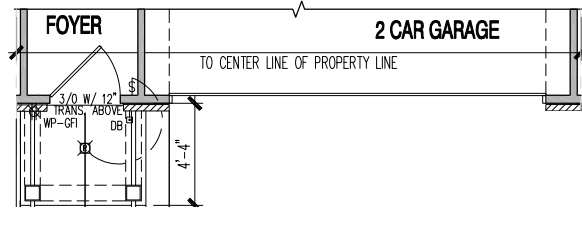
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



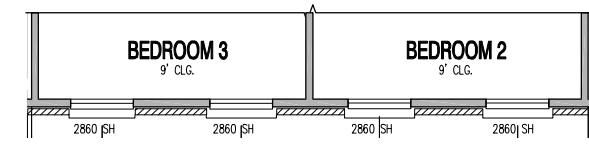
SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



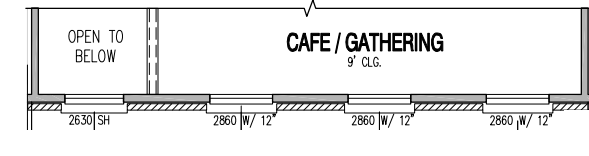
FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



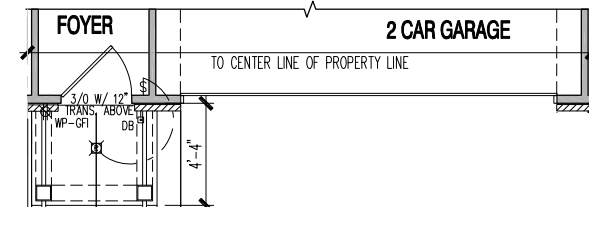
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

PLOTTED: April 17, 2017 / Samantha Powell / 24-FL-ELEV.DWG

RELEASED FOR CONSTRUCTION

NOTE: SCALES NOTED ON DRAWINGS RELATE TO FULL SIZE PLOTS ON 22x34 SHEETS - 11x17 SHEETS REPRESENT 1/2 SCALE PLOTS

REVISIONS

REV #	DATE	DESCRIPTION

PRODUCTION MANAGER
Don Kostka
INITIAL RELEASE DATE:
12-08-2015
CURRENT RELEASE DATE:
12-08-2015

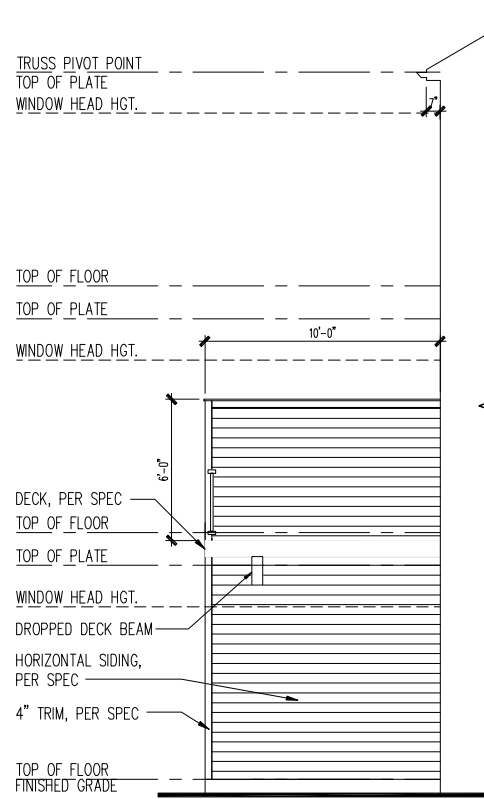
GARAGE HANDING
FL-GE-ME-KC-KR

PLAN NAME
Summerford & Hutton
NPLC PLAN NUMBER
2468.928 - 2468.929
LAWSON PLAN ID

SHEET
A.3.27

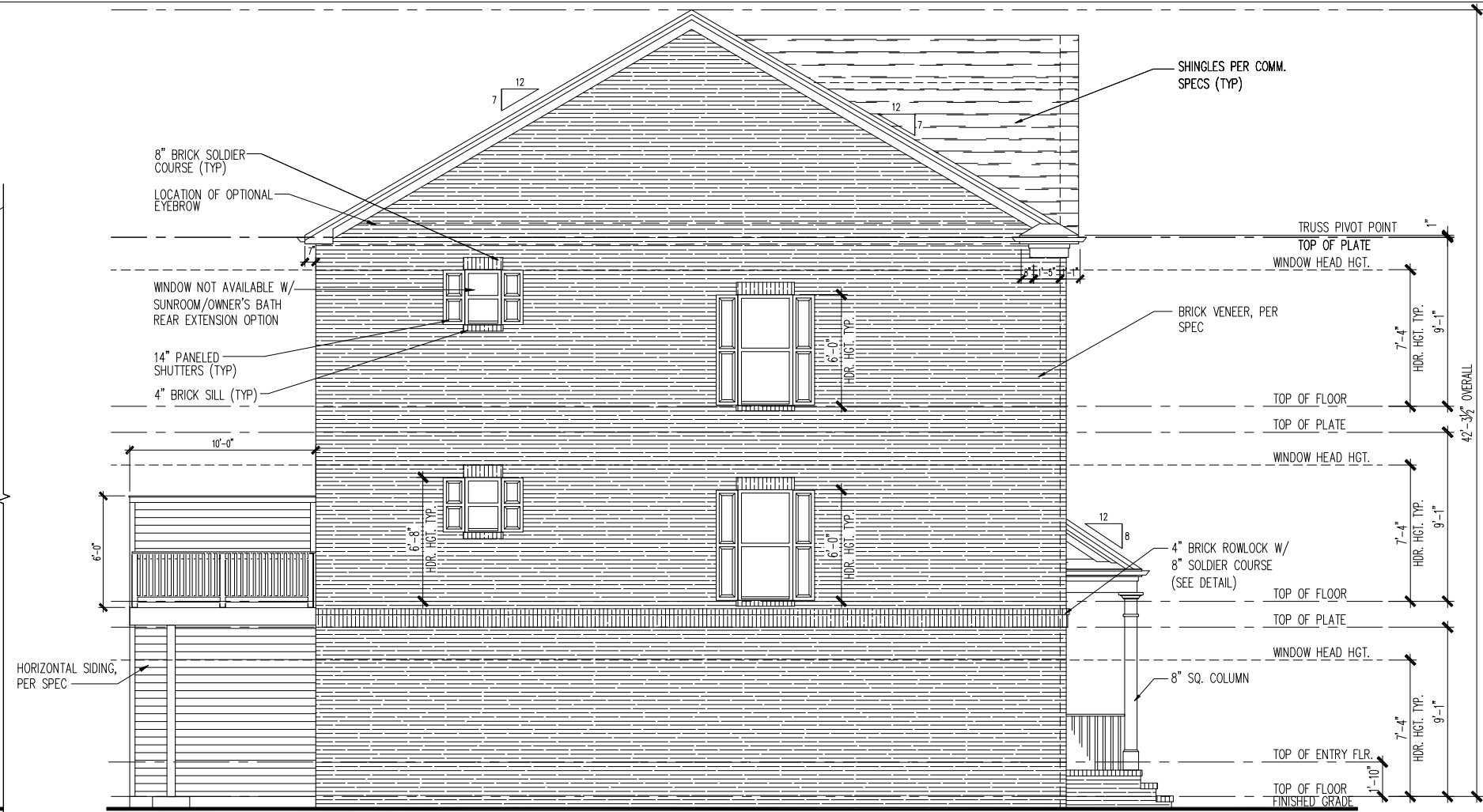
Southeast Zone
 2475 Northwinds Pkwy, Suite 600
 Alpharetta, GA 30009 (770) 381-3450
 Pulte Homes

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.



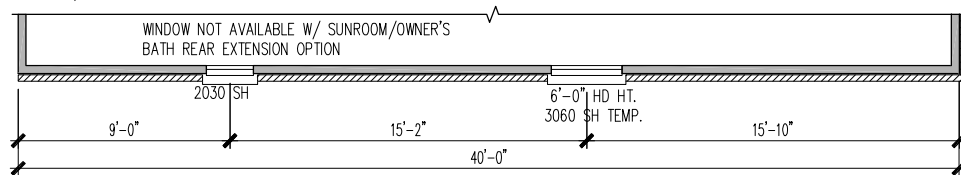
LEFT ELEVATION - DECK 3 OPTION - MIDDLE CONDITION

SCALE: 3/16" = 1'-0" SEE BUILDING CONTROL PLANS FOR MORE INFORMATION



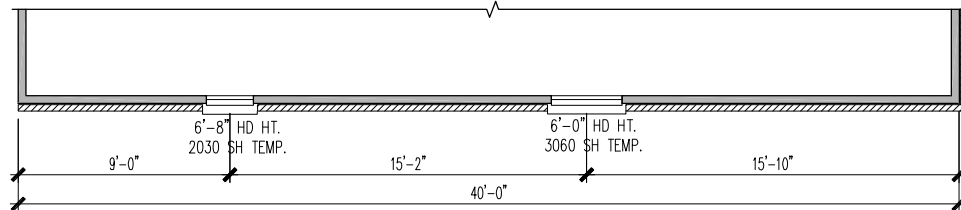
LEFT ELEVATION '61-70'

SCALE: 3/16" = 1'-0"



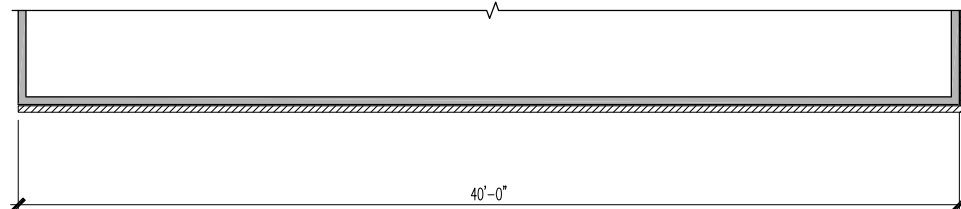
THIRD FLOOR PARTIAL - SIDE END UNIT

SCALE: 3/16" = 1'-0"



SECOND FLOOR PARTIAL - SIDE END UNIT

SCALE: 3/16" = 1'-0"



FIRST FLOOR PARTIAL - SIDE END UNIT

SCALE: 3/16" = 1'-0"

Southeast Zone
2475 Northwinds Pkwy. Suite 600
Alpharetta, GA 30009 (770) 381-3450



RELEASED FOR CONSTRUCTION

Left Elevations 61-70
& Floor Plan Partials

PRODUCTION MANAGER
Don Kostka
INITIAL RELEASE DATE:
12-08-2015
CURRENT RELEASE DATE:
12-08-2015

REV #	DATE	DESCRIPTION

GARAGE HANDING
FL-GE-ME-KC-KR

PLAN NAME
Summerford & Hutton
NFC PLAN NUMBER
2468.928 - 2468.929
LAWSON PLAN ID

SHEET
A.3.30S

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.



RELEASED FOR CONSTRUCTION

Rear Elevations

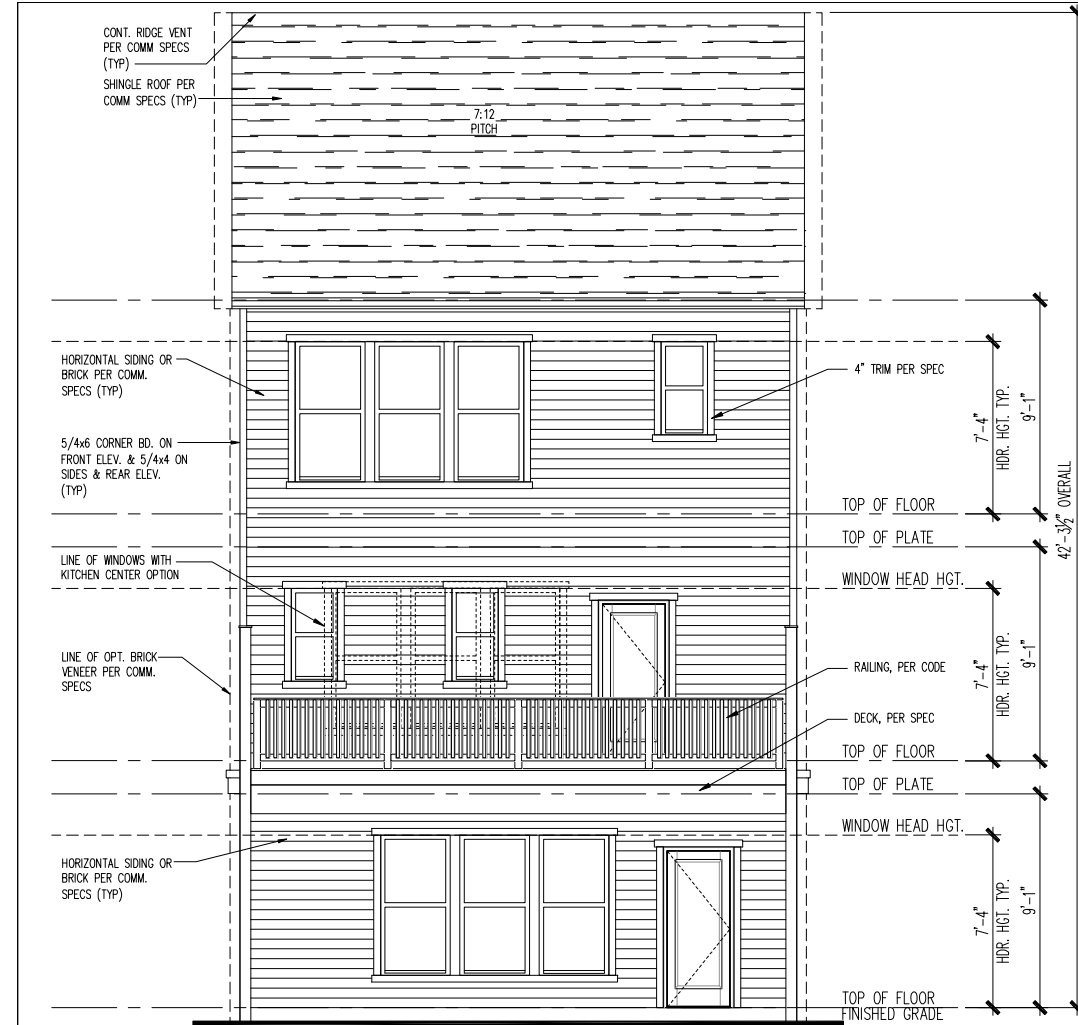
REV #	DATE	DESCRIPTION

PRODUCTION MANAGER
Don Kostka
INITIAL RELEASE DATE:
12-08-2015
CURRENT RELEASE DATE:
12-08-2015

GARAGE HANDING
FL-GEM-KC-KR

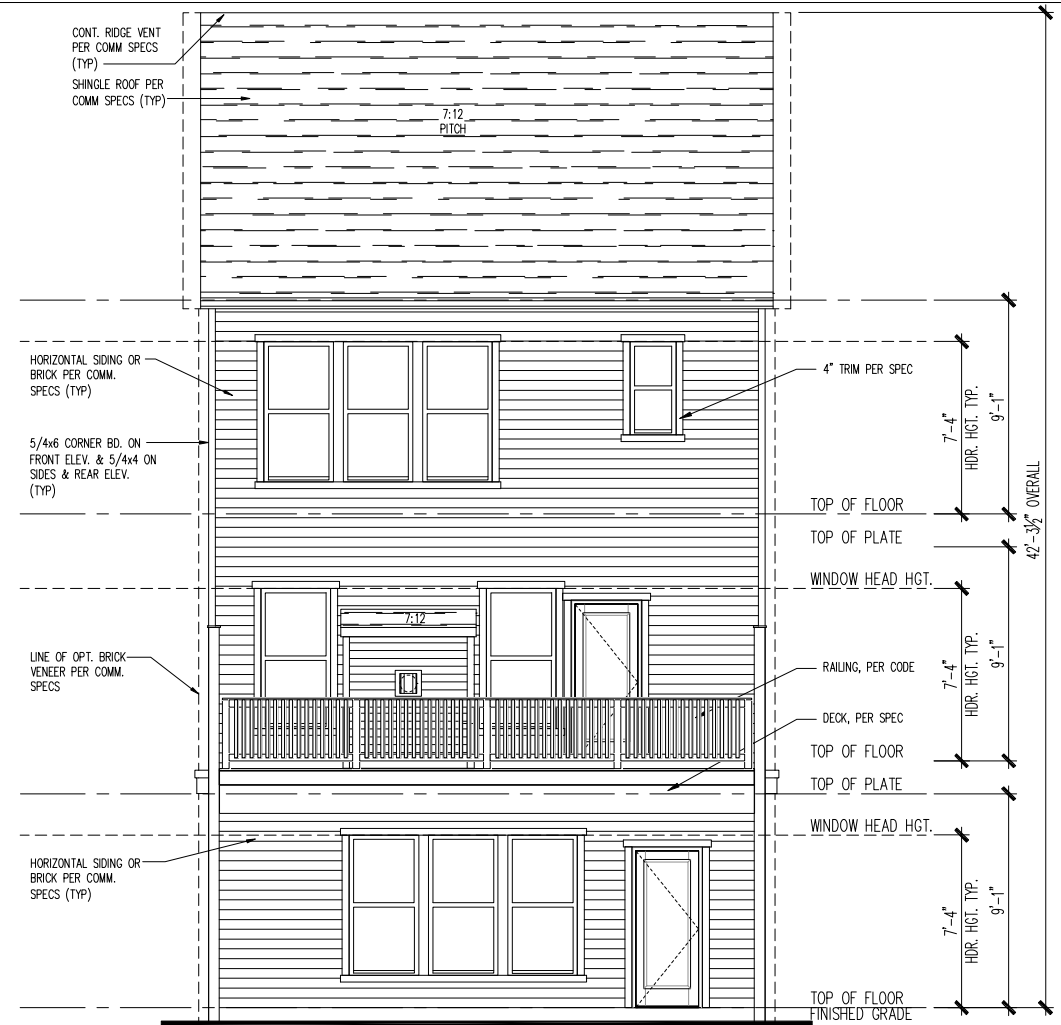
PLAN NAME
Summerford & Hutton
NPC PLAN NUMBER:
2468.928 - 2468.929
LAWSON PLAN ID

SHEET
A.3.60



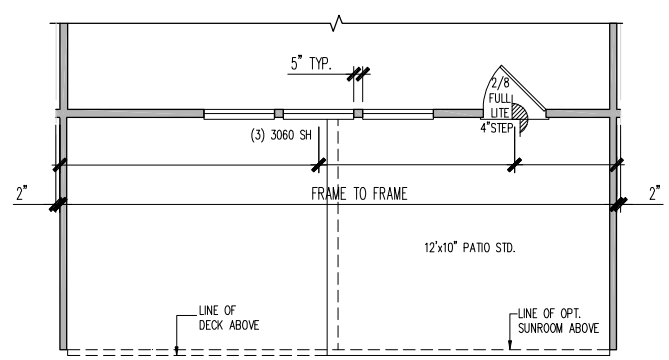
REAR ELEVATION

SCALE: 1/4" = 1'-0"



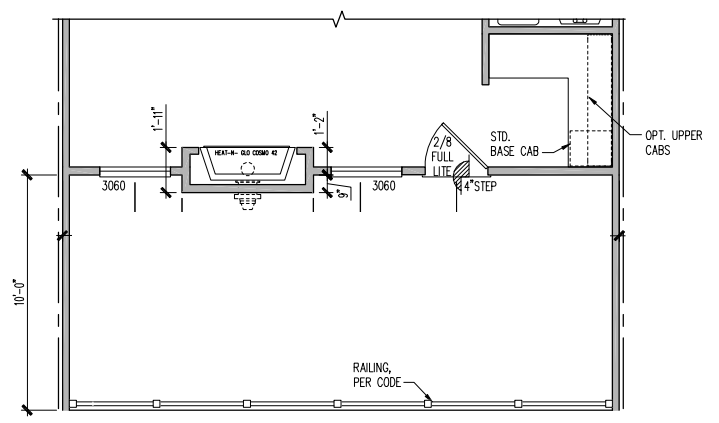
REAR ELEVATION - FIREPLACE OPTION w/ DECK 3

SCALE: 1/4" = 1'-0"



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



FIREPLACE OPTION AT GATHERING ROOM w/ DECK 3

SCALE: 1/4" = 1'-0" SEE BASE PLANS FOR INFORMATION NOT SHOWN

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.

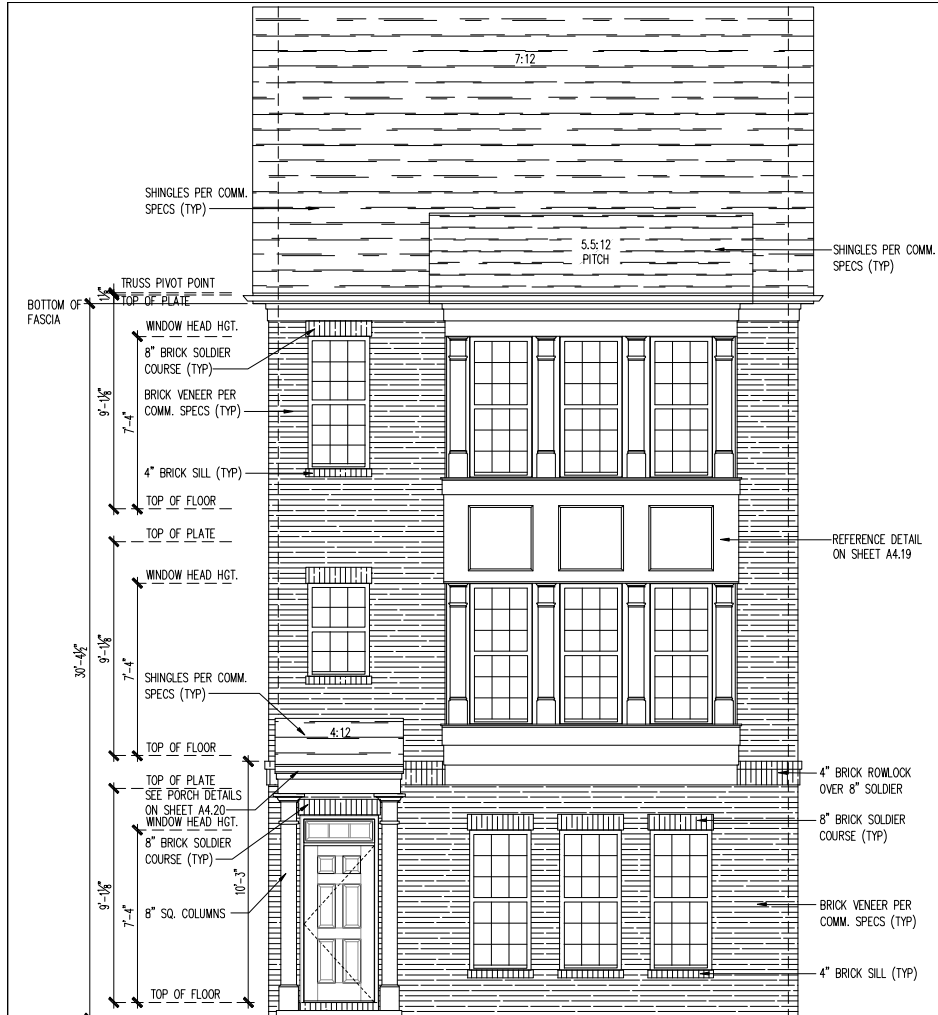


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GARAGE HANDING
RL-ME-KC-KR

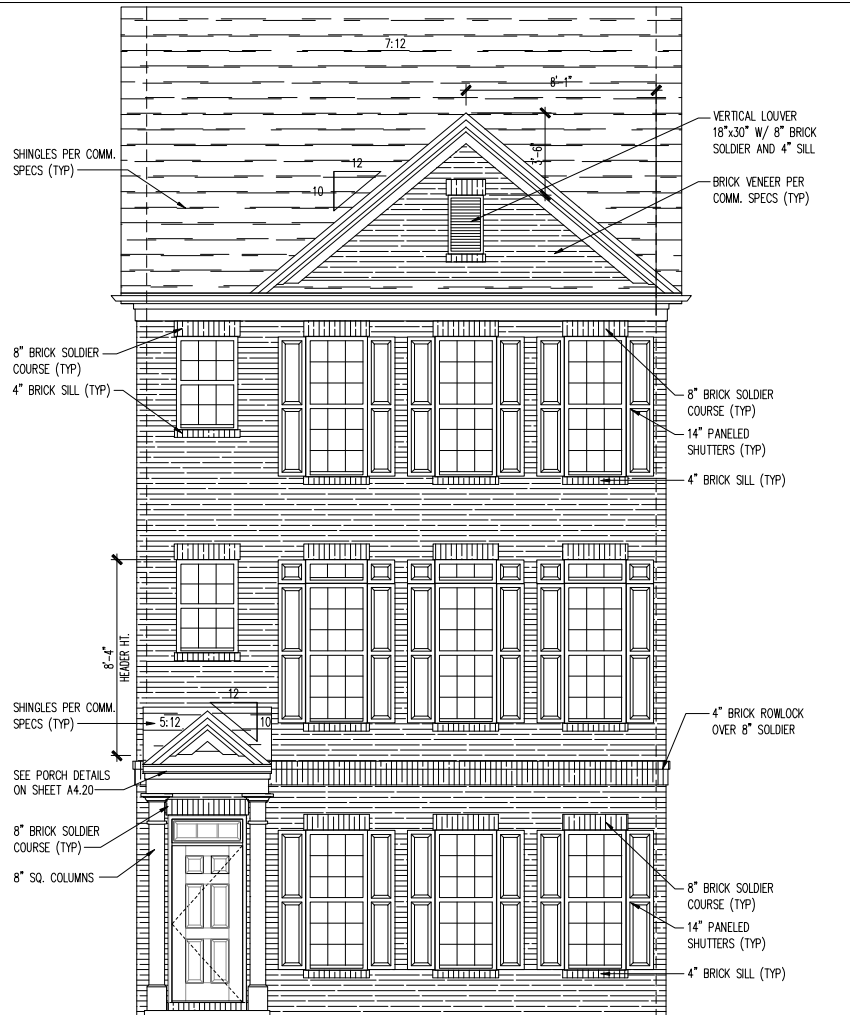
PLAN NAME
Hayward/Briarcliff
NPC PLAN NUMBER
2466.237 - 2466.238
LAWSON PLAN ID

SHEET
A.3.15



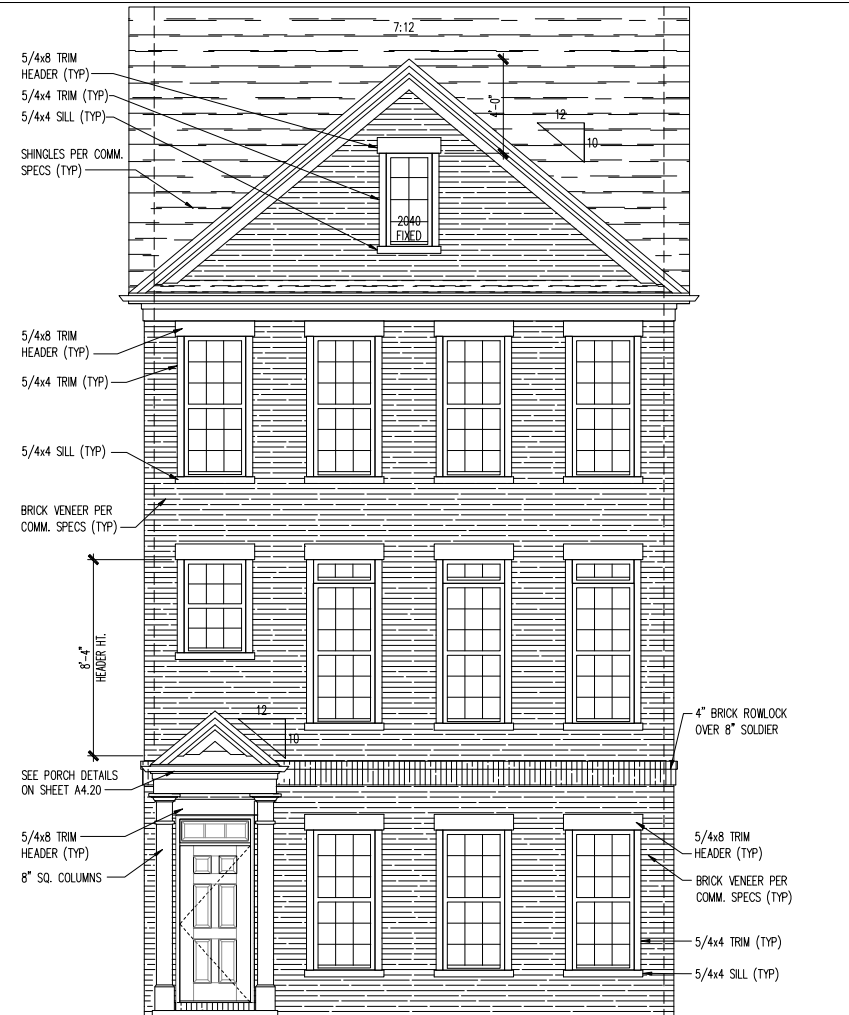
FRONT ELEVATION "64"

SCALE: 1/4" = 1'-0"



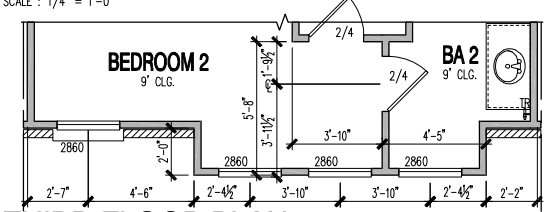
FRONT ELEVATION "65"

SCALE: 1/4" = 1'-0"



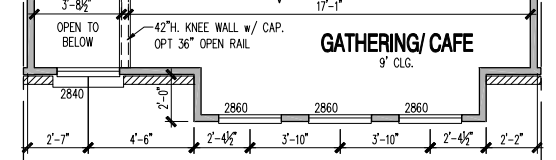
FRONT ELEVATION "66"

SCALE: 1/4" = 1'-0"



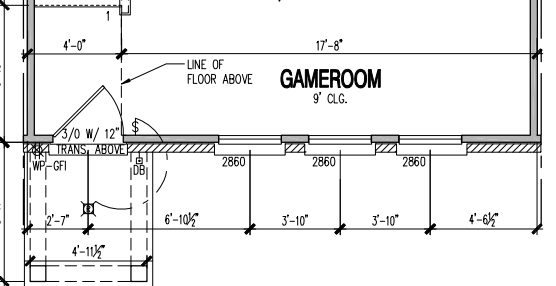
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



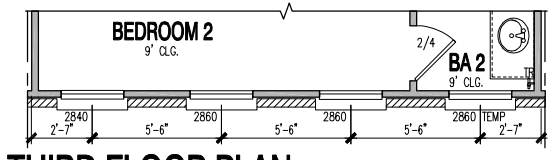
SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



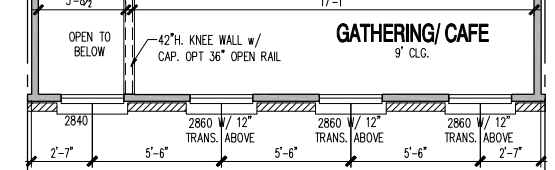
FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



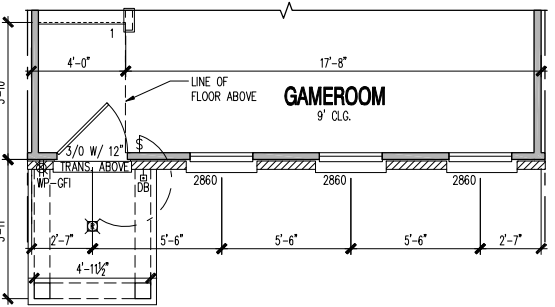
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



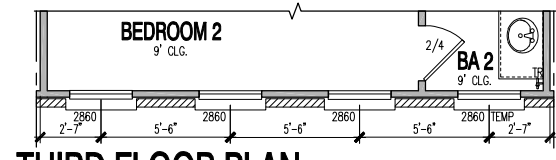
SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



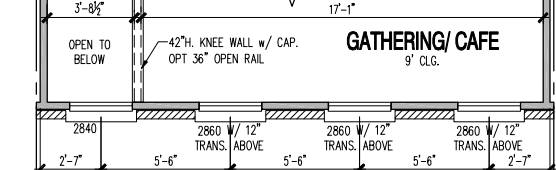
FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



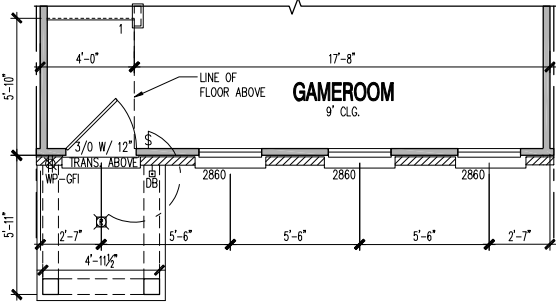
THIRD FLOOR PLAN

SCALE: 1/4" = 1'-0"



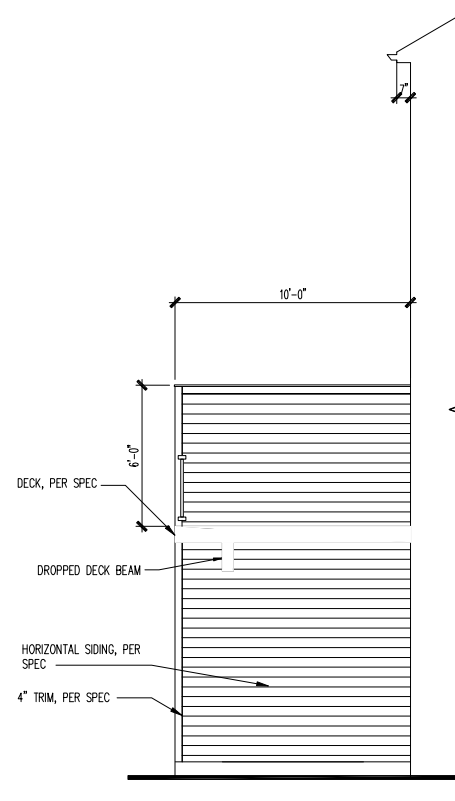
SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



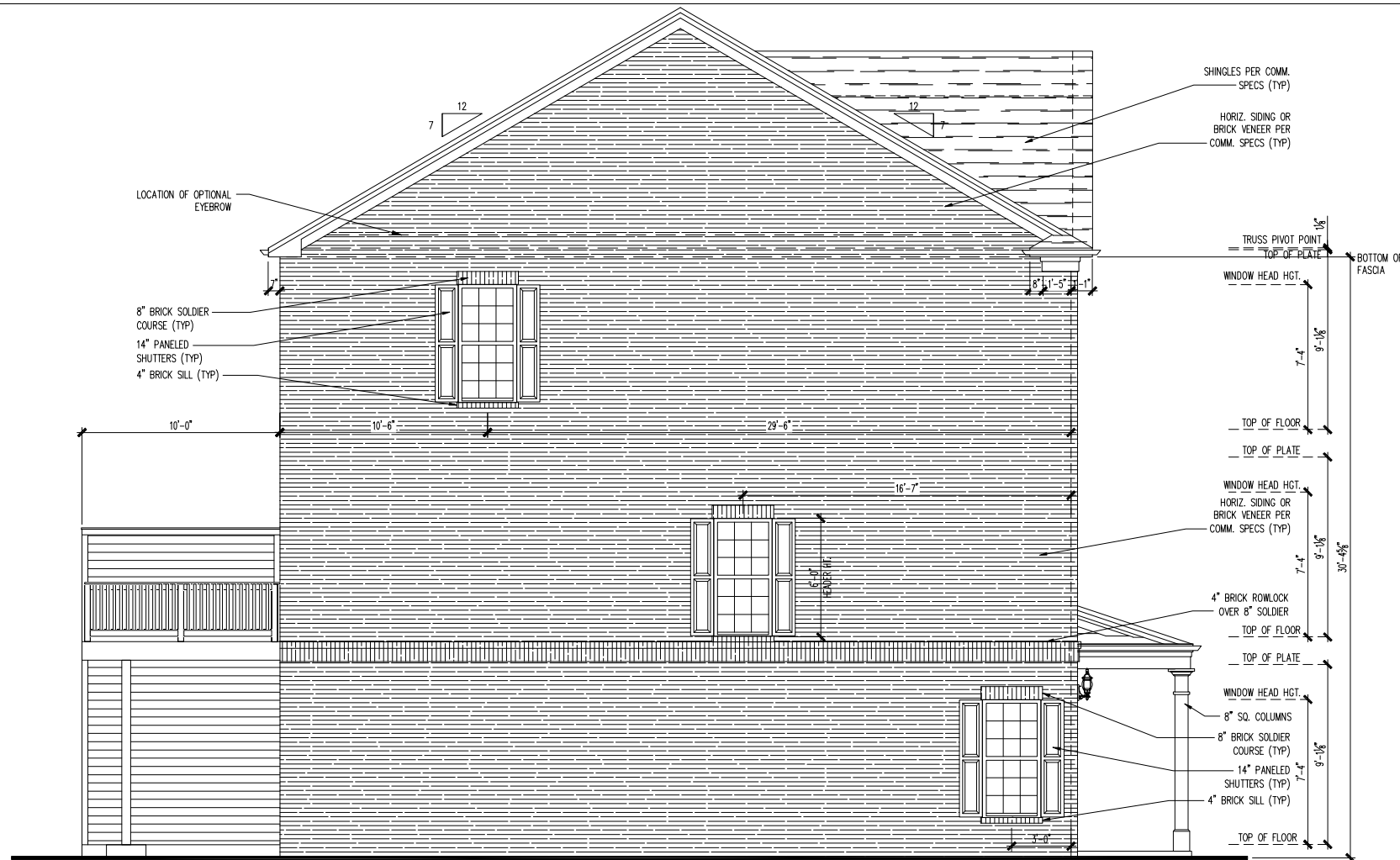
FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



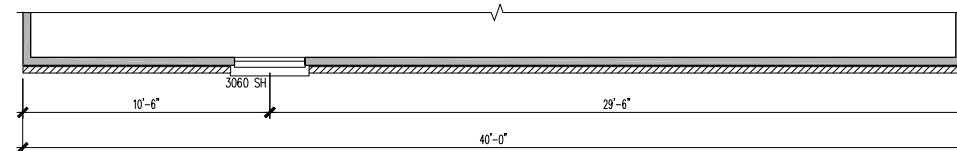
**REAR DECK
MIDDLE CONDITION**

SCALE: 1/4" = 1'-0"



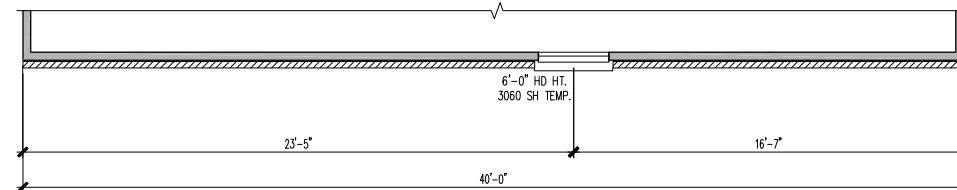
LEFT ELEVATION "61-70"

SCALE: 1/4" = 1'-0"



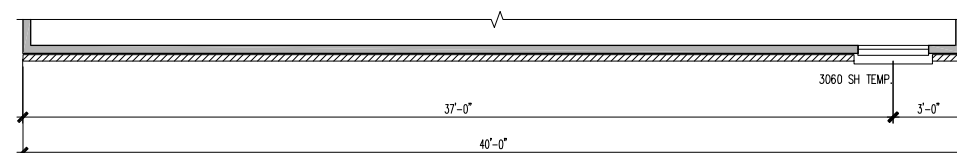
THIRD FLOOR PARTIAL - SIDE END UNIT

SCALE: 1/4" = 1'-0"



SECOND FLOOR PARTIAL - SIDE END UNIT

SCALE: 1/4" = 1'-0"



FIRST FLOOR PARTIAL - SIDE END UNIT

SCALE: 1/4" = 1'-0"

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Southeast Zone
2475 Northwinds Pkwy. Suite 600
Alpharetta, GA 30009 (770) 381-3450



Left Elevations 61-70

PRODUCTION MANAGER
Don Kostka
INITIAL RELEASE DATE:
12-08-2015
CURRENT RELEASE DATE:
1-29-2016

REV #	DATE	DESCRIPTION
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GARAGE HANDING
RL-ME-KC-KR

PLAN NAME
Hayward/ Briarcliff
NPC PLAN NUMBER
2466.237 - 2466.238
LAWSON PLAN ID

SHEET
A.3.19

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.

ATTIC VENTILATION: (300 SQ FT ATTIC SPACE / 1 SQ FT VENTILATION)
W/ 40%-50% REQ. VENTS GREATER THAN OR EQUAL TO 3" ABOVE
EAVE / CORNICE VENTS PER IRC R806.2

ELEVATION "2"
866 SQ FT UNDER ROOF ATTIC /
300 SQ FT / 1 SQ FT = 2.89 SQ FT VENTILATION

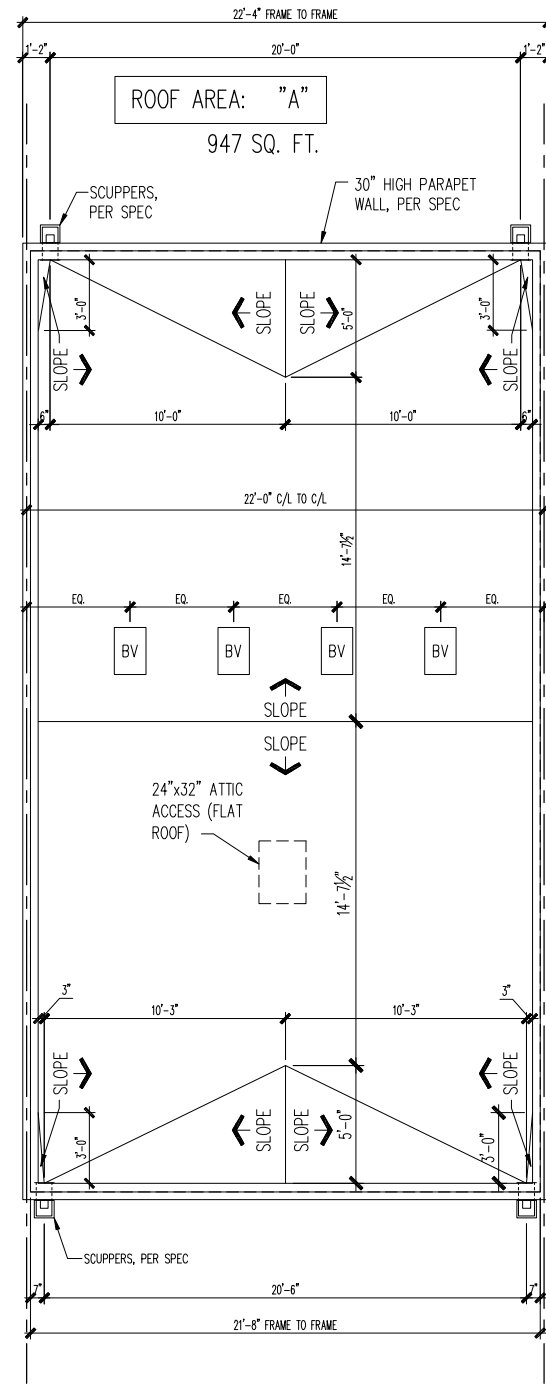
RIDGE VENT 18 SQ IN = (125 SQ FT)
BOX VENT 50 SQ IN = (.3472 SQ FT)
SOFFIT VENT 9 SQ IN = (.0625 SQ FT)

2.89 SQ FT x 50 % = 1.443 SQ FT RIDGE, 2.89 SQ FT x 50 % = 1.443 SQ FT SOFFIT
OR W/ HIP, BOX VENT

1.443 SQ FT = 11.5 FEET OF RIDGE VENT 1.443 SQ FT = 4.2 BOX VENT(S)
0.125 SQ FT 0.3472 SQ FT

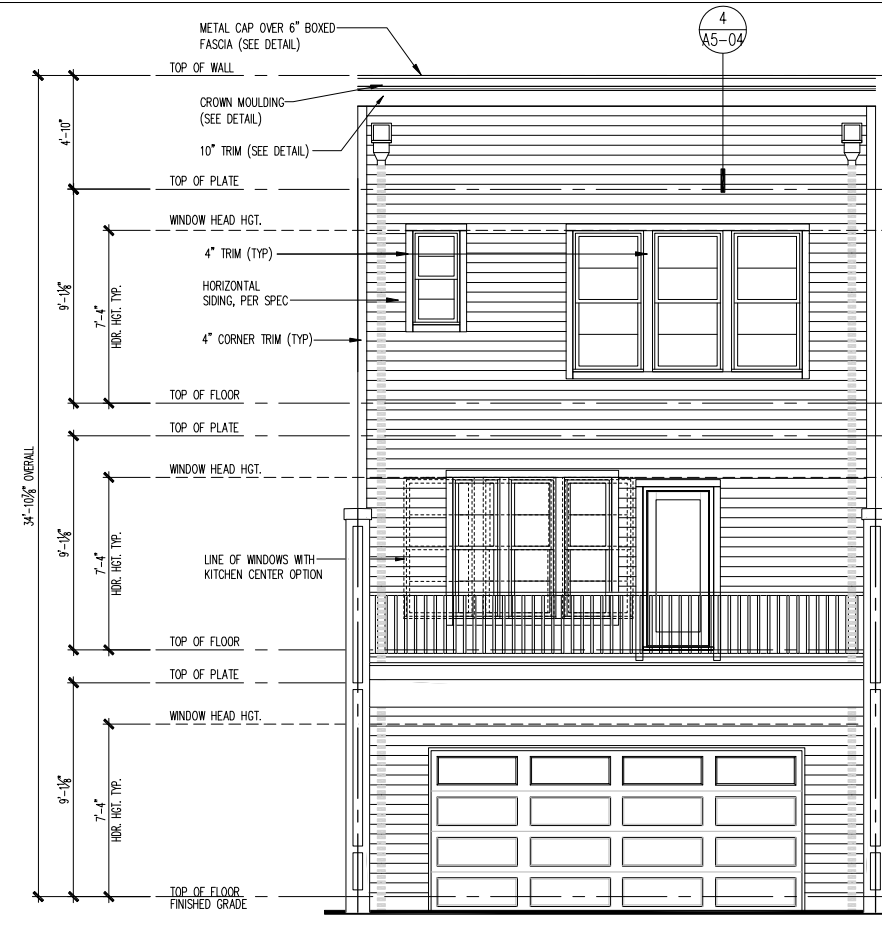
SOFFIT VENT
1.443 SQ FT = 23.1 FEET OF SOFFIT VENT
0.0625 SQ FT

*CALCULATIONS REFLECT 50 % RIDGE AND 50 % SOFFIT VENTS ALLOWABLE PER SECTION IRC R806.2



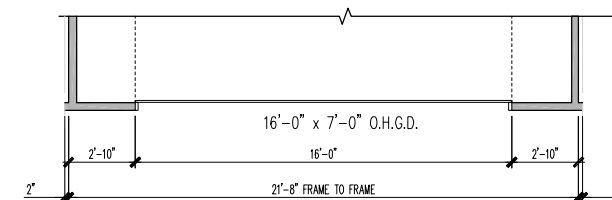
ROOF PLAN

SCALE: 1/4" = 1'-0"



REAR ELEVATION

SCALE: 1/4" = 1'-0"



FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"

Southeast Zone
2475 Northwinds Pkwy, Suite 600
Alpharetta, GA 30009 (770) 381-3450



**Rear Elevation 21-25
& Roof Plan**

PRODUCTION MANAGER
Dan Kostka
INITIAL RELEASE DATE:
12-08-2015
CURRENT RELEASE DATE:
1-29-2016

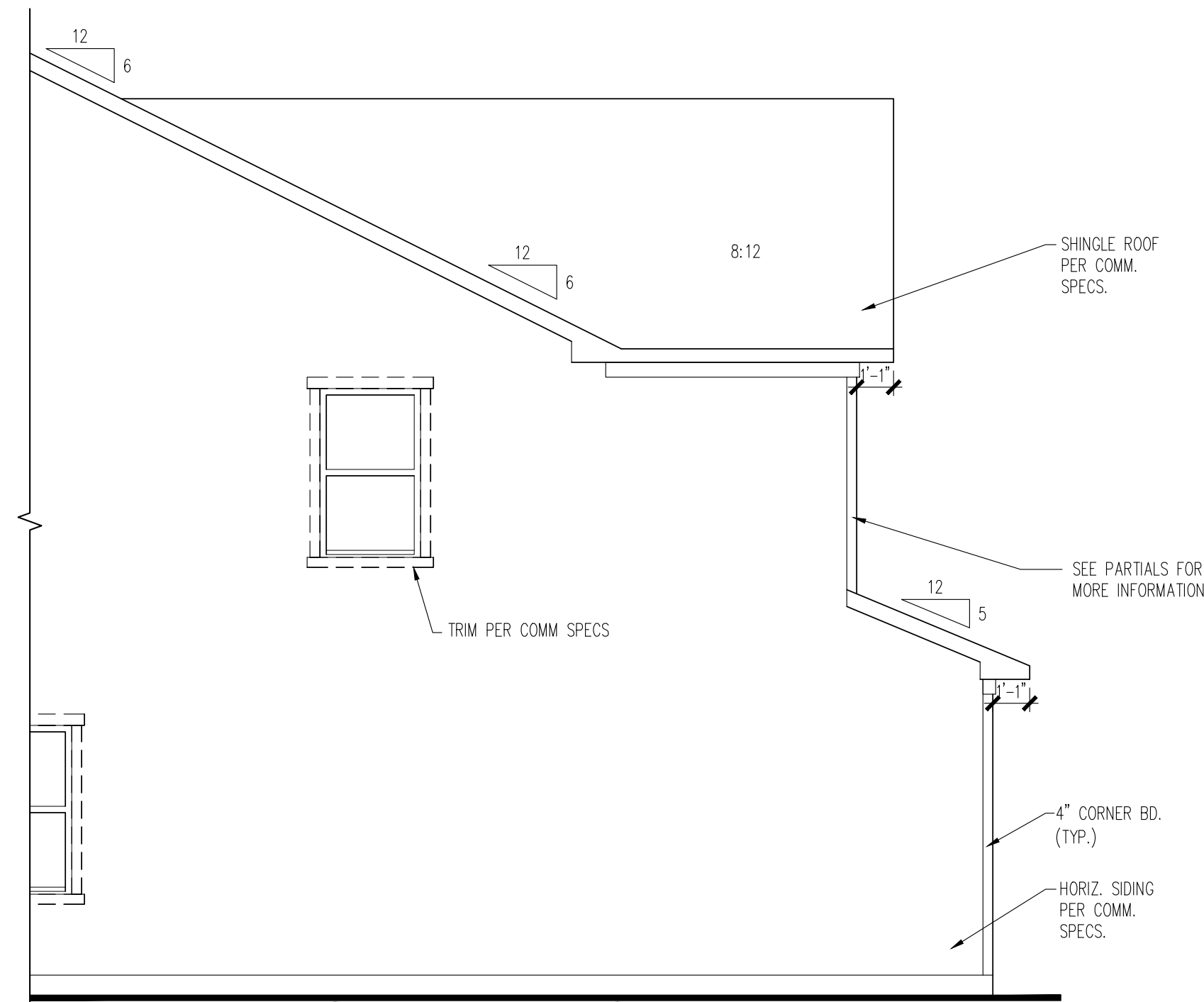
REV #	DATE / DESCRIPTION
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GARAGE HANDING
RL-ME-KC-KR

PLAN NAME
Hayward / Briarcliff
NPC PLAN NUMBER
2466.237 - 2466.238
LAWSON PLAN ID

SHEET
A.3.20

PLOTTED: November 18, 2019 / tmcdawell / 3.10 FRONT ELEVATION LC1A.dwg



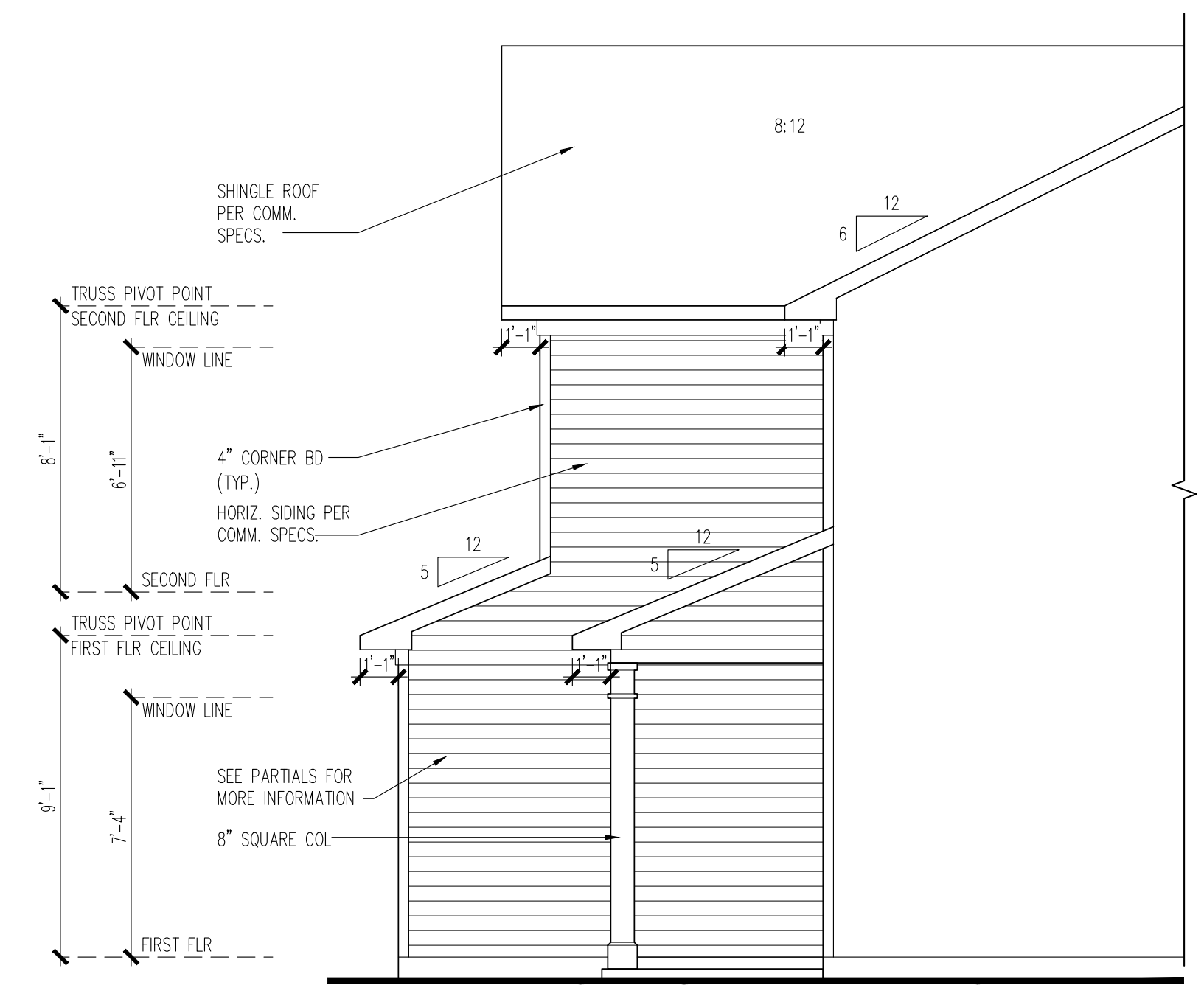
PART, LEFT SIDE ELEV. "LC1A"

SCALE : 1/4" = 1'-0"



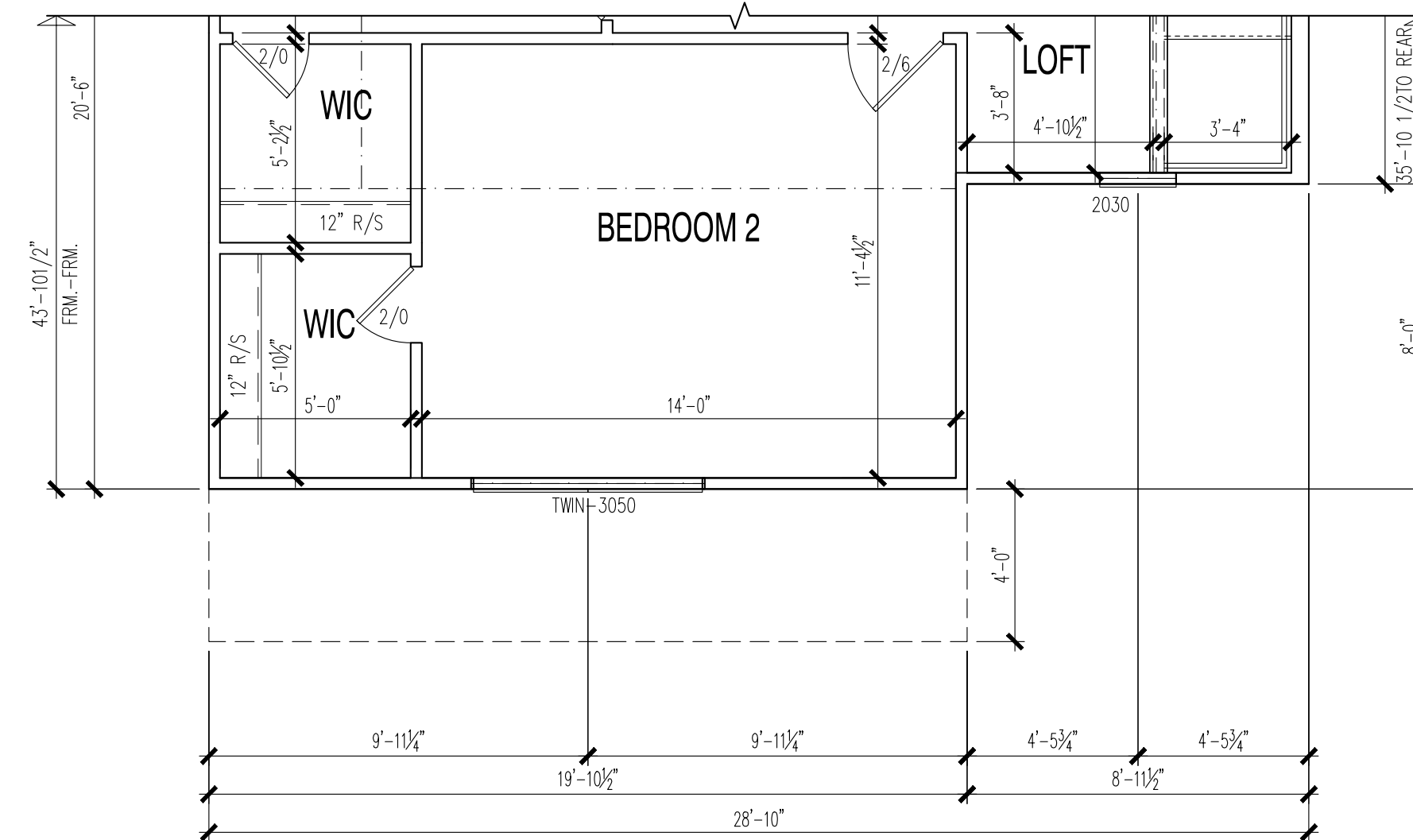
FRONT ELEVATION "LC1A" FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



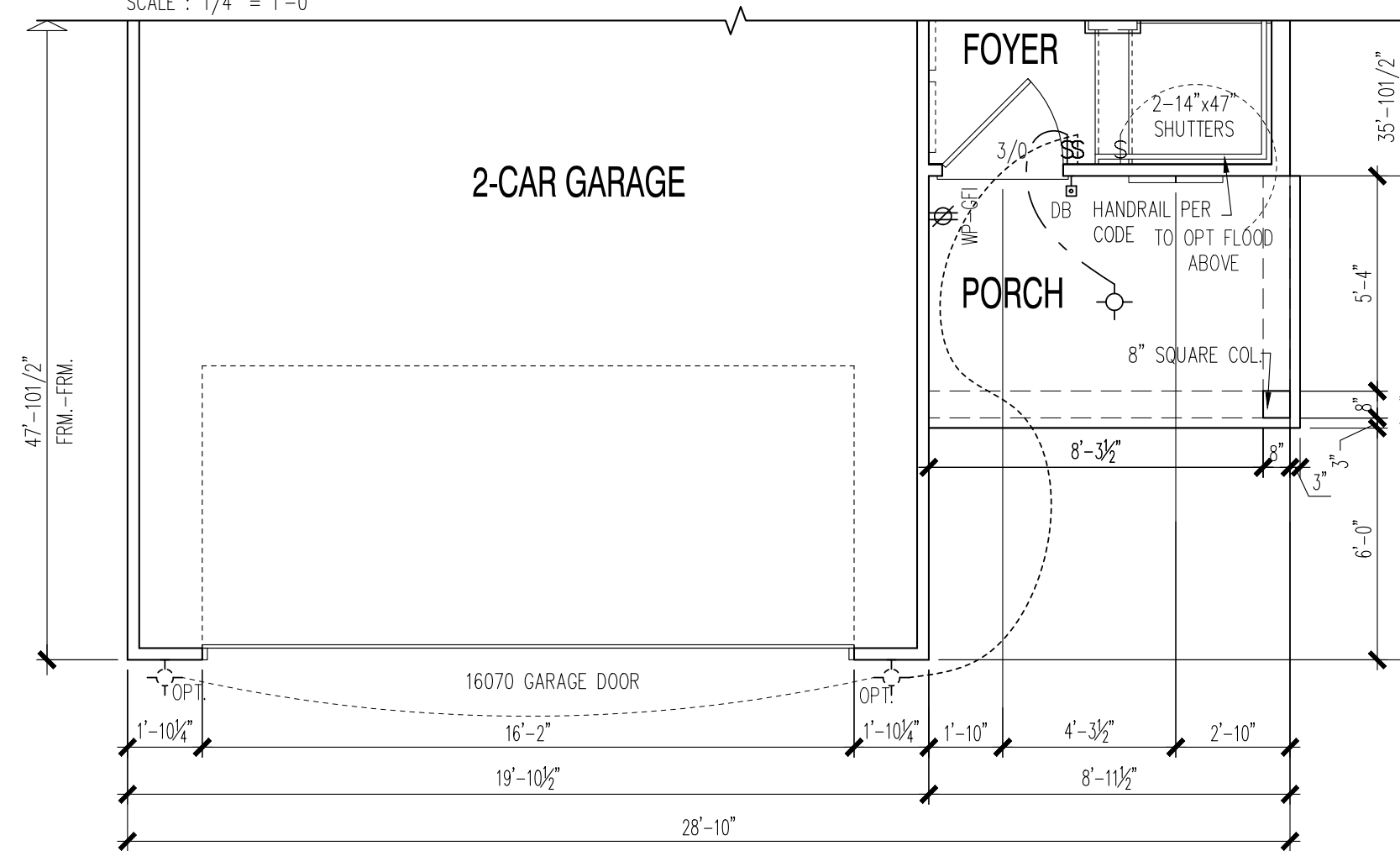
PART, RIGHT SIDE ELEV. "LC1A"

SCALE : 1/4" = 1'-0"



PARTIAL SECOND FLOOR PLAN

SCALE : 1/4" = 1'-0"



PARTIAL FIRST FLOOR PLAN

SCALE : 1/4" = 1'-0"

NOTE:
ADD 1X4 WINDBORNE
DEBRIS TRIM AROUND ALL
WINDOWS PER COMM SPEC

Southeast Zone
2475 Northwinds Pkwy, Suite 600
Alpharetta, GA 30009 (770) 381-3450



The HARRIS
FRONT ELEVATION "LC1A"
FRONT ENTRY GARAGE

PRODUCT MANAGER	
INITIAL RELEASE	---
DATE:	00/00/0000
REVA	DATE/DESCRIPTION
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△	---
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△	---
△	---

PROJECT TYPE
Single Family

SPECIFICATION LEVEL
Pulte

PLAN NAME
Harris
NPC NUMBER
8126.200

SHEET
3.10

©CCP-RIGHT: 2019 PIG

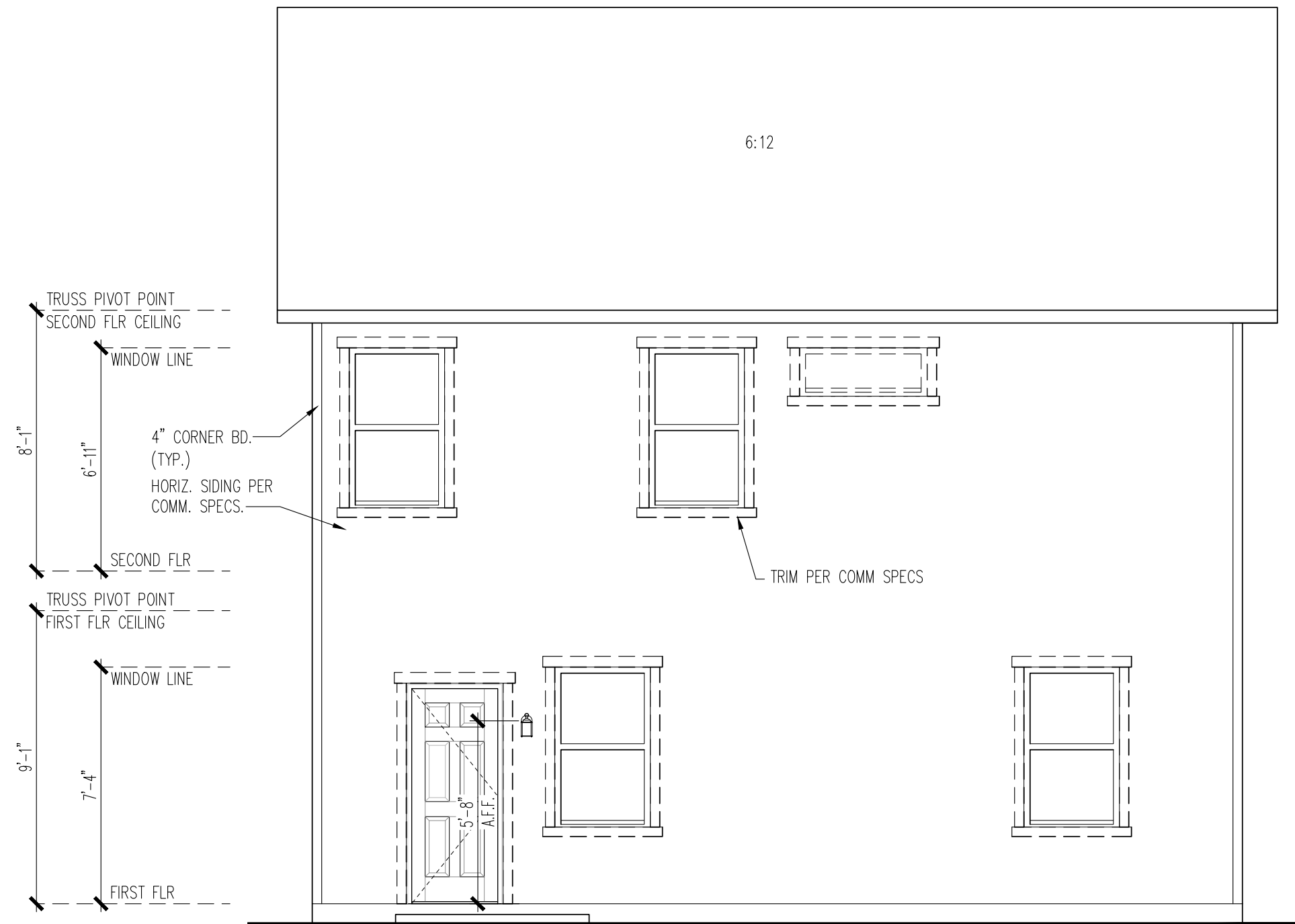
PRODUCT MANAGER	
INITIAL RELEASE	DATE: 00/00/0000
REV#	DATE/DESCRIPTION

PROJECT TYPE
Single Family

SPECIFICATION LEVEL
Pulte

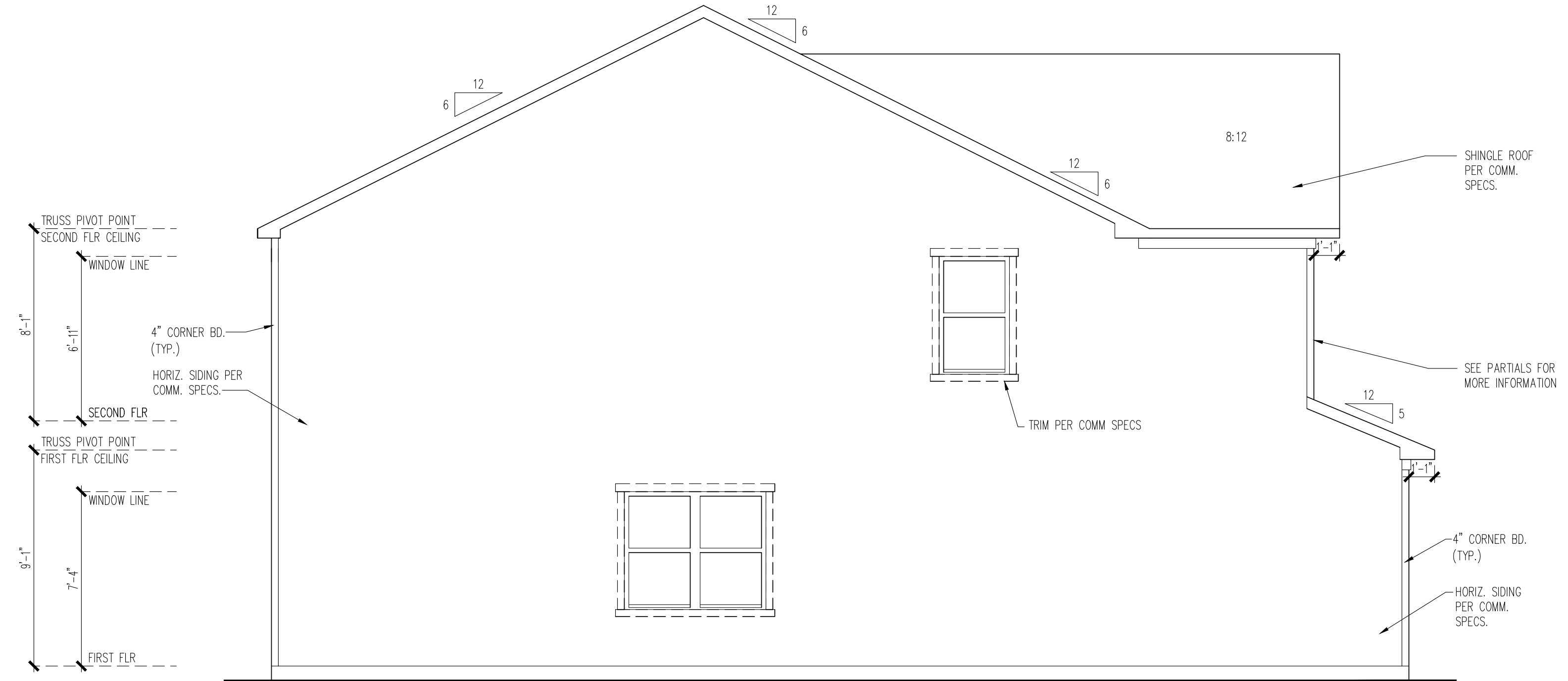
PLAN NAME
Harris
NPC NUMBER
8126.200

SHEET
3.SR.3



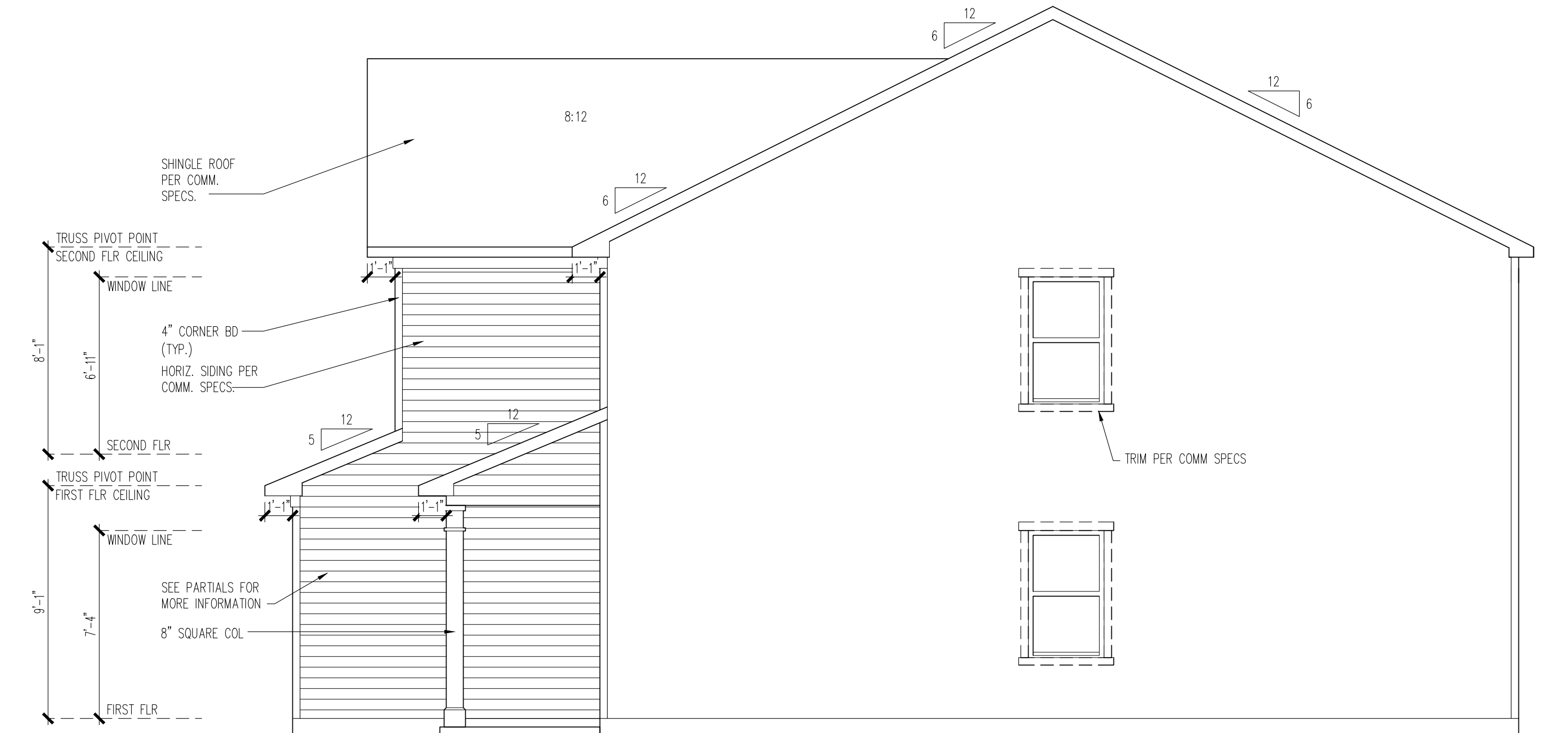
REAR ELEVATION "LC2A" FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



LEFT SIDE ELEVATION "LC2A" FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



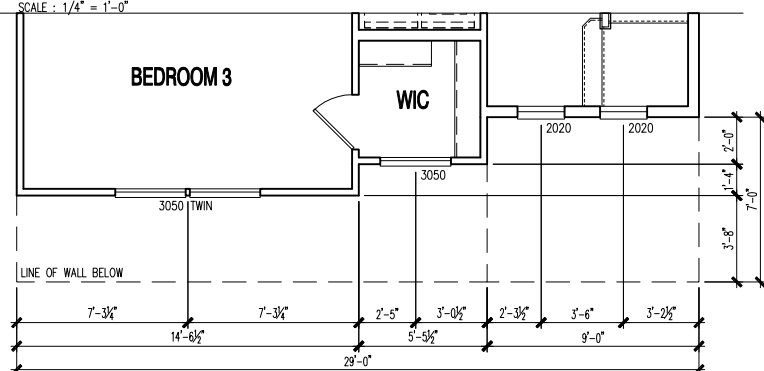
RIGHT SIDE ELEVATION "LC2A" FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



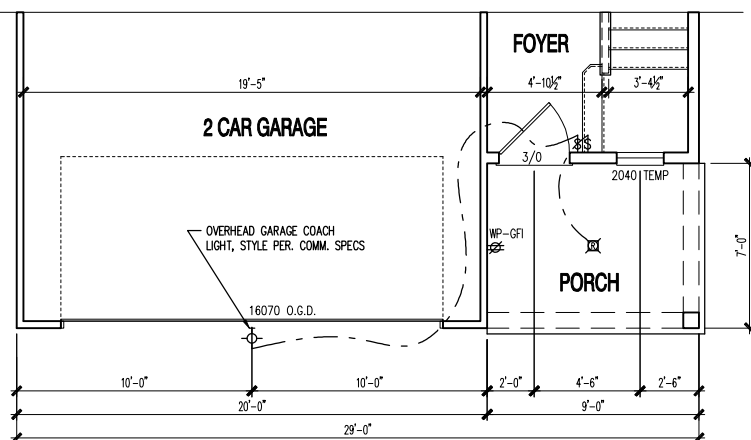
FRONT ELEVATION "1"

SCALE: 1/4" = 1'-0"



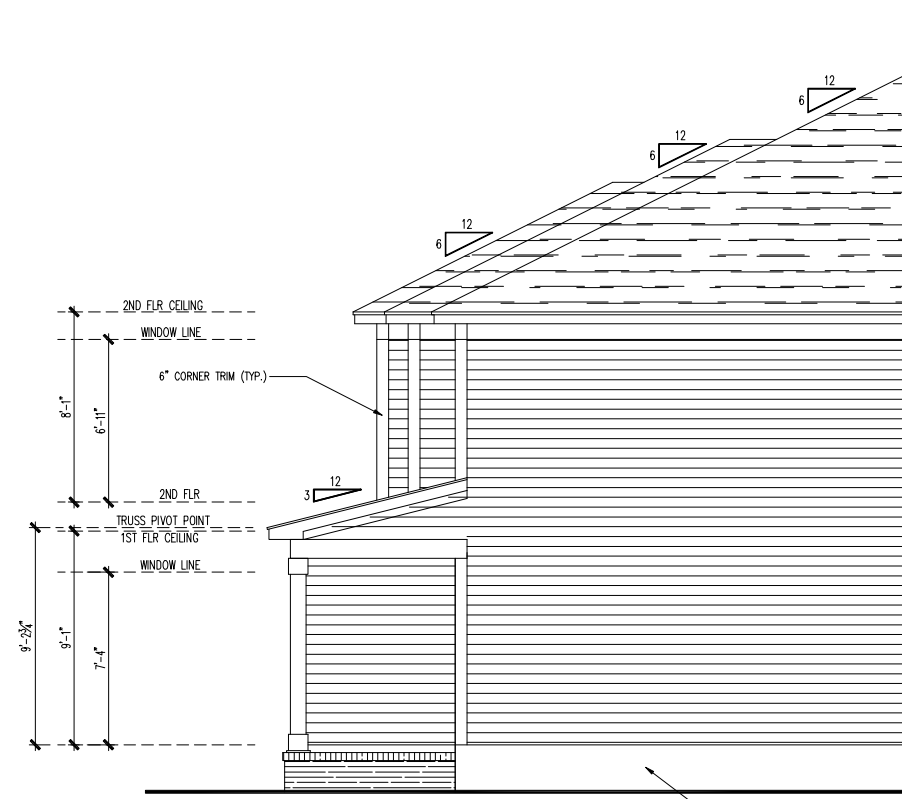
PARTIAL SECOND FLOOR PLAN

SCALE: 1/4" = 1'-0"



PARTIAL FIRST FLOOR PLAN

SCALE: 1/4" = 1'-0"



RIGHT SIDE ELEVATION

SCALE: 1/4" = 1'-0"

ATTIC VENTILATION: (300 SQ FT ATTIC SPACE / 1 SQ FT VENTILATION)
 W/ 40%-50% REQ. VENTS GREATER THAN OR EQUAL TO 3" ABOVE
 EAVE / CORNICE VENTS PER IRC R806.2

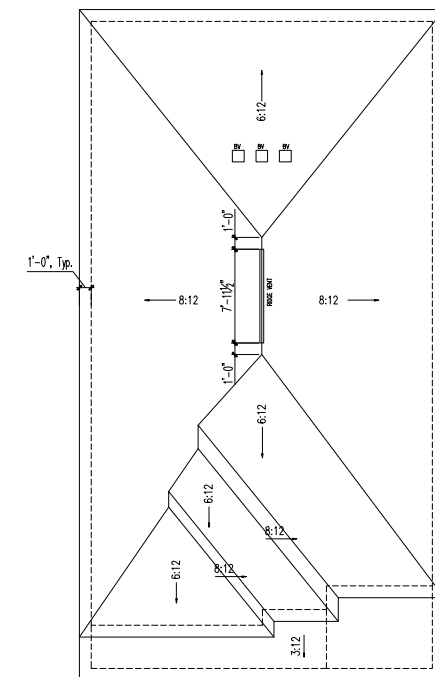
MORRISON ELEV 1 1095 SQ FT UNDER ROOF ATTIC /
 300 SQ FT / 1 SQ FT = 3.65 SQ FT VENTILATION

RIDGE VENT 18 SQ IN = (.125 SQ FT)
 BOX VENT 50 SQ IN = (.3472 SQ FT)
 SOFFIT VENT 9 SQ IN = (.0625 SQ FT)

3.65 SQ FT x 50% = 1.825 SQ FT RIDGE, 3.65 SQ FT x 50% = 1.825 SQ FT SOFFIT
 RIDGE VENT OR W/ HIP_BOX VENT
 1.825 SQ FT = 14.6 FEET OF RIDGE VENT 1.825 SQ FT = 5.3 BOX VENT(S)
 0.125 SQ FT 0.3472 SQ FT

SOFFIT VENT
 1.825 SQ FT = 29.2 FEET OF SOFFIT VENT
 0.0625 SQ FT

*CALCULATIONS REFLECT 50% RIDGE AND 50% SOFFIT VENTS ALLOWABLE PER SECTION IRC R806.2



ROOF PLAN

SCALE: 1/8" = 1'-0"

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Southeast Area
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 Alpharetta, GA 30009 (770) 381-3450



The MORRISON
 FRONT ELEVATION "1"

REV #	DATE / DESCRIPTION
1	7-30-17
2	6-21-18
3	1-8-19

PROJECT TYPE
SINGLE FAMILY

COMMUNITY NAME
SOUTHEAST AREA SET
 LAWSON COMMUNITY ID

GARAGE HANDING

SPECIFICATION LEVEL
P1, P2

PLAN NAME
MORRISON
 NPC PLAN NUMBER

LAWSON PLAN ID

LEGACY PLAN NUMBER / NAME
 same as current

SHEET
3.1

PLOTTED: August 2, 2019 / Paul Howard / MORRISON ELEVATIONS - LEFT.DWG

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.



RIGHT SIDE ELEVATION

SCALE : 1/4" = 1'-0"

18"-24" RAISED SLAB, MASONRY/PARGING PER COMM SPECS.

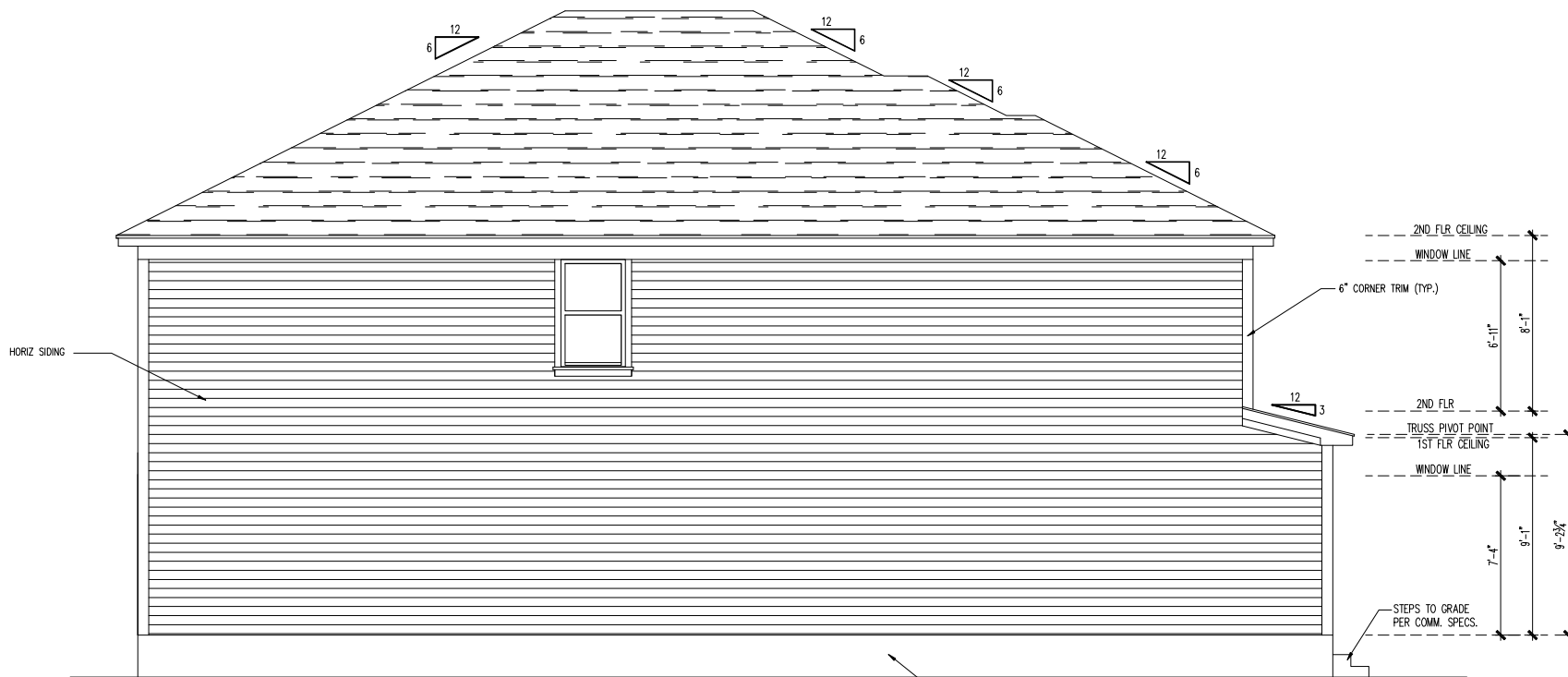


REAR ELEVATION

SCALE : 1/4" = 1'-0"

STEPS TO GRADE PER COMM. SPECS.

18"-24" RAISED SLAB, MASONRY/PARGING PER COMM SPECS.



LEFT SIDE ELEVATION

SCALE : 1/4" = 1'-0"

18"-24" RAISED SLAB, MASONRY/PARGING PER COMM SPECS.

PRODUCTION MANAGER	ACKLEY
CURRENT RELEASE DATE:	7-30-17
REV # DATE / DESCRIPTION	
△	6-21-18
△	1-8-19
△	
△	
△	
△	
△	
△	
△	
△	
△	
△	
△	

PROJECT TYPE
SINGLE FAMILY

COMMUNITY NAME
SOUTHEAST AREA SET

LAWSON COMMUNITY ID

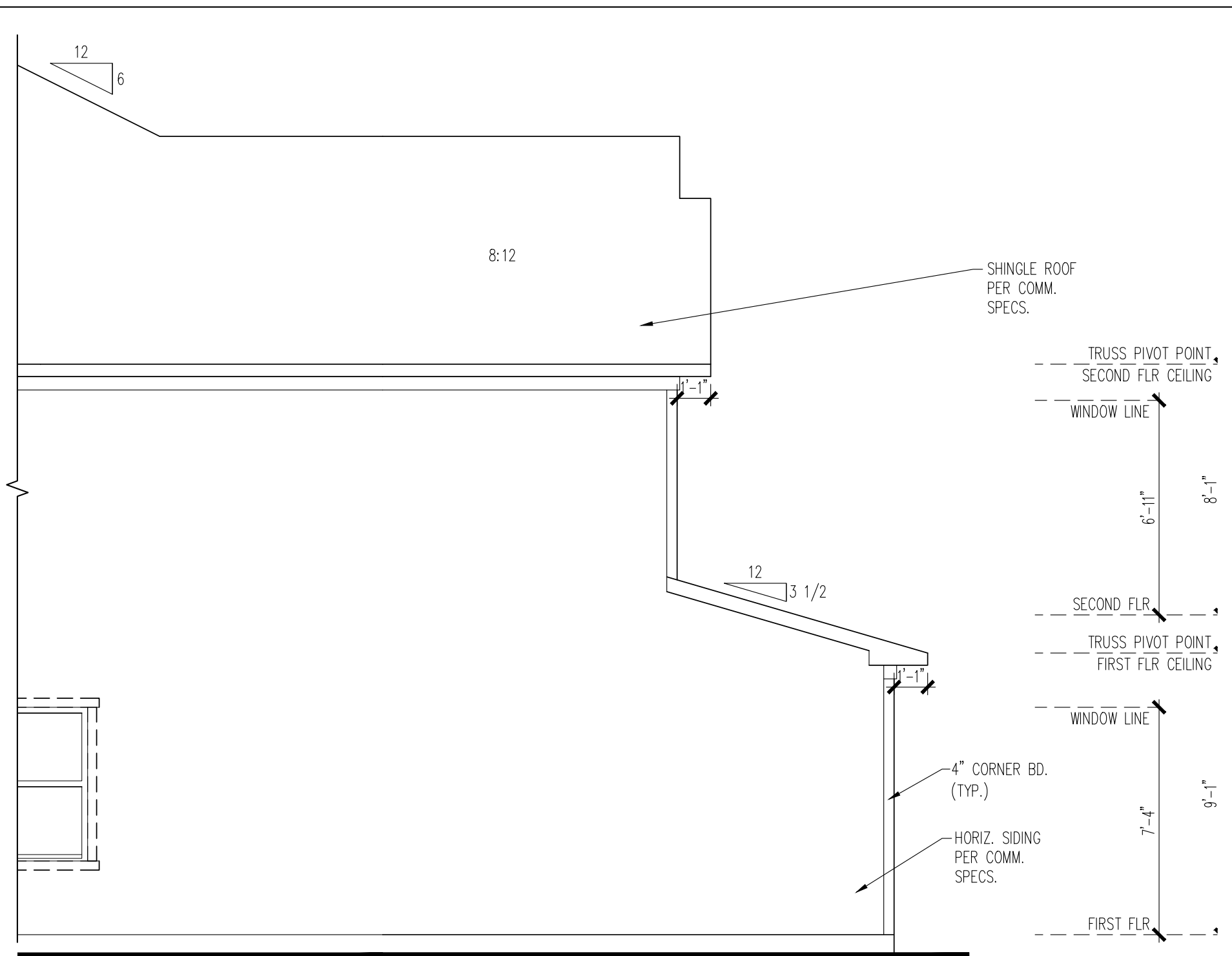
GARAGE HANDING

SPECIFICATION LEVEL
P1, P2

PLAN NAME
MORRISON

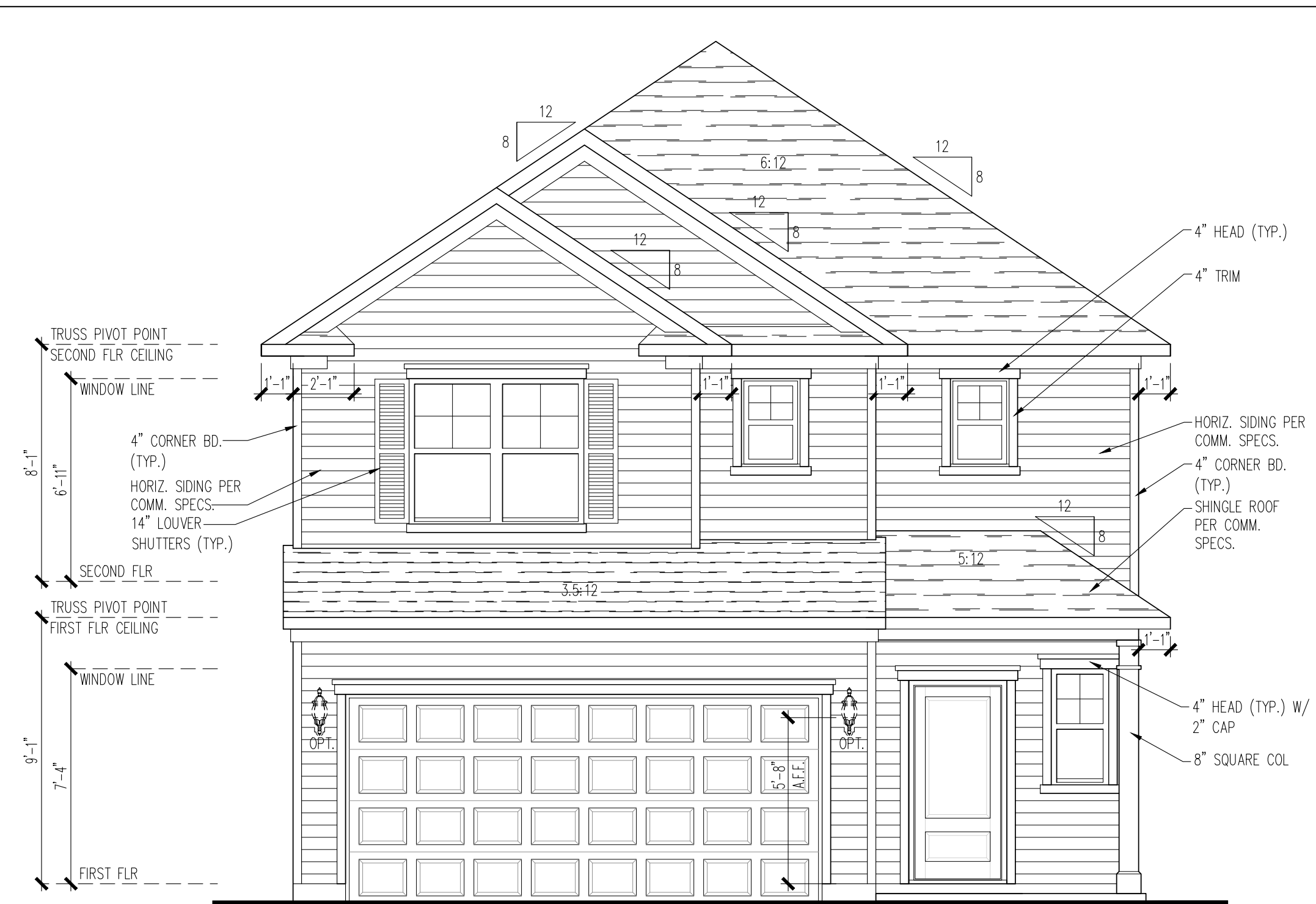
SHEET
3.SR

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.



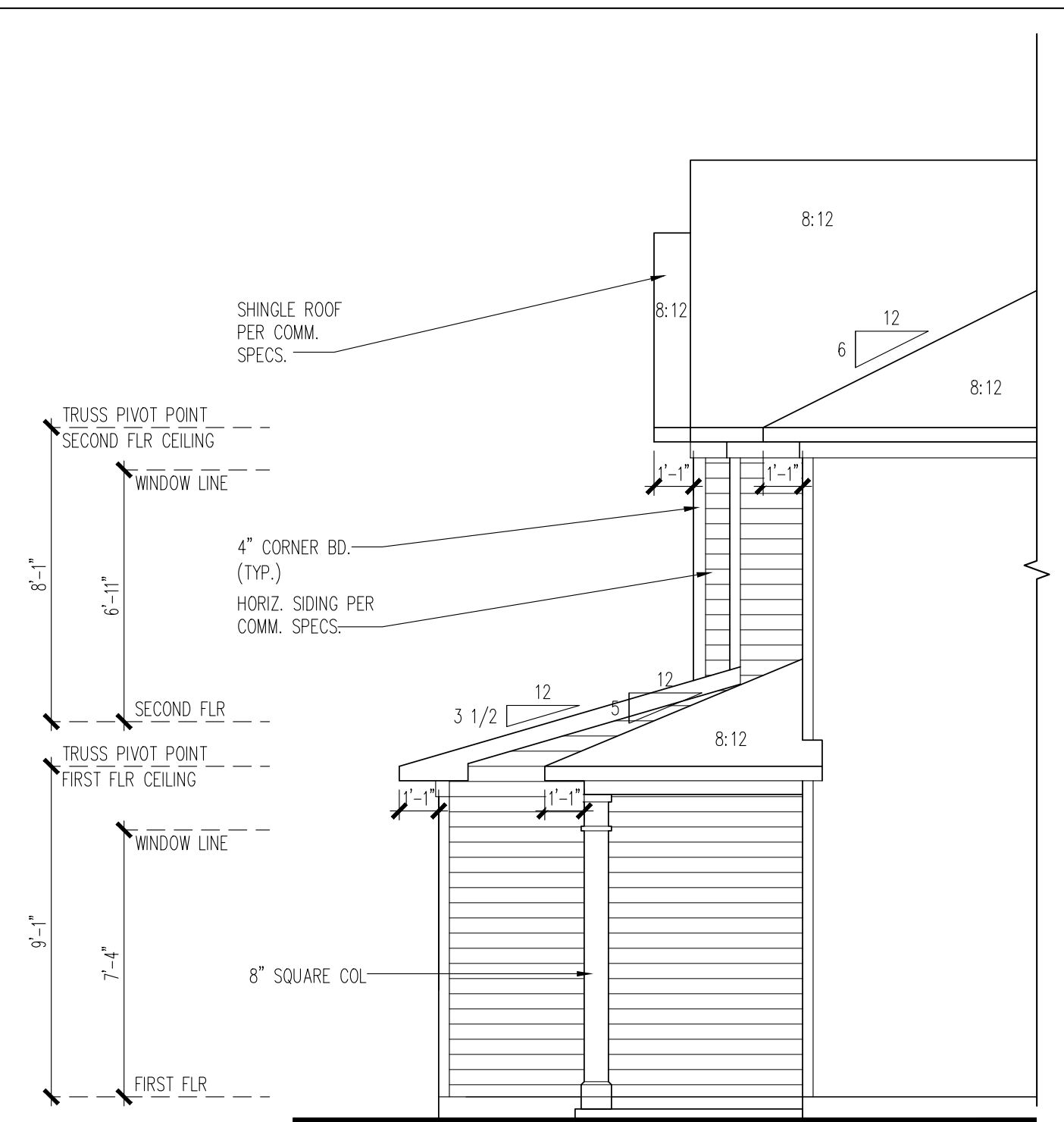
PARTIAL LEFT SIDE ELEVATION - "LC2A"

SCALE : 1/4" = 1'-0"



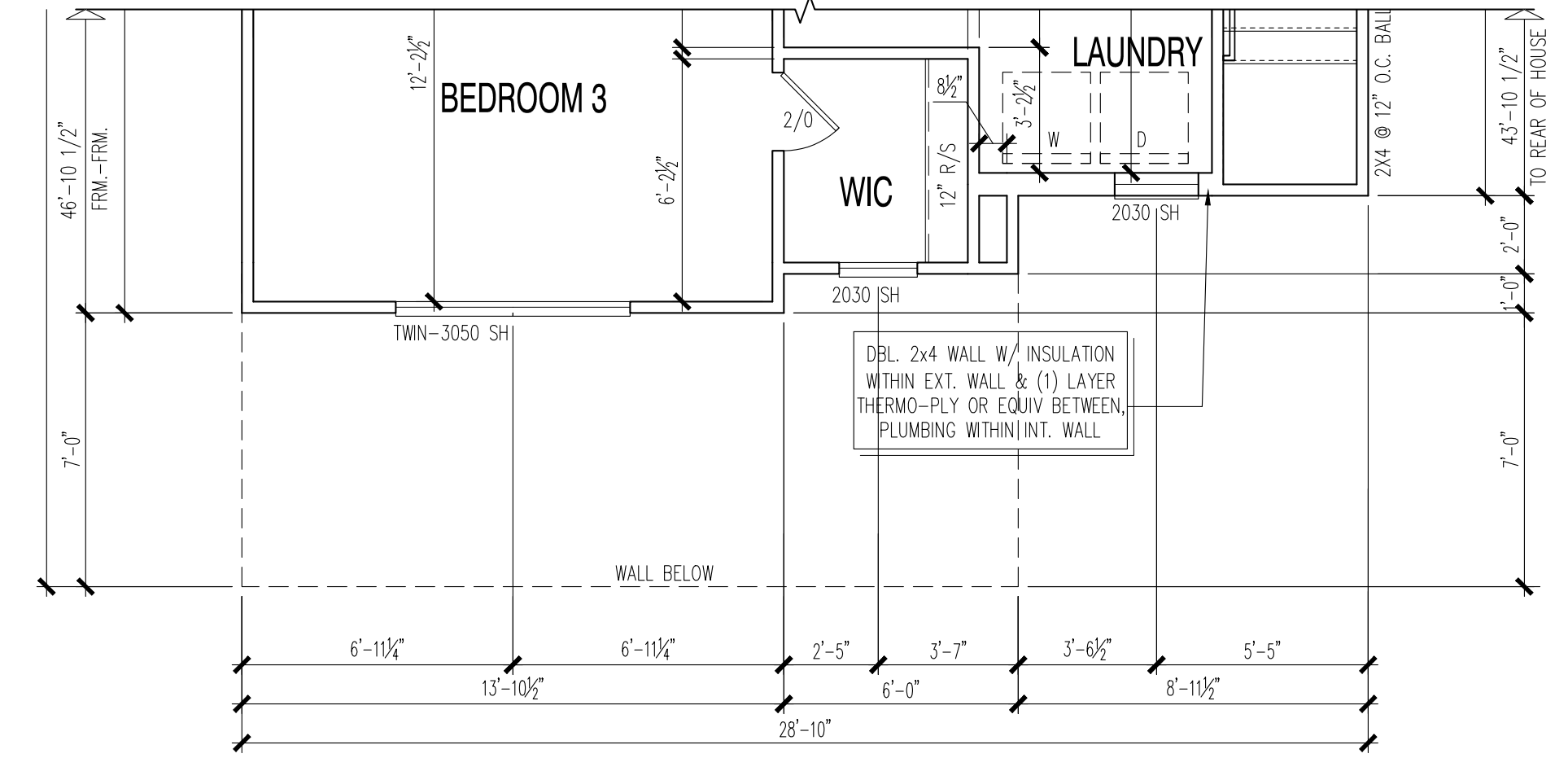
FRONT ELEVATION - "LC2A" - FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



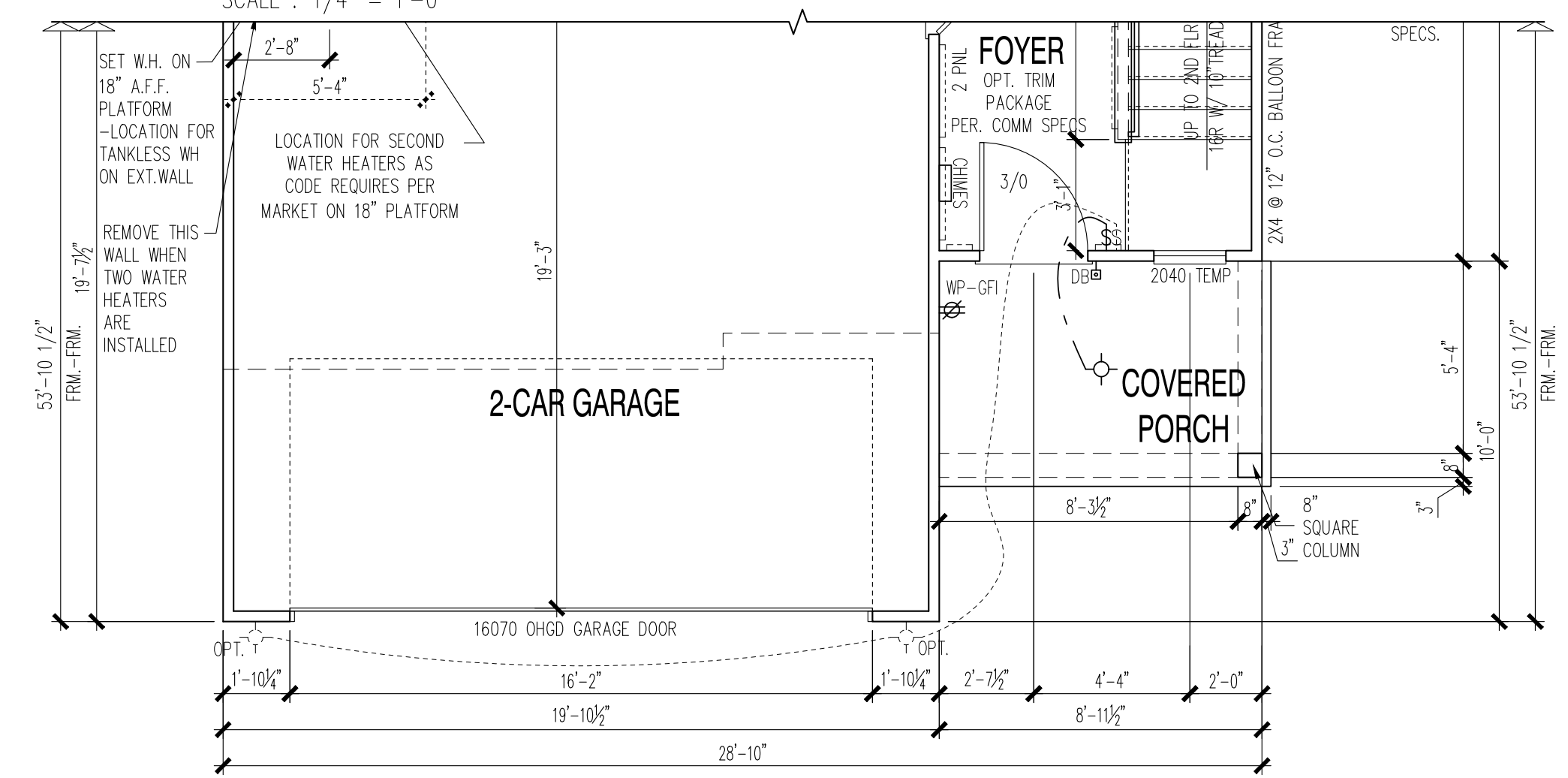
PARTIAL RIGHT SIDE ELEVATION - "LC2A"

SCALE : 1/4" = 1'-0"



PARTIAL SECOND FLOOR PLAN

SCALE : 1/4" = 1'-0"



PARTIAL FIRST FLOOR PLAN

SCALE : 1/4" = 1'-0"

NOTE:
ADD 1x4 WINDBORNE
DEBRIS TRIM AROUND ALL
WINDOWS PER COMM SPEC

Southeast Zone
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Alpharetta, GA 30009 (770) 381-3450



The Murray
FRONT ELEVATION "LC2A"
FRONT ENTRY GARAGE

PRODUCT MANAGER	
INITIAL RELEASE	DATE: 00/00/0000
REV#	DATE/DESCRIPTION

PROJECT TYPE
Single Family

SPECIFICATION LEVEL
Pulte

PLAN NAME
Murray
NPC NUMBER
8128.200

SHEET
3.11.0

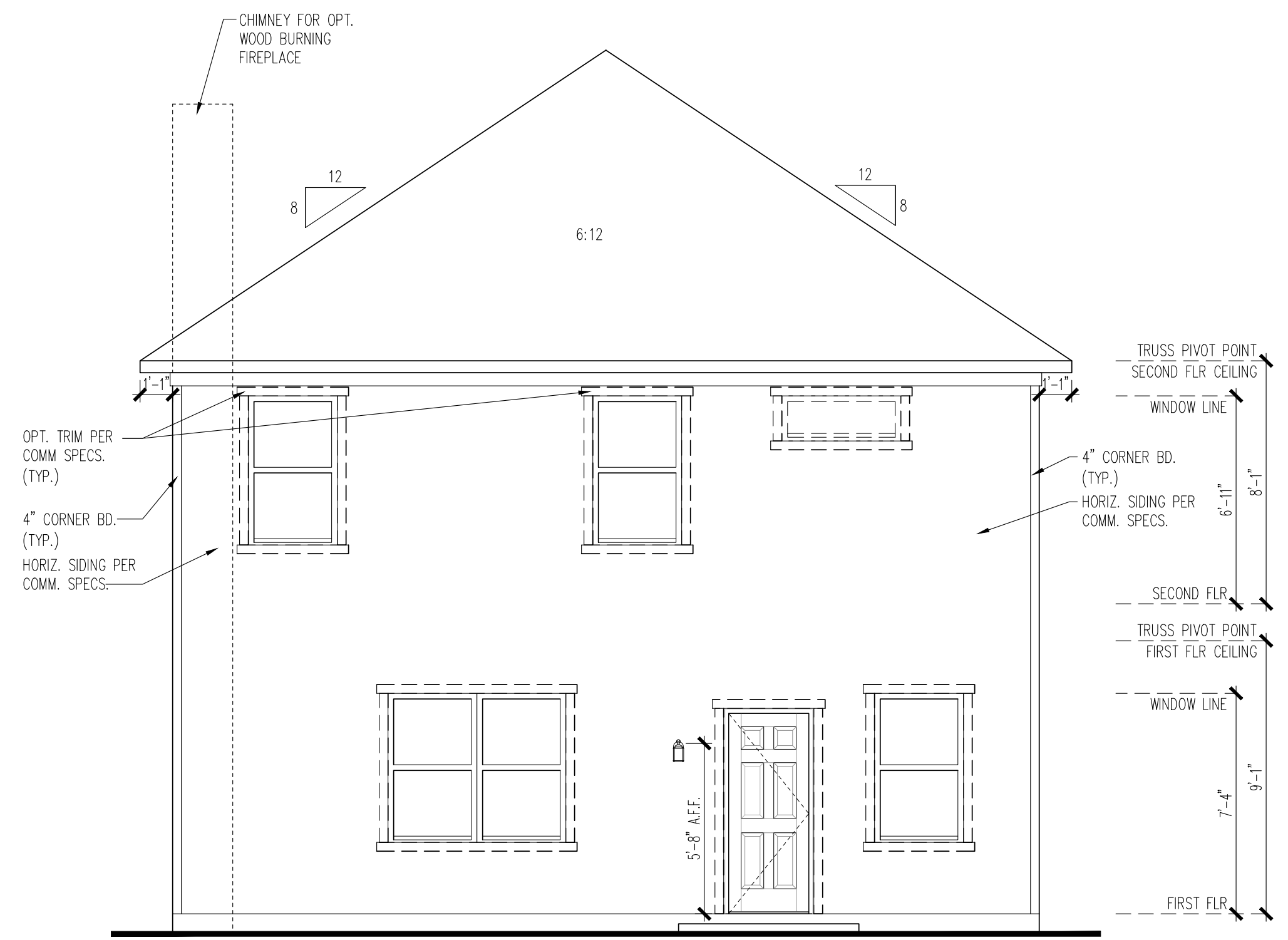
PRODUCT MANAGER	
INITIAL RELEASE	DATE: 00/00/0000
REV#	DATE/DESCRIPTION

PROJECT TYPE
Single Family

SPECIFICATION LEVEL
Pulte

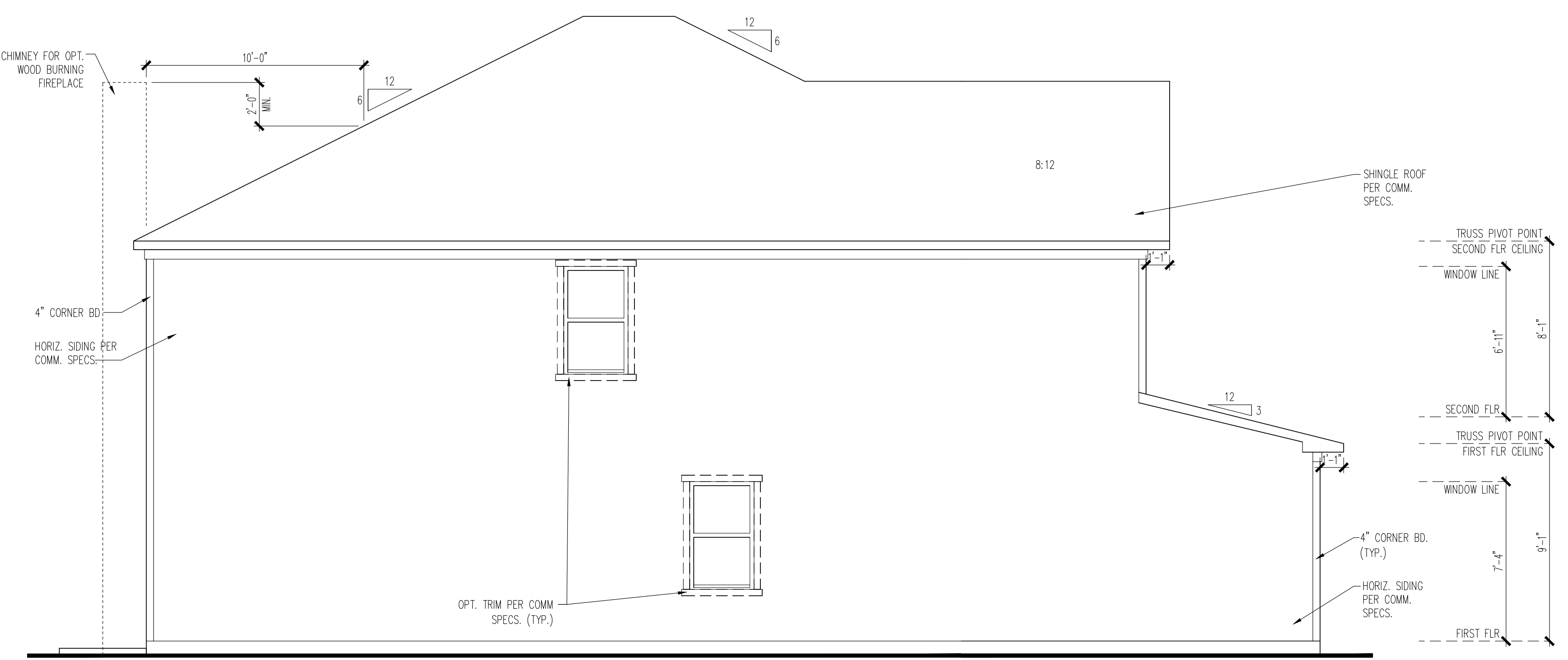
PLAN NAME
Murray
NPC NUMBER
8128.200

SHEET
3.SR.3



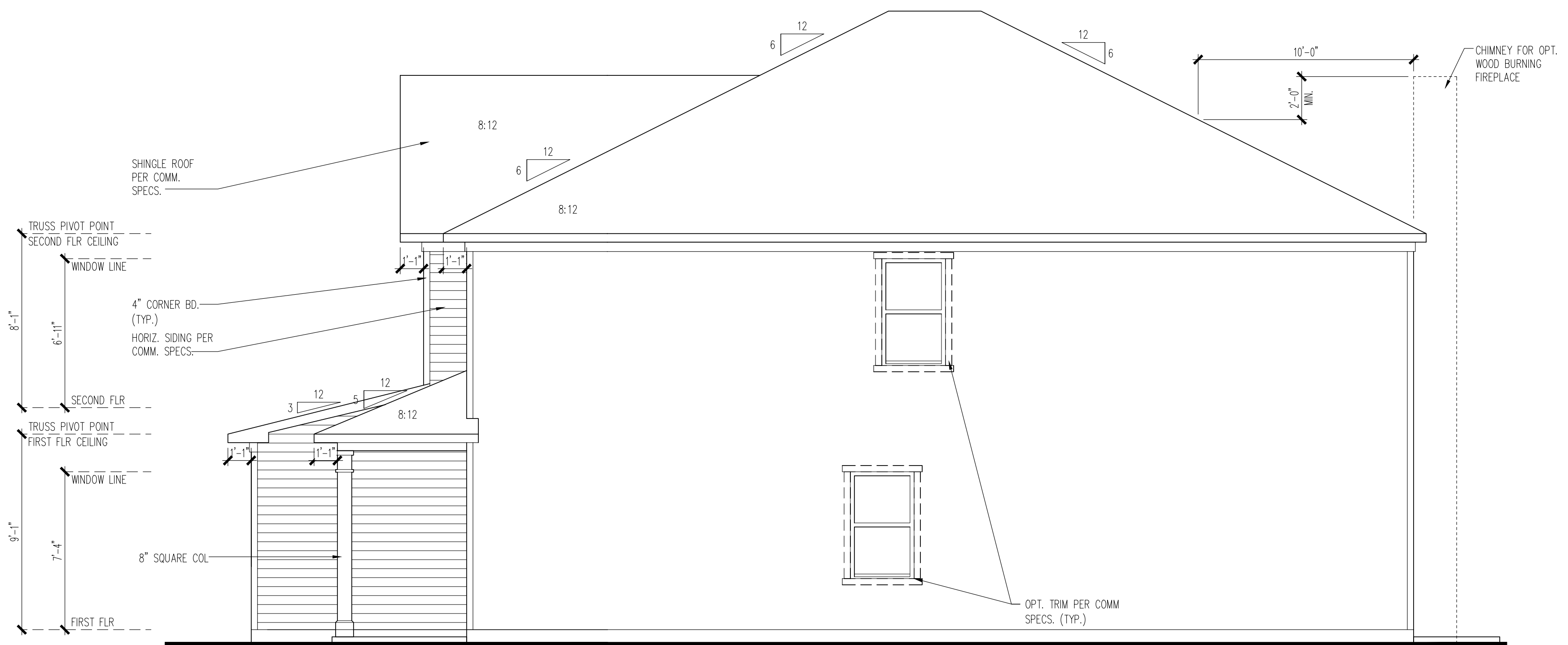
REAR ELEVATION - "LC1A" - FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



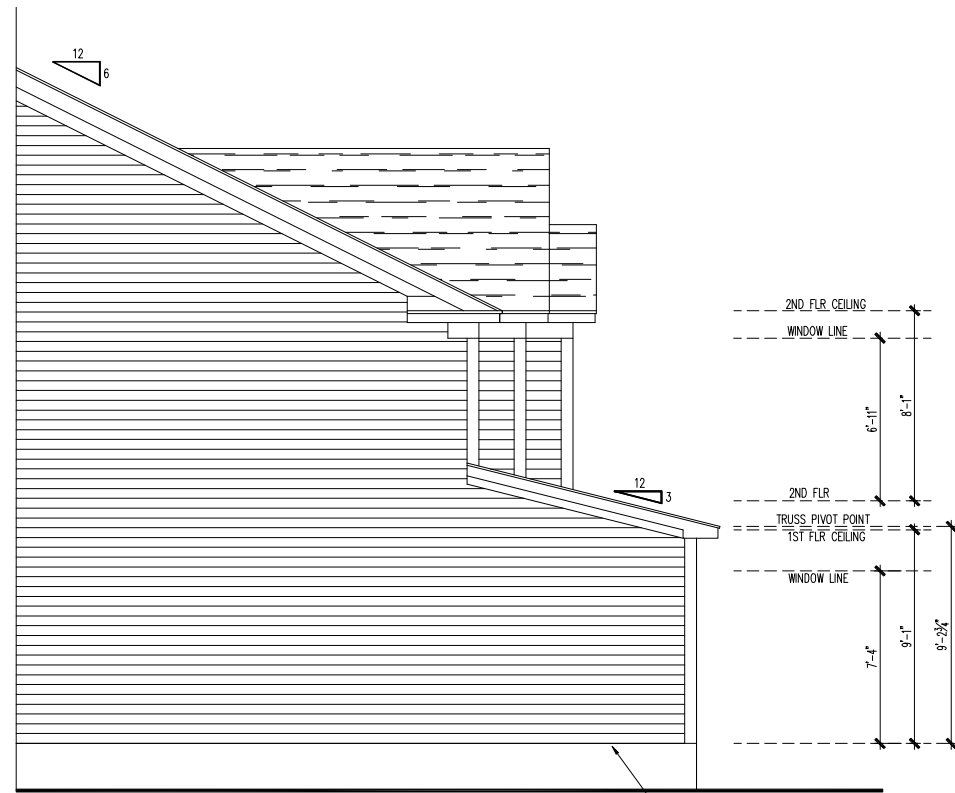
LEFT SIDE ELEVATION - "LC1A" - FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



RIGHT SIDE ELEVATION - "LC1A" - FRONT ENTRY GARAGE

SCALE : 1/4" = 1'-0"



LEFT SIDE ELEVATION

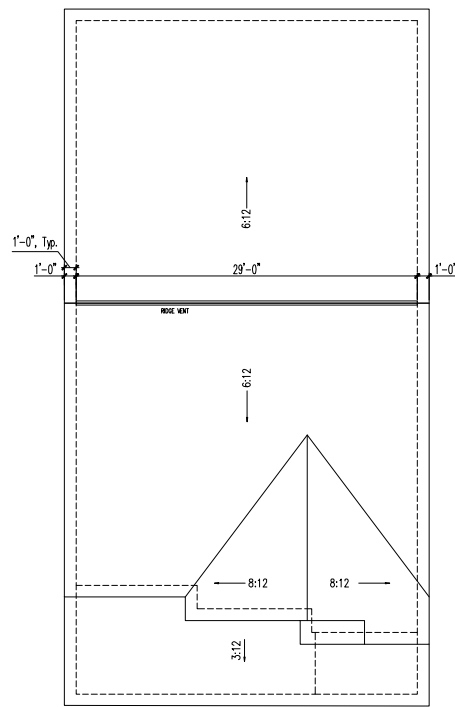
SCALE : 1/4" = 1'-0"

18'-24" RAISED SLAB, MASONRY/PAVING PER COMM SPECS.



FRONT ELEVATION "1"

SCALE : 1/4" = 1'-0"



ROOF PLAN

SCALE : 1/8" = 1'-0"

ATTIC VENTILATION: (300 SQ FT ATTIC SPACE / 1 SQ FT VENTILATION)
W/ 50%-80% REQ. VENTS GREATER THAN OR EQUAL TO 3" ABOVE
EAVE / CORNICE VENTS PER IRC R806.2

ELEVATIONS "ALL" 1180 SQ FT UNDER ROOF ATTIC /
300 SQ FT / 1 SQ FT = 3.93 SQ FT VENTILATION

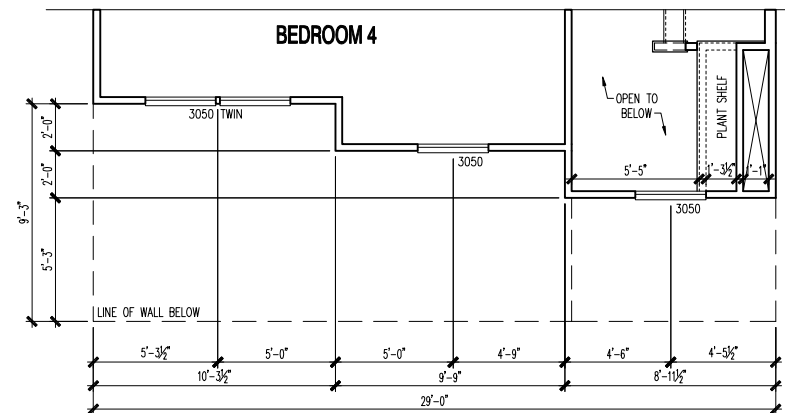
RIDGE VENT 18 SQ IN = (.125 SQ FT)
SOFFIT VENT 9 SQ IN = (.0625 SQ FT)

3.93 SQ FT x 50 % = 1.9675 SQ FT RIDGE, 3.93 SQ FT x 50 % = 1.9675 SQ FT SOFFIT

RIDGE VENT
1.967 SQ FT = 15.7 FEET OF RIDGE VENT
0.125 SQ FT

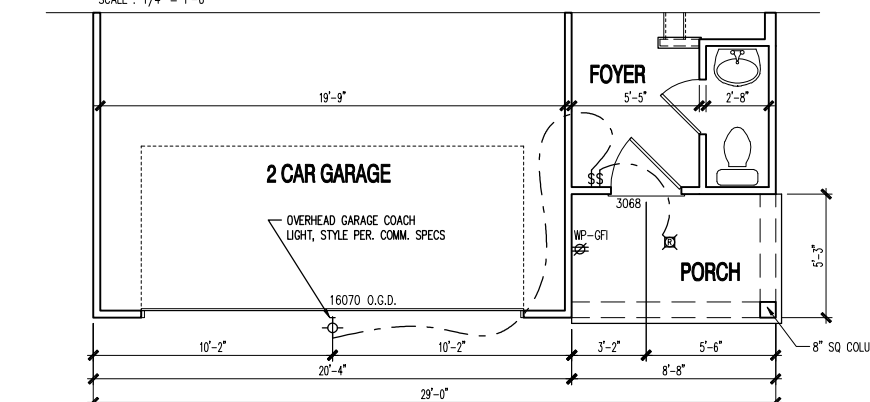
SOFFIT VENT
1.967 SQ FT = 31.5 FEET OF SOFFIT VENT
0.0625 SQ FT

*CALCULATIONS REFLECT 50 % RIDGE AND 50 % SOFFIT VENTS ALLOWABLE PER SECTION IRC R806.2



PARTIAL SECOND FLOOR PLAN

SCALE : 1/4" = 1'-0"



PARTIAL FIRST FLOOR PLAN

SCALE : 1/4" = 1'-0"

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Alpharetta, GA 30009 (770) 381-3450



The PRESTON
FRONT ELEVATION "1"

REV #	DATE	DESCRIPTION
1	7-30-17	PRODUCTION MANAGER
2	6-21-18	ACKLEY
3	1-8-19	RELEASE DATE
4		
5		
6		
7		
8		
9		
10		

PROJECT TYPE
SINGLE FAMILY

COMMUNITY NAME
SOUTHEAST AREA SET
LAWSON COMMUNITY ID

GARAGE HANDING

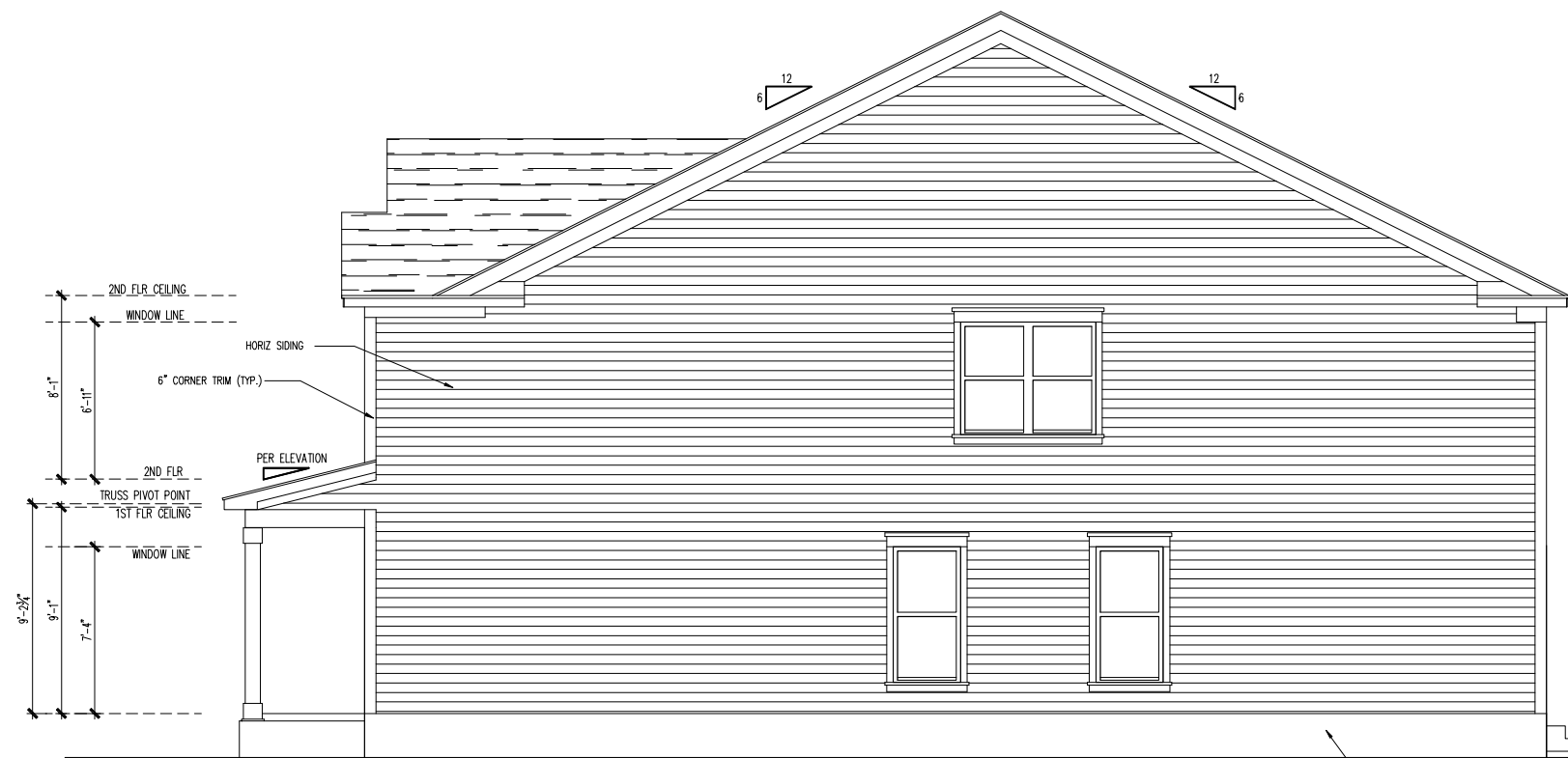
SPECIFICATION LEVEL
P1, P2

PLAN NAME
PRESTON
NPC PLAN NUMBER
LAWSON PLAN ID
LEGACY PLAN NUMBER / NAME
same as current

SHEET
3.1

PLOTTED: August 2, 2019 / Paul Howard / PRESTON ELEVATIONS - LEFT.DWG

Elevations are for illustrative purposes only; elevations submitted at MSP will be consistent with the architectural standards included in the PUD.



RIGHT SIDE ELEVATION

SCALE : 1/4" = 1'-0"



REAR ELEVATION

SCALE : 1/4" = 1'-0"



LEFT SIDE ELEVATION

SCALE : 1/4" = 1'-0"

REV #	DATE / DESCRIPTION
7-30-17	ACKLEY
6-21-18	RELEASE DATE: 7-30-17
1-8-19	

PROJECT TYPE
SINGLE FAMILY

COMMUNITY NAME
SOUTHEAST AREA SET
LAWSON COMMUNITY ID

GARAGE HANDLING

SPECIFICATION LEVEL
P1, P2

PLAN NAME
PRESTON
NPC PLAN NUMBER

LAWSON PLAN ID

LEGACY PLAN NUMBER / NAME
same as current

SHEET
3.SR

NOTE: SCALES NOTED ON DRAWINGS RELATE TO FULL SIZE PLOTS ON 22x34 SHEETS - 11x17 SHEETS REPRESENT 1/2 SCALE PLOTS

Hackney Tract Subdivision

Apex, NC



PREPARED FOR

WithersRavenel
c/o Nick Antrilli, PE
115 MacKenan Drive
Cary, NC 27511

PREPARED BY



VHB Engineering NC, P.C. (C-3705)
Venture I
940 Main Campus Drive, Suite 500
Raleigh, NC 27606-5217
919.829.0328

December 22, 2020



Executive Summary

Project Background

There are plans to construct the proposed Hackney Tract Subdivision on the north side of Olive Chapel Road, east of the newly completed Richardson Road, in Apex, NC (Figure 1). The proposed Hackney Tract Subdivision is planned to consist of up to 100 single-family and 133 multi-family townhomes with full build-out expected in 2024. A traffic impact analysis is required by the Town of Apex and North Carolina Department of Transportation (NCDOT) to analyze the potential traffic impacts of the proposed the Hackney Tract Subdivision and to identify any necessary roadway improvements.

As shown on the conceptual site plan (Figure 2), the development will be accessed through one full movement access along Olive Chapel Road:

- Access #1: full movement access on Olive Chapel Road, approximately 2,500 feet east of Richardson Road

In addition, access will be provided via Hasse Avenue extension to the north to Richardson Road, and cross-connections will be provided via local street extensions to the west to Smith Farm.

Based on the agreement with the Town of Apex and NCDOT (Appendix A), the following existing and future intersections were included in the study and analyzed under the AM and PM peak hour conditions:

- SR 1160 (Olive Chapel Road) and SR 1145 (Richardson Road) (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and SR 1162 (Apex Barbecue Road) (unsignalized)
- Richardson Road and Hasse Avenue (unsignalized)
- US Highway 64 East at Richardson Road (unsignalized/future signalized)
- US Highway 64 West at U-turn east of Richardson Road (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and Future Access #1/Hasse Avenue Extension (full movement access)

The analysis for the Hackney Tract Subdivision was performed under three (3) scenarios: Existing (2020), No-Build (2024) and Build (2024) conditions. The Existing



(2020) scenario includes AM and PM peak hour analysis based on turning movement count data collected in November 2020. The No-Build (2024) scenario includes existing traffic, a three percent (3%) annual growth rate, and site trips generated by seven planned developments within or adjacent to the study area. The Build (2024) scenario includes No-Build (2024) volumes with the addition of site trips generated by the proposed Hackney Tract Subdivision.

Existing (2020) Conditions

Existing analyses were conducted based on current roadway geometrics and intersection turning movement counts.

As reported in the Summary Level of Service (LOS) table on page v, all of the stop- and yield-controlled approaches in the study area are operating at acceptable levels of service (i.e., LOS D or better) during both the AM and PM peak hours under the Existing (2020) conditions, with an exception that the southbound approach of Richardson Road (westbound left-turn of US 64) at US 64 Eastbound operates at LOS F during both peak hours.

No-Build (2024) Conditions

Based on the requirements by the Town of Apex and NCDOT, an annual growth rate of three percent (3%) was applied to the existing traffic to account for ambient growth between the base year (2020) and the future analysis year (2024). In addition, site trips generated by seven (7) planned developments in the study area were aggregated and included in the No-Build (2024) volumes. It should be noted that although significant traffic increases were expected with the inclusion of background developments, an undiscounted annual growth rate was applied to offset the impacts on traffic data collected in 2020 with COVID-19 pandemic restrictions in place.

As for transportation improvements, mitigation requirements associated with Sweetwater are expected to include two new signals and additional turn lanes along US 64 at the Richardson Road and U-turn east of Richardson Road intersections; in addition, a new signal is expected to be installed by Smith Farm at the Olive Chapel Road and Richardson Road intersection once it is warranted.

Based on the No-Build (2024) analysis, the study area is projected to experience traffic and delay increases, but the impacts will be substantially mitigated by the background transportation improvements. As a result, all of the signalized intersections and stop-controlled approaches in the study area are projected to operate at acceptable levels of service except that the stop-controlled northbound approach of Apex Barbecue Road at Olive Chapel Road is projected to decline to operate at LOS F in the PM peak hour.



Trip Generation and Assignment

Trip generation was conducted based on the most appropriate corresponding trip generation codes included in the *ITE Trip Generation Manual, 10th Edition* and the suggested method of calculation in the NCDOT's "Rate vs. Equation" Spreadsheet. To provide a conservative analysis, no transit, walking, or bicycling reductions will be applied.

Land Use Code	Land Use	Unit	ADT	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	100 du	1,040	19	57	76	64	38	102
220	Multi-Family Housing (Low-Rise)	133 du	965	14	49	63	48	28	76
<i>Development Total</i>			<i>2,005</i>	<i>33</i>	<i>106</i>	<i>139</i>	<i>112</i>	<i>66</i>	<i>178</i>

In total, the proposed Hackney Tract Subdivision is projected to generate 2,005 daily trips with 139 trips (33 entering, 106 exiting) occurring in the AM peak hour and 178 trips (112 entering, 66 exiting) occurring the PM peak hour. The resulting site trips were distributed in accordance with the existing traffic patterns and anticipated land uses.

Build (2024) Conditions

The Build (2024) conditions account for both the No-Build (2024) traffic and site traffic generated by the proposed Hackney Tract Subdivision.

As shown in the Summary LOS table on page v, the stop-controlled northbound approach of Apex Barbeque Road at Olive Chapel Road is projected to continue to operate at failing levels of services in the PM peak hour with delay increases. The rest of the intersections included in the study area are projected to continue operating at acceptable levels of service during both peak hours. The planned stop-controlled Future Access #1 is projected to operate at LOS C in the AM peak hour and LOS D in the PM peak hour.

Roadway Improvement Recommendations

As indicated in the traffic operations analyses, the proposed Hackney Tract Subdivision is projected to have minimum impacts on traffic operations of the surrounding roadway network and intersections. Nevertheless, the following roadway improvements are recommended to improve traffic operations and safety:



SR 1160 (Olive Chapel Road) and Future Access #1/Hasse Avenue Extension (unsignalized, full movement)

Future Access #1 is projected to operate at acceptable levels of service during the AM and PM peak hour with a two-lane cross-section. Although traffic volumes are not projected to automatically warrant turn lanes on Olive Chapel Road, dedicated turn lanes should be provided with the required frontage widening to meet the Town of Apex Comprehensive Transportation Plan standards. Therefore, the following site access configuration and transportation improvements are recommended at this intersection:

- Construct Future Access #1 to consist of one inbound lane and one outbound lane.
- Provide a dedicated left-turn lane on eastbound Olive Chapel Road with 100 feet of storage length and appropriate taper.
- Provide a dedicated right-turn lane on westbound Olive Chapel Road with 100 feet of storage length and appropriate taper.

SR 1160 (Olive Chapel Road) and SR 1162 (Apex Barbecue Road) (unsignalized)

Traffic analysis indicated that the northbound approach of Apex Barbecue Road is projected to operate at LOS F in the PM peak hour under the No-Build and Build conditions. The intersection is not anticipated to meet warrants for installing a new traffic signal, while options for adding new turn lanes are limited due to the skewed angle of intersection on a curve of Olive Chapel Road and potential right-of-way/drainage restrictions. As shown on the Apex Comprehensive Transportation Plan, this intersection is identified for future intersection realignment. Since site trips are anticipated to contribute less than 4% traffic increases in the AM and 3% in the PM at this intersection (increases of only 1 VPH in the AM peak hour and 2 VPH in the PM peak on the stop-controlled approach), improvement should not be required by this development based on the Town of Apex UDO. Nevertheless, alternative traffic control method (such as AWSC), if warranted by crash analysis, may be considered before this intersection is realigned in the future based on the Town of Apex CTP.

The rest of study area intersections are expected to operate acceptably. Therefore, no mitigation is required.



Summary Level of Service Table

Intersection and Approach	Control	Existing (2020)		No-Build (2024)		Build (2024)	
		AM	PM	AM	PM	AM	PM
Richardson Rd and Olive Chapel Rd	TWSC/ Signal	-	-	A (9.7)	B (11.8)	A (9.8)	B (12.0)
Eastbound		---	---	A-9.7	B-10.7	A-9.8	B-10.9
Westbound		---	---	B-10.3	B-12.0	B-10.5	B-12.2
Northbound		B-11.9	B-14.1	B-10.2	B-12.7	B-10.3	B-13.0
Southbound		B-11.7	C-15.5	A-8.4	B-11.5	A-8.5	B-11.6
Apex Barbecue Rd and Olive Chapel Rd	TWSC	-	-	-	-	-	-
Northbound		B-11.8	C-19.5	C-16.8	F-92.5	C-17.9	F-134.5
Richardson Rd and Little Gem Ln/Hasse Ave	TWSC	-	-	-	-	-	-
Eastbound		A-9.8	B-10.2	C-16.5	C-21.8	C-19.1	D-32.0
Westbound		A-9.7	A-9.9	C-15.1	C-19.1	C-17.0	C-21.9
Richardson Rd/WB Left-Over and US 64	TWSC/ Signal	-	-	C (20.7)	D (42.0)	C (22.0)	D (44.5)
Eastbound		---	---	C-20.7	D-51.3	C-23.7	E-56.0
Northbound		C-23.5	C-23.3	C-28.2	D-47.4	C-28.5	D-50.1
Southbound		F-66.0	F-216.7	B-10.9	B-19.6	A-9.8	B-19.5
U-Turn East of Richardson Rd and US 64	TWSC/ Signal	-	-	B (11.8)	C (27.6)	B (12.5)	C (30.9)
Westbound		---	---	A-9.6	C-20.5	B-10.5	C-24.1
Northbound		B-14.2	C-18.2	C-27.8	E-59.9	C-26.5	E-62.1
Olive Chapel Rd & Hasse Ave/Future Access #1	TWSC	-	-	-	-	-	-
Southbound		---	---	---	---	C-16.1	D-25.0

LEGEND: X (XX) = Overall intersection LOS (intersection delay in sec/veh);

X - XX = approach LOS - approach delay in sec/veh

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Recommended Stop Controlled Approach
	Future Signalized Intersection
	Existing Lane Geometrics
	Background Lane Geometrics
	Recommended Lane Geometrics

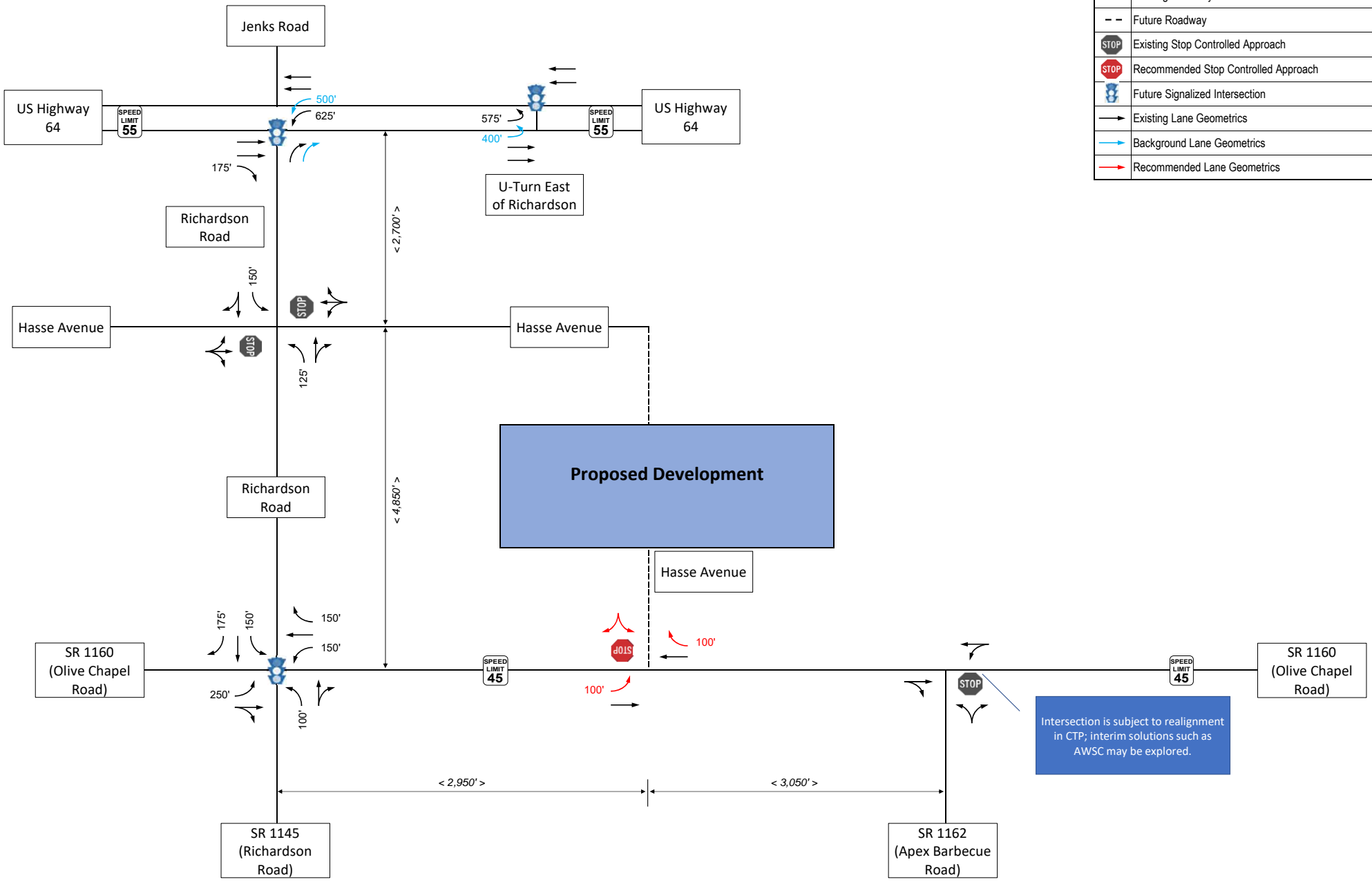




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- APPENDIX B: Turning Movement Counts
- APPENDIX C: Background Projects
- APPENDIX D: Intersection Capacity Analysis
- APPENDIX E: Turn Lane Warrant Analysis



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Introduction

There are plans to construct the proposed Hackney Tract Subdivision on the north side of Olive Chapel Road, east of the newly completed Richardson Road, in Apex, NC (Figure 1). The proposed Hackney Tract Subdivision is planned to consist of up to 100 single-family and 133 multi-family townhomes with full build-out expected in 2024.

As shown on the conceptual site plan (Figure 2), the development will be accessed through one full movement access along Olive Chapel Road:

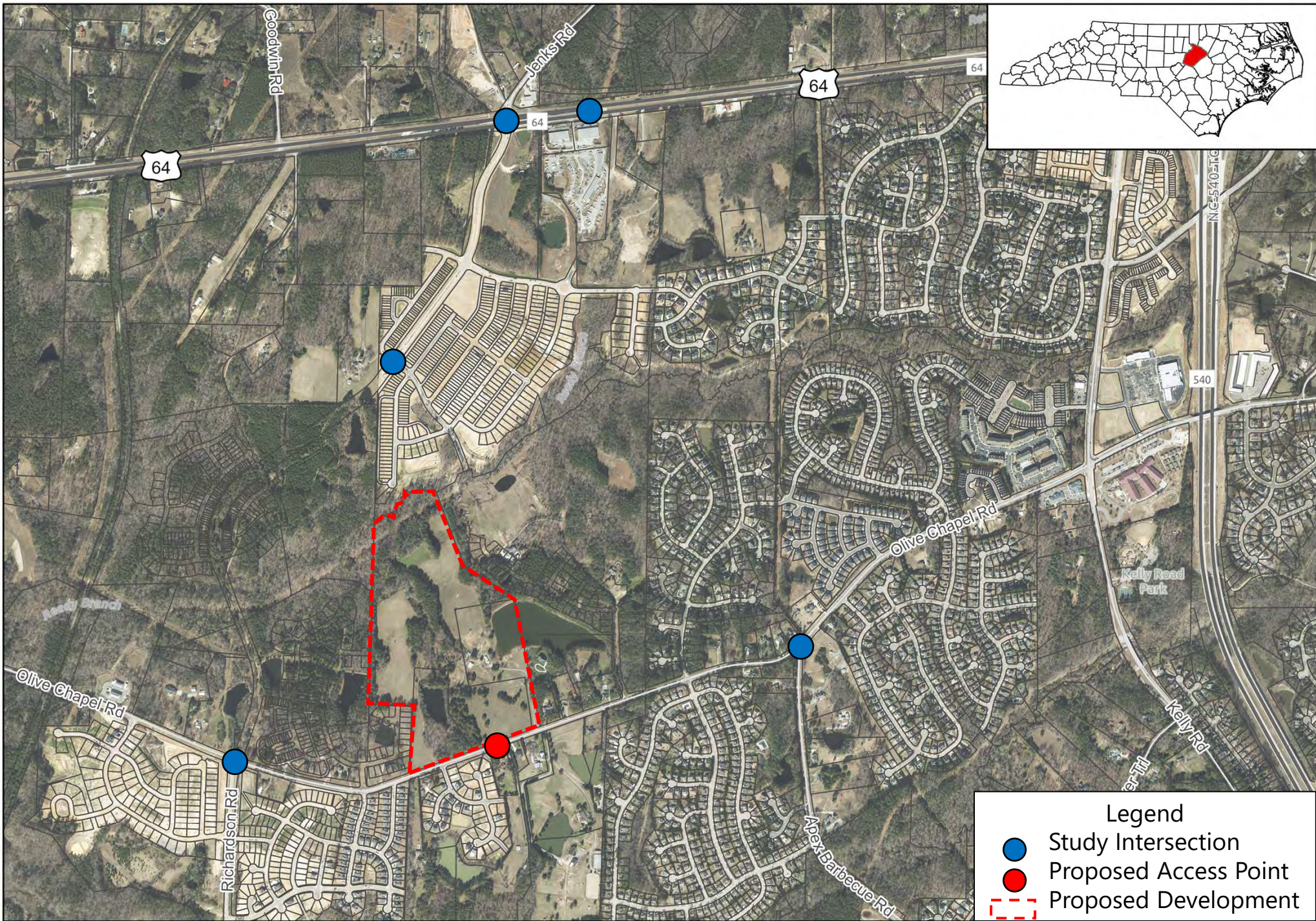
- Access #1: full movement access on Olive Chapel Road, approximately 2,500 feet east of Richardson Road

In addition, access will be provided via Hasse Avenue extension to the north to Richardson Road, and cross-connections will be provided via local street extensions to the west to Smith Farm.

Based on the agreement with the Town of Apex and NCDOT (Appendix A), the following existing and future intersections were included in the study and analyzed under the AM and PM peak hour conditions:

- SR 1160 (Olive Chapel Road) and SR 1145 (Richardson Road) (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and SR 1162 (Apex Barbecue Road) (unsignalized)
- Richardson Road and Hasse Avenue (unsignalized)
- US Highway 64 East at Richardson Road (unsignalized/future signalized)
- US Highway 64 West at U-turn east of Richardson Road (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and Future Access #1/Hasse Avenue Extension (full movement access)

VHB Engineering NC, P.C. (VHB) is contracted with the development team to analyze the potential traffic impacts of the proposed development and to identify any necessary roadway improvements. This Traffic Impact Analysis (TIA) summarizes trip generation, distribution, traffic assignment, and traffic analyses for the proposed development. The Memorandum of Understanding, which summarizes the assumptions for the study is included in Appendix A.



Scale
 0 0.15 0.3
 Miles



Figure 1
 Vicinity
 - Page 165 -

Hackney Tract Subdivision
 Traffic Impact Analysis
 Apex, NC



**HACKNEY TRACT
SUBDIVISION**
APEX, NORTH CAROLINA

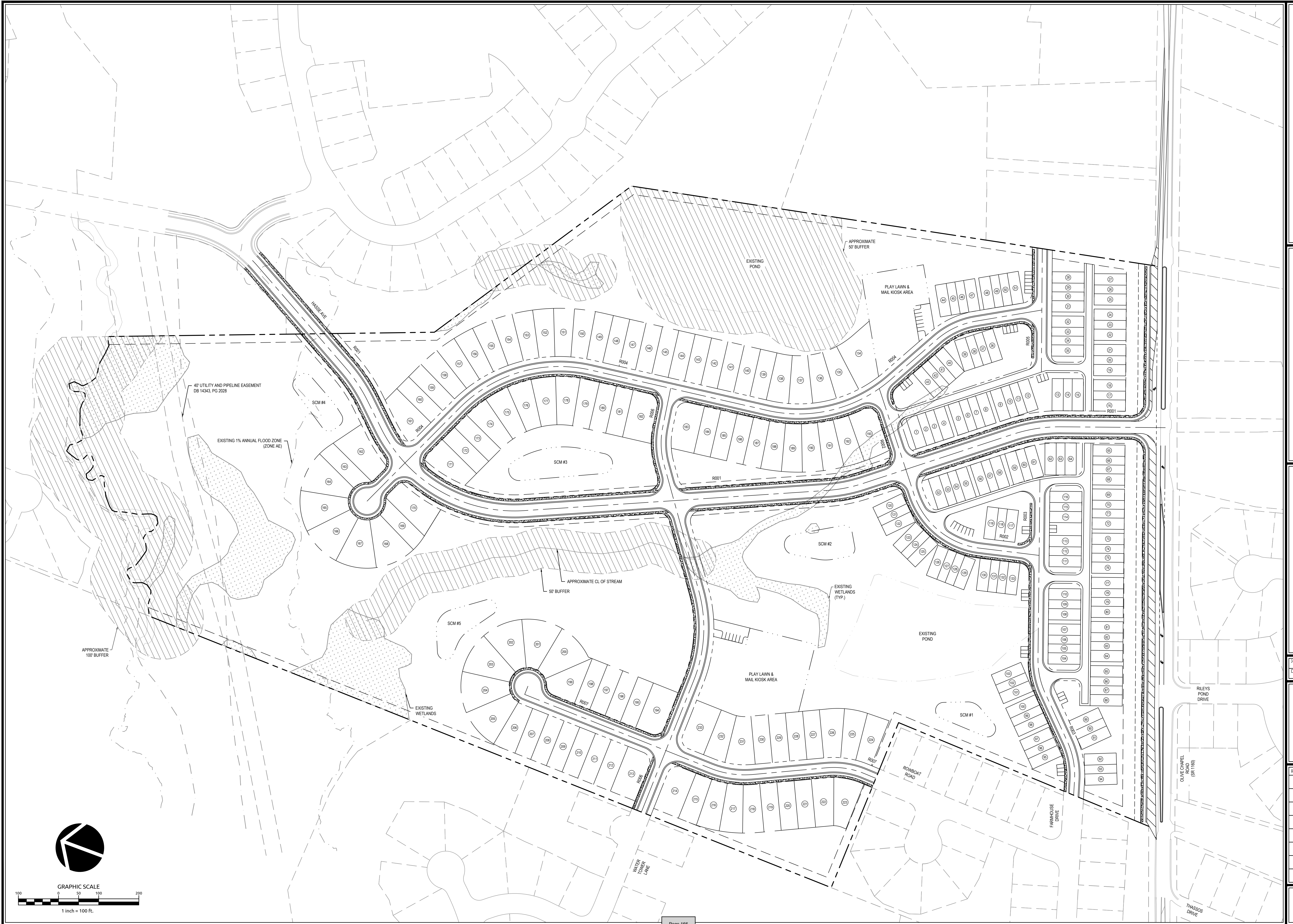
**OVERALL SUBDIVISION
PLAN**

Job No. 02180517.20 Drawn By WR
Date 10/19/20 Designer WR

**PRELIMINARY
NOT APPROVED FOR
CONSTRUCTION**

Revisions

Sheet No.
1.0



Existing (2020) Conditions

Existing Roadway Conditions

This section describes the existing roadways in the vicinity of the proposed development. Annual Average Daily Traffic (AADT) data for the surrounding network of roadway were obtained from the North Carolina Department of Transportation (NCDOT). The most recent AADT counts from the NCDOT are for 2019 on the study area roadways.

Olive Chapel Road (SR 1160)

- Olive Chapel Road is a two-lane undivided road within the study area. The posted speed limit along this roadway is 45 miles per hour (mph).
- As shown on the Town of Apex Thoroughfare and Collector Street Plan (last amended October 2020), Olive Chapel Road is planned to be widened to a 4-lane thoroughfare with median across the study area.
- The 2019 NCDOT AADT along Olive Chapel Road was 2,500 vehicles per day (vpd) between New Hill Olive Chapel Road and Kelly Road.

Richardson Road (SR 1145)

- Richardson Road is a new two-lane median divided roadway connecting US Highway 64 and Olive Chapel Road within the study area. The posted speed limit along this roadway is 45 mph.
- As shown on the Town of Apex Thoroughfare and Collector Street Plan, Richardson Road is planned to be widened to a 4-lane thoroughfare with median across the study area.
- The 2019 AADT along Richard Road was 810 vpd south of Olive Chapel Road. No AADT information is available for Richardson Road between Olive Chapel Road and US 64.

Apex Barbecue Road (SR 1162)

- Apex Barbecue Road is a two-lane undivided roadway south of the project site within the study area. The posted speed limit along this roadway is 45 mph.
- As shown on the Town of Apex Thoroughfare and Collector Street Plan, Apex Barbeque Road is planned to be widened to a 3-lane thoroughfare with intersection realignment planned at Olive Chapel Road.
- The 2019 NCDOT AADT along Apex Barbeque Road was 4,500 vpd between Kelly Road and Olive Chapel Road.



US Highway 64 (US 64)

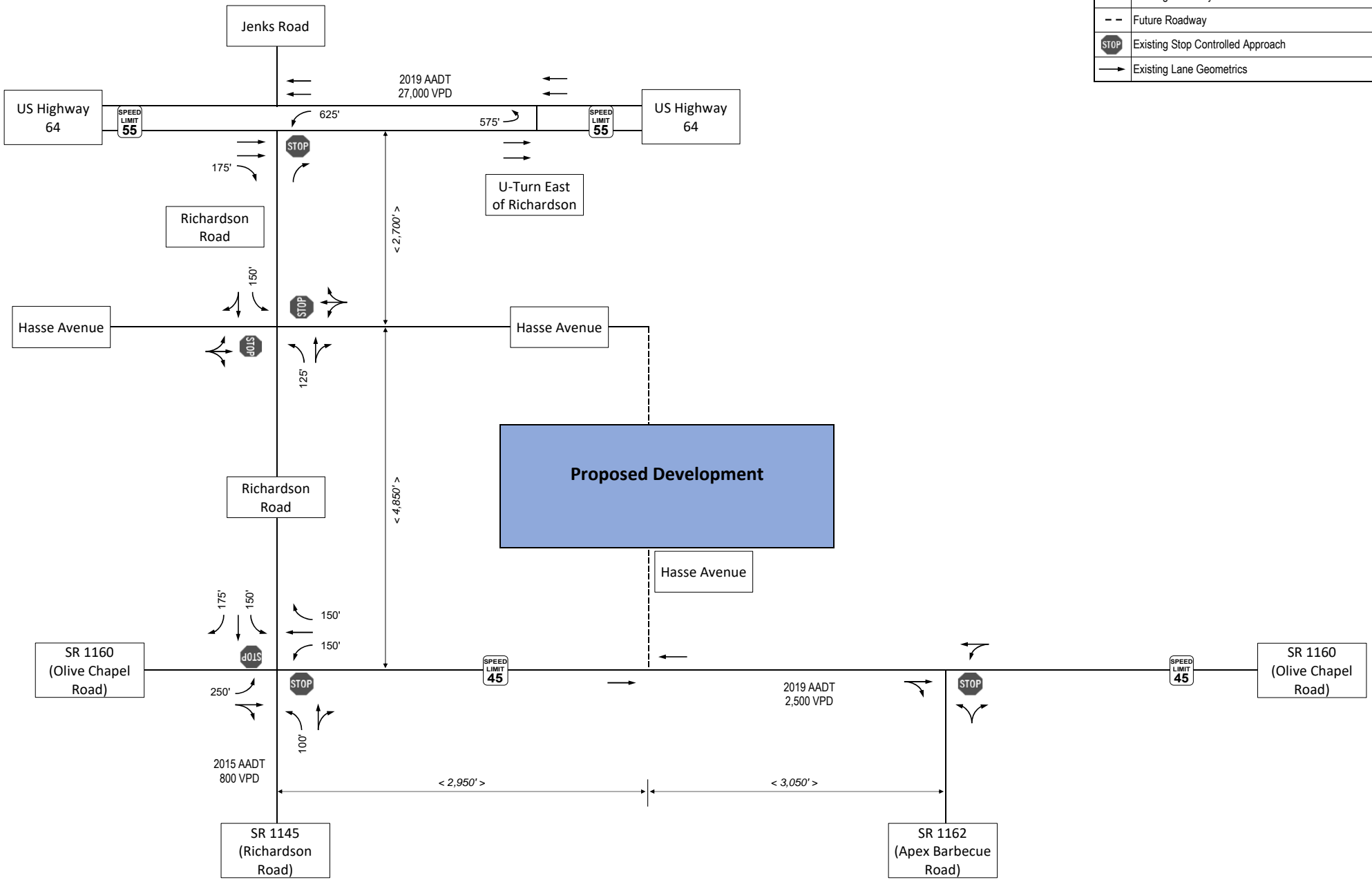
- US Highway 64 is a four-lane median divided highway with partial control of access within the study area. The posted speed limit along US 64 is 55 mph.
- As shown on the Town of Apex Thoroughfare and Collector Street Plan, US Highway 64 is planned to be a freeway facility with full control of access, and a future interchange is planned along US 64 with Richardson Road/Jenks Road.
- The 2019 NCDOT AADT along US 64 was 27,000 vpd between New Hill Road and Kelly Road.

Hasse Avenue

- Hasse Avenue is a two-lane undivided local road within the study area. No posted speed limit was observed along Hasse Avenue.
- As shown on the Town of Apex Thoroughfare and Collector Street Plan, Hasse Avenue is planned to be extended to a two-lane major collector street between Richardson Road and Olive Chapel Road.
- No AADT information is available for Hasse Avenue within the study area.

Figure 3 provides a schematic diagram of the roadways near the proposed development including the existing intersection geometrics.

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Existing Lane Geometrics





Existing Turning Movement Data

VHB Engineering NC, P.C. collected the intersection turning movement counts analyzed in this TIA in November 2020. Traffic data were collected during typical AM (7:00 – 9:00 AM) and PM (4:00 – 6:00 PM) peak periods while schools were partially open due to the COVID-19 pandemic restrictions. Table 1 summarizes the schedule used to obtain the turning movement data. A detailed summary of the traffic counts can be found in Appendix B.

Table 1: Weekday Peak Hour Turning Movement Count Schedule

Intersection	Time Period	Data Collection Date
Olive Chapel Road and Richardson Road	7:00 AM – 9:00 AM 4:00 PM – 6:00 PM	Thursday November 5, 2020
Richardson Road and Hasse Avenue/Little Gem Lane	7:00 AM – 9:00 AM 4:00 PM – 6:00 PM	Thursday November 5, 2020
US Highway 64 and Richardson Road	7:00 AM – 9:00 AM 4:00 PM – 6:00 PM	Thursday November 5, 2020
US Highway 64 and U-Turn East of Richardson Road	7:00 AM – 9:00 AM 4:00 PM – 6:00 PM	Thursday November 5, 2020
Olive Chapel Road and Apex Barbecue Road	7:00 AM – 9:00 AM 4:00 PM – 6:00 PM	Thursday November 5, 2020

The existing peak hour turning movement volumes are shown in Figure 4.

Level of Service Criteria

Peak hour level of service (LOS) measures the adequacy of the intersection geometrics and traffic controls of a particular intersection or approach for the given turning volumes. Levels of service range from A through F, based on the average control delay experienced by vehicles traveling through the intersection during the peak hour. Control delay represents the portion of total delay attributed to traffic control devices (e.g., signals or stop signs). Table 2 provides a general description of various levels of service categories and delay ranges.



Table 2: Level of Service Standard for Intersections

Level of Service	Signalized Intersection	Unsignalized Intersection
A	<= 10 sec.	<= 10 sec.
B	10-20 sec.	10-15 sec.
C	20-35 sec.	15-25 sec.
D	35-55 sec.	25-35 sec.
E	55-80 sec.	35-50 sec.
F	> 80 sec.	> 50 sec.

The engineering profession generally accepts LOS D as an acceptable operating condition for signalized intersections. Based on the Policy on Street and Driveway Access to North Carolina Highways (NCDOT Driveway Manual) and the Town of Apex Unified Development Ordinance (UDO), geometric and/or traffic control improvements should be identified at signalized intersections to prevent the traffic generated by the proposed development from causing any intersection or roadway approach to fall below LOS D. For intersections projected to operate worse than LOS D under the background conditions, improvements should be identified to minimize the increase in average overall intersection delay when site traffic accounts for at least 10% of the projected total peak hour traffic at the intersections.

At unsignalized intersections, stop-controlled minor street approaches may exceed LOS D provided the addition of development traffic is not anticipated to warrant a traffic signal upon build-out and the resulting congestion does not block traffic movements at adjacent intersections. Guidelines provided by NCDOT shall be used in the evaluation of the need for and length of exclusive right and/or left turn lanes to support development traffic; for any and all turning movements where the development is anticipated to add at least 10% to the existing peak hour traffic volume, improvements may be required to mitigate the impact of development traffic on turn lane storage requirements.

Level of Service Analysis

Intersection levels of service analyses were performed for the typical weekday AM and PM peak hours using *Synchro/SimTraffic Professional Version 10*. A summary of the findings for the Existing (2020) scenario LOS analysis can be found in Table 3 and the full *Synchro/HCS* output can be found in Appendix D.

As reported in Table 3, all of the stop- and yield-controlled approaches in the study area are operating at acceptable levels of service (i.e., LOS D or better) during both the AM and PM peak hours under the Existing (2020) conditions, with an exception that the southbound approach of Richardson Road (westbound left-turn of US 64) at US 64 Eastbound operates at LOS F during both peak hours.



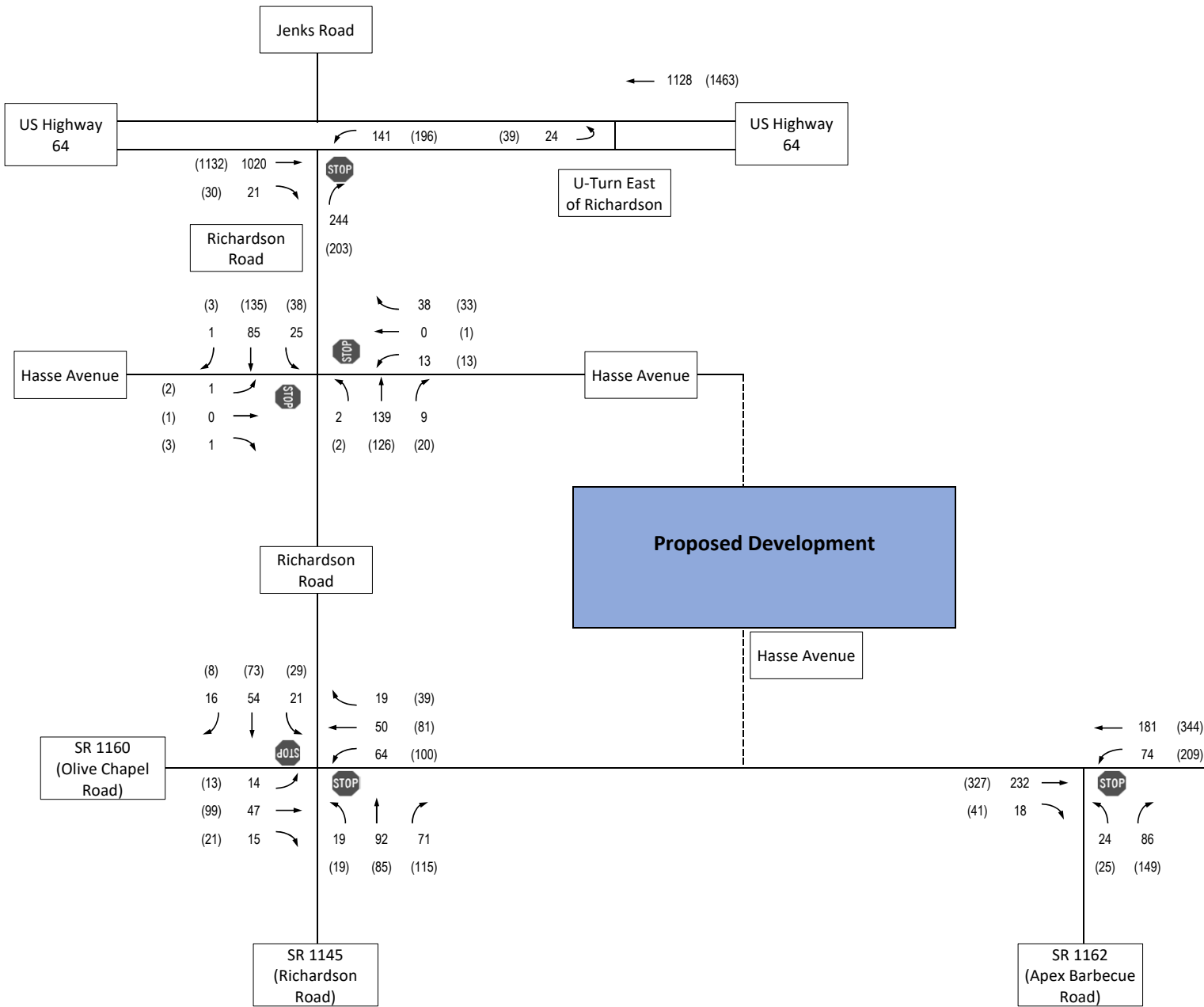
Table 3: Existing (2020) LOS Results

Intersection and Approach	Control	Existing (2020)	
		AM	PM
Richardson Rd and Olive Chapel Rd	TWSC	-	-
Northbound		B-11.9	B-14.1
Southbound		B-11.7	C-15.5
Apex Barbecue Rd and Olive Chapel Rd	TWSC	-	-
Northbound		B-11.8	C-19.5
Richardson Rd and Little Gem Ln/Hasse Ave	TWSC	-	-
Eastbound		A-9.8	B-10.2
Westbound		A-9.7	A-9.9
Richardson Rd/WB Left-Over and US 64	TWSC	-	-
Northbound		C-23.5	C-23.3
Southbound		F-66.0	F-216.7
U-Turn East of Richardson Rd and US 64	TWSC	-	-
Northbound		B-14.2	C-18.2

LEGEND: X (XX) = Overall intersection LOS (intersection delay in sec/veh);

X - XX = approach LOS - approach delay in sec/veh

LEGEND	
—	Existing Roadway
- -	Future Roadway
STOP	Existing Stop Controlled Approach
→	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



No-Build (2024) Conditions

Background Growth and Development

Based on discussions with the Town of Apex and NCDOT, an annual growth rate of three percent (3%) was applied to the existing traffic to account for the growth between the base year (2020) and the future analysis year (2024). In addition, site trips from seven (7) adjacent developments that are expected to occur before the analysis year were incorporated into the analysis.

Saddlebrook (Lawrence Assemblage/Richardson West) – Located in the southwest corner of the Olive Chapel Road and Richardson Road intersection, this residential development is proposed to consist of 104 single-family homes and be constructed by 2017. A traffic analysis report was prepared by Ramey Kemp & Associates and submitted to the Town on November 3, 2014. As detailed in the report, the development is projected to generate 1,090 daily site trips, with 83 trips (21 entering, 62 exiting) occurring in the AM peak hour and 109 trips (69 entering, 40 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicate that construction has begun but has not been completed; therefore, a percentage of traffic associated with the development was included in the No-Build (2024) analysis.

Sweetwater – Located on US 64 in Wake County, this mixed-use development is projected to consist of 375 single-family homes, 60 condominiums, 50,000 sf of office, 200,000 sf of retail, 7,000 sf of high-turnover restaurant, 3,000 sf of fast food with drive through window, and a drive-in bank with 4 lanes and be constructed by 2019. A TIA was prepared by Ramey Kemp & Associates and submitted on December 18, 2014. As detailed in the report the development is projected to generate 18,360 daily site trips, with 914 trips (457 entering, 457 exiting) occurring in the AM peak hour and 1,736 trips (865 entering, 871 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicate that approximately 80% of the residential and 0% of the mixed-use phases have been constructed; therefore, a percentage of traffic associated with the development was included in the No-Build (2024) analysis.

Buckhorn Preserve (Goodwin-MacNair) – Located on the east side of Richardson Road, just north of M. Zion Church Road, this residential development is projected to consist of 347 single-family homes and be constructed by 2020. A TIA was prepared by VHB



and submitted to the Town on June 26, 2015, with an addendum submitted on August 3, 2015. As detailed in the report, the development is projected to generate 3,299 daily site trips, with 253 trips (63 entering, 190 exiting) occurring in the AM peak hour and 322 trips (203 entering, 119 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicate that the development has not been fully constructed; therefore, a percentage of the traffic associated with the development was included in the No-Build (2024) analysis.

Stillwater (Womble) – Located between Ragan Road and Richardson Road north of Humie Olive Road, this residential development is projected to consist of 303 single-family homes and be constructed by 2018. A TIA was prepared by Stantec and submitted to the Town on February 27, 2014. As detailed in the report, the development is projected to generate 2,912 daily site trips, with 221 trips (55 entering, 166 exiting) occurring in the AM peak hour and 285 trips (180 entering, 105 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicated that the development has not been fully constructed; therefore, a percentage of the traffic associated with the development was included in the No-Build (2024) analysis.

Westford – Located on the north side of US 64 and east of Jenks Road, this residential development is projected to consist of 300 apartment units, 225 townhomes, and 90 single-family homes and be constructed by 2019. A TIA was prepared by Kimley-Horn and submitted to the Town on December 7, 2016. As detailed in the report, the development is projected to generate 4,188 daily site trips, with 323 trips (65 entering, 258 exiting) occurring in the AM peak hour and 396 trips (257 entering, 139 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicated that the development has not been fully constructed; therefore, a percentage of the traffic associated with the development was included in the No-Build (2024) analysis.

Smith Farm – Located north of Olive Chapel Road, west of Kelly Road, and south of US 64, this mixed-use development is projected to consist of 430 single-family homes, 170 townhomes, 150 apartments, 100,000 sf of office, 150,000 sf of retail, 10,000 sf of pharmacy, 16,000 sf of high-turnover sit-down restaurant, 9,000 sf of fast-food restaurant, 12,000 sf of drive-in bank, and a gas station with 8 fueling positions and be constructed by 2021. A TIA was prepared by Ramey Kemp & Associates and submitted to the Town on November 24, 2015. As detailed in the report, the development is projected to generate 27,930 daily site trips, with 1,709 trips (847 entering, 862 exiting) occurring in the AM peak hour and 2,545 trips (1,301 entering, 1,244 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicated that the development has not been fully constructed; therefore, a percentage of the traffic associated with the development was included in the No-Build (2024) analysis.



Linden (Pricewood Assemblage) – Located in the northwest quadrant of the intersection of Olive Chapel Road and Pricewood Lane, this residential development is projected to consist of 211 single-family homes and be constructed by 2022. A TIA was prepared by Ramey Kemp & Associates and submitted to the Town on August 31, 2016. As detailed in the report, the development is projected to generate 2,010 daily site trips, with 158 trips (40 entering, 118 exiting) occurring in the AM peak hour and 211 trips (133 entering, 78 exiting) occurring in the PM peak hour. These trips were distributed to the study area based on the assumed distribution patterns in the report. Field visits indicated that the development has not been fully constructed; therefore, a percentage of the traffic associated with the development was included in the No-Build (2024) analysis.

As for transportation improvements, mitigation requirements associated with Sweetwater are expected to include two new signals and additional turn lanes along US 64 at the Richardson Road and U-Turn East of Richardson Road intersections, and Smith Farm is committed to installing a new signal at the Olive Chapel Road and Richardson Road intersection once it is warranted.

Note that although significant traffic increases are expected due to the inclusion of background developments, an undiscounted annual traffic growth rate of three percent (3%) was applied to offset the impacts on traffic data collected under the Existing (2020) conditions with COVID-19 pandemic restrictions in place. The No-Build (2024) AM and PM peak hour volumes are shown in Figure 5.

Level of Service Analysis

Intersection levels of service analyses were performed for the typical weekday AM and PM peak hours using *Synchro/SimTraffic Professional Version 10*. A summary of the findings for the No-Build (2024) scenario LOS analysis can be found in Table 4. The full *Synchro/HCS* output for the No-Build scenario can be found in Appendix D.

As reported in Table 4, the study area is projected to experience traffic and delay increases, but the impacts will be substantially mitigated by the background transportation improvements. As a result, all of the signalized intersections and stop-controlled approaches in the study area are projected to operate at acceptable levels of service except that the stop-controlled northbound approach of Apex Barbecue Road at Olive Chapel Road is projected to decline to operate at LOS F in the PM peak hour.



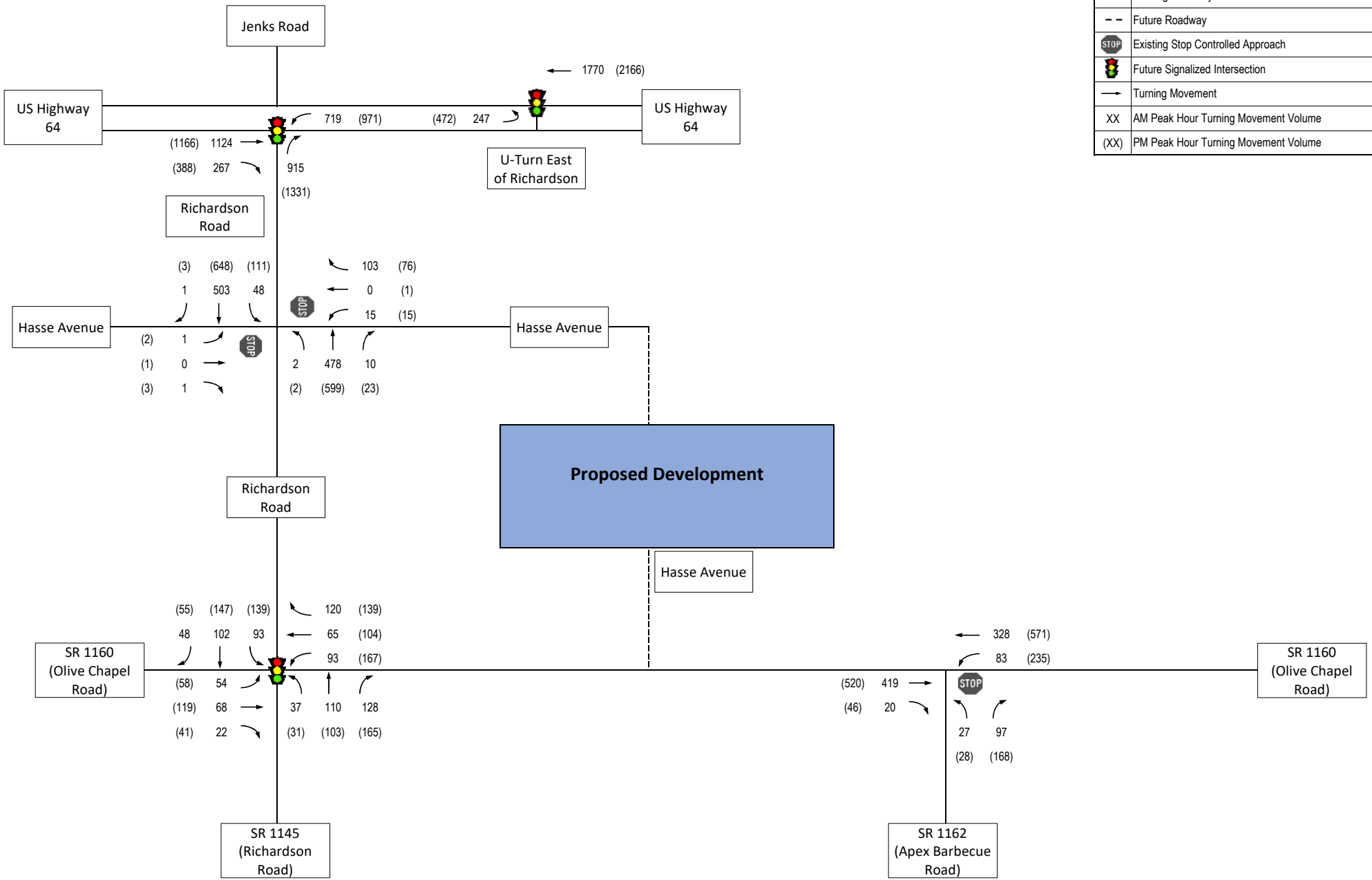
Table 4: No-Build (2024) LOS Results

Intersection and Approach	Control	No-Build (2024)	
		AM	PM
Richardson Rd and Olive Chapel Rd	Signal	A (9.7)	B (11.8)
Eastbound		A-9.7	B-10.7
Westbound		B-10.3	B-12.0
Northbound		B-10.2	B-12.7
Southbound		A-8.4	B-11.5
Apex Barbecue Rd and Olive Chapel Rd	TWSC	-	-
Northbound		C-16.8	F-92.5
Richardson Rd and Little Gem Ln/Hasse Ave	TWSC	-	-
Eastbound		C-16.5	C-21.8
Westbound		C-15.1	C-19.1
Richardson Rd/WB Left-Over and US 64	Signal	C (20.7)	D (42.0)
Eastbound		C-20.7	D-51.3
Northbound		C-28.2	D-47.4
Southbound		B-10.9	B-19.6
U-Turn East of Richardson Rd and US 64	Signal	B (11.8)	C (27.6)
Westbound		A-9.6	C-20.5
Northbound		C-27.8	E-59.9

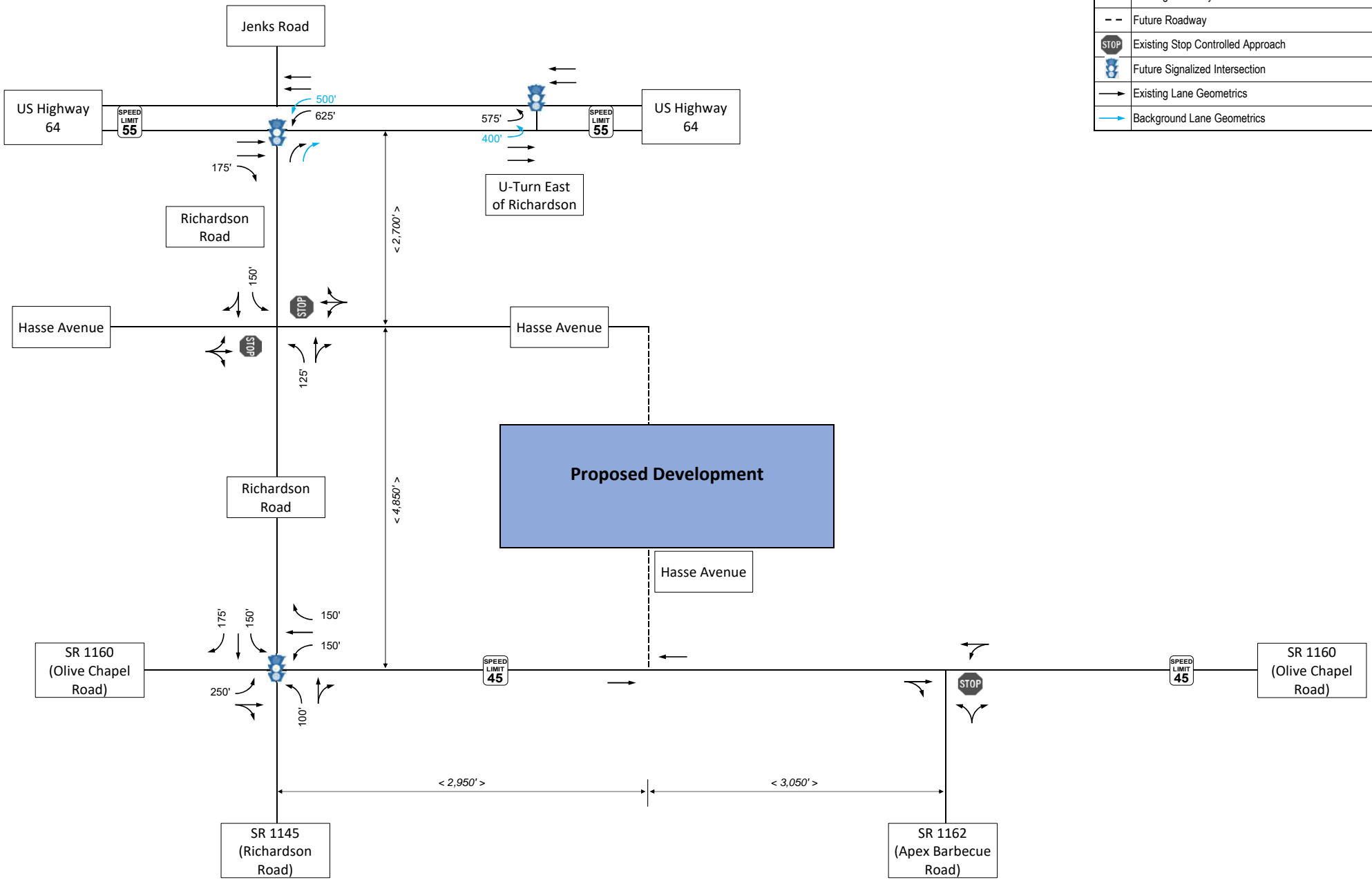
LEGEND: X (XX) = Overall intersection LOS (intersection delay in sec/veh);

X - XX = approach LOS - approach delay in sec/veh

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



LEGEND	
—	Existing Roadway
- -	Future Roadway
STOP	Existing Stop Controlled Approach
Signalized Intersection	Future Signalized Intersection
→	Existing Lane Geometrics
→	Background Lane Geometrics



Build (2024) Conditions

There are plans to construct the proposed Hackney Tract Subdivision on the north side of Olive Chapel Road, east of the newly completed Richardson Road, in Apex, NC (Figure 1). The proposed Hackney Tract Subdivision is planned to consist of up to 100 single-family and 133 multi-family townhomes with full build-out expected in 2024.

Trip Generation

Trip generation was conducted based on the most appropriate corresponding trip generation codes included in the *ITE Trip Generation Manual, 10th Edition* and the suggested method of calculation in the NCDOT's "Rate vs. Equation" Spreadsheet. To provide a conservative analysis, no transit, walking, or bicycling reductions will be applied.

Table 5 summarizes the estimated trip generation for the proposed Hackney Tract Subdivision for weekday AM and PM peak hours.

Table 5: Trip Generation Rates

Land Use Code	Land Use	Unit	ADT	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	100 du	1,040	19	57	76	64	38	102
220	Multi-Family Housing (Low-Rise)	133 du	965	14	49	63	48	28	76
<i>Development Total</i>			<i>2,005</i>	<i>33</i>	<i>106</i>	<i>139</i>	<i>112</i>	<i>66</i>	<i>178</i>

In total, the proposed Hackney Tract Subdivision is projected to generate 2,005 daily trips with 139 trips (33 entering, 106 exiting) occurring in the AM peak hour and 178 trips (112 entering, 66 exiting) occurring the PM peak hour.

Traffic Distribution and Assignment

As shown on the conceptual site plan (Figure 2), the development will be accessed through one full movement access along Olive Chapel Road:



- Access #1: full movement access on Olive Chapel Road, approximately 2,500 feet east of Richardson Road

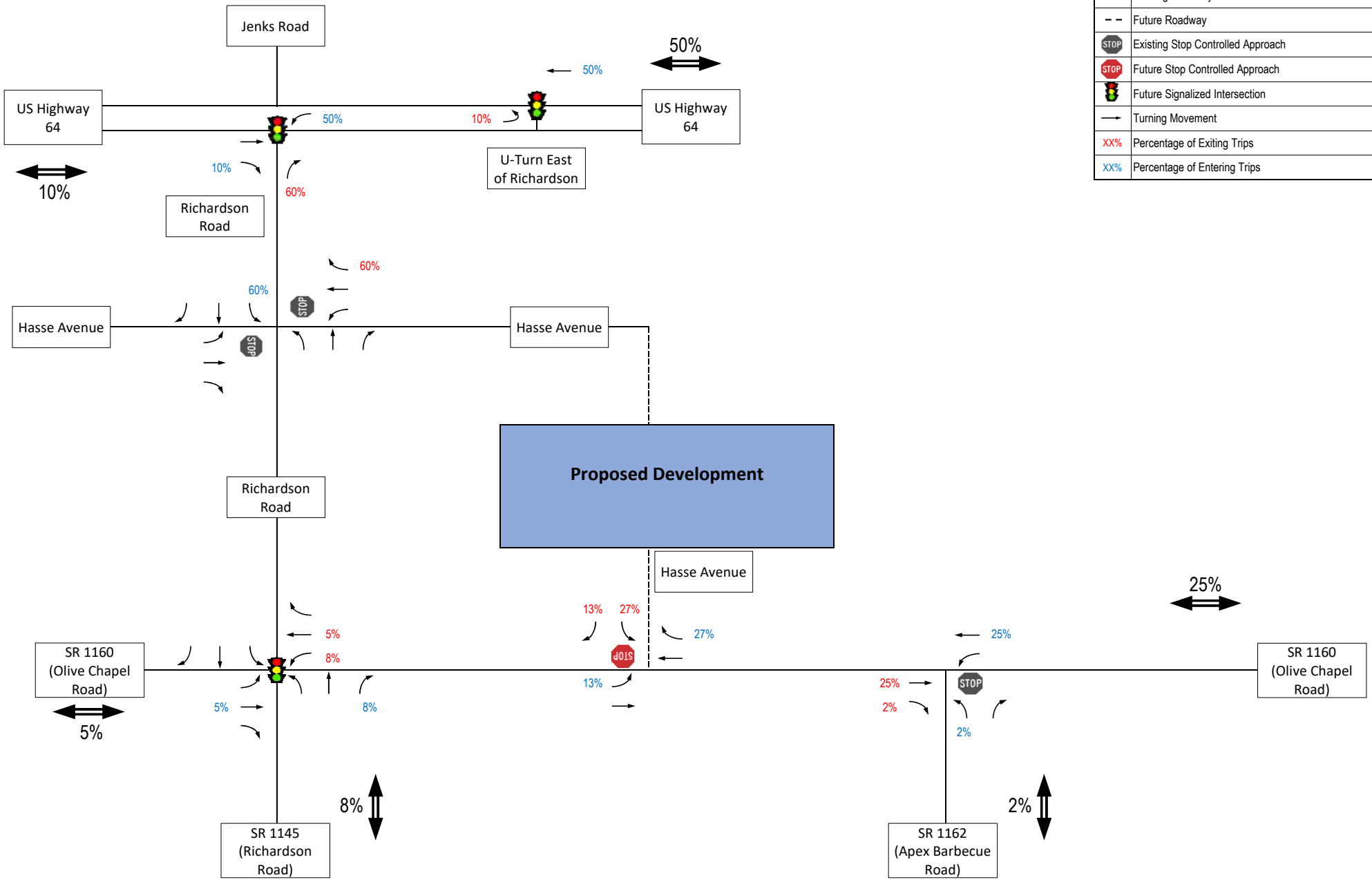
In addition, access will be provided via Hasse Avenue extension to the north to Richardson Road, and cross-connections will be provided via local street extensions to the west to Smith Farm. Potential traffic reductions due to cross-connections are not accounted for in this TIA to be conservative.

Based on agreements with the Town of Apex and NCDOT through the Memorandum of Understanding (Appendix A), the directional distribution percentages are as follows:

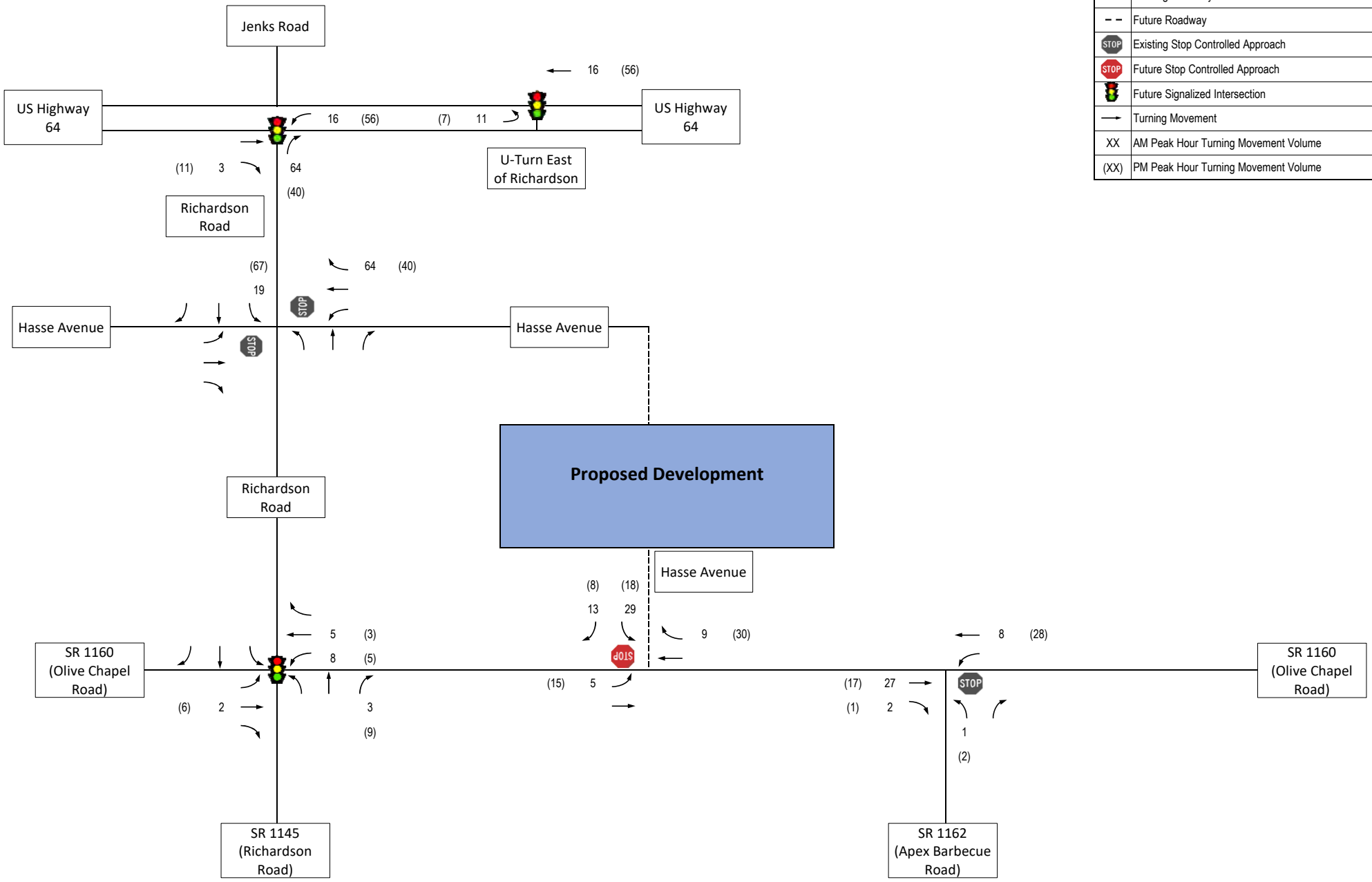
- from/to the east via US Highway 64 - 50%
- from/to the west via US Highway 64 - 10%
- from/to the east via Olive Chapel Road - 25%
- from/to the west via Olive Chapel Road - 5%
- from/to the south via Richardson Road - 8%
- from/to the south via Apex Barbecue Road - 2%

A graphic illustration of the proposed peak hour directional distribution percentages is shown in Figure 7, with the resulting site trips shown in Figure 8.

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
	Percentage of Exiting Trips
	Percentage of Entering Trips



LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume





Level of Service Analysis

The Build (2024) analysis scenario includes the No-Build (2024) traffic as well as site-generated trips from the proposed development. Figure 9 depicts the turning movement volumes used in the Build (2024) scenario analysis.

Intersection levels of service analyses were performed for the typical weekday AM and PM peak hours using *Synchro/SimTraffic Professional Version 10*. Table 6 summarizes the LOS results for the Build (2024) scenario and Appendix D contains the full *Synchro/HCS* reports of the analysis.

As reported in Table 6, the stop-controlled northbound approach of Apex Barbeque Road at Olive Chapel Road is projected to continue to operate at failing levels of services in the PM peak hour with delay increases. The rest of the intersections included in the study area are projected to continue operating at acceptable levels of service during both peak hours. The planned stop-controlled Future Access #1 is projected to operate at LOS C in the AM peak hour and LOS D in the PM peak hour.



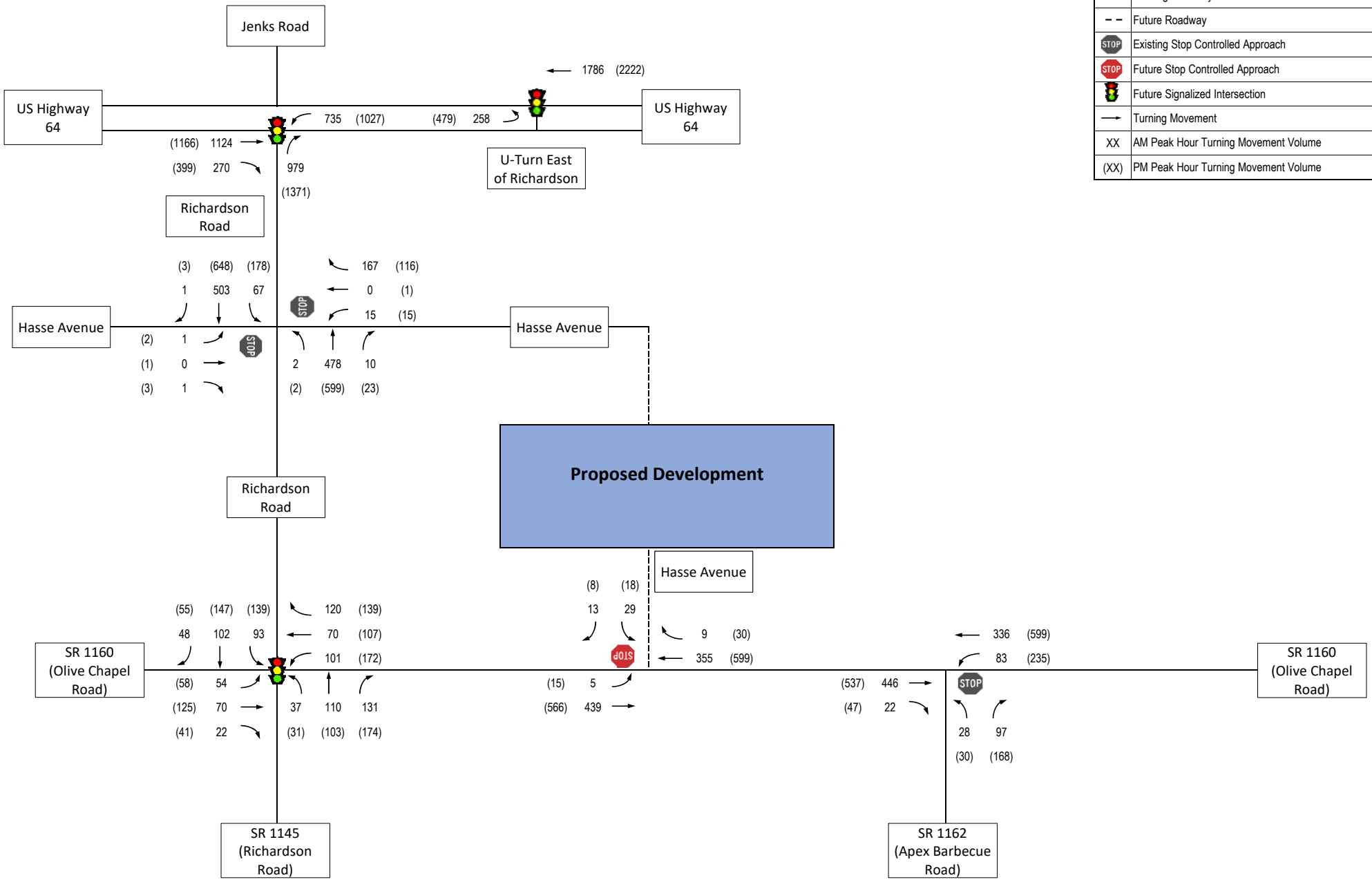
Table 6: Build (2024) LOS Results

Intersection and Approach	Control	Build (2024)	
		AM	PM
Richardson Rd and Olive Chapel Rd	Signal	A (9.8)	B (12.0)
Eastbound		A-9.8	B-10.9
Westbound		B-10.5	B-12.2
Northbound		B-10.3	B-13.0
Southbound		A-8.5	B-11.6
Apex Barbecue Rd and Olive Chapel Rd	TWSC	-	-
Northbound		C-17.9	F-134.5
Richardson Rd and Little Gem Ln/Hasse Ave	TWSC	-	-
Eastbound		C-19.1	D-32.0
Westbound		C-17.0	C-21.9
Richardson Rd/WB Left-Over and US 64	Signal	C (22.0)	D (44.5)
Eastbound		C-23.7	E-56.0
Northbound		C-28.5	D-50.1
Southbound		A-9.8	B-19.5
U-Turn East of Richardson Rd and US 64	Signal	B (12.5)	C (30.9)
Westbound		B-10.5	C-24.1
Northbound		C-26.5	E-62.1
Olive Chapel Rd & Hasse Ave/Future Access #1	TWSC	-	-
Southbound		C-16.1	D-25.0

LEGEND: X (XX) = Overall intersection LOS (intersection delay in sec/veh);

X - XX = approach LOS - approach delay in sec/veh

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



Findings and Conclusions

As indicated in the traffic operations analyses, the proposed Hackney Tract Subdivision is projected to have minimum impacts on traffic operations of the surrounding roadway network and intersections. Nevertheless, the following roadway improvements are recommended to improve traffic operations and safety:

SR 1160 (Olive Chapel Road) and Future Access #1/Hasse Avenue Extension (unsignalized, full movement)

Future Access #1 is projected to operate at acceptable levels of service during the AM and PM peak hour with a two-lane cross-section. Although traffic volumes are not projected to automatically warrant turn lanes on Olive Chapel Road, dedicated turn lanes should be provided with the required frontage widening to meet the Town of Apex Comprehensive Transportation Plan standards. Therefore, the following site access configuration and transportation improvements are recommended at this intersection:

- Construct Future Access #1 to consist of one inbound lane and one outbound lane.
- Provide a dedicated left-turn lane on eastbound Olive Chapel Road with 100 feet of storage length and appropriate taper.
- Provide a dedicated right-turn lane on westbound Olive Chapel Road with 100 feet of storage length and appropriate taper.

SR 1160 (Olive Chapel Road) and SR 1162 (Apex Barbecue Road) (unsignalized)

Traffic analysis indicated that the northbound approach of Apex Barbecue Road is projected to operate at LOS F in the PM peak hour under the No-Build and Build conditions. The intersection is not anticipated to meet warrants for installing a new traffic signal, while options for adding new turn lanes are limited due to the skewed angle of intersection on a curve of Olive Chapel Road and potential right-of-way/drainage restrictions. As shown on the Apex Comprehensive Transportation Plan, this intersection is identified for future intersection realignment. Since site trips are anticipated to contribute less than 4% traffic increases in the AM and 3% in the PM at this intersection (increases of only 1 VPH in the AM peak hour and 2 VPH in the PM peak on the stop-controlled approach), improvement should not be required by this development based on the Town of Apex UDO. Nevertheless, alternative traffic control method (such as AWSC), if warranted by crash analysis, may be considered



before this intersection is realigned in the future based on the Town of Apex CTP.

The rest of study area intersections are expected to operate acceptably. Therefore, no mitigation is required. A summary of the findings for the analysis scenarios is shown in Table 7, and the resulting future lane configurations and traffic controls in 2024 are shown in Figure 10.



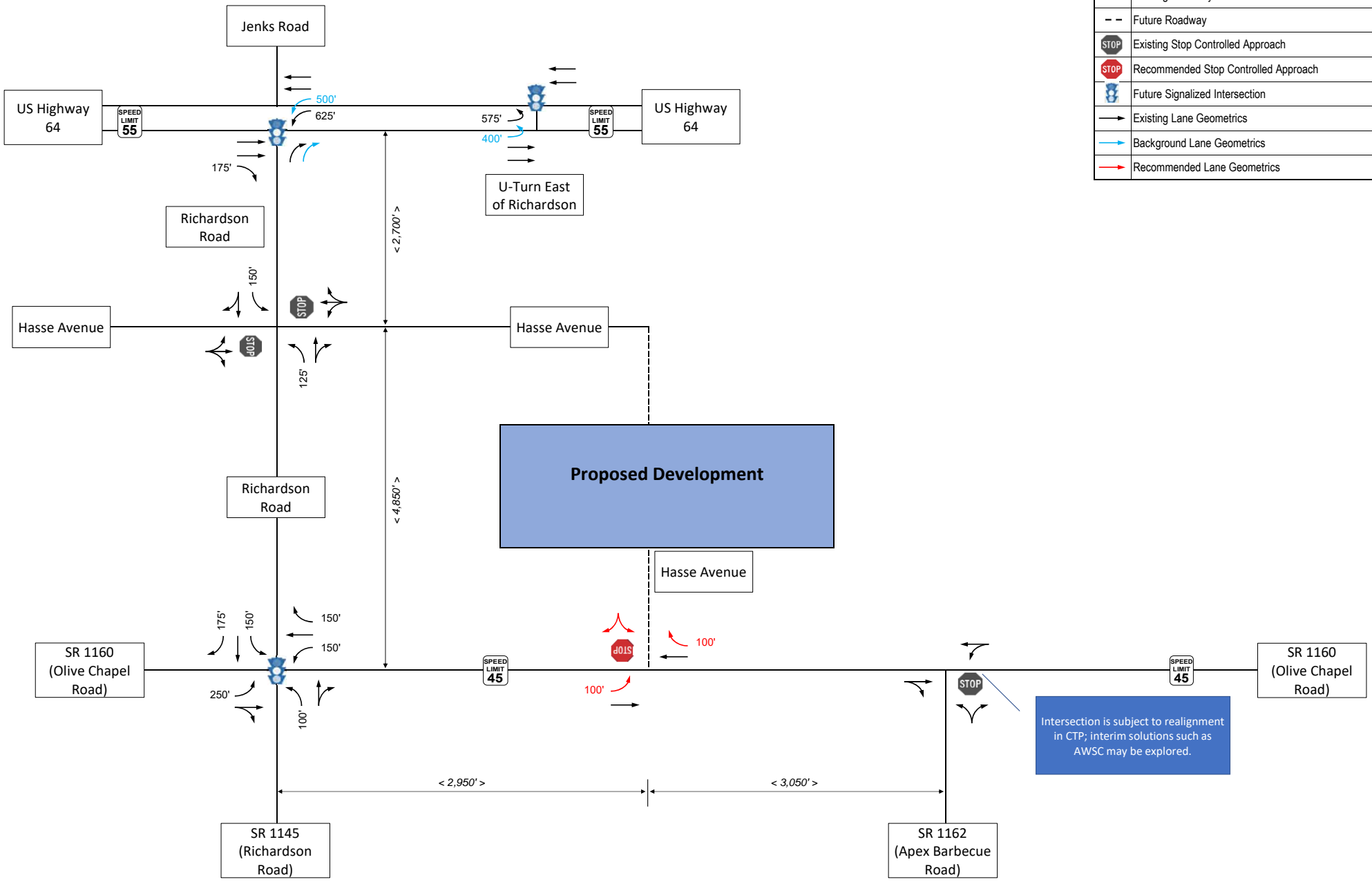
Table 7: Summary LOS Table

Intersection and Approach	Control	Existing (2020)		No-Build (2024)		Build (2024)	
		AM	PM	AM	PM	AM	PM
Richardson Rd and Olive Chapel Rd	TWSC/ Signal	-	-	A (9.7)	B (11.8)	A (9.8)	B (12.0)
Eastbound		---	---	A-9.7	B-10.7	A-9.8	B-10.9
Westbound		---	---	B-10.3	B-12.0	B-10.5	B-12.2
Northbound		B-11.9	B-14.1	B-10.2	B-12.7	B-10.3	B-13.0
Southbound		B-11.7	C-15.5	A-8.4	B-11.5	A-8.5	B-11.6
Apex Barbecue Rd and Olive Chapel Rd	TWSC	-	-	-	-	-	-
Northbound		B-11.8	C-19.5	C-16.8	F-92.5	C-17.9	F-134.5
Richardson Rd and Little Gem Ln/Hasse Ave	TWSC	-	-	-	-	-	-
Eastbound		A-9.8	B-10.2	C-16.5	C-21.8	C-19.1	D-32.0
Westbound		A-9.7	A-9.9	C-15.1	C-19.1	C-17.0	C-21.9
Richardson Rd/WB Left-Over and US 64	TWSC/ Signal	-	-	C (20.7)	D (42.0)	C (22.0)	D (44.5)
Eastbound		---	---	C-20.7	D-51.3	C-23.7	E-56.0
Northbound		C-23.5	C-23.3	C-28.2	D-47.4	C-28.5	D-50.1
Southbound		F-66.0	F-216.7	B-10.9	B-19.6	A-9.8	B-19.5
U-Turn East of Richardson Rd and US 64	TWSC/ Signal	-	-	B (11.8)	C (27.6)	B (12.5)	C (30.9)
Westbound		---	---	A-9.6	C-20.5	B-10.5	C-24.1
Northbound		B-14.2	C-18.2	C-27.8	E-59.9	C-26.5	E-62.1
Olive Chapel Rd & Hasse Ave/Future Access #1	TWSC	-	-	-	-	-	-
Southbound		---	---	---	---	C-16.1	D-25.0

LEGEND: X (XX) = Overall intersection LOS (intersection delay in sec/veh);

X - XX = approach LOS - approach delay in sec/veh

LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Recommended Stop Controlled Approach
	Future Signalized Intersection
	Existing Lane Geometrics
	Background Lane Geometrics
	Recommended Lane Geometrics



Intersection is subject to realignment in CTP; interim solutions such as AWSC may be explored.



APPENDICES



APPENDIX A:

Memorandum of Understanding



Memorandum

To: Russell H. Dalton, PE
Public Works & Transportation
Town of Apex
73 Hunter Street
Apex, NC 27502

Date: November 12, 2020

Project #: 38504.25

From: Baohong Wan, PhD, PE
Senior Project Manager

Re: Hackney Tract Subdivision TIA
Memorandum of Understanding

This memorandum summarizes the assumptions for a Traffic Impact Analysis (TIA) prepared for the proposed Hackney Tract Subdivision on Olive Chapel Road, west of the newly completed Richardson Road, in Apex, NC. Based on the preliminary plan (attached), the development is to consist of a mix of single-family and multi-family townhome uses:

- 100 single family homes
- 133 townhomes

Access to the development is to be provided primarily through a collector street (Hasse Avenue Extension) planned across the property. In addition, cross-connections will be provided via several street extensions to Smith Farm.

Study Area

Based on our previous correspondence, the following existing and future study area intersections will be included for analysis under the AM and PM peak hour conditions:

- SR 1160 (Olive Chapel Road) and SR 1145 (Richardson Road) (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and SR 1162 (Apex Barbecue Road) (unsignalized)
- Richardson Road and Hasse Avenue (unsignalized)
- US Highway 64 East at Richardson Road (unsignalized/future signalized)
- US Highway 64 West at U-turn east of Richardson Road (unsignalized/future signalized)
- SR 1160 (Olive Chapel Road) and Future Access #1/Hasse Avenue Extension (full movement access)

The signalized intersection of SR 1160 (Olive Chapel Road) and SR 1163 (Kelly Road) was initially considered, but it was excluded from the study area due to its distance from the project site and the fact that this intersection has recently been upgraded with new turn lanes and crosswalks, and traffic is expected to decrease at this intersection due to the newly completed Richardson Road connection.

Data Collection

As discussed with the Town of Apex and NCDOT, collecting new traffic data was preferred to reflect new traffic patterns with the recently completed Richard Road between Olive Chapel Road and US 64. Turning movement data at the study intersections were collected by VHB during the AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak periods in November 2020. Traffic counts were collected while area schools were partially open with the

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From: Baohong Wan, PhD, PE
Senior Project Manager
Ref: 38504.25
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Memorandum

COVID-19 restrictions. The Existing (2020) AM and PM peak hour turning movement volumes are shown in the Figure MOU-1.

Analysis Scenarios

In accordance with the Town of Apex's Unified Development Ordinance (UDO), a build-out year of 2024 will be analyzed. Therefore, weekday AM and PM peak hour analysis for the proposed development will be performed for four (4) scenarios:

- Existing (2020) Conditions
- Background (2024) Conditions
- Build (2024) Scenario
- Build (2024) Scenario with Improvements

Background Projects and Growth

As concurred by the Town of Apex, an annual growth rate of three percent (3%) will be applied to the existing year (2020) traffic to project future conditions (2024). In addition, the following approved developments are identified as within the study area, and will be included the future year traffic analysis:

- Saddlebrook (Lawrence Assemblage/Richardson West), TIA by RKA, November 2014, 75% completed
- Sweetwater, TIA by RKA December 2014, 80% completed for residential portion, 0% for mixed use
- Buckhorn Preserve (Goodwin-MacNair), TIA by VHB, June 2015, 50% completed
- Stillwater (Womble), TIA by Stantec, February 2014, 85% completed
- Westford, TIA by KHA, December 2016, 80% completed
- Smith Farm, TIA by RKA, November 2015, 75% completed for residential portion, 0% for mixed-use
- Linden (Pricewood Assemblage) TIA by RKA, August 2016, 15% completed

Note that although a significant number of trips are expected due to the approved developments, a 3% annual traffic growth rate will still be used to offset lower-than-normal traffic counts collected under the Existing (2020) conditions. Transportation improvements due to approved developments (particularly Sweetwater and Smith Farm) will be included in the future year analysis based on the transportation zoning conditions.

Trip Generation

Trip Generation will be conducted based on the most appropriate corresponding trip generation codes included in the *ITE Trip Generation Manual, 10th Edition*. Trip generation calculations will be based on the suggested method in the NCDOT's "Rate vs. Equation" spreadsheet. To provide a conservative analysis, no transit, walking, or bicycling reductions will be applied.

As shown in the preliminary trip generation results (attached), the proposed development is projected to generate 2,005 trips on a typical weekday with 139 trips occurring during the AM peak hour and 178 trips in the PM peak hour.

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Memorandum

Land Use Code ¹	Land Use	Unit	ADT	AM Peak Hour			PM Peak Hour		
				Enter	Exit	Total	Enter	Exit	Total
210	Single-Family Detached Housing	100 du	1,040	19	57	76	64	38	102
220	Multi-Family Housing (Low-Rise)	133 du	965	14	49	63	48	28	76
<i>Development Total</i>			<i>2,005</i>	<i>33</i>	<i>106</i>	<i>139</i>	<i>112</i>	<i>66</i>	<i>178</i>

Notes:

1. Land Use Code and trip generation rates are based on *ITE Trip Generation, 10th Edition*
2. Trips are determined based on the suggested method in the NCDOT Rate Vs Equation Spreadsheet.

Trip Distribution and Assignment

The site trips will be distributed in accordance with the existing traffic patterns and planned land uses in the vicinity of the study area. Based on the traffic data, the site trips will be distributed as follows:

- from/to the east via US Highway 64 – 50%
- from/to the west via US Highway 64 – 10%
- from/to the east via Olive Chapel Road – 25%
- from/to the west via Olive Chapel Road – 5%
- from/to the south via Richardson Road – 8%
- from/to the south via Apex Barbecue Road – 2%

A graphic illustration of the proposed peak hour directional distribution percentages is shown in the attached Figure MOU-2, and the resulting AM and PM peak hour trips at each study intersection are shown in Figure MOU-3.

CC: Amy N. Neidringhaus, PE, NCDOT Highway Division 5 District 1

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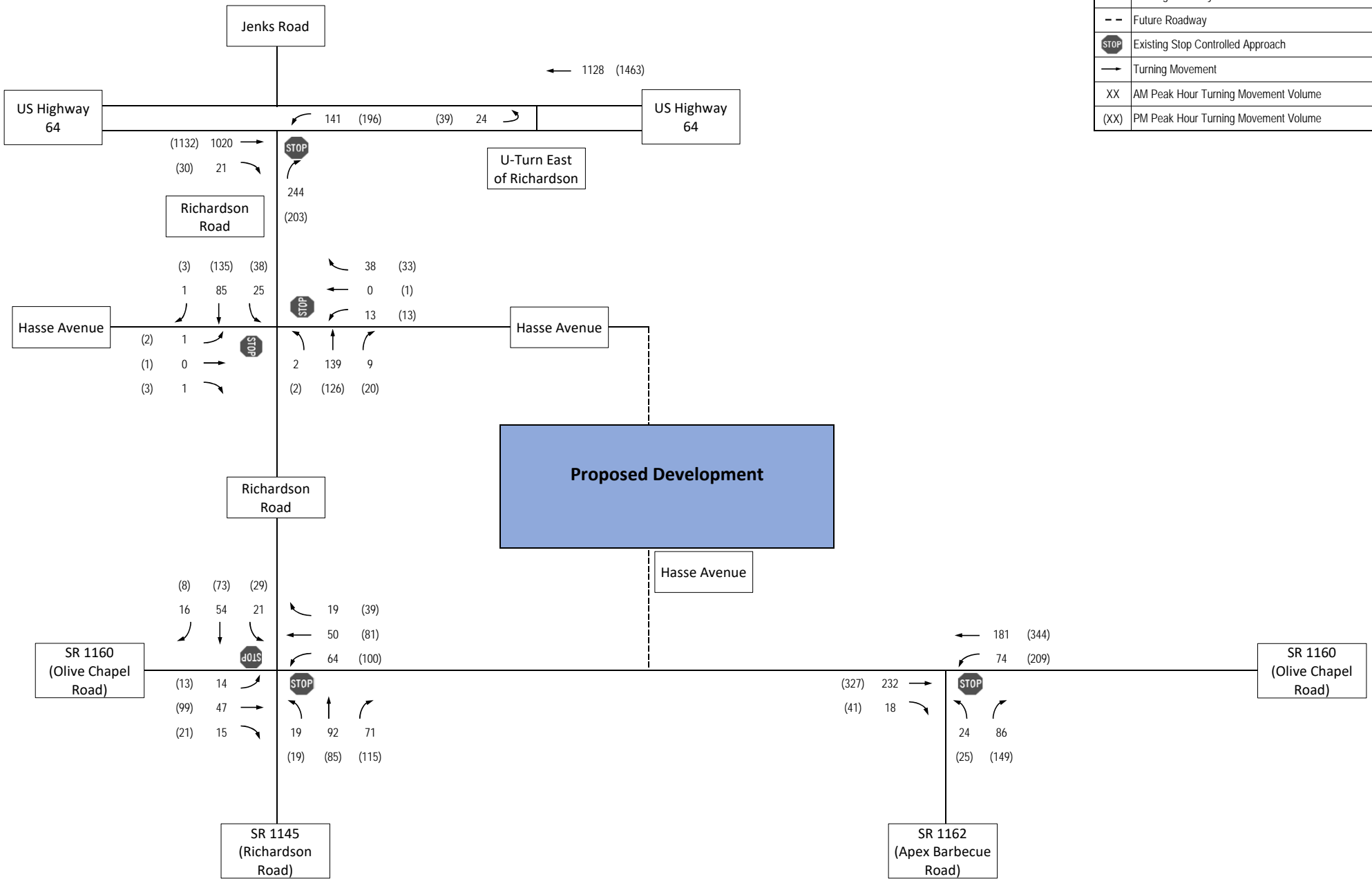


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Date	10/19/20	Designer	WR

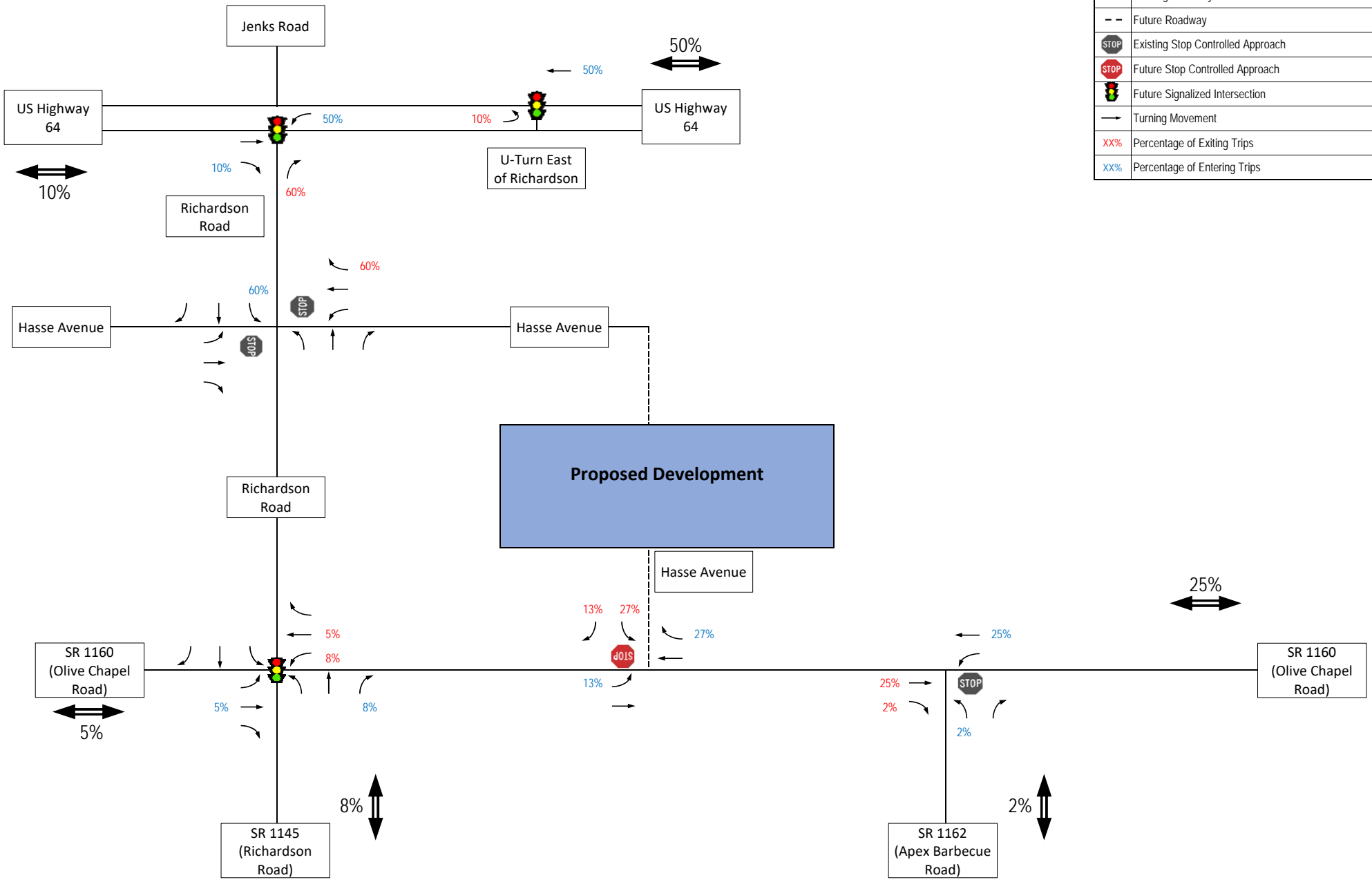
**PRELIMINARY
 NOT APPROVED FOR
 CONSTRUCTION**

Revisions

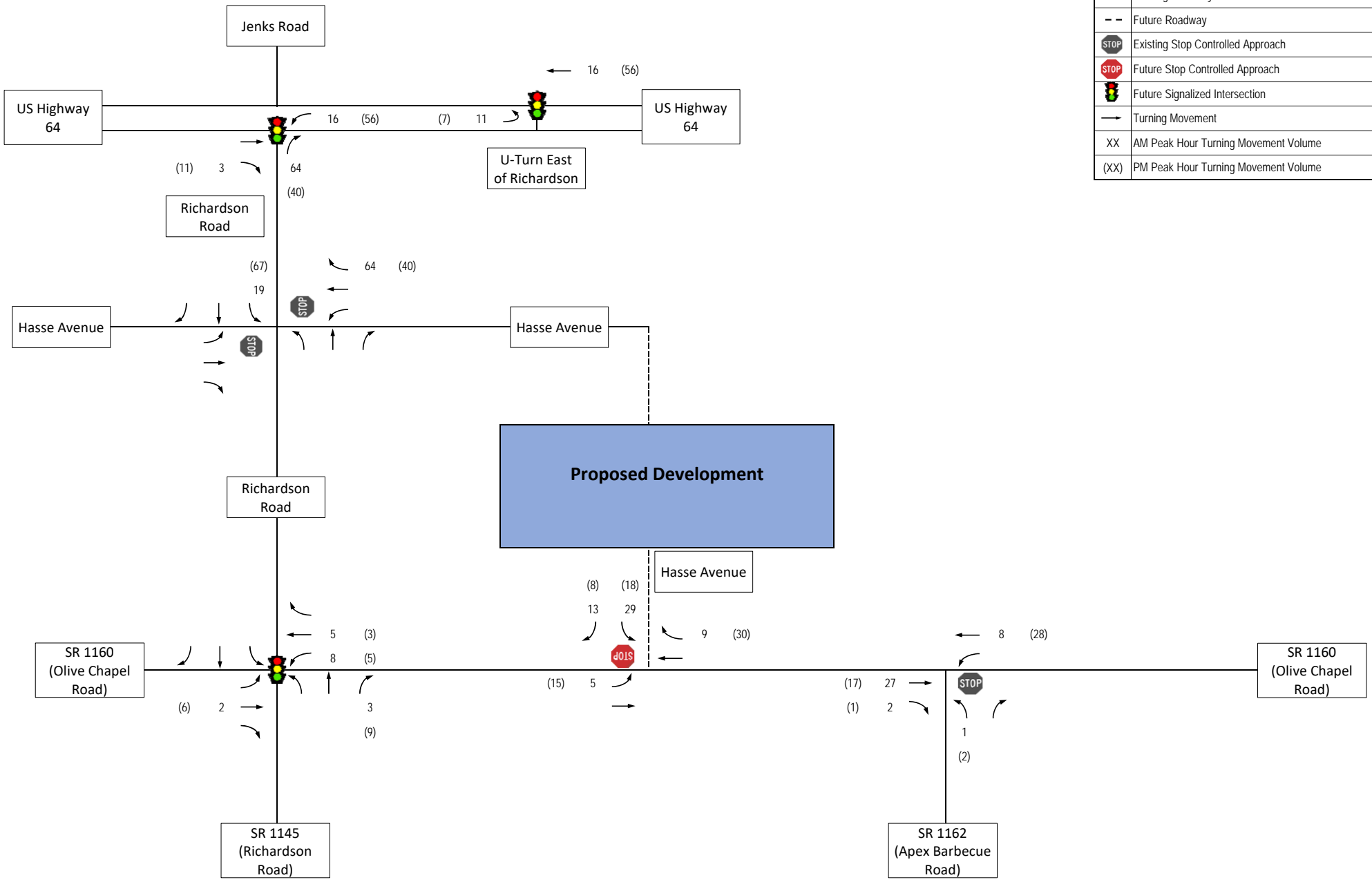
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
	Percentage of Exiting Trips
	Percentage of Entering Trips



LEGEND	
—	Existing Roadway
- -	Future Roadway
	Existing Stop Controlled Approach
	Future Stop Controlled Approach
	Future Signalized Intersection
→	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume





APPENDIX B:

Turning Movement Counts

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File Name : OliveChapel@ApexBarbecue

Site Code :

Start Date : 11/5/2020

Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

Start Time	Driveway Southbound				Olive Chapel Road Westbound				Apex Barbecue Road Northbound				Olive Chapel Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	0	0	9	18	0	0	2	0	21	1	0	35	3	0	1	88	89
07:15 AM	0	0	0	0	9	20	0	0	4	0	19	1	0	44	5	0	1	101	102
07:30 AM	0	0	0	0	13	24	0	0	4	0	29	3	0	46	5	0	3	121	124
07:45 AM	0	0	0	0	21	45	0	0	6	0	30	4	0	57	10	0	4	169	173
Total	0	0	0	0	52	107	0	0	16	0	99	9	0	182	23	0	9	479	488
08:00 AM	0	0	0	0	13	43	0	0	7	0	19	5	0	52	2	0	5	136	141
08:15 AM	0	0	0	0	14	51	0	0	7	0	23	0	0	58	5	0	0	158	158
08:30 AM	0	0	0	0	16	36	0	0	6	0	27	2	0	54	4	0	2	143	145
08:45 AM	0	0	0	0	31	51	0	0	4	0	17	0	0	68	7	0	0	178	178
Total	0	0	0	0	74	181	0	0	24	0	86	7	0	232	18	0	7	615	622
*** BREAK ***																			
04:00 PM	0	1	0	0	47	72	0	0	6	0	27	1	0	64	8	0	1	225	226
04:15 PM	0	0	0	0	39	87	1	0	12	0	30	0	0	52	10	0	0	231	231
04:30 PM	0	0	0	0	43	72	0	0	4	0	32	6	0	74	6	0	6	231	237
04:45 PM	0	0	0	0	32	76	0	0	7	0	30	5	0	70	9	0	5	224	229
Total	0	1	0	0	161	307	1	0	29	0	119	12	0	260	33	0	12	911	923
05:00 PM	0	0	1	0	49	94	0	0	8	0	32	4	0	83	8	0	4	275	279
05:15 PM	0	0	0	0	59	81	0	0	9	0	42	8	0	91	8	0	8	290	298
05:30 PM	0	0	0	0	50	85	0	0	6	0	32	9	0	83	8	0	9	264	273
05:45 PM	0	0	0	0	51	84	0	0	2	0	43	4	0	70	17	0	4	267	271
Total	0	0	1	0	209	344	0	0	25	0	149	25	0	327	41	0	25	1096	1121
Grand Total	0	1	1	0	496	939	1	0	94	0	453	53	0	1001	115	0	53	3101	3154
Apprch %	0	50	50		34.5	65.4	0.1		17.2	0	82.8		0	89.7	10.3				
Total %	0	0	0		16	30.3	0		3	0	14.6		0	32.3	3.7		1.7	98.3	
Passenger Vehicles	0	1	1		476	916	1		93	0	446		0	981	115		0	0	3030
% Passenger Vehicles	0	100	100	0	96	97.6	100	0	98.9	0	98.5	0	0	98	100	0	0	0	96.1
Single Unit	0	0	0		20	20	0		1	0	7		0	19	0		0	0	67
% Single Unit	0	0	0	0	4	2.1	0	0	1.1	0	1.5	0	0	1.9	0	0	0	0	2.1
TTST	0	0	0		0	3	0		0	0	0		0	1	0		0	0	4
% TTST	0	0	0	0	0	0.3	0	0	0	0	0	0	0	0.1	0	0	0	0	0.1
Bicycles on Crosswalk	0	0	0		0	0	0		0	0	0		0	0	0		0	0	4
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	7.5	0	0	0	0	0	0	0.1
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	0	49
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	92.5	0	0	0	0	0	0	1.6

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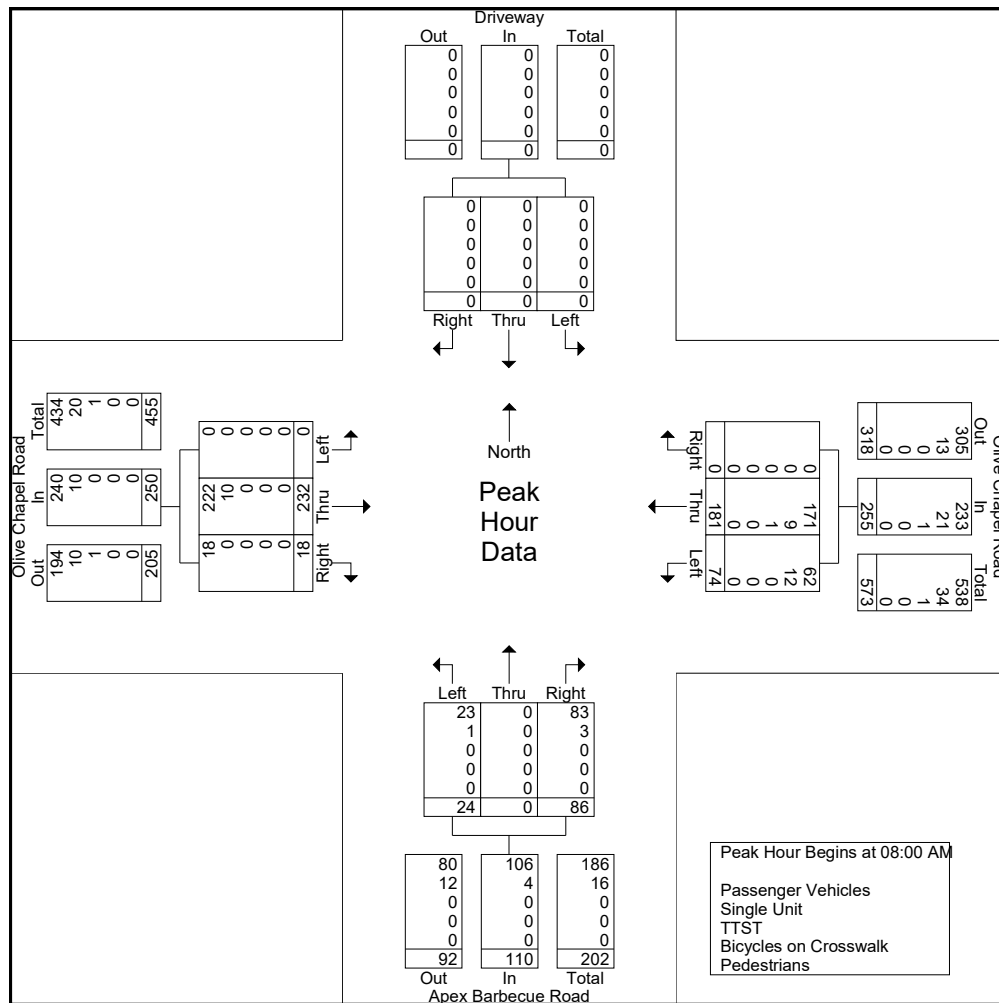
File Name : OliveChapel@ApexBarbecue

Site Code :

Start Date : 11/5/2020

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Start Time	Driveway Southbound				Olive Chapel Road Westbound				Apex Barbecue Road Northbound				Olive Chapel Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	0	0	0	0	13	43	0	56	7	0	19	26	0	52	2	54	136
08:15 AM	0	0	0	0	14	51	0	65	7	0	23	30	0	58	5	63	158
08:30 AM	0	0	0	0	16	36	0	52	6	0	27	33	0	54	4	58	143
08:45 AM	0	0	0	0	31	51	0	82	4	0	17	21	0	68	7	75	178
Total Volume	0	0	0	0	74	181	0	255	24	0	86	110	0	232	18	250	615
% App. Total	0	0	0	0	29	71	0	77.7	21.8	0	78.2	83.3	0	92.8	7.2	86.4	
PHF	.000	.000	.000	.000	.597	.887	.000	.777	.857	.000	.796	.833	.000	.853	.643	.833	.864
Passenger Vehicles	0	0	0	0	62	171	0	233	23	0	83	106	0	222	18	240	579
% Passenger Vehicles	0	0	0	0	83.8	94.5	0	91.4	95.8	0	96.5	96.4	0	95.7	100	96.0	94.1
Single Unit	0	0	0	0	12	9	0	21	1	0	3	4	0	10	0	10	35
% Single Unit	0	0	0	0	16.2	5.0	0	8.2	4.2	0	3.5	3.6	0	4.3	0	4.0	5.7
TTST	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	1
% TTST	0	0	0	0	0	0.6	0	0.4	0	0	0	0	0	0	0	0	0.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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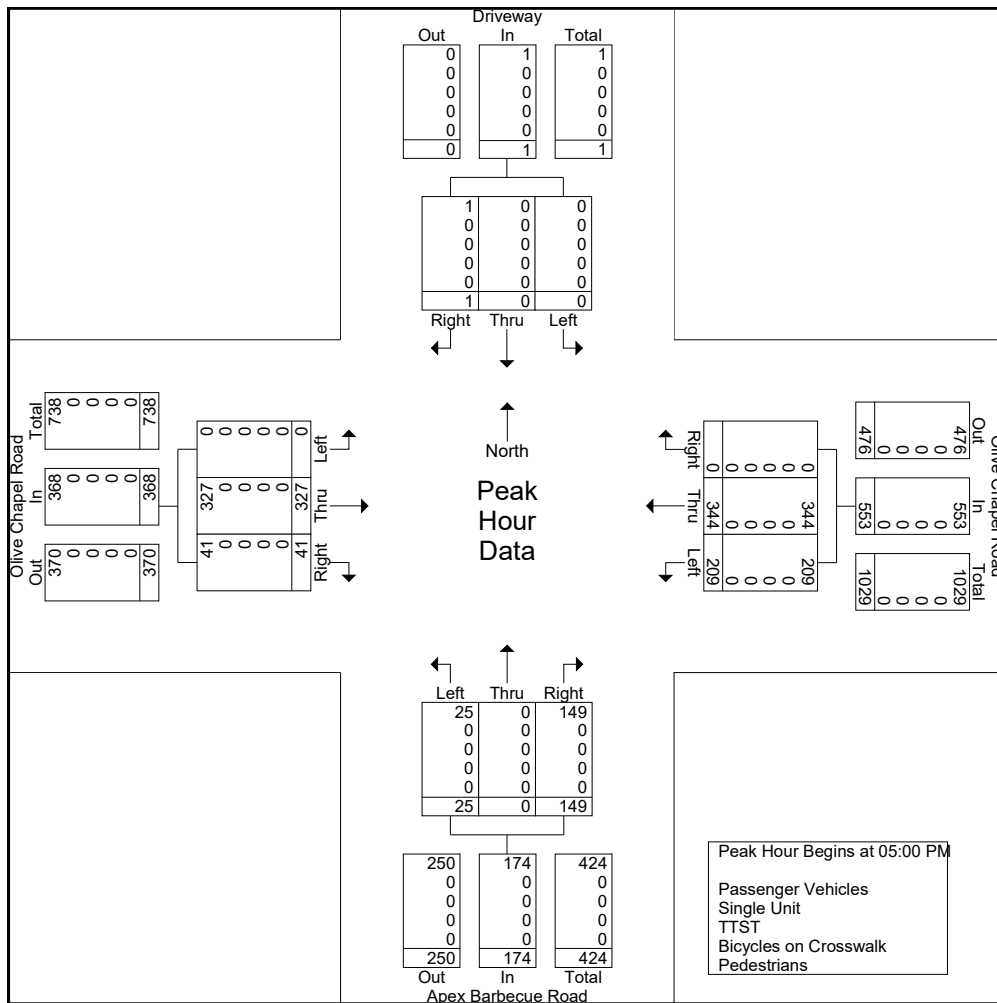
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Start Date : 11/5/2020

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Start Time	Driveway Southbound				Olive Chapel Road Westbound				Apex Barbecue Road Northbound				Olive Chapel Road Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	1	1	49	94	0	143	8	0	32	40	0	83	8	91	275
05:15 PM	0	0	0	0	59	81	0	140	9	0	42	51	0	91	8	99	290
05:30 PM	0	0	0	0	50	85	0	135	6	0	32	38	0	83	8	91	264
05:45 PM	0	0	0	0	51	84	0	135	2	0	43	45	0	70	17	87	267
Total Volume	0	0	1	1	209	344	0	553	25	0	149	174	0	327	41	368	1096
% App. Total	0	0	100		37.8	62.2	0		14.4	0	85.6		0	88.9	11.1		
PHF	.000	.000	.250	.250	.886	.915	.000	.967	.694	.000	.866	.853	.000	.898	.603	.929	.945
Passenger Vehicles	0	0	1	1	209	344	0	553	25	0	149	174	0	327	41	368	1096
% Passenger Vehicles	0	0	100	100	100	100	0	100	100	0	100	100	0	100	100	100	100
Single Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Single Unit	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TTST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% TTST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



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Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

Start Time	Richardson Road Southbound				Olive Chapel Road Westbound				Richardson Road Northbound				Olive Chapel Road Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	3	14	1	0	9	8	1	1	6	14	5	0	1	8	4	0	0	75	75
07:15 AM	2	8	7	0	4	14	3	0	6	23	11	0	4	9	4	0	0	95	95
07:30 AM	0	15	2	0	8	9	7	1	6	24	10	2	8	23	3	1	0	119	119
07:45 AM	5	14	4	0	13	16	4	0	5	15	11	0	0	11	2	0	0	100	100
Total	10	51	14	0	34	47	15	2	23	76	37	2	13	51	13	1	0	389	389
08:00 AM	3	11	3	0	14	17	5	1	4	23	14	4	3	8	2	0	0	112	112
08:15 AM	3	18	4	0	15	9	5	1	4	30	17	2	2	14	3	0	0	127	127
08:30 AM	4	13	3	2	15	14	6	0	6	16	18	0	5	12	4	0	2	116	118
08:45 AM	11	12	6	1	20	10	3	0	5	23	22	0	4	13	6	0	1	135	136
Total	21	54	16	3	64	50	19	2	19	92	71	6	14	47	15	0	3	490	493
*** BREAK ***																			
04:00 PM	6	19	2	0	27	18	7	0	6	14	13	1	4	26	1	0	0	144	144
04:15 PM	4	13	7	0	22	30	9	4	3	16	13	0	1	18	2	3	0	145	145
04:30 PM	12	23	0	2	16	20	8	2	7	12	23	0	5	21	3	0	2	152	154
04:45 PM	5	23	9	1	21	18	12	0	3	15	18	0	1	21	3	0	1	149	150
Total	27	78	18	3	86	86	36	6	19	57	67	1	11	86	9	3	3	590	593
05:00 PM	6	23	2	1	28	23	7	0	4	21	39	1	3	18	4	0	1	179	180
05:15 PM	8	17	2	0	29	30	9	1	4	26	29	0	3	21	3	0	0	182	182
05:30 PM	4	18	4	1	19	12	16	0	9	23	26	0	2	28	6	0	1	167	168
05:45 PM	11	15	0	1	24	16	7	0	2	15	21	0	5	32	8	0	1	156	157
Total	29	73	8	3	100	81	39	1	19	85	115	1	13	99	21	0	3	684	687
Grand Total	87	256	56	9	284	264	109	11	80	310	290	10	51	283	58	4	9	2153	2162
Apprch %	21.8	64.2	14		42.5	39.5	16.3	1.6	11.6	44.9	42	1.4	12.9	71.5	14.6	1			
Total %	4	11.9	2.6		13.2	12.3	5.1	0.5	3.7	14.4	13.5	0.5	2.4	13.1	2.7	0.2	0.4	99.6	
Passenger Vehicles	86	247	45		276	257	107	0	79	298	283	0	47	280	56	0	0	0	2061
% Passenger Vehicles	98.9	96.5	80.4	0	97.2	97.3	98.2	0	98.8	96.1	97.6	0	92.2	98.9	96.6	0	0	0	95.3
Single Unit	1	7	9		8	6	2	0	0	8	7	0	4	3	1	0	0	0	56
% Single Unit	1.1	2.7	16.1	0	2.8	2.3	1.8	0	0	2.6	2.4	0	7.8	1.1	1.7	0	0	0	2.6
TTST	0	2	2		0	1	0	0	1	4	0	0	0	0	1	0	0	0	11
% TTST	0	0.8	3.6	0	0	0.4	0	0	1.2	1.3	0	0	0	0	1.7	0	0	0	0.5
Bicycles on Crosswalk	0	0	0		0	0	0	0	0	0	0	2	0	0	0	0	0	0	2
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0.1
Pedestrians	0	0	0		0	0	0	11	0	0	0	8	0	0	0	4	0	0	32
% Pedestrians	0	0	0	100	0	0	0	100	0	0	0	80	0	0	0	100	0	0	1.5

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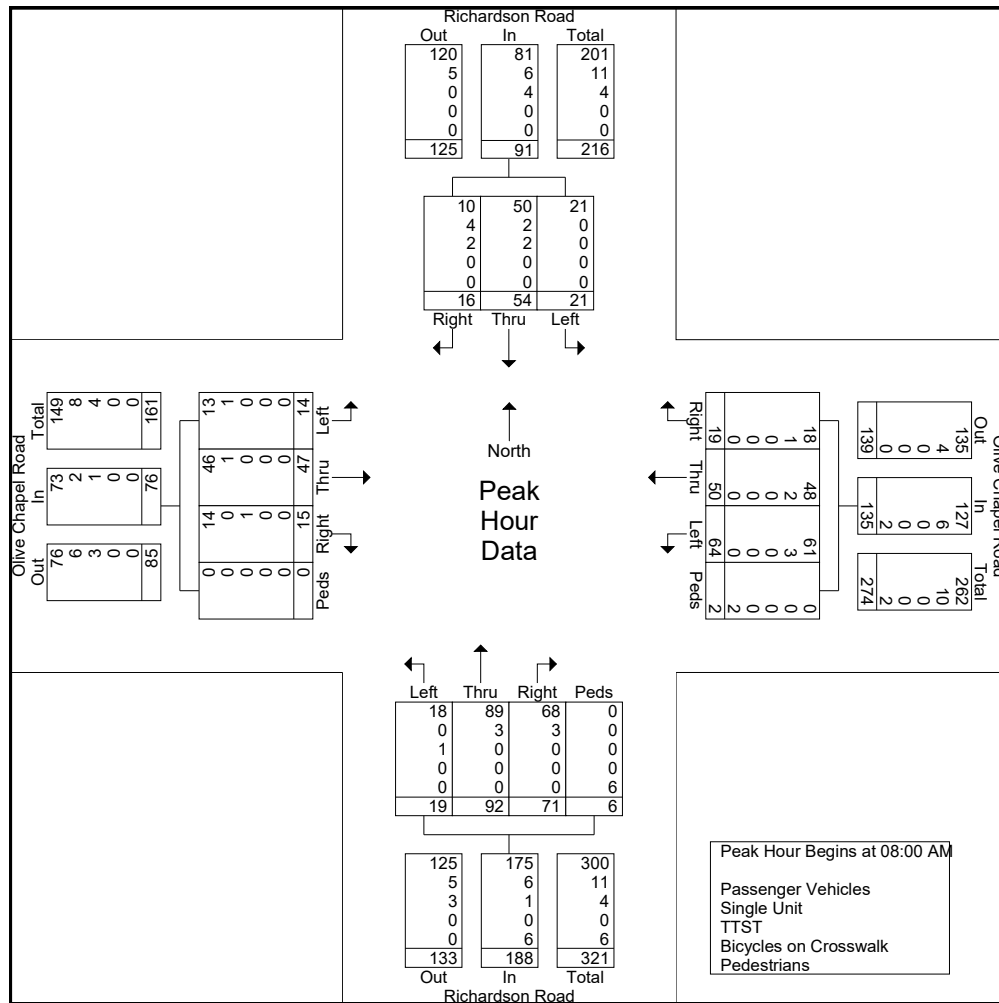
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Start Time	Richardson Road Southbound				Olive Chapel Road Westbound					Richardson Road Northbound					Olive Chapel Road Eastbound					Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 08:00 AM																				
08:00 AM	3	11	3	17	14	17	5	1	37	4	23	14	4	45	3	8	2	0	13	112
08:15 AM	3	18	4	25	15	9	5	1	30	4	30	17	2	53	2	14	3	0	19	127
08:30 AM	4	13	3	20	15	14	6	0	35	6	16	18	0	40	5	12	4	0	21	116
08:45 AM	11	12	6	29	20	10	3	0	33	5	23	22	0	50	4	13	6	0	23	135
Total Volume	21	54	16	91	64	50	19	2	135	19	92	71	6	188	14	47	15	0	76	490
% App. Total	23.1	59.3	17.6		47.4	37	14.1	1.5		10.1	48.9	37.8	3.2		18.4	61.8	19.7	0		
PHF	.477	.750	.667	.784	.800	.735	.792	.500	.912	.792	.767	.807	.375	.887	.700	.839	.625	.000	.826	.907
Passenger Vehicles	21	50	10	81	61	48	18	0	127	18	89	68	0	175	13	46	14	0	73	456
% Passenger Vehicles																				
Single Unit	0	2	4	6	3	2	1	0	6	0	3	3	0	6	1	1	0	0	2	20
% Single Unit	0	3.7	25.0	6.6	4.7	4.0	5.3	0	4.4	0	3.3	4.2	0	3.2	7.1	2.1	0	0	2.6	4.1
TTST	0	2	2	4	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	6
% TTST	0	3.7	12.5	4.4	0	0	0	0	0	5.3	0	0	0	0.5	0	0	6.7	0	1.3	1.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	2	2	0	0	0	6	6	0	0	0	0	0	8
% Pedestrians	0	0	0	0	0	0	0	100	1.5	0	0	0	100	3.2	0	0	0	0	0	1.6



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

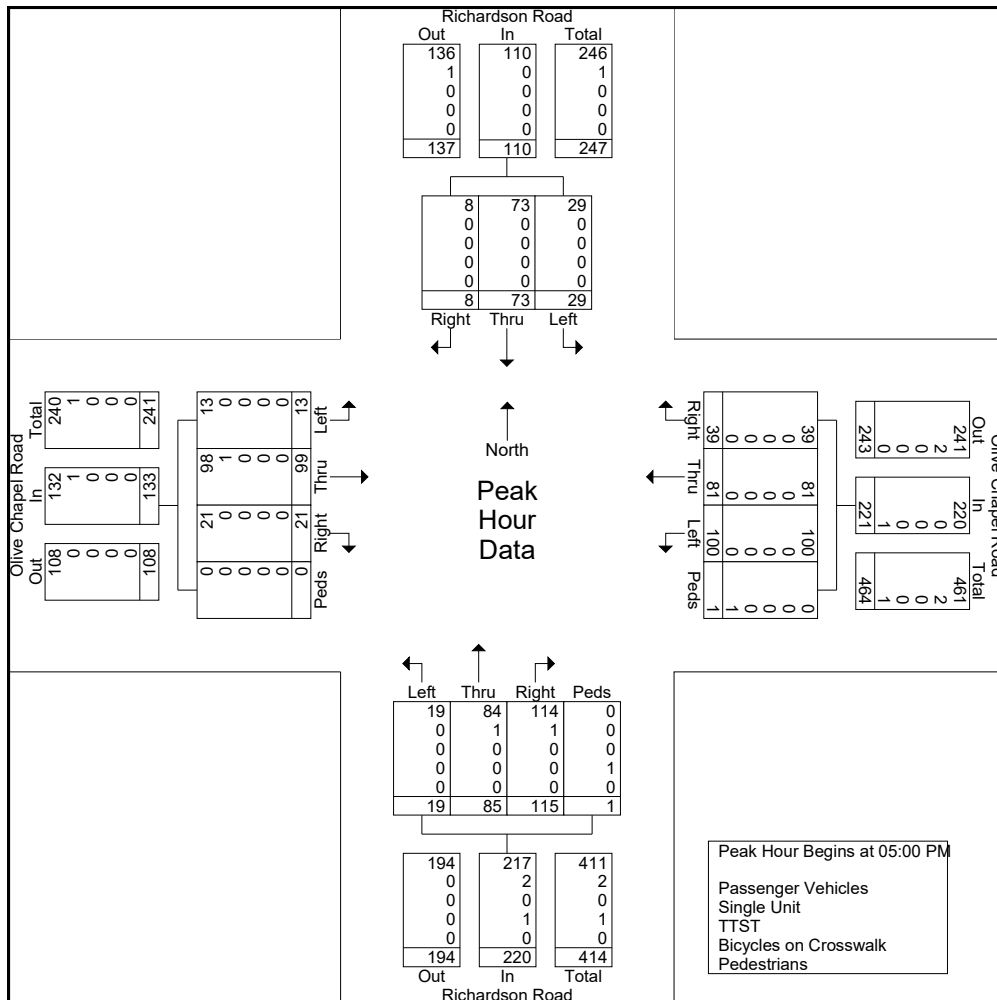
File Name : OliveChapel@Richardson

Site Code :

Start Date : 11/5/2020

Page No : 3

Start Time	Richardson Road Southbound				Olive Chapel Road Westbound					Richardson Road Northbound					Olive Chapel Road Eastbound					Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 05:00 PM																				
05:00 PM	6	23	2	31	28	23	7	0	58	4	21	39	1	65	3	18	4	0	25	179
05:15 PM	8	17	2	27	29	30	9	1	69	4	26	29	0	59	3	21	3	0	27	182
05:30 PM	4	18	4	26	19	12	16	0	47	9	23	26	0	58	2	28	6	0	36	167
05:45 PM	11	15	0	26	24	16	7	0	47	2	15	21	0	38	5	32	8	0	45	156
Total Volume	29	73	8	110	100	81	39	1	221	19	85	115	1	220	13	99	21	0	133	684
% App. Total	26.4	66.4	7.3		45.2	36.7	17.6	0.5		8.6	38.6	52.3	0.5		9.8	74.4	15.8	0		
PHF	.659	.793	.500	.887	.862	.675	.609	.250	.801	.528	.817	.737	.250	.846	.650	.773	.656	.000	.739	.940
Passenger Vehicles	29	73	8	110	100	81	39	0	220	19	84	114	0	217	13	98	21	0	132	679
% Passenger Vehicles																				
Single Unit	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	0	1	3
% Single Unit	0	0	0	0	0	0	0	0	0	0	1.2	0.9	0	0.9	0	1.0	0	0	0.8	0.4
TTST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% TTST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	100	0.5	0	0	0	0	0	0.1
Pedestrians	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
% Pedestrians	0	0	0	0	0	0	0	100	0.5	0	0	0	0	0	0	0	0	0	0	0.1



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : Richardson@Hasse
 Site Code :
 Start Date : 11/5/2020
 Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

Start Time	Richardson Road Southbound				Hasse Avenue Westbound				Richardson Road Northbound				Little Gem Lane Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	3	16	0	0	2	0	6	2	0	22	0	0	0	0	0	0	2	49	51
07:15 AM	6	16	0	2	1	0	8	1	0	36	1	0	0	0	0	0	3	68	71
07:30 AM	2	17	0	0	1	0	14	0	2	36	3	1	3	1	0	1	2	79	81
07:45 AM	5	23	0	0	3	0	13	1	0	26	2	0	1	0	1	1	2	74	76
Total	16	72	0	2	7	0	41	4	2	120	6	1	4	1	1	2	9	270	279
08:00 AM	9	17	0	0	2	0	11	0	1	35	3	0	0	0	0	1	1	78	79
08:15 AM	4	27	1	0	4	0	9	1	0	29	4	0	0	0	0	1	2	78	80
08:30 AM	6	22	0	0	3	0	9	1	0	36	1	0	1	0	0	1	2	78	80
08:45 AM	6	19	0	0	4	0	9	0	1	39	1	1	0	0	1	1	2	80	82
Total	25	85	1	0	13	0	38	2	2	139	9	1	1	0	1	4	7	314	321
*** BREAK ***																			
04:00 PM	2	24	0	3	0	1	8	1	0	17	5	0	1	0	0	1	5	58	63
04:15 PM	7	19	3	1	7	0	6	4	0	28	2	1	1	0	0	0	6	73	79
04:30 PM	5	22	0	2	1	0	8	2	0	26	3	1	0	0	0	2	7	65	72
04:45 PM	11	36	0	2	3	0	10	0	0	21	6	0	1	1	0	0	2	89	91
Total	25	101	3	8	11	1	32	7	0	92	16	2	3	1	0	3	20	285	305
05:00 PM	10	33	0	2	2	0	7	0	0	33	6	0	1	0	1	0	2	93	95
05:15 PM	8	24	0	2	5	1	7	2	0	40	3	1	0	0	2	1	6	90	96
05:30 PM	9	42	3	0	3	0	9	0	2	32	5	0	0	0	0	1	1	105	106
05:45 PM	7	21	0	0	2	0	3	0	2	27	5	0	0	0	1	0	0	68	68
Total	34	120	3	4	12	1	26	2	4	132	19	1	1	0	4	2	9	356	365
Grand Total	100	378	7	14	43	2	137	15	8	483	50	5	9	2	6	11	45	1225	1270
Apprch %	20.6	77.9	1.4		23.6	1.1	75.3		1.5	89.3	9.2		52.9	11.8	35.3				
Total %	8.2	30.9	0.6		3.5	0.2	11.2		0.7	39.4	4.1		0.7	0.2	0.5		3.5	96.5	
Passenger Vehicles	98	365	6		41	2	136		8	467	49		8	0	6		0	0	1186
% Passenger Vehicles	98	96.6	85.7	0	95.3	100	99.3	0	100	96.7	98	0	88.9	0	100	0	0	0	93.4
Single Unit	2	6	1		2	0	1		0	10	1		1	1	0		0	0	25
% Single Unit	2	1.6	14.3	0	4.7	0	0.7	0	0	2.1	2	0	11.1	50	0	0	0	0	2
TTST	0	7	0		0	0	0		0	6	0		0	1	0		0	0	14
% TTST	0	1.9	0	0	0	0	0	0	0	1.2	0	0	0	50	0	0	0	0	1.1
Bicycles on Crosswalk	0	0	0		0	0	0		0	0	0		0	0	0		0	0	2
% Bicycles on Crosswalk	0	0	0	7.1	0	0	0	0	0	0	0	20	0	0	0	0	0	0	0.2
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	0	43
% Pedestrians	0	0	0	92.9	0	0	0	100	0	0	0	80	0	0	0	100	0	0	3.4

VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

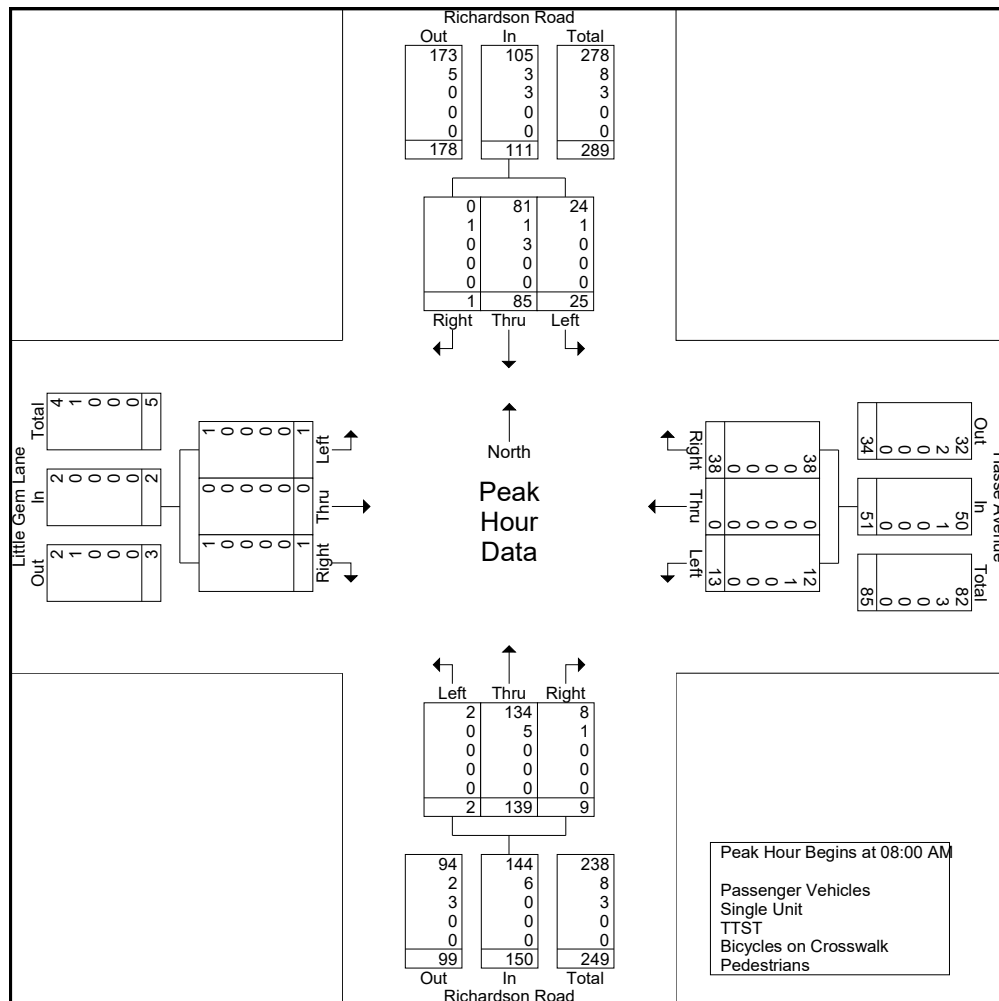
File Name : Richardson@Hasse

Site Code :

Start Date : 11/5/2020

Page No : 2

Start Time	Richardson Road Southbound				Hasse Avenue Westbound				Richardson Road Northbound				Little Gem Lane Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 12:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 08:00 AM																	
08:00 AM	9	17	0	26	2	0	11	13	1	35	3	39	0	0	0	0	78
08:15 AM	4	27	1	32	4	0	9	13	0	29	4	33	0	0	0	0	78
08:30 AM	6	22	0	28	3	0	9	12	0	36	1	37	1	0	0	1	78
08:45 AM	6	19	0	25	4	0	9	13	1	39	1	41	0	0	1	1	80
Total Volume	25	85	1	111	13	0	38	51	2	139	9	150	1	0	1	2	314
% App. Total	22.5	76.6	0.9		25.5	0	74.5		1.3	92.7	6		50	0	50		
PHF	.694	.787	.250	.867	.813	.000	.864	.981	.500	.891	.563	.915	.250	.000	.250	.500	.981
Passenger Vehicles	24	81	0	105	12	0	38	50	2	134	8	144	1	0	1	2	301
% Passenger Vehicles	96.0	95.3	0	94.6	92.3	0	100	98.0	100	96.4	88.9	96.0	100	0	100	100	95.9
Single Unit	1	1	1	3	1	0	0	1	0	5	1	6	0	0	0	0	10
% Single Unit	4.0	1.2	100	2.7	7.7	0	0	2.0	0	3.6	11.1	4.0	0	0	0	0	3.2
TTST	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
% TTST	0	3.5	0	2.7	0	0	0	0	0	0	0	0	0	0	0	0	1.0
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

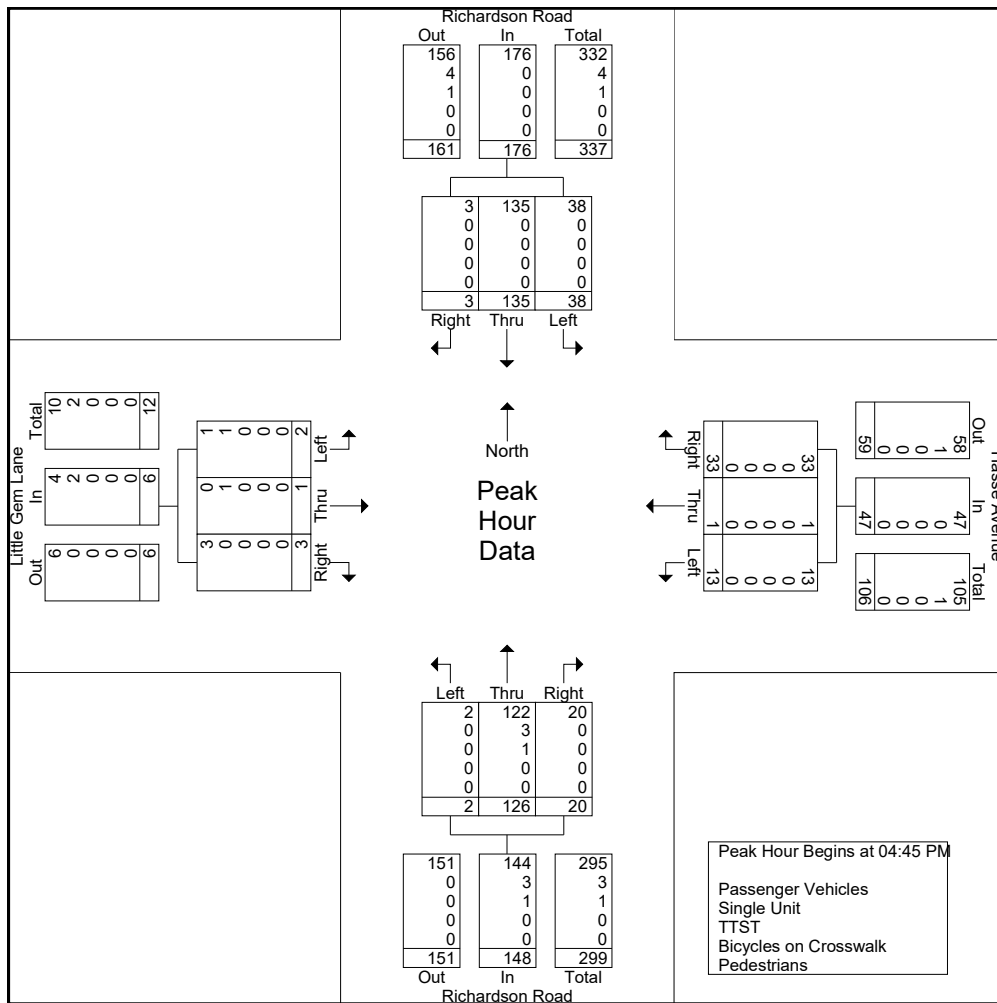
940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : Richardson@Hasse
 Site Code :
 Start Date : 11/5/2020
 Page No : 3

Start Time	Richardson Road Southbound				Hasse Avenue Westbound				Richardson Road Northbound				Little Gem Lane Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:45 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	11	36	0	47	3	0	10	13	0	21	6	27	1	1	0	2	89
05:00 PM	10	33	0	43	2	0	7	9	0	33	6	39	1	0	1	2	93
05:15 PM	8	24	0	32	5	1	7	13	0	40	3	43	0	0	2	2	90
05:30 PM	9	42	3	54	3	0	9	12	2	32	5	39	0	0	0	0	105
Total Volume	38	135	3	176	13	1	33	47	2	126	20	148	2	1	3	6	377
% App. Total	21.6	76.7	1.7		27.7	2.1	70.2		1.4	85.1	13.5		33.3	16.7	50		
PHF	.864	.804	.250	.815	.650	.250	.825	.904	.250	.788	.833	.860	.500	.250	.375	.750	.898
Passenger Vehicles	38	135	3	176	13	1	33	47	2	122	20	144	1	0	3	4	371
% Passenger Vehicles	100	100	100	100	100	100	100	100	100	96.8	100	97.3	50.0	0	100	66.7	98.4
Single Unit	0	0	0	0	0	0	0	0	0	3	0	3	1	1	0	2	5
% Single Unit	0	0	0	0	0	0	0	0	0	2.4	0	2.0	50.0	100	0	33.3	1.3
TTST	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	1
% TTST	0	0	0	0	0	0	0	0	0	0.8	0	0.7	0	0	0	0	0.3
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : US64@Richardson
 Site Code :
 Start Date : 11/5/2020
 Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

Start Time	Jenks Road Southbound				US 64 Westbound				Richardson Avenue Northbound				US 64 Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds			
07:00 AM	0	0	19	0	22	174	18	0	0	0	31	0	17	228	1	0	0	510	510
07:15 AM	0	0	29	0	38	222	10	0	0	0	55	0	31	239	4	0	0	628	628
07:30 AM	0	0	13	0	22	244	16	0	0	0	67	0	19	275	5	0	0	661	661
07:45 AM	0	0	21	0	41	257	17	0	0	0	55	0	15	257	6	0	0	669	669
Total	0	0	82	0	123	897	61	0	0	0	208	0	82	999	16	0	0	2468	2468
08:00 AM	0	0	25	0	40	210	15	0	0	0	67	0	12	249	6	0	0	624	624
08:15 AM	0	0	25	0	39	230	25	0	0	0	43	0	17	226	6	0	0	611	611
08:30 AM	0	0	22	0	31	242	21	0	0	0	55	0	14	209	4	0	0	598	598
08:45 AM	0	0	18	0	24	185	17	0	0	0	59	0	17	192	5	0	0	517	517
Total	0	0	90	0	134	867	78	0	0	0	224	0	60	876	21	0	0	2350	2350
*** BREAK ***																			
04:00 PM	0	0	29	0	29	280	11	0	0	0	39	0	14	223	6	0	0	631	631
04:15 PM	0	0	30	0	41	295	11	0	0	0	43	0	21	226	6	0	0	673	673
04:30 PM	0	0	26	0	35	271	11	0	0	0	53	0	14	268	4	0	0	682	682
04:45 PM	0	0	25	0	59	255	21	0	0	0	45	0	16	238	6	0	0	665	665
Total	0	0	110	0	164	1101	54	0	0	0	180	0	65	955	22	0	0	2651	2651
05:00 PM	0	0	41	0	52	313	17	0	0	0	51	0	17	291	6	0	0	788	788
05:15 PM	0	0	42	0	42	330	24	0	0	0	50	0	16	297	7	0	0	808	808
05:30 PM	0	0	40	0	60	281	16	0	0	0	60	0	24	262	12	0	0	755	755
05:45 PM	0	0	37	0	42	265	13	0	0	0	42	0	17	282	5	0	0	703	703
Total	0	0	160	0	196	1189	70	0	0	0	203	0	74	1132	30	0	0	3054	3054
Grand Total	0	0	442	0	617	4054	263	0	0	0	815	0	281	3962	89	0	0	10523	10523
Apprch %	0	0	100		12.5	82.2	5.3		0	0	100		6.5	91.5	2.1				
Total %	0	0	4.2		5.9	38.5	2.5		0	0	7.7		2.7	37.7	0.8		0	100	
Passenger Vehicles	0	0	417		599	3775	234		0	0	788		265	3716	82		0	0	9876
% Passenger Vehicles	0	0	94.3	0	97.1	93.1	89	0	0	0	96.7	0	94.3	93.8	92.1	0	0	0	93.9
Single Unit	0	0	22		13	163	23		0	0	23		11	105	7		0	0	367
% Single Unit	0	0	5	0	2.1	4	8.7	0	0	0	2.8	0	3.9	2.7	7.9	0	0	0	3.5
TTST	0	0	3		5	116	6		0	0	4		5	141	0		0	0	280
% TTST	0	0	0.7	0	0.8	2.9	2.3	0	0	0	0.5	0	1.8	3.6	0	0	0	0	2.7
Bicycles on Crosswalk	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0		0	0	0		0	0	0		0	0	0		0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

VHB Engineering NC, P.C.

Venture I

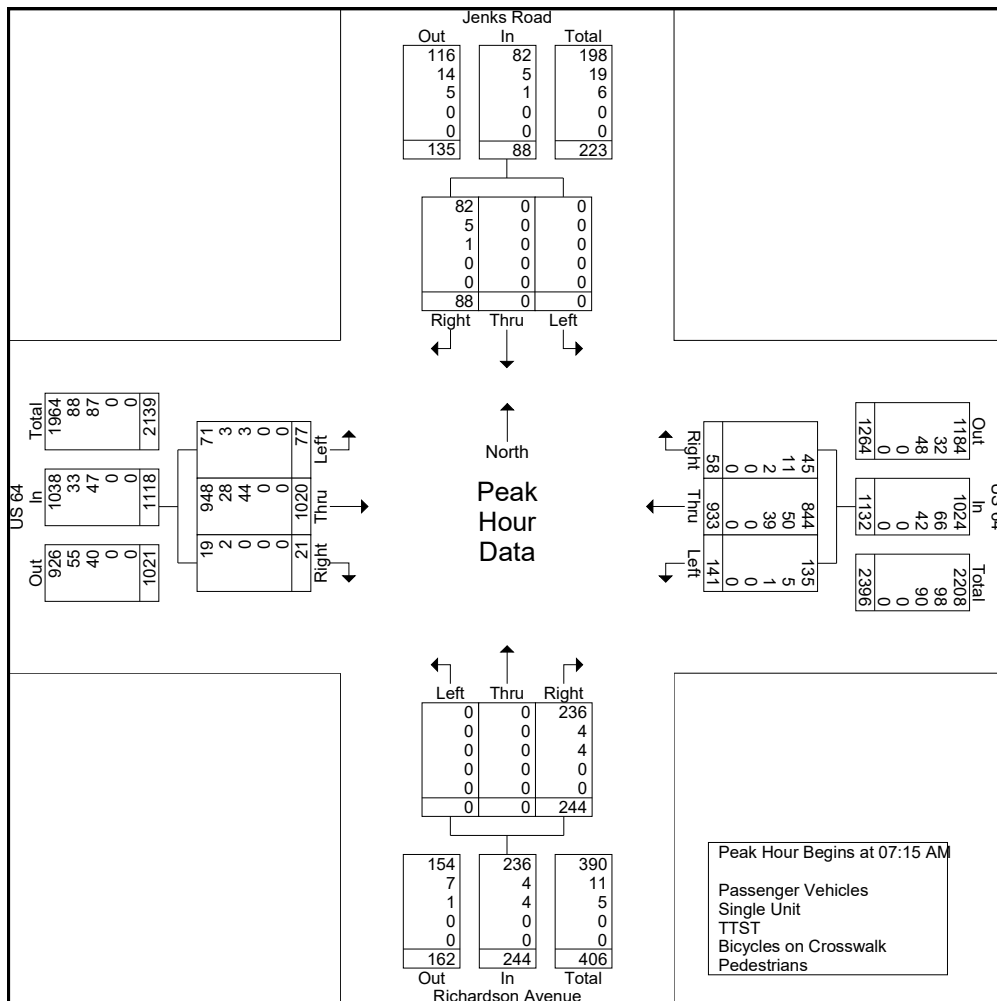
940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : US64@Richardson
 Site Code :
 Start Date : 11/5/2020
 Page No : 2

Start Time	Jenks Road Southbound				US 64 Westbound				Richardson Avenue Northbound				US 64 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	0	29	29	38	222	10	270	0	0	55	55	31	239	4	274	628
07:30 AM	0	0	13	13	22	244	16	282	0	0	67	67	19	275	5	299	661
07:45 AM	0	0	21	21	41	257	17	315	0	0	55	55	15	257	6	278	669
08:00 AM	0	0	25	25	40	210	15	265	0	0	67	67	12	249	6	267	624
Total Volume	0	0	88	88	141	933	58	1132	0	0	244	244	77	1020	21	1118	2582
% App. Total	0	0	100		12.5	82.4	5.1		0	0	100		6.9	91.2	1.9		
PHF	.000	.000	.759	.759	.860	.908	.853	.898	.000	.000	.910	.910	.621	.927	.875	.935	.965
Passenger Vehicles	0	0	82	82	135	844	45	1024	0	0	236	236	71	948	19	1038	2380
% Passenger Vehicles	0	0	93.2	93.2	95.7	90.5	77.6	90.5	0	0	96.7	96.7	92.2	92.9	90.5	92.8	92.2
Single Unit	0	0	5	5	5	50	11	66	0	0	4	4	3	28	2	33	108
% Single Unit	0	0	5.7	5.7	3.5	5.4	19.0	5.8	0	0	1.6	1.6	3.9	2.7	9.5	3.0	4.2
TTST	0	0	1	1	1	39	2	42	0	0	4	4	3	44	0	47	94
% TTST	0	0	1.1	1.1	0.7	4.2	3.4	3.7	0	0	1.6	1.6	3.9	4.3	0	4.2	3.6
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

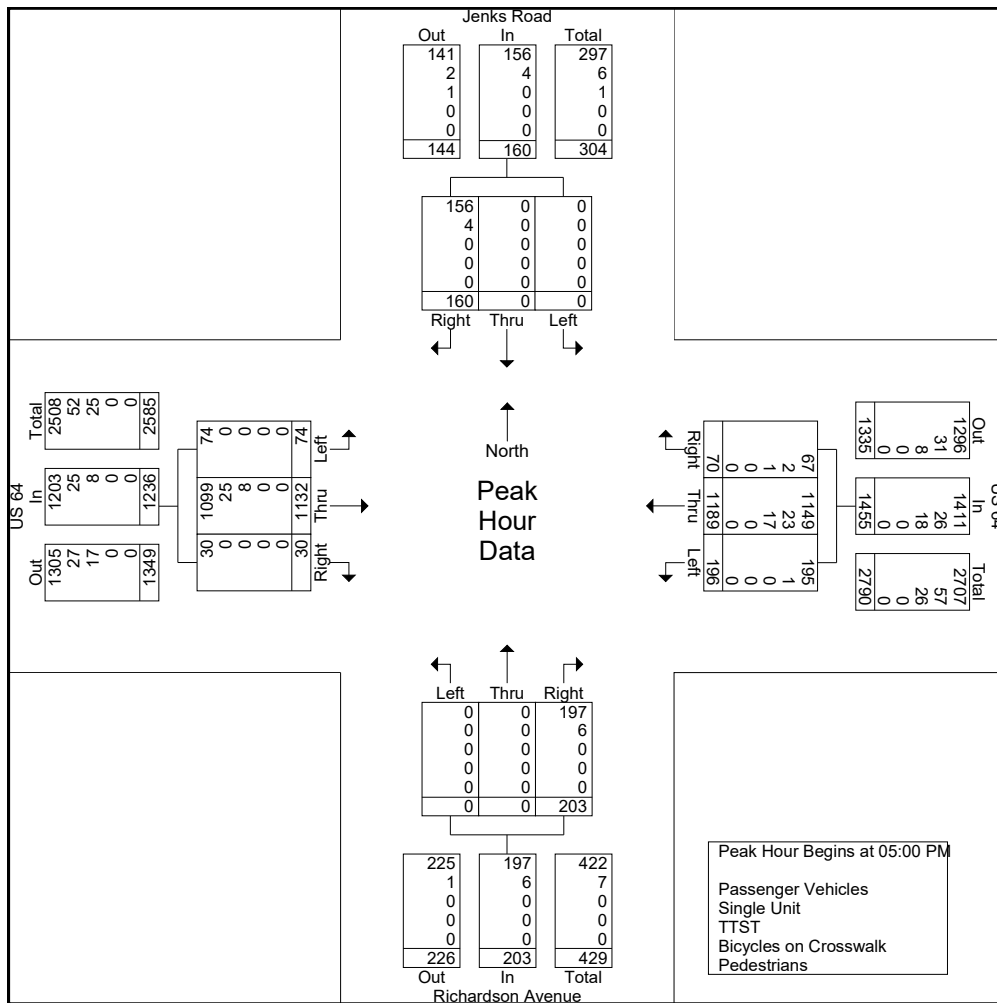
940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : US64@Richardson
 Site Code :
 Start Date : 11/5/2020
 Page No : 3

Start Time	Jenks Road Southbound				US 64 Westbound				Richardson Avenue Northbound				US 64 Eastbound				Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:00 PM																	
05:00 PM	0	0	41	41	52	313	17	382	0	0	51	51	17	291	6	314	788
05:15 PM	0	0	42	42	42	330	24	396	0	0	50	50	16	297	7	320	808
05:30 PM	0	0	40	40	60	281	16	357	0	0	60	60	24	262	12	298	755
05:45 PM	0	0	37	37	42	265	13	320	0	0	42	42	17	282	5	304	703
Total Volume	0	0	160	160	196	1189	70	1455	0	0	203	203	74	1132	30	1236	3054
% App. Total	0	0	100		13.5	81.7	4.8		0	0	100		6	91.6	2.4		
PHF	.000	.000	.952	.952	.817	.901	.729	.919	.000	.000	.846	.846	.771	.953	.625	.966	.945
Passenger Vehicles	0	0	156	156	195	1149	67	1411	0	0	197	197	74	1099	30	1203	2967
% Passenger Vehicles	0	0	97.5	97.5	99.5	96.6	95.7	97.0	0	0	97.0	97.0	100	97.1	100	97.3	97.2
Single Unit	0	0	4	4	1	23	2	26	0	0	6	6	0	25	0	25	61
% Single Unit	0	0	2.5	2.5	0.5	1.9	2.9	1.8	0	0	3.0	3.0	0	2.2	0	2.0	2.0
TTST	0	0	0	0	0	17	1	18	0	0	0	0	0	8	0	8	26
% TTST	0	0	0	0	0	1.4	1.4	1.2	0	0	0	0	0	0.7	0	0.6	0.9
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

File Name : US64@U-turn_E_Richardson

Site Code :

Start Date : 11/5/2020

Page No : 1

Groups Printed- Passenger Vehicles - Single Unit - TTST - Bicycles on Crosswalk - Pedestrians

Start Time	No Approach Southbound				US 64 Westbound				No Approach Northbound				US 64 Eastbound				Exclu. Total	Inclu. Total	Int. Total
	Left	Thru	Right	Peds	Left	Thru	Right	Peds	Left	Thru	Right	Peds	U-Turn	Thru	Right	Peds			
07:00 AM	0	0	1	0	0	218	0	0	0	0	0	0	2	247	0	0	0	468	468
07:15 AM	0	0	0	0	0	268	0	0	0	0	0	0	5	302	0	0	0	575	575
07:30 AM	0	0	3	0	0	278	0	0	0	0	0	0	8	315	0	0	0	604	604
07:45 AM	0	0	0	0	0	309	0	0	0	0	0	0	4	272	0	0	0	585	585
Total	0	0	4	0	0	1073	0	0	0	0	0	0	19	1136	0	0	0	2232	2232
08:00 AM	0	0	0	0	0	273	0	0	0	0	0	0	7	331	0	0	0	611	611
08:15 AM	0	0	0	0	0	283	0	0	0	0	0	0	8	264	0	0	0	555	555
08:30 AM	0	0	0	0	0	305	0	0	0	0	0	0	6	261	0	0	0	572	572
08:45 AM	0	0	0	0	0	203	0	0	0	0	0	0	7	239	0	0	0	449	449
Total	0	0	0	0	0	1064	0	0	0	0	0	0	28	1095	0	0	0	2187	2187
*** BREAK ***																			
04:00 PM	0	0	0	0	0	324	0	0	0	0	0	0	6	263	0	0	0	593	593
04:15 PM	0	0	0	0	0	349	0	0	0	0	0	0	5	266	0	0	0	620	620
04:30 PM	0	0	0	0	0	303	0	0	0	0	0	0	9	311	0	0	0	623	623
04:45 PM	0	0	0	0	0	330	0	0	0	0	0	0	7	277	0	0	0	614	614
Total	0	0	0	0	0	1306	0	0	0	0	0	0	27	1117	0	0	0	2450	2450
05:00 PM	0	0	3	0	0	376	0	0	0	0	0	0	10	341	0	0	0	730	730
05:15 PM	0	0	1	0	0	394	0	0	0	0	0	0	10	334	0	0	0	739	739
05:30 PM	0	0	2	0	0	363	0	0	0	0	0	0	12	294	0	0	0	671	671
05:45 PM	0	0	2	0	0	301	0	0	0	0	0	0	9	294	0	0	0	606	606
Total	0	0	8	0	0	1434	0	0	0	0	0	0	41	1263	0	0	0	2746	2746
Grand Total	0	0	12	0	0	4877	0	0	0	0	0	0	115	4611	0	0	0	9615	9615
Apprch %	0	0	100		0	100	0	0	0	0	0	0	2.4	97.6	0	0			
Total %	0	0	0.1		0	50.7	0	0	0	0	0	0	1.2	48	0	0	0	100	
Passenger Vehicles	0	0	8		0	4597	0	0	0	0	0	0	103	4370	0	0	0	0	9078
% Passenger Vehicles	0	0	66.7	0	0	94.3	0	0	0	0	0	0	89.6	94.8	0	0	0	0	94.4
Single Unit	0	0	3		0	157	0	0	0	0	0	0	11	125	0	0	0	0	296
% Single Unit	0	0	25	0	0	3.2	0	0	0	0	0	0	9.6	2.7	0	0	0	0	3.1
TTST	0	0	1		0	123	0	0	0	0	0	0	1	116	0	0	0	0	241
% TTST	0	0	8.3	0	0	2.5	0	0	0	0	0	0	0.9	2.5	0	0	0	0	2.5
Bicycles on Crosswalk	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

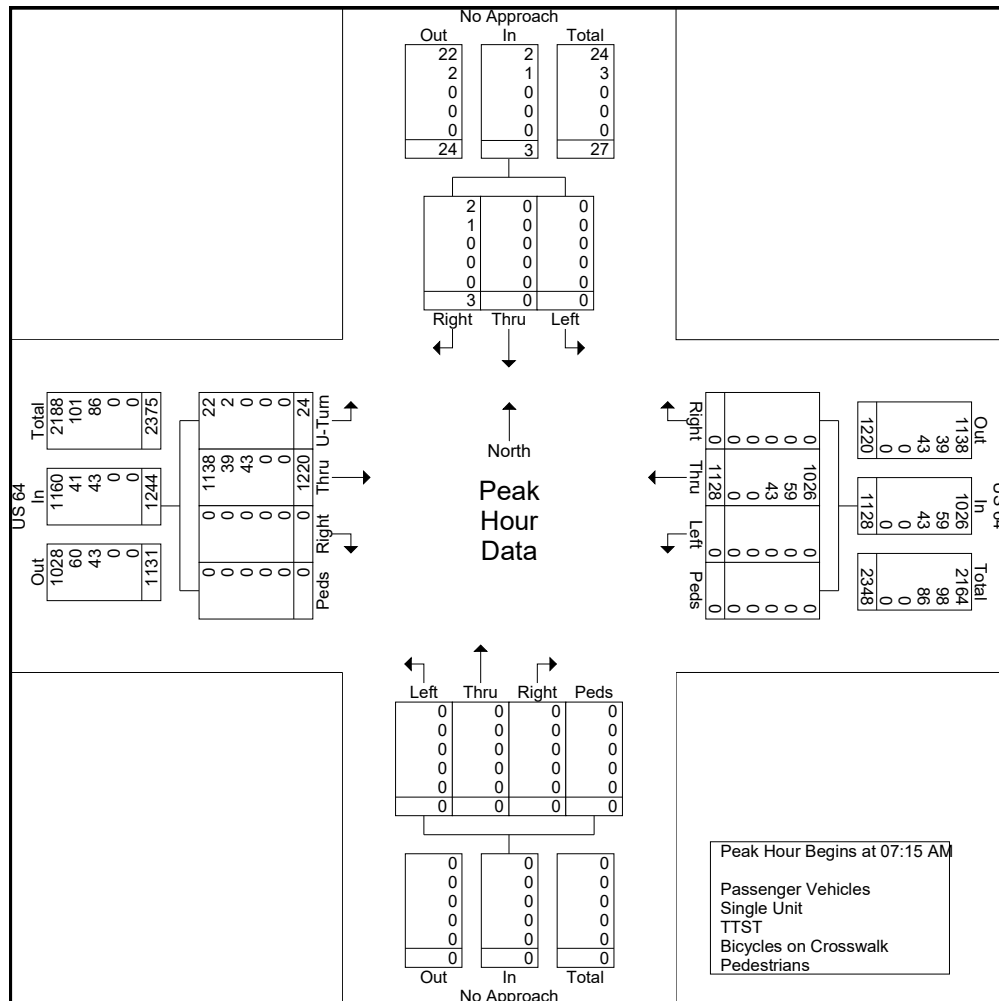
File Name : US64@U-turn_E_Richardson

Site Code :

Start Date : 11/5/2020

Page No : 2

Start Time	No Approach Southbound				US 64 Westbound					No Approach Northbound					US 64 Eastbound					Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 11:45 AM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 07:15 AM																				
07:15 AM	0	0	0	0	0	268	0	0	268	0	0	0	0	0	5	302	0	0	307	575
07:30 AM	0	0	3	3	0	278	0	0	278	0	0	0	0	0	8	315	0	0	323	604
07:45 AM	0	0	0	0	0	309	0	0	309	0	0	0	0	0	4	272	0	0	276	585
08:00 AM	0	0	0	0	0	273	0	0	273	0	0	0	0	0	7	331	0	0	338	611
Total Volume	0	0	3	3	0	1128	0	0	1128	0	0	0	0	0	24	1220	0	0	1244	2375
% App. Total	0	0	100		0	100	0	0		0	0	0	0		1.9	98.1	0	0		
PHF	.000	.000	.250	.250	.000	.913	.000	.000	.913	.000	.000	.000	.000	.000	.750	.921	.000	.000	.920	.972
Passenger Vehicles	0	0	2	2	0	1026	0	0	1026	0	0	0	0	0	22	1138	0	0	1160	2188
% Passenger Vehicles																				
Single Unit	0	0	1	1	0	59	0	0	59	0	0	0	0	0	2	39	0	0	41	101
% Single Unit	0	0	33.3	33.3	0	5.2	0	0	5.2	0	0	0	0	0	8.3	3.2	0	0	3.3	4.3
TTST	0	0	0	0	0	43	0	0	43	0	0	0	0	0	0	43	0	0	43	86
% TTST	0	0	0	0	0	3.8	0	0	3.8	0	0	0	0	0	0	3.5	0	0	3.5	3.6
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0



VHB Engineering NC, P.C.

Venture I

940 Main Campus Drive, Suite 500

Raleigh, NC 27606

p: 919.829.0328 f: 919.833.0034

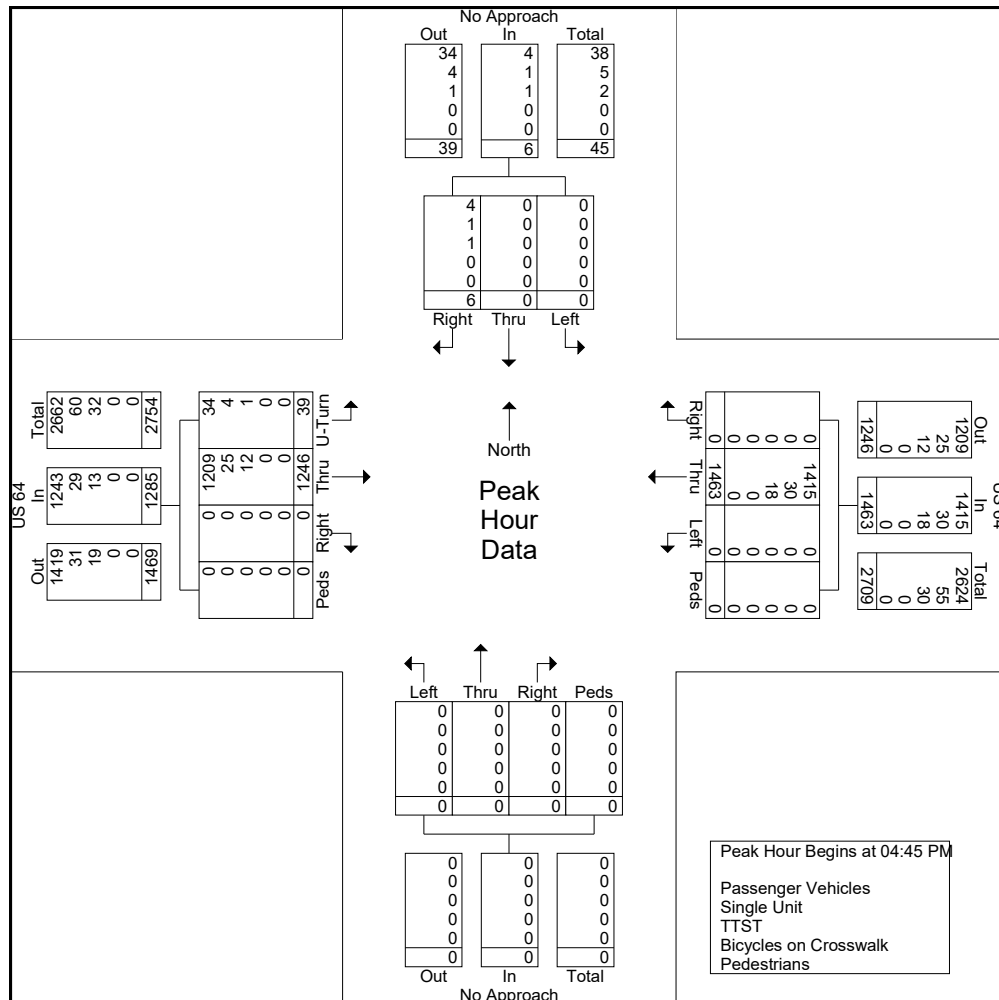
File Name : US64@U-turn_E_Richardson

Site Code :

Start Date : 11/5/2020

Page No : 3

Start Time	No Approach Southbound				US 64 Westbound					No Approach Northbound					US 64 Eastbound					Int. Total
	Left	Thru	Right	App. Total	Left	Thru	Right	Peds	App. Total	Left	Thru	Right	Peds	App. Total	U-Turn	Thru	Right	Peds	App. Total	
Peak Hour Analysis From 12:00 PM to 05:45 PM - Peak 1 of 1																				
Peak Hour for Entire Intersection Begins at 04:45 PM																				
04:45 PM	0	0	0	0	0	330	0	0	330	0	0	0	0	0	7	277	0	0	284	614
05:00 PM	0	0	3	3	0	376	0	0	376	0	0	0	0	0	10	341	0	0	351	730
05:15 PM	0	0	1	1	0	394	0	0	394	0	0	0	0	0	10	334	0	0	344	739
05:30 PM	0	0	2	2	0	363	0	0	363	0	0	0	0	0	12	294	0	0	306	671
Total Volume	0	0	6	6	0	1463	0	0	1463	0	0	0	0	0	39	1246	0	0	1285	2754
% App. Total	0	0	100		0	100	0	0		0	0	0	0		3	97	0	0		
PHF	.000	.000	.500	.500	.000	.928	.000	.000	.928	.000	.000	.000	.000	.000	.813	.913	.000	.000	.915	.932
Passenger Vehicles	0	0	4	4	0	1415	0	0	1415	0	0	0	0	0	34	1209	0	0	1243	2662
% Passenger Vehicles																				
Single Unit	0	0	1	1	0	30	0	0	30	0	0	0	0	0	4	25	0	0	29	60
% Single Unit	0	0	16.7	16.7	0	2.1	0	0	2.1	0	0	0	0	0	10.3	2.0	0	0	2.3	2.2
TTST	0	0	1	1	0	18	0	0	18	0	0	0	0	0	1	12	0	0	13	32
% TTST	0	0	16.7	16.7	0	1.2	0	0	1.2	0	0	0	0	0	2.6	1.0	0	0	1.0	1.2
Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bicycles on Crosswalk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

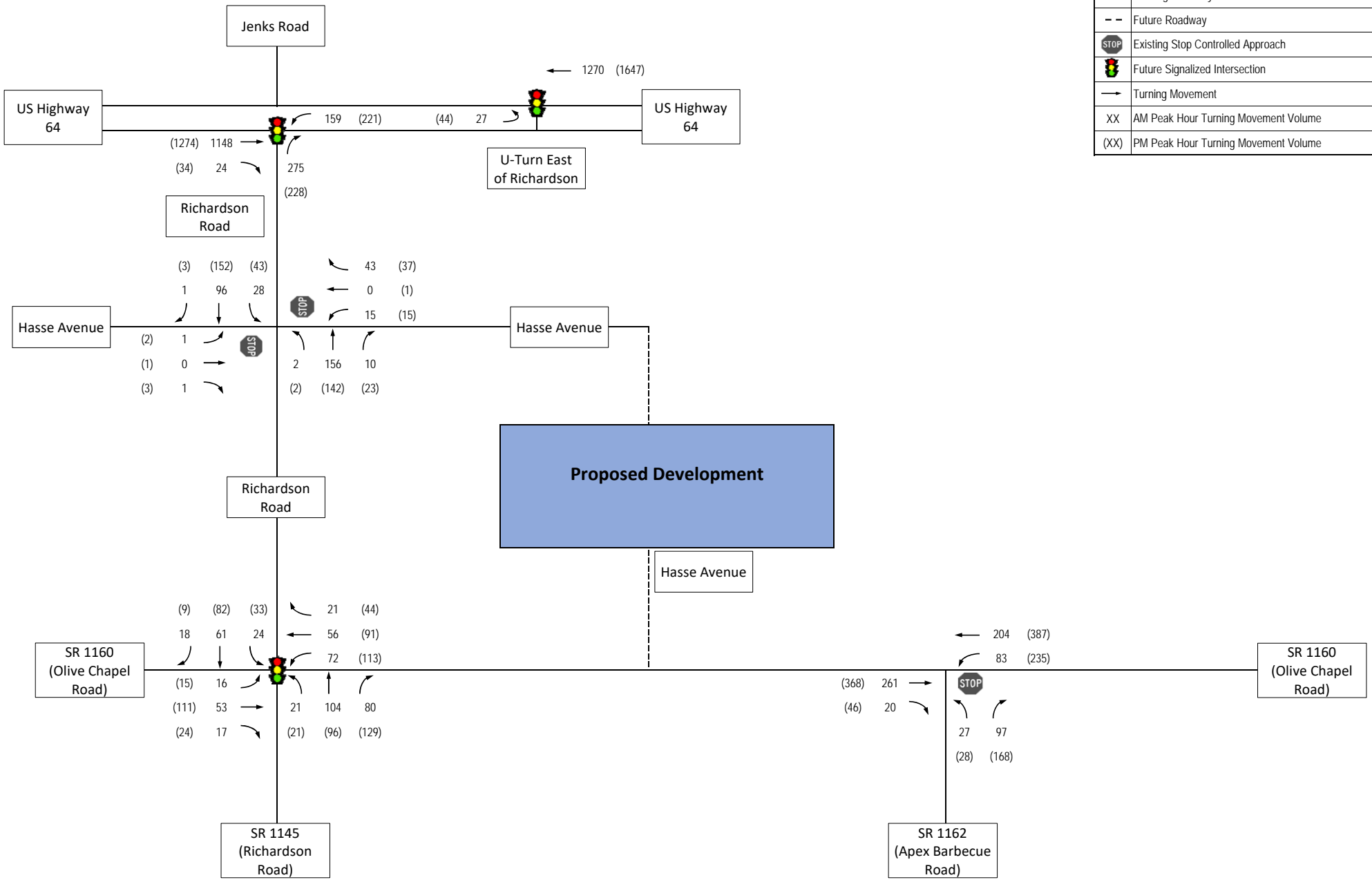




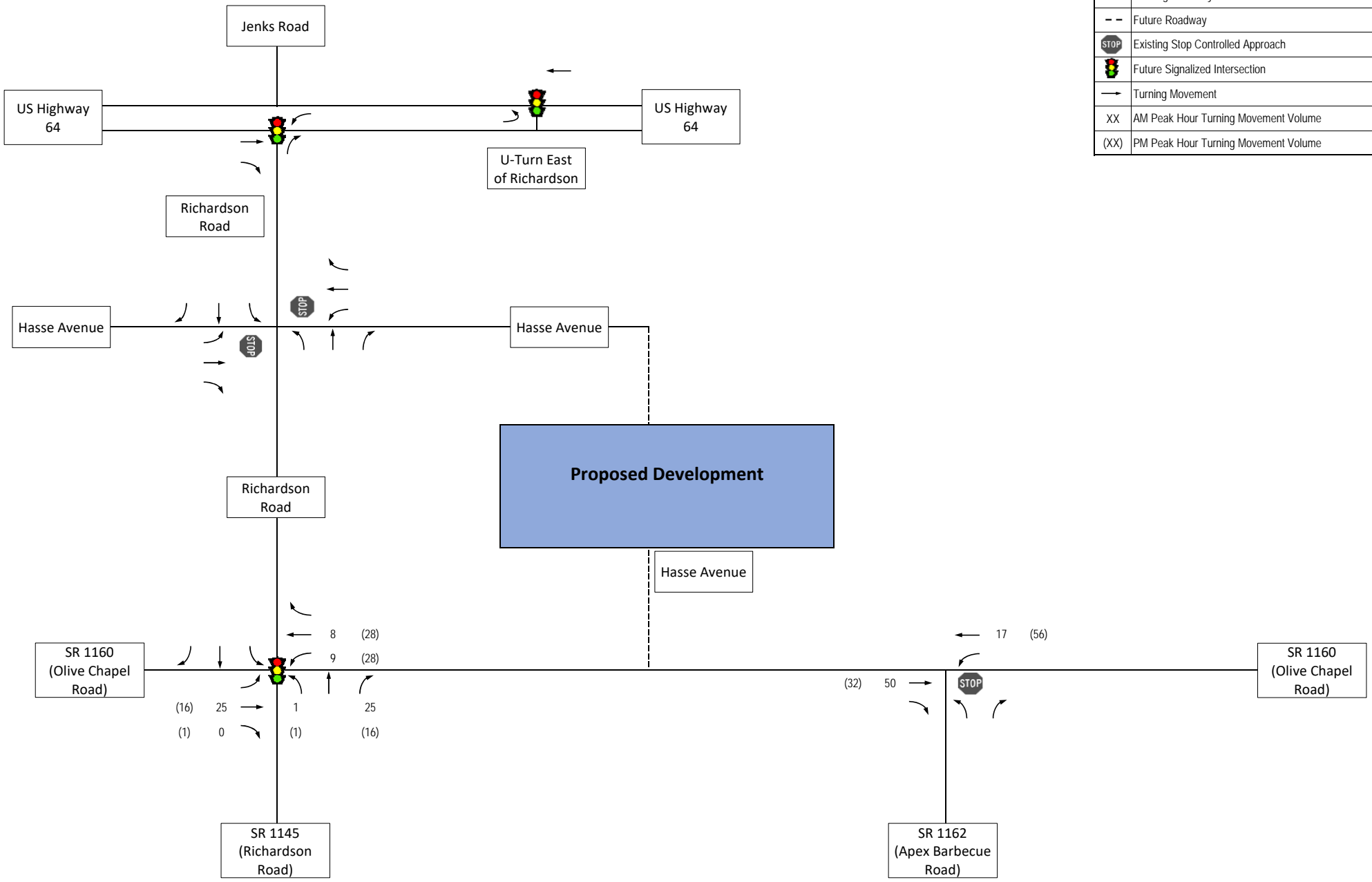
APPENDIX C:






Background Projects

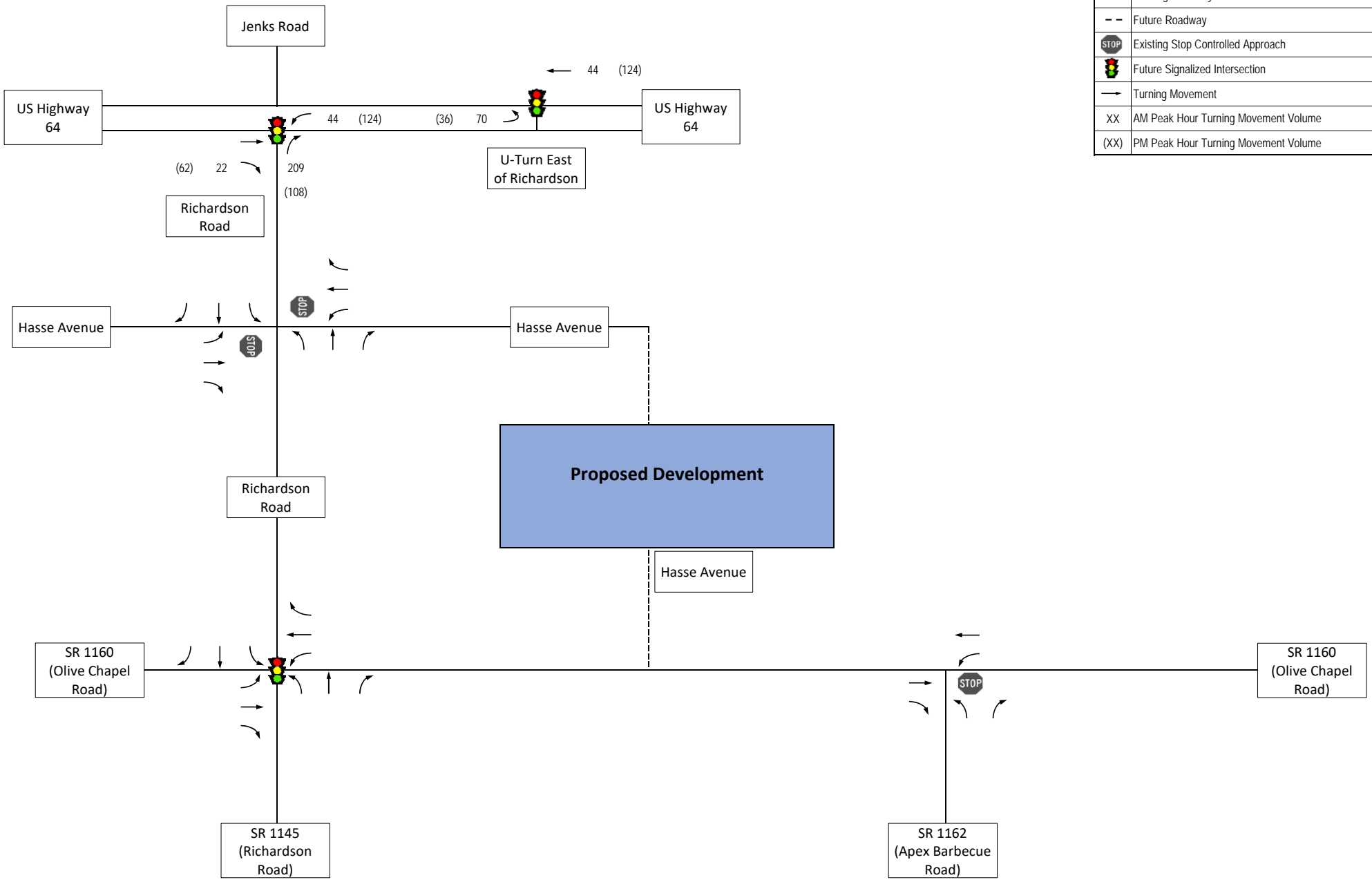
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



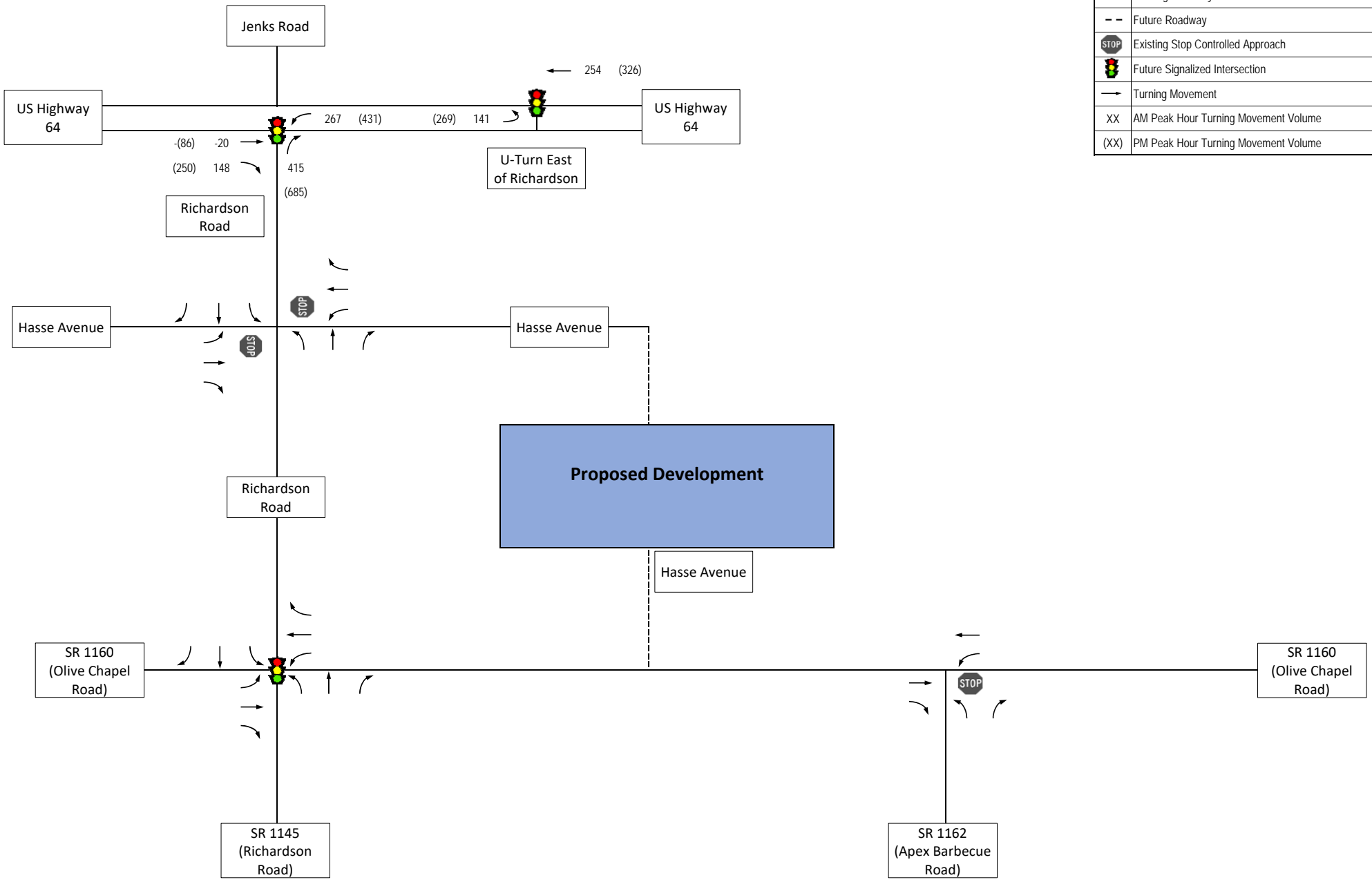
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



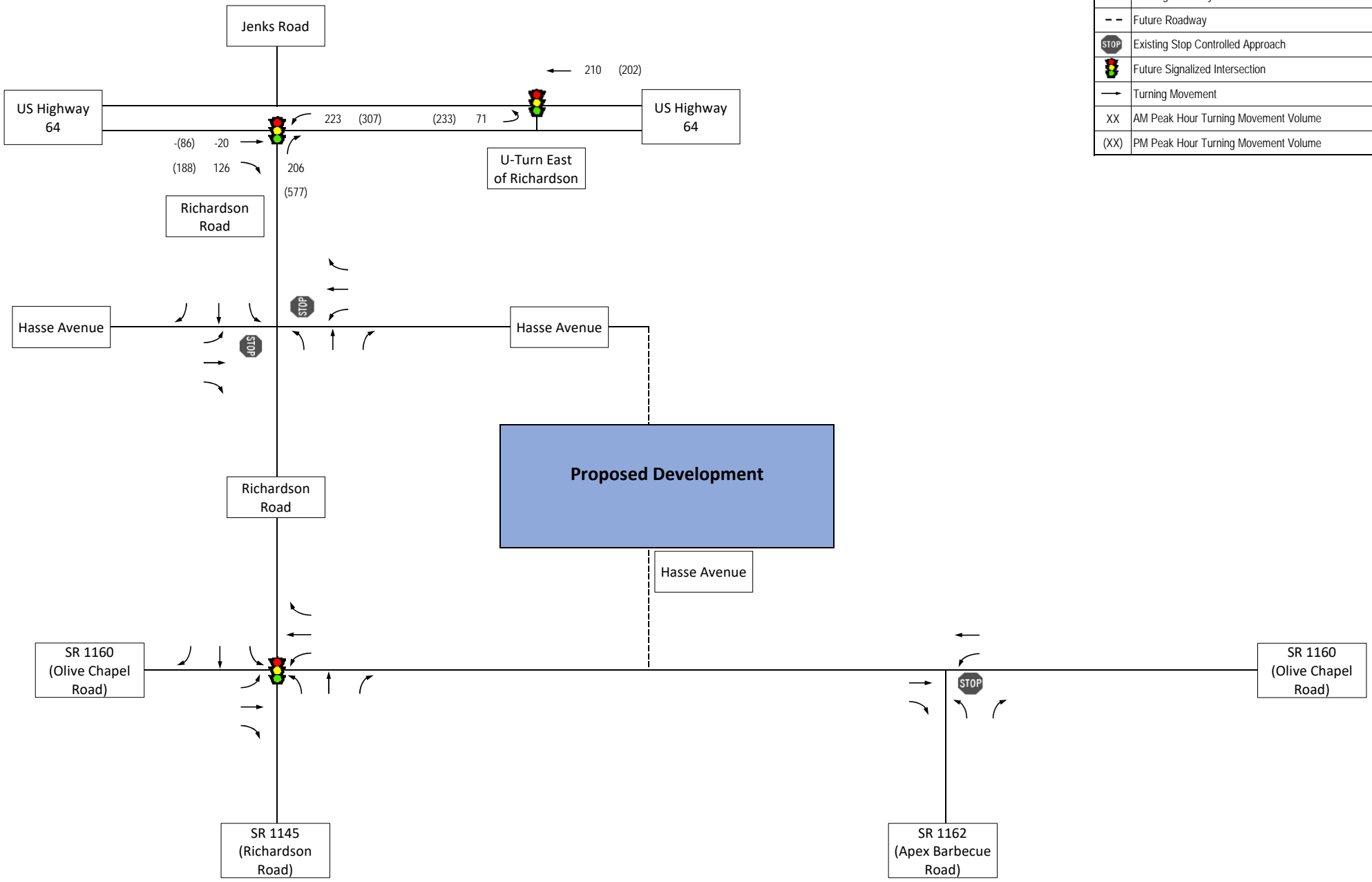
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



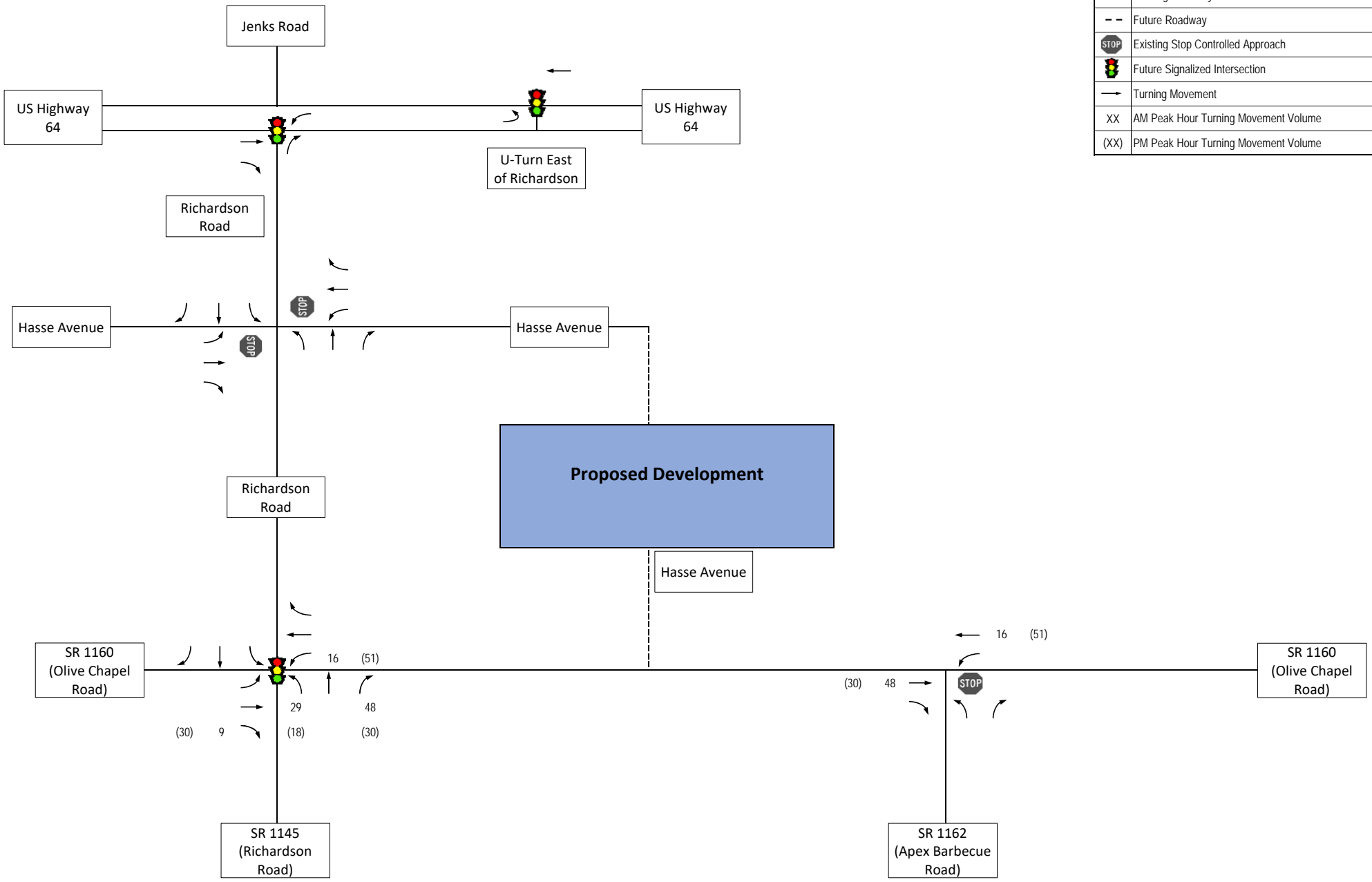
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



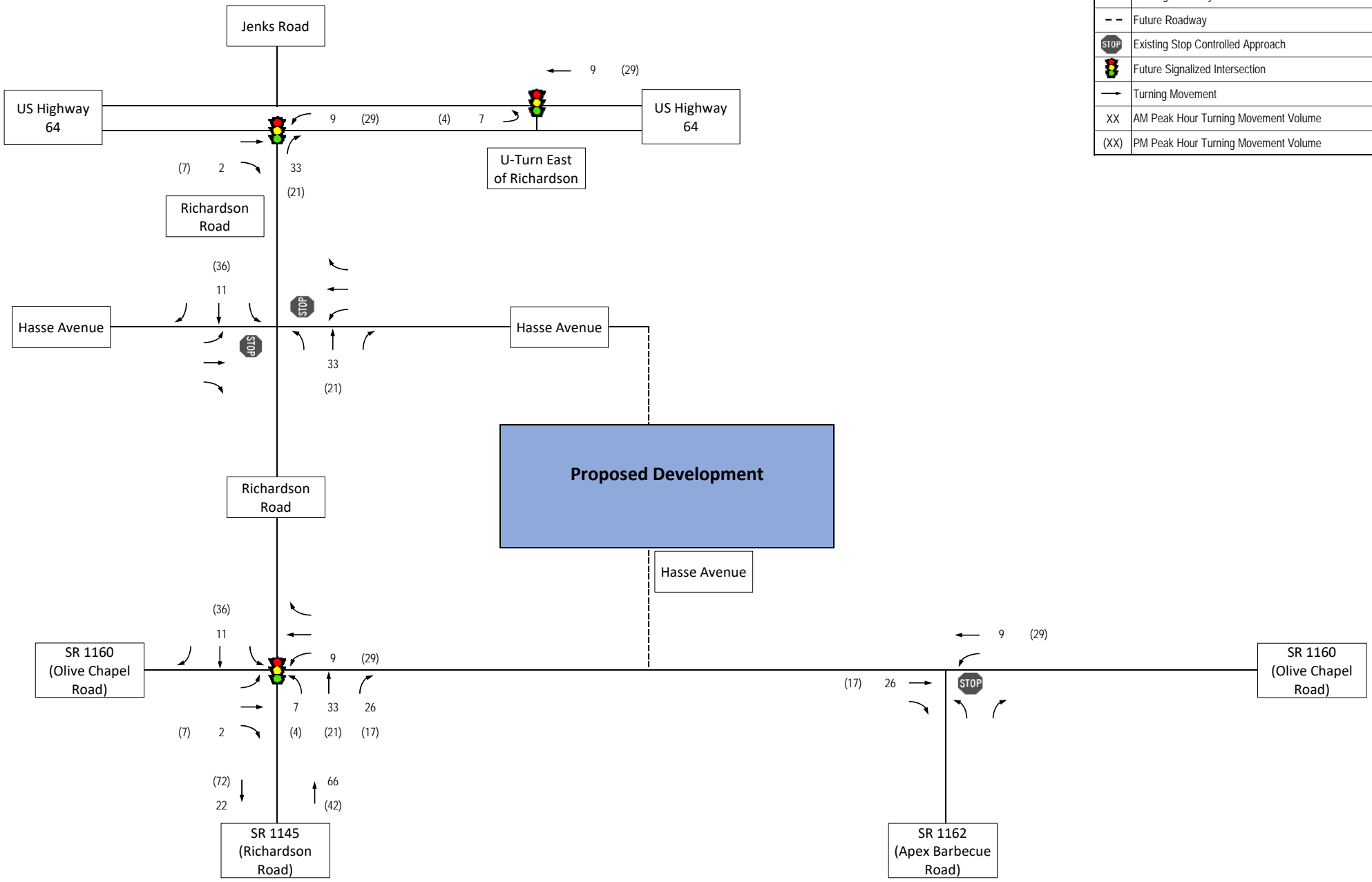
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume








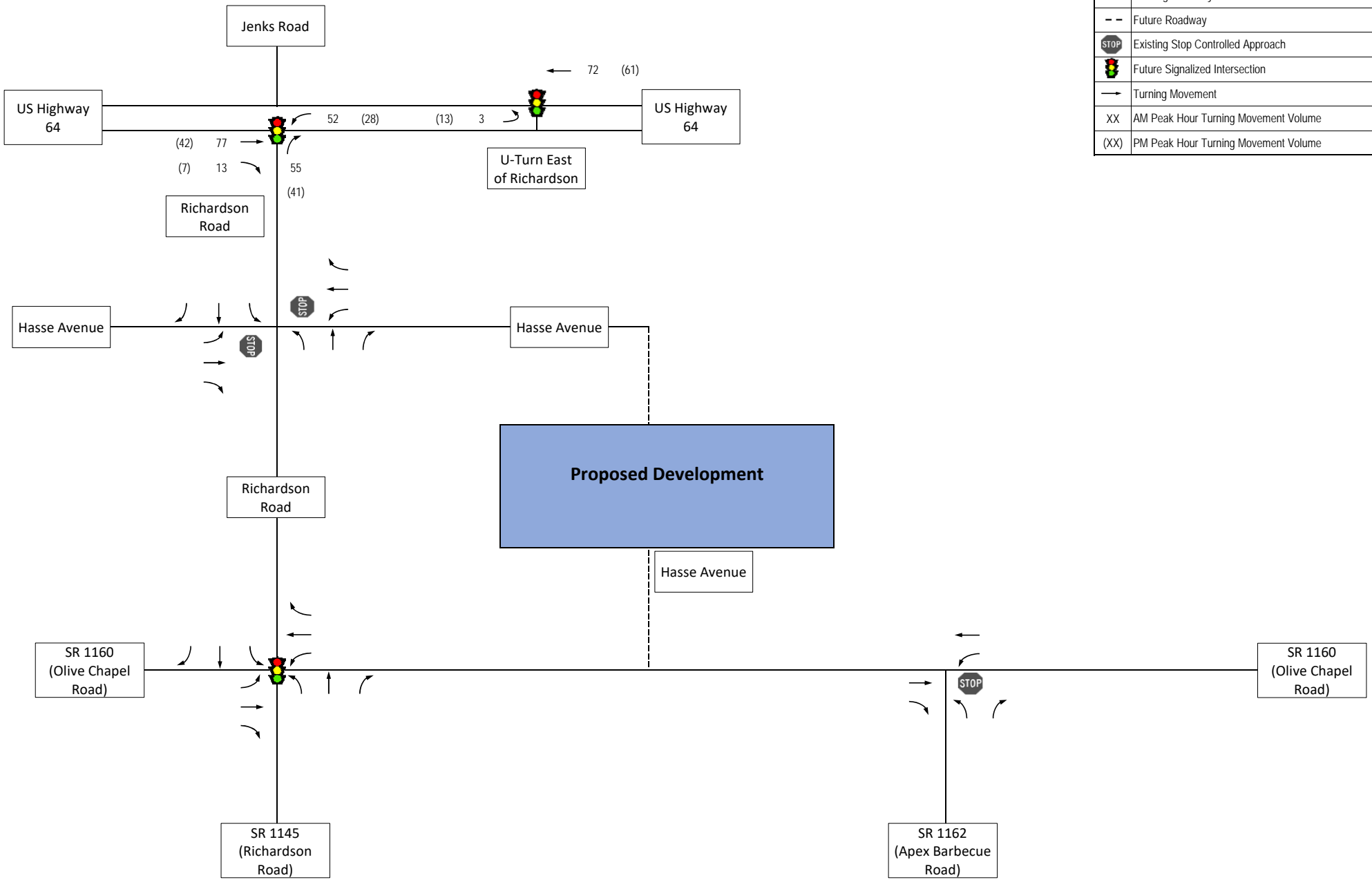
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



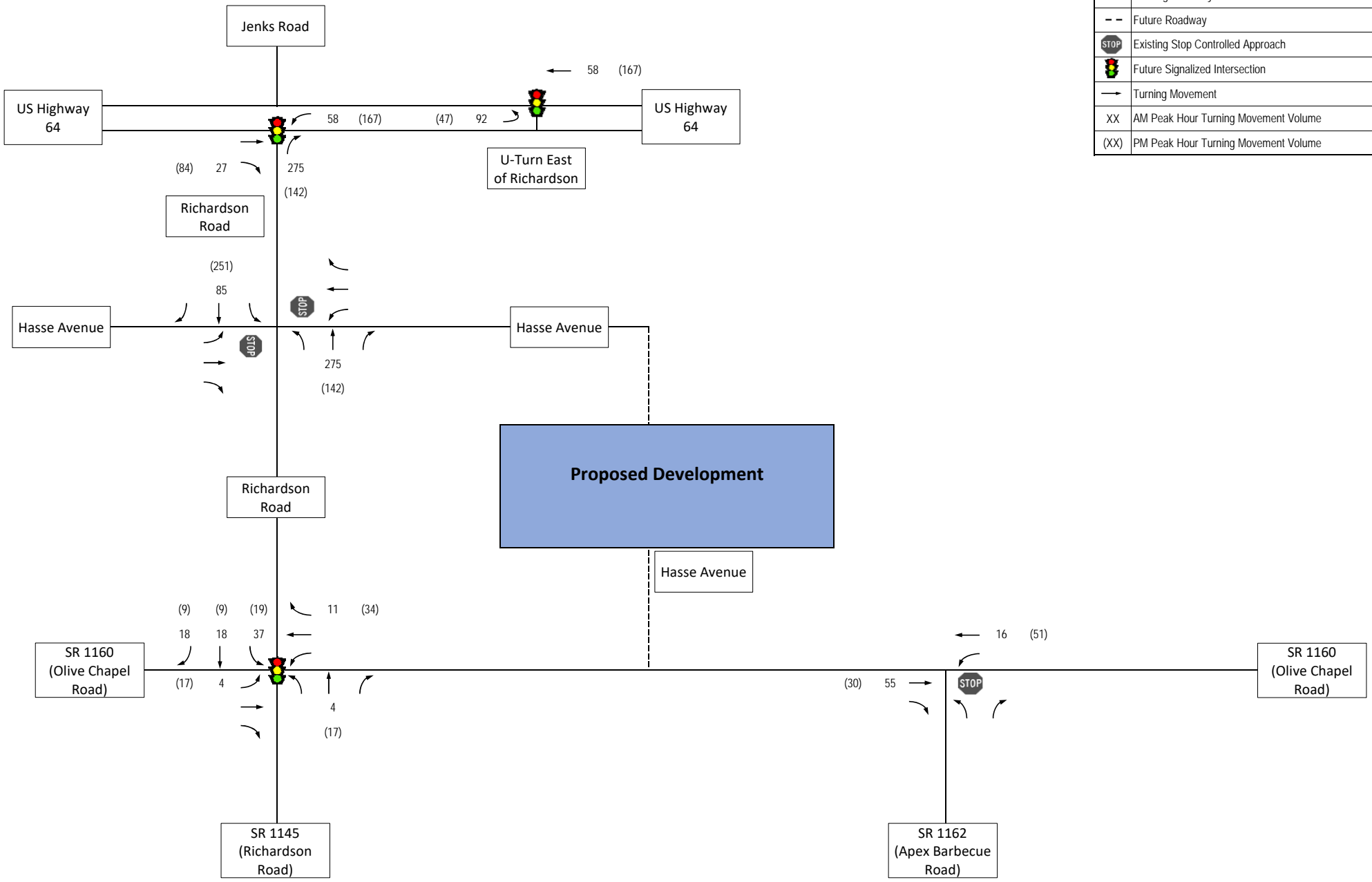
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



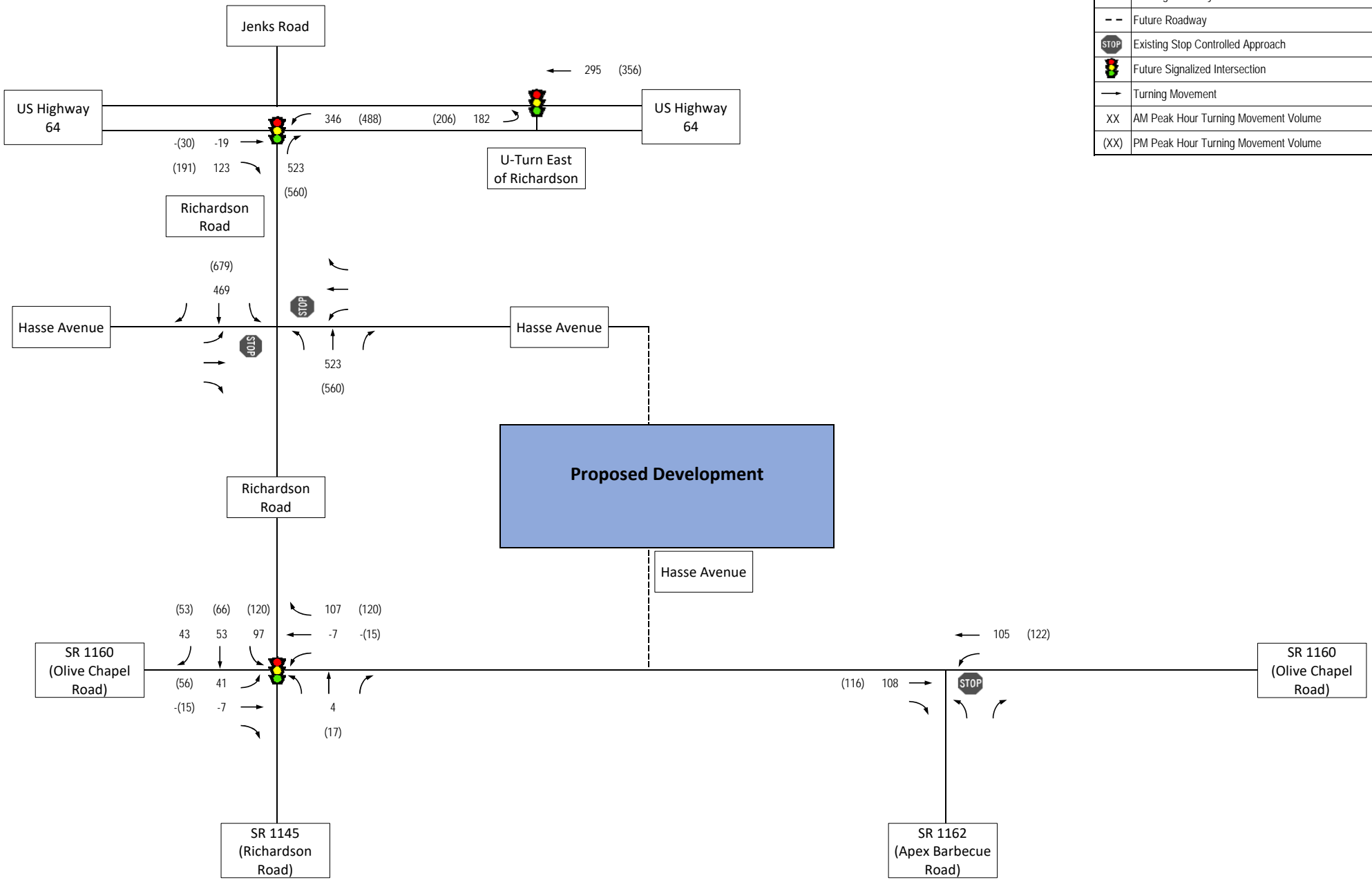
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



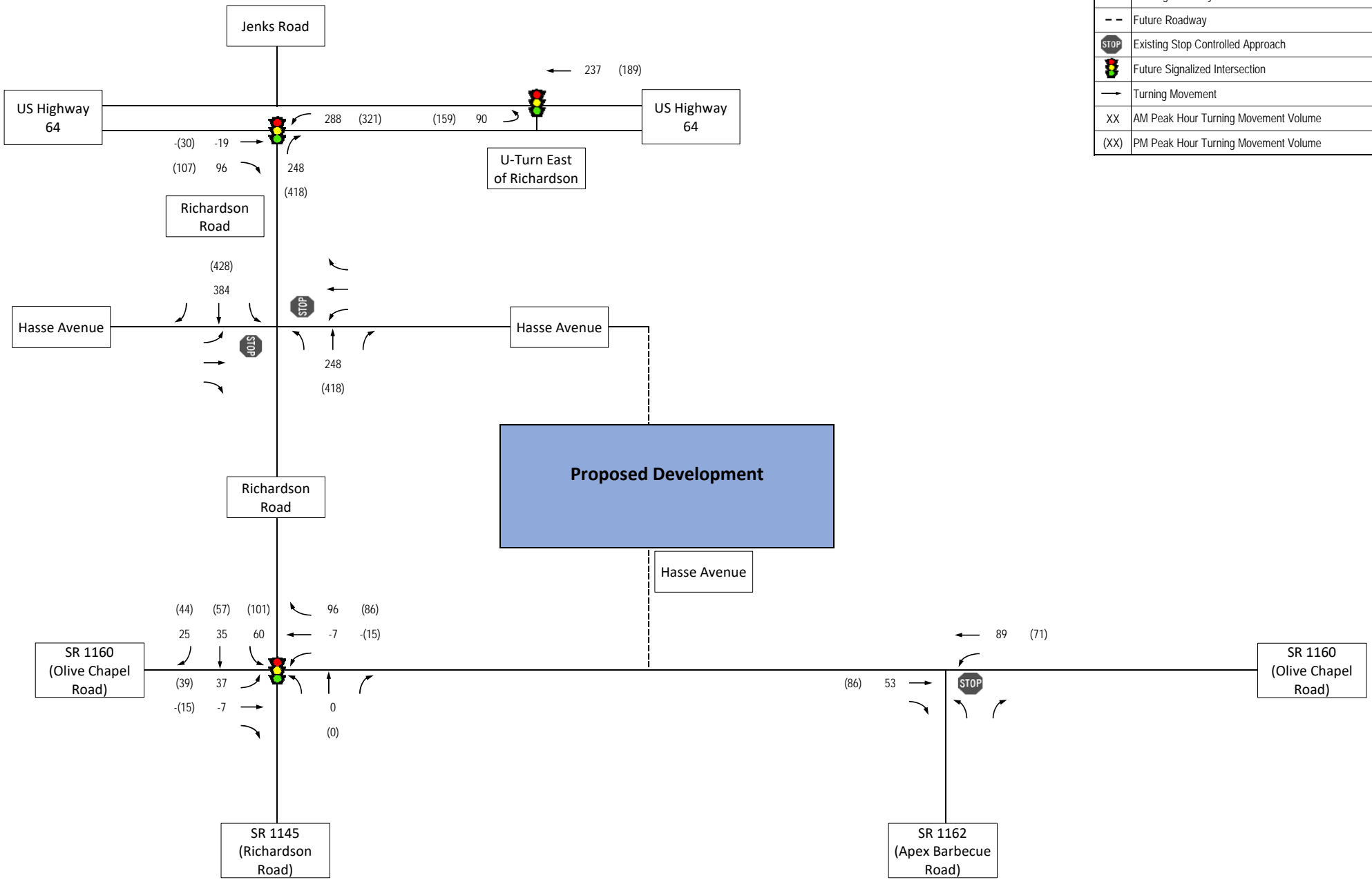
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



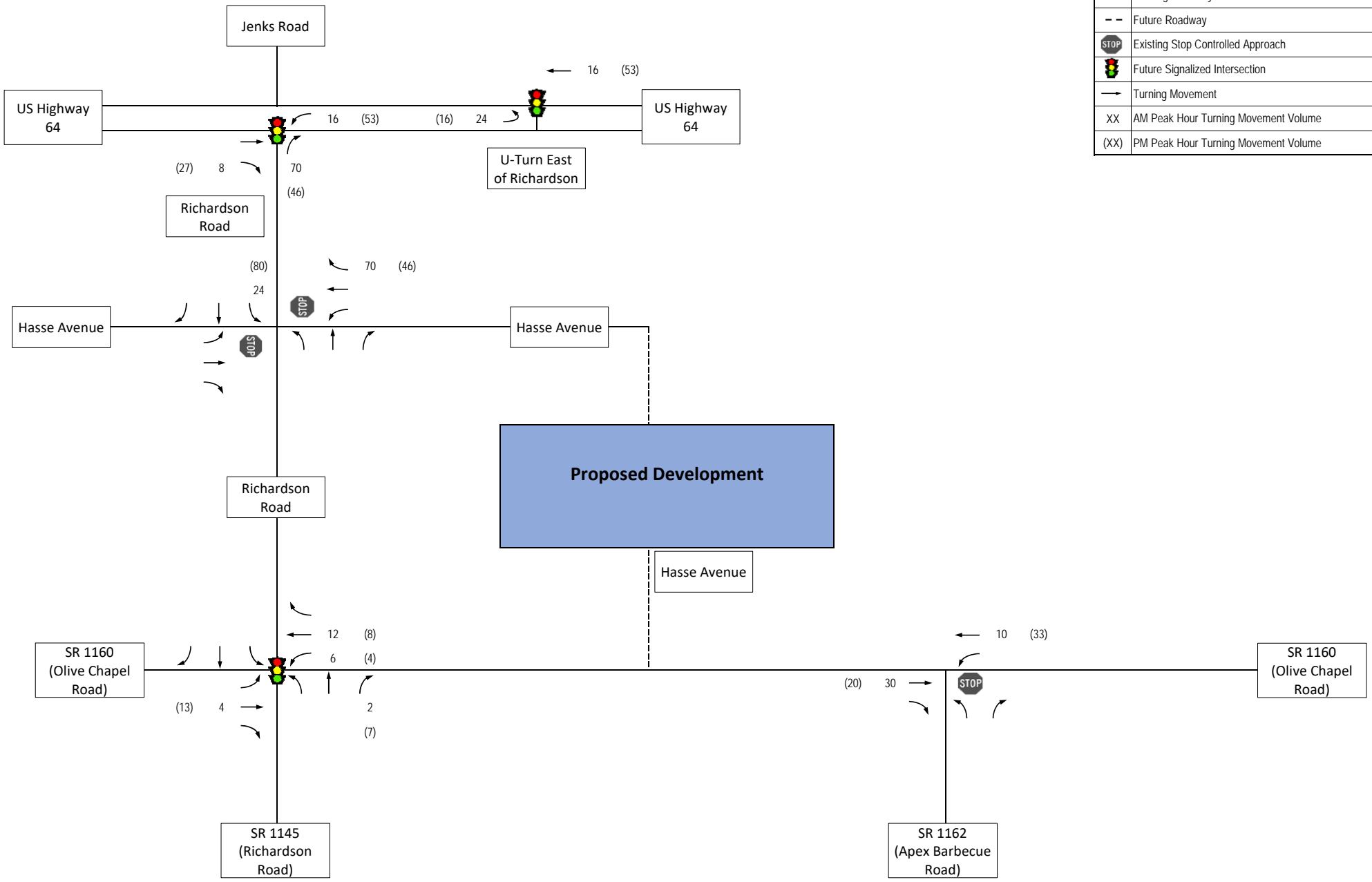
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



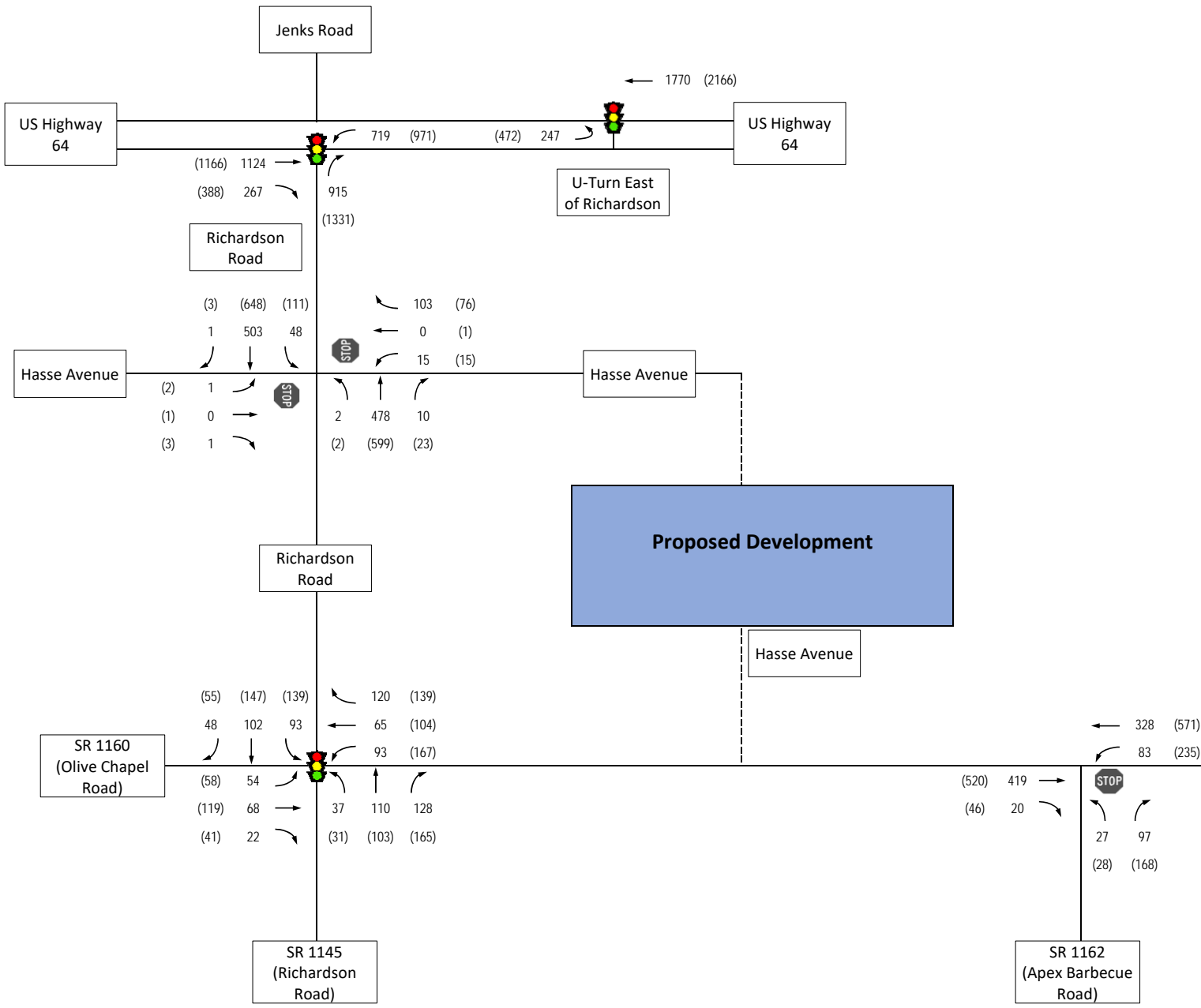
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



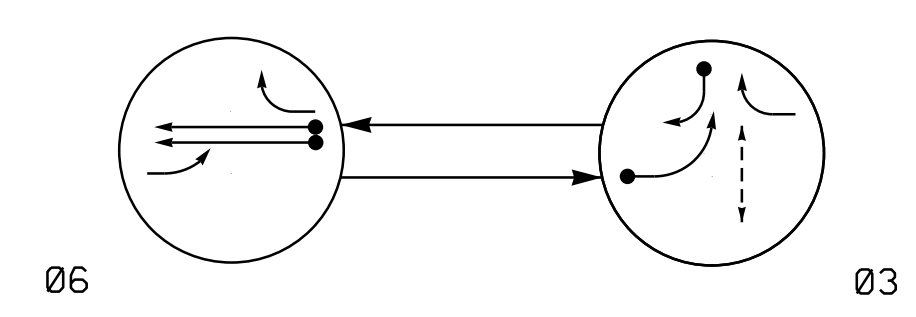
LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



LEGEND	
	Existing Roadway
	Future Roadway
	Existing Stop Controlled Approach
	Future Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement Volume
(XX)	PM Peak Hour Turning Movement Volume



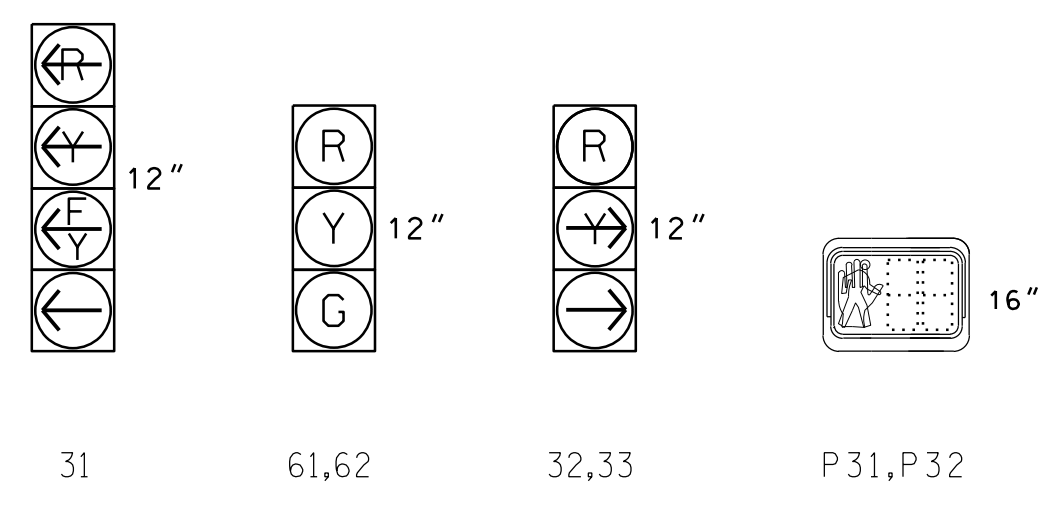
DEFAULT PHASING DIAGRAM



DEFAULT PHASING TABLE OF OPERATION			
SIGNAL FACE	PHASE		FLASH
	03	06	
31	←	→	—
32,33	→	R	R
61,62	R	G	Y
P31,P32	W	DW	DRK

SIGNAL FACE I.D.

All Heads L.E.D.



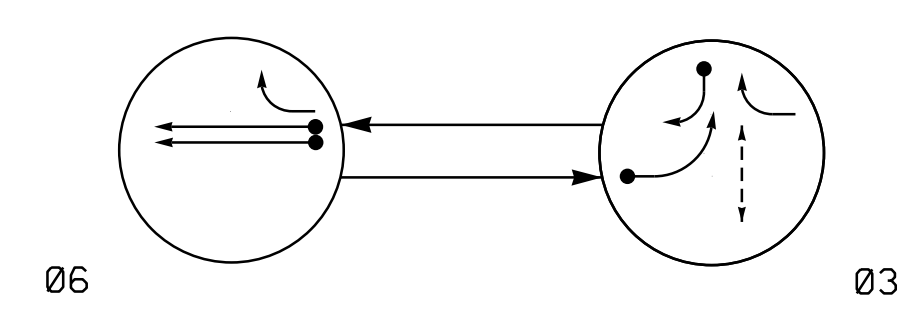
OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING					SYSTEM LOOP	NEW CARD	
					PHASE	CALLING	EXTENSION	STRETCH TIME	DELAY TIME			
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	15*	-	Y
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	15	-	Y
6A	6X6	420	6	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	420	6	Y	6	Y	Y	-	-	-	-	Y

* Disable delay during Alternate Phasing operation.

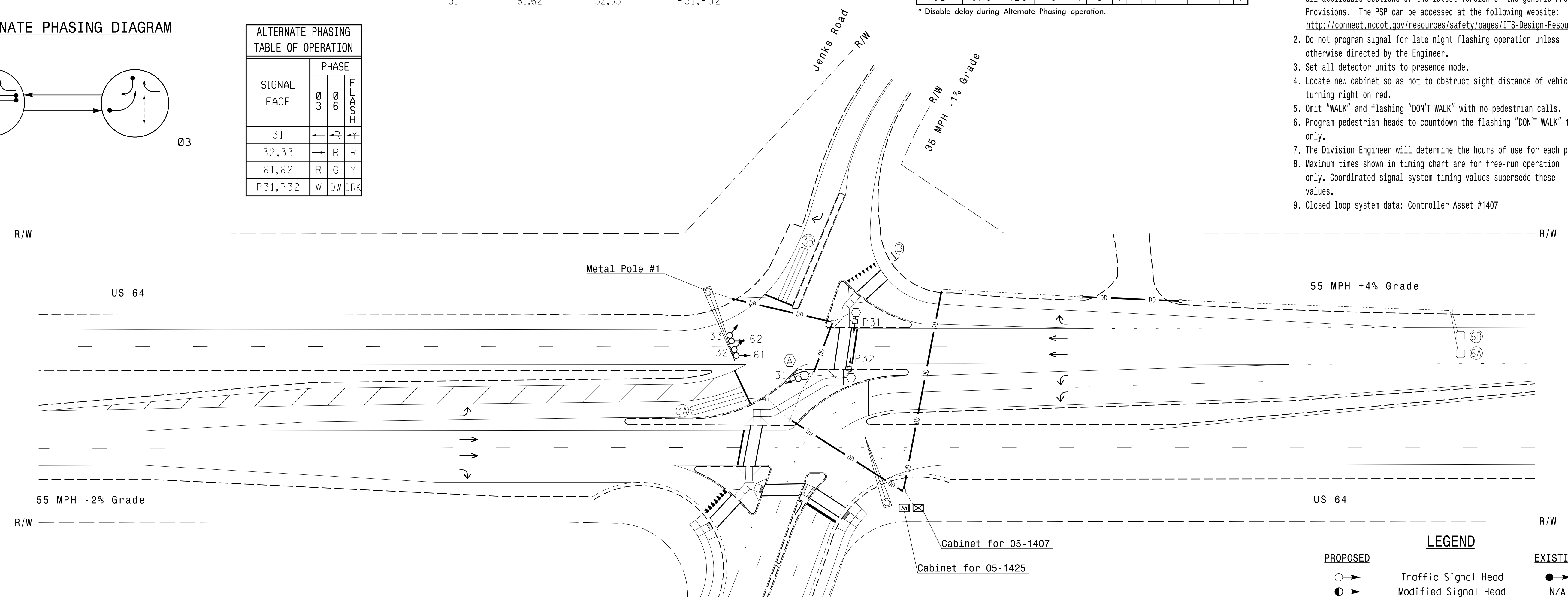
2 Phase Fully Actuated
 (US 64 & Jenks/Richardson Road Closed Loop System)
 Signal System: 10534
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <http://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "DON'T WALK" time only.
- The Division Engineer will determine the hours of use for each phasing plan.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #1407

ALTERNATE PHASING DIAGRAM

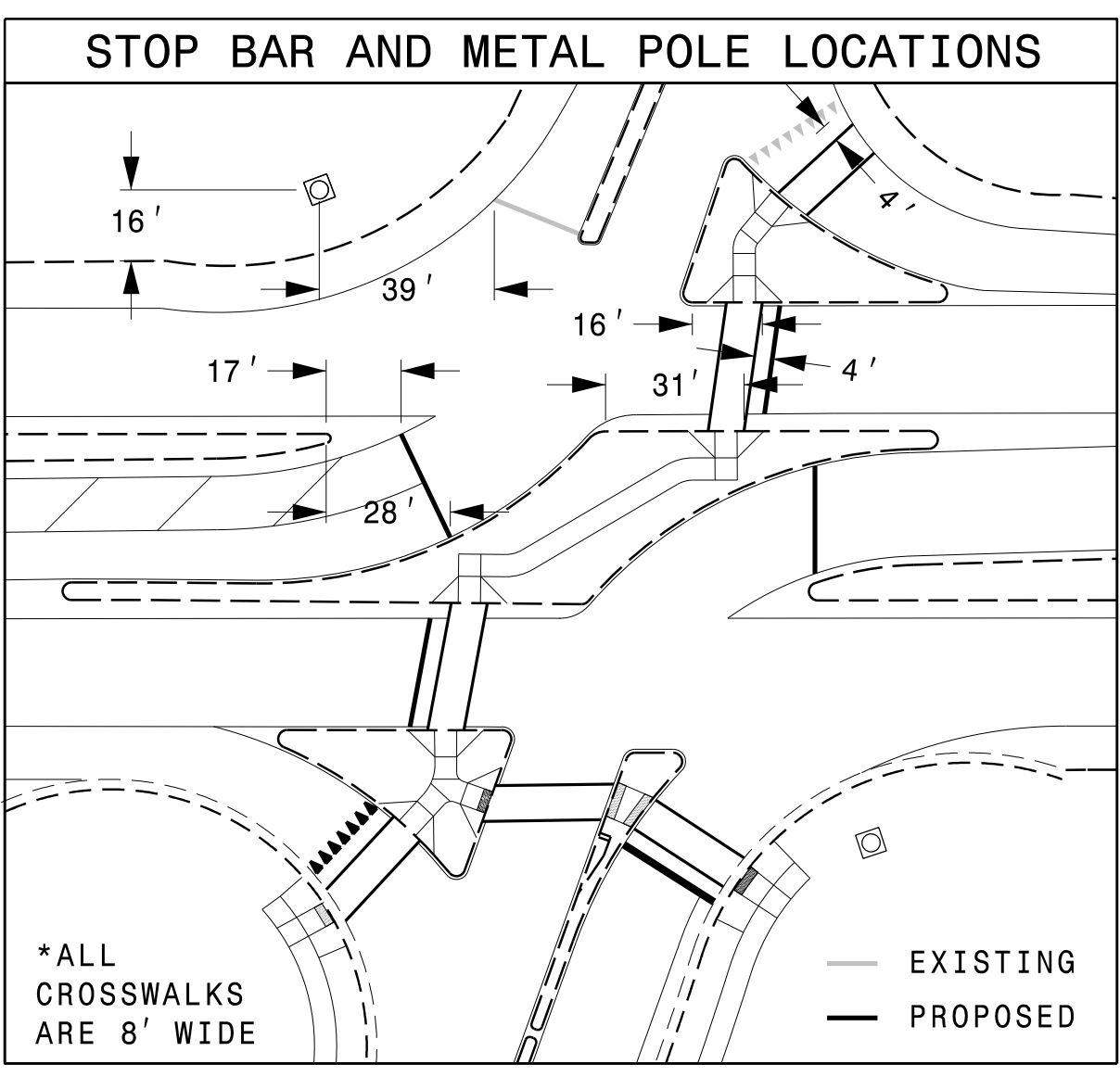


ALTERNATE PHASING TABLE OF OPERATION			
SIGNAL FACE	PHASE		FLASH
	03	06	
31	←	→	—
32,33	→	R	R
61,62	R	G	Y
P31,P32	W	DW	DRK



OASIS 2070 TIMING CHART		
FEATURE	PHASE	
	3	6
Min Green 1 *	7	14
Extension 1 *	2.0	6.0
Max Green 1 *	20	90
Yellow Clearance	3.0	4.8
Red Clearance	2.6	1.4
Walk 1 *	7	-
Don't Walk 1	7	-
Seconds Per Actuation *	-	1.5
Max Variable Initial *	-	46
Time Before Reduction *	-	15
Time To Reduce *	-	45
Minimum Gap	-	3.4
Recall Mode	-	MIN RECALL
Vehicle Call Memory	-	YELLOW
Dual Entry	-	-
Simultaneous Gap	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



* ALL CROSSWALKS ARE 8' WIDE

SIGNS

- PROPOSED**
- (A) No U-Turn Sign (R3-4)
 - (B) "YIELD" Sign (R1-2)

- LEGEND**
- | PROPOSED | EXISTING |
|----------|----------|
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NC Dept of Transportation
 Division of Highways
 Final Drawing Date: 8/28/2020
 Prepared by: *Changseok Baik*
 ITS & Signals Unit

New Installation

 RAMEY KEMP ASSOCIATES 8210 University Executive Park Drive Suite 220 Charlotte, North Carolina 28262 Phone: 704-549-4200 www.rameykemp.com NC License No. C-0910	Prepared For: Transportation Mobility and Safety Division UNIVERSITY OF NORTH CAROLINA STATE OF CAROLINA Signal Design Section	US 64 WB at Jenks Road Division 5 Wake County Apex PLAN DATE: August 2020 REVIEWED BY: WJ Hamilton PREPARED BY: ZM Esposito RKA PROJ. NO: 19331 (040)	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL WILLIAM J. HAMILTON PROFESSIONAL ENGINEER 8/24/2020 DATE SIGNATURE SIG. INVENTORY NO. 05-1407
	750 N. Greenfield Pkwy, Garner, NC 27529 SCALE 0 40 1" = 40'	REVISIONS INIT. DATE	REVISIONS INIT. DATE

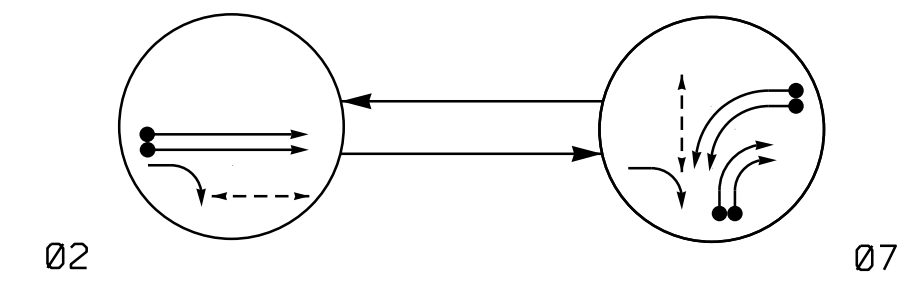
SIGNAL FACE I.D.
All Heads L.E.D.

OASIS 2070 LOOP & DETECTOR INSTALLATION CHART											
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	DETECTOR PROGRAMMING						
					PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP
2A	6X6	420	6	Y	2	Y	Y	-	-	-	Y
2B	6X6	420	6	Y	2	Y	Y	-	-	-	Y
7A	6X40	0	2-4-2	Y	7	Y	Y	-	-	-	Y
7B	6X40	0	2-4-2	Y	7	Y	Y	-	-	-	Y
7C	6X40	0	2-4-2	Y	7	Y	Y	-	-	15	Y
7D	6X40	0	2-4-2	Y	7	Y	Y	-	-	15	Y

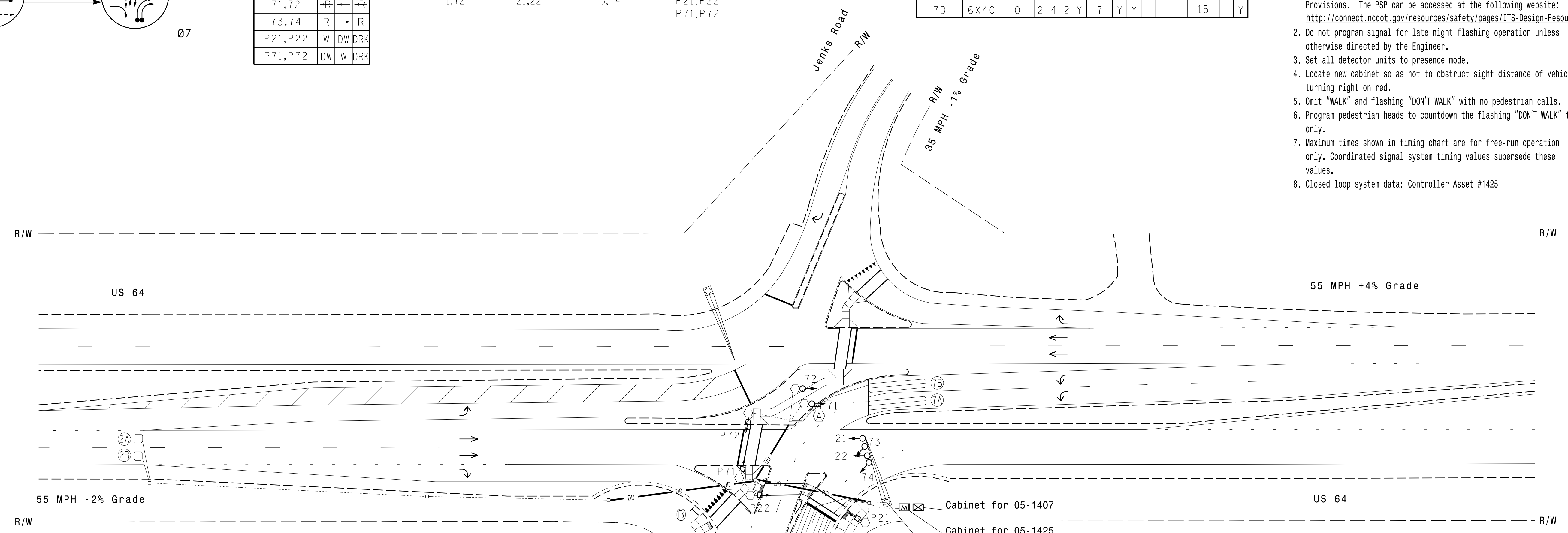
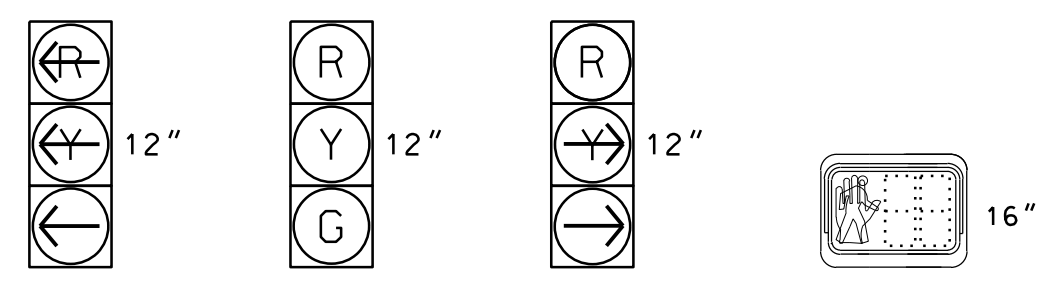
2 Phase Fully Actuated
(US 64 & Jenks/Richardson Road Closed Loop System)
Signal System: 10534
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <http://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Omit "WALK" and flashing "DON'T WALK" with no pedestrian calls.
- Program pedestrian heads to countdown the flashing "DON'T WALK" time only.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #1425

PHASING DIAGRAM

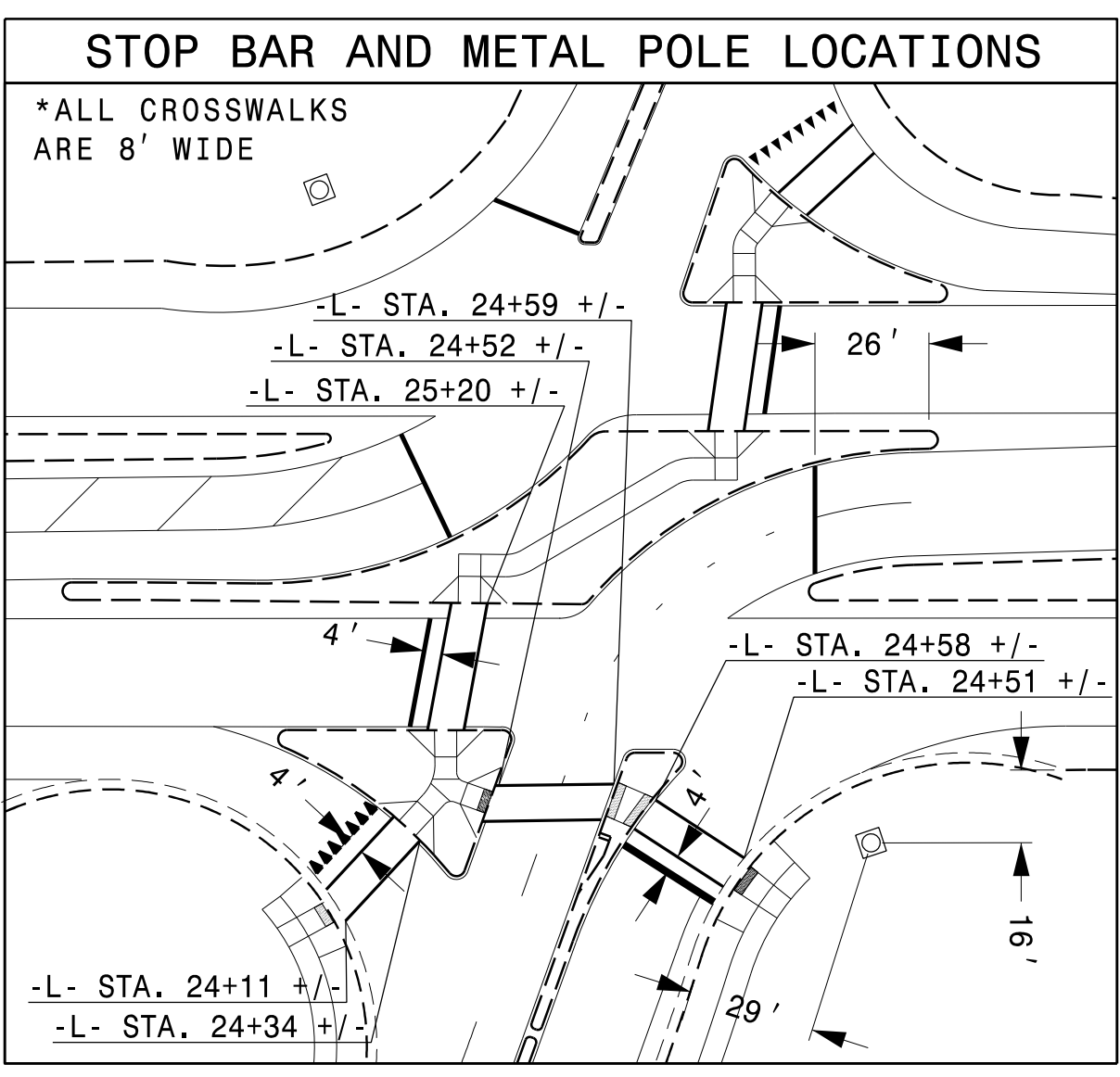


SIGNAL FACE	PHASE		
	Ø2	Ø7	FLIGHT
21,22	G	R	Y
71,72	←R	←	←R
73,74	R	→	R
P21,P22	W	DW	DRK
P71,P72	DW	W	DRK



OASIS 2070 TIMING CHART		
FEATURE	PHASE	
	2	7
Min Green 1 *	14	7
Extension 1 *	6.0	2.0
Max Green 1 *	90	20
Yellow Clearance	5.4	3.0
Red Clearance	1.4	3.2
Walk 1 *	7	7
Don't Walk 1	12	6
Seconds Per Actuation *	1.5	-
Max Variable Initial *	46	-
Time Before Reduction *	15	-
Time To Reduce *	45	-
Minimum Gap	3.4	-
Recall Mode	MIN RECALL	-
Vehicle Call Memory	YELLOW	-
Dual Entry	-	-
Simultaneous Gap	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 2 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



- SIGNS**
- PROPOSED: (A) No U-Turn Sign (R3-4), (B) "YIELD" Sign (R1-2)
 - EXISTING: (A), (B)

- LEGEND**
- PROPOSED: Traffic Signal Head, Modified Signal Head, Pedestrian Signal Head, Signal Pole with Guy, Signal Pole with Sidewalk Guy, Inductive Loop Detector, Controller & Cabinet, Master Controller & Cabinet, Junction Box, 2-in Underground Conduit, Right of Way, Directional Arrow, Type II Signal Pedestal, Metal Pole with Mastarm, Directional Drill
 - EXISTING: N/A, T, T with Push Button & Sign, Signal Pole with Sidewalk Guy, Inductive Loop Detector, Master Controller & Cabinet, Junction Box, Right of Way, Directional Arrow, Type II Signal Pedestal, Metal Pole with Mastarm, Directional Drill

NC Dept of Transportation
Division of Highways
Final Drawing Date: 8/28/2020
Checked By: *Changseok Baik*
1005AF6073446D
ITS & Signals Unit

New Installation

Prepared For: **US 64 EB at Richardson Road**

Division 5 Wake County Apex

PLAN DATE: August 2020 REVIEWED BY: WJ Hamilton

PREPARED BY: ZM Esposito RKA PROJ. NO: 19331 (040)

750 N. Greenfield Pkwy, Garner, NC 27529

SCALE: 1" = 40'

REVISIONS: [Table with columns for REVISIONS, INIT., DATE]

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

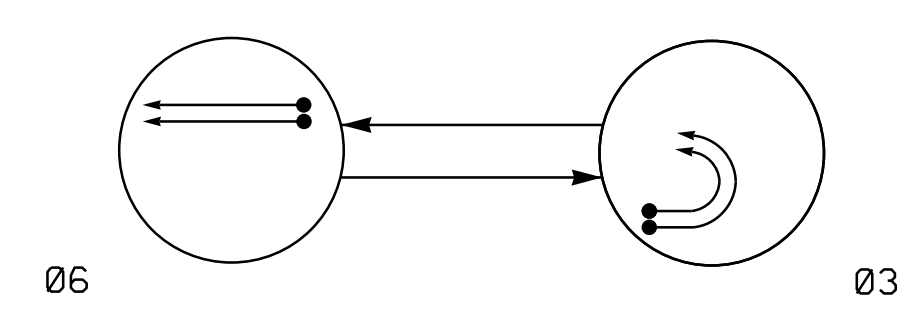
SEAL: NORTH CAROLINA PROFESSIONAL ENGINEER, W. J. HAMILTON, No. 32396

DATE: 8/24/2020

SIG. INVENTORY NO. 05-1425

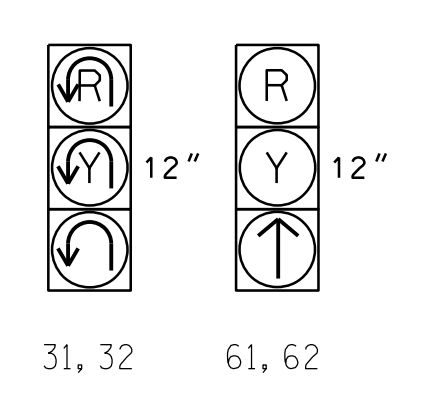


PHASING DIAGRAM



SIGNAL FACE	PHASE		
	Ø3	Ø6	FLASH
31, 32	←	→	↑
61, 62	←	→	↑

SIGNAL FACE I.D.
All Heads L.E.D.

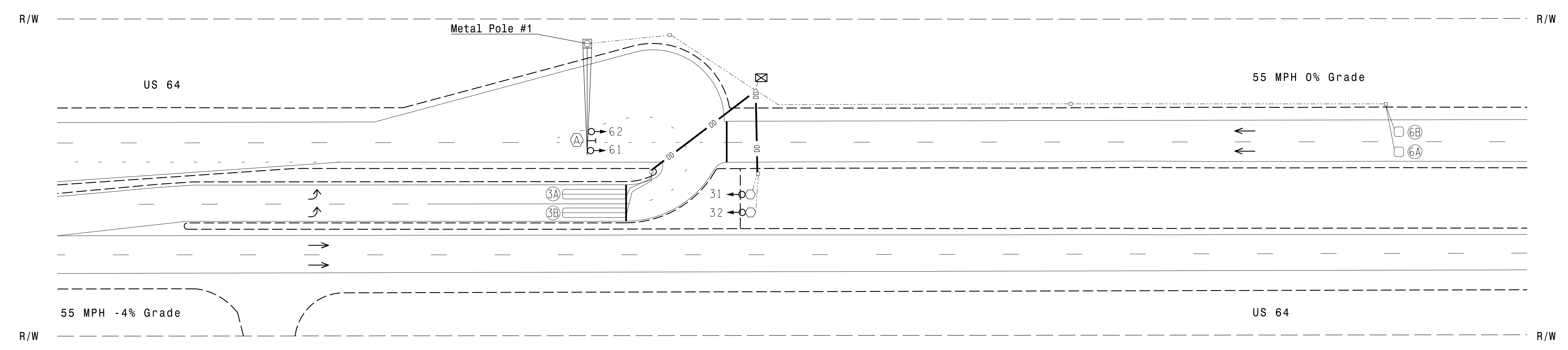


OASIS 2070 LOOP & DETECTOR INSTALLATION CHART												
INDUCTIVE LOOPS				DETECTOR PROGRAMMING								
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
3A	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
3B	6X40	0	2-4-2	Y	3	Y	Y	-	-	-	-	Y
6A	6X6	420	6	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	420	6	Y	6	Y	Y	-	-	-	-	Y

2 Phase Fully Actuated
(US 64 & Jenks/Richardson Road Closed Loop System)
Signal System: 10534

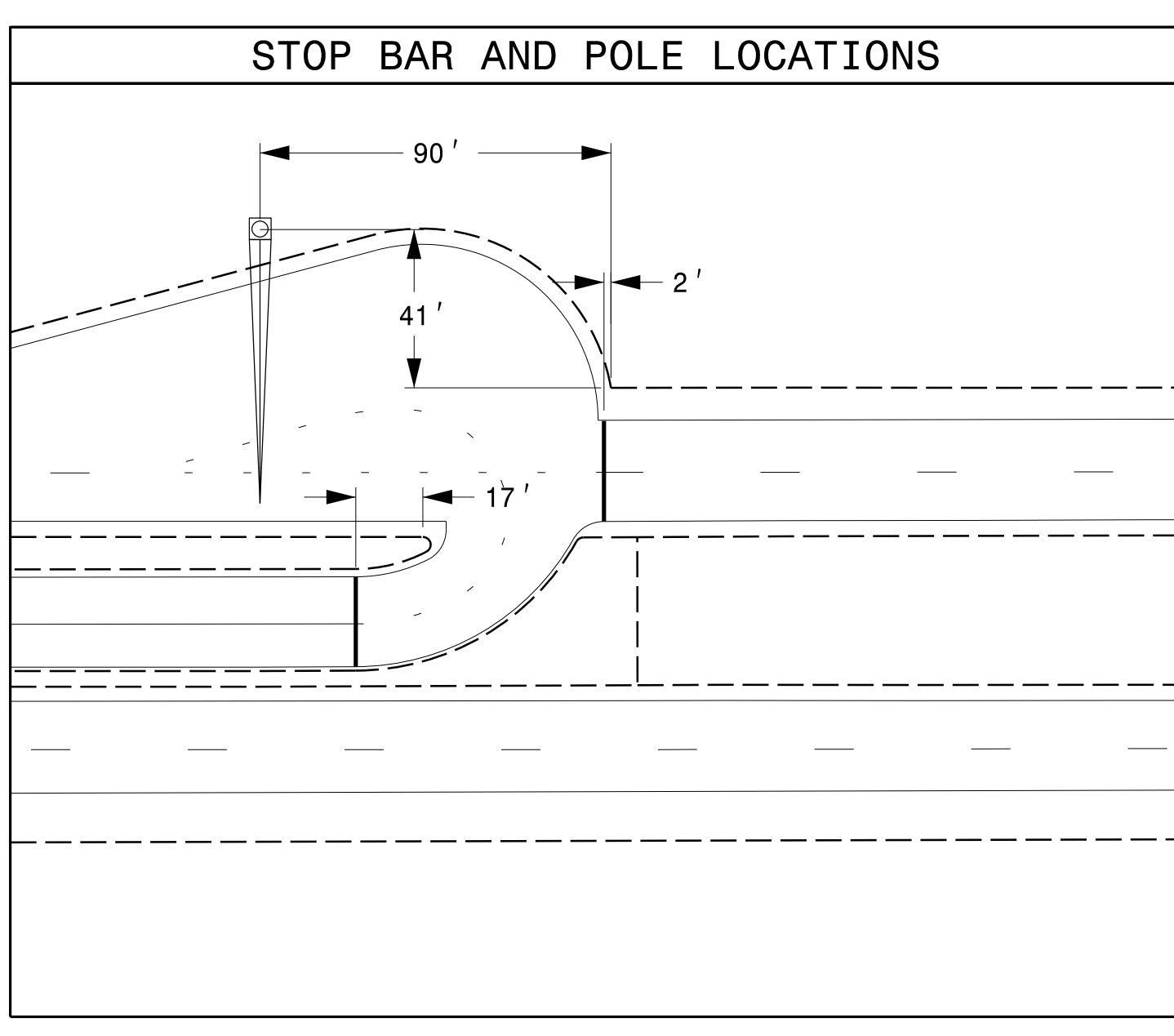
NOTES

- Refer to "Roadway Standard Drawings NCDOT" dated January 2018, "Standard Specifications for Roads and Structures" dated January 2018, and all applicable sections of the latest version of the generic Project Special Provisions. The PSP can be accessed at the following website: <http://connect.ncdot.gov/resources/safety/pages/ITS-Design-Resources.aspx>
- Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
- Set all detector units to presence mode.
- Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
- Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.
- Closed loop system data: Controller Asset #1426



FEATURE	PHASE	
	3	6
Min Green 1 *	7	14
Extension 1 *	2.0	6.0
Max Green 1 *	20	90
Yellow Clearance	3.0	5.2
Red Clearance	3.3	1.0
Walk 1 *	-	-
Don't Walk 1	-	-
Seconds Per Actuation *	-	1.5
Max Variable Initial *	-	46
Time Before Reduction *	-	15
Time To Reduce *	-	45
Minimum Gap	-	3.4
Recall Mode	-	MIN RECALL
Vehicle Call Memory	-	YELLOW
Dual Entry	-	-
Simultaneous Gap	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phase 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.



NC Dept of Transportation
Division of Highways
Final Drawing Date: 8/28/2020
Checked by: *Changseok Park*
ITS & Signals Unit

PROPOSED	LEGEND	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	→
--- DD ---	Directional Drill	N/A
⊗	No Left Turn Sign (R3-2)	⊗
○	Metal Pole with Mastarm	○
○	Type II Signal Pedestal	○

New Installation

 RAMEY KEMP ASSOCIATES 5808 Farrington Place Raleigh, North Carolina 27609 Phone: 919-872-8116 www.rameykemp.com NC License No. C-0910	Prepared For: Transportation Mobility and Safety Program STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION Signal Design Section	US 64 WB at U-Turn East of Richardson Road Division 5 Wake County Apex PLAN DATE: August 2020 REVIEWED BY: WJ Hamilton PREPARED BY: ZM Esposito RKA PROJ. NO: 19331 (040)	DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED SEAL NORTH CAROLINA PROFESSIONAL ENGINEER WILLIAM J. HAMILTON 32396 DATE: 8/24/2020 SIG. INVENTORY NO. 05-1426
	750 N. Greenfield Pkwy, Garner, NC 27529 SCALE: 0 40 1" = 40'	REVISIONS INIT. DATE	DATE: 8/24/2020



APPENDIX D:

Intersection Capacity Analysis

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

Existing (2020) AM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	7.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗		↖	↗	↖	↖	↗		↖	↗	↖
Traffic Vol, veh/h	14	47	15	64	50	19	19	92	71	21	54	16
Future Vol, veh/h	14	47	15	64	50	19	19	92	71	21	54	16
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	150	-	150	100	-	-	150	-	175
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	16	52	17	71	56	21	21	102	79	23	60	18

Major/Minor	Major1		Major2		Minor1		Minor2					
Conflicting Flow All	77	0	0	69	0	0	341	312	61	381	299	56
Stage 1	-	-	-	-	-	-	93	93	-	198	198	-
Stage 2	-	-	-	-	-	-	248	219	-	183	101	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1522	-	-	1532	-	-	613	603	1004	577	613	1011
Stage 1	-	-	-	-	-	-	914	818	-	804	737	-
Stage 2	-	-	-	-	-	-	756	722	-	819	811	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1522	-	-	1532	-	-	531	569	1004	439	579	1011
Mov Cap-2 Maneuver	-	-	-	-	-	-	531	569	-	439	579	-
Stage 1	-	-	-	-	-	-	904	809	-	795	703	-
Stage 2	-	-	-	-	-	-	648	689	-	652	802	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	1.4		3.6		11.9		11.7	
HCM LOS					B		B	

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	531	701	1522	-	-	1532	-	-	439	579	1011
HCM Lane V/C Ratio	0.04	0.258	0.01	-	-	0.046	-	-	0.053	0.104	0.018
HCM Control Delay (s)	12.1	11.9	7.4	-	-	7.5	-	-	13.7	11.9	8.6
HCM Lane LOS	B	B	A	-	-	A	-	-	B	B	A
HCM 95th %tile Q(veh)	0.1	1	0	-	-	0.1	-	-	0.2	0.3	0.1

Hackney Tract TIA
 2: Apex Barbecue Rd & Olive Chapel Rd

Existing (2020) AM
 HCM 6th TWSC

Intersection						
Int Delay, s/veh	3.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	232	18	74	181	24	86
Future Vol, veh/h	232	18	74	181	24	86
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	258	20	82	201	27	96

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	278	0	633	268
Stage 1	-	-	-	-	268	-
Stage 2	-	-	-	-	365	-
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	-	-	1285	-	444	771
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	702	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1285	-	412	771
Mov Cap-2 Maneuver	-	-	-	-	412	-
Stage 1	-	-	-	-	777	-
Stage 2	-	-	-	-	651	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.3	11.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	648	-	-	1285	-
HCM Lane V/C Ratio	0.189	-	-	0.064	-
HCM Control Delay (s)	11.8	-	-	8	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.7	-	-	0.2	-

Hackney Tract TIA
3: Richardson Rd & Little Gem Ln/Hasse Ave

Existing (2020) AM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	2.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	1	0	1	13	0	38	2	139	9	25	85	1
Future Vol, veh/h	1	0	1	13	0	38	2	139	9	25	85	1
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	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	1	0	1	14	0	42	2	154	10	28	94	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	335	319	95	314	314	159	95	0	0	164	0	0
Stage 1	151	151	-	163	163	-	-	-	-	-	-	-
Stage 2	184	168	-	151	151	-	-	-	-	-	-	-
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	619	598	962	639	601	886	1499	-	-	1414	-	-
Stage 1	851	772	-	839	763	-	-	-	-	-	-	-
Stage 2	818	759	-	851	772	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	580	585	962	628	588	886	1499	-	-	1414	-	-
Mov Cap-2 Maneuver	625	606	-	667	615	-	-	-	-	-	-	-
Stage 1	850	757	-	838	762	-	-	-	-	-	-	-
Stage 2	778	758	-	833	757	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	9.8		9.7		0.1		1.7	
HCM LOS	A		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1499	-	-	758	818	1414	-
HCM Lane V/C Ratio	0.001	-	-	0.003	0.069	0.02	-
HCM Control Delay (s)	7.4	-	-	9.8	9.7	7.6	-
HCM Lane LOS	A	-	-	A	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection												
Int Delay, s/veh	10.5											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	1020	21	0	0	0	0	0	244	0	141	0
Future Vol, veh/h	0	1020	21	0	0	0	0	0	244	0	141	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	0	-	-	1	-	-	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	0	1133	23	0	0	0	0	0	271	0	157	0

Major/Minor	Major1			Minor1			Minor2		
Conflicting Flow All	-	0	0	-	-	567	567	1133	-
Stage 1	-	-	-	-	-	-	0	0	-
Stage 2	-	-	-	-	-	-	567	1133	-
Critical Hdwy	-	-	-	-	-	7.04	7.54	6.54	-
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.54	5.54	-
Follow-up Hdwy	-	-	-	-	-	3.32	3.52	4.02	-
Pot Cap-1 Maneuver	0	-	-	0	0	459	406	202	0
Stage 1	0	-	-	0	0	-	-	-	0
Stage 2	0	-	-	0	0	-	476	276	0
Platoon blocked, %	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	459	166	202	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	166	202	-
Stage 1	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	195	276	-

Approach	EB	NB	SB
HCM Control Delay, s	0	23.5	66
HCM LOS		C	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	459	-	-	202
HCM Lane V/C Ratio	0.591	-	-	0.776
HCM Control Delay (s)	23.5	-	-	66
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	3.7	-	-	5.3

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↗	
Traffic Vol, veh/h	0	0	0	1128	24	0
Future Vol, veh/h	0	0	0	1128	24	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
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	0	0	0	1253	27	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	- 627
Stage 1	-	- 0
Stage 2	-	- 627
Critical Hdwy	-	- 6.84
Critical Hdwy Stg 1	-	- -
Critical Hdwy Stg 2	-	- 5.84
Follow-up Hdwy	-	- 3.52
Pot Cap-1 Maneuver	0	- 416 0
Stage 1	0	- - 0
Stage 2	0	- 495 0
Platoon blocked, %		-
Mov Cap-1 Maneuver	-	- 416 -
Mov Cap-2 Maneuver	-	- 416 -
Stage 1	-	- - -
Stage 2	-	- 495 -

Approach	WB	NB
HCM Control Delay, s	0	14.2
HCM LOS		B

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	416	-
HCM Lane V/C Ratio	0.064	-
HCM Control Delay (s)	14.2	-
HCM Lane LOS	B	-
HCM 95th %tile Q(veh)	0.2	-

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

Existing (2020) PM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	8.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔	↔		↔	↔	↔	↔	↔		↔	↔	↔
Traffic Vol, veh/h	13	99	21	100	81	39	19	85	115	29	73	8
Future Vol, veh/h	13	99	21	100	81	39	19	85	115	29	73	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	250	-	-	150	-	150	100	-	-	150	-	175
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	14	110	23	111	90	43	21	94	128	32	81	9

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	133	0	0	133	0	0	529	505	122	573	473	90
Stage 1	-	-	-	-	-	-	150	150	-	312	312	-
Stage 2	-	-	-	-	-	-	379	355	-	261	161	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
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	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1452	-	-	1452	-	-	460	470	929	430	490	968
Stage 1	-	-	-	-	-	-	853	773	-	699	658	-
Stage 2	-	-	-	-	-	-	643	630	-	744	765	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1452	-	-	1452	-	-	368	430	929	289	448	968
Mov Cap-2 Maneuver	-	-	-	-	-	-	368	430	-	289	448	-
Stage 1	-	-	-	-	-	-	844	765	-	692	608	-
Stage 2	-	-	-	-	-	-	510	582	-	557	757	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.7			3.5			14.1			15.5		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2	SBLn3
Capacity (veh/h)	368	622	1452	-	-	1452	-	-	289	448	968
HCM Lane V/C Ratio	0.057	0.357	0.01	-	-	0.077	-	-	0.111	0.181	0.009
HCM Control Delay (s)	15.4	14	7.5	-	-	7.7	-	-	19	14.8	8.8
HCM Lane LOS	C	B	A	-	-	A	-	-	C	B	A
HCM 95th %tile Q(veh)	0.2	1.6	0	-	-	0.2	-	-	0.4	0.7	0

Hackney Tract TIA
2: Apex Barbecue Rd & Olive Chapel Rd

Existing (2020) PM
HCM 6th TWSC

Intersection						
Int Delay, s/veh	4.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	327	41	209	344	25	149
Future Vol, veh/h	327	41	209	344	25	149
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	363	46	232	382	28	166

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	409	0	1232 386
Stage 1	-	-	-	-	386 -
Stage 2	-	-	-	-	846 -
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	-	-	1150	-	196 662
Stage 1	-	-	-	-	687 -
Stage 2	-	-	-	-	421 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1150	-	146 662
Mov Cap-2 Maneuver	-	-	-	-	146 -
Stage 1	-	-	-	-	687 -
Stage 2	-	-	-	-	313 -

Approach	EB	WB	NB
HCM Control Delay, s	0	3.4	19.5
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	439	-	-	1150	-
HCM Lane V/C Ratio	0.44	-	-	0.202	-
HCM Control Delay (s)	19.5	-	-	8.9	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	2.2	-	-	0.8	-

Hackney Tract TIA
3: Richardson Rd & Little Gem Ln/Hasse Ave

Existing (2020) PM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	2.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	1	3	13	1	33	2	126	20	38	135	3
Future Vol, veh/h	2	1	3	13	1	33	2	126	20	38	135	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	2	1	3	14	1	37	2	140	22	42	150	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	410	402	152	393	392	151	153	0	0	162	0	0
Stage 1	236	236	-	155	155	-	-	-	-	-	-	-
Stage 2	174	166	-	238	237	-	-	-	-	-	-	-
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	552	537	894	566	544	895	1428	-	-	1417	-	-
Stage 1	767	710	-	847	769	-	-	-	-	-	-	-
Stage 2	828	761	-	765	709	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	516	520	894	550	527	895	1428	-	-	1417	-	-
Mov Cap-2 Maneuver	581	558	-	606	568	-	-	-	-	-	-	-
Stage 1	766	689	-	846	768	-	-	-	-	-	-	-
Stage 2	792	760	-	738	688	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	10.2		9.9		0.1		1.6	
HCM LOS	B		A					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1428	-	-	698	782	1417	-
HCM Lane V/C Ratio	0.002	-	-	0.01	0.067	0.03	-
HCM Control Delay (s)	7.5	-	-	10.2	9.9	7.6	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0	0.2	0.1	-

Intersection												
Int Delay, s/veh	30.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑						↑		↑	
Traffic Vol, veh/h	0	1132	30	0	0	0	0	0	203	0	196	0
Future Vol, veh/h	0	1132	30	0	0	0	0	0	203	0	196	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	Yield	-	-	None	-	-	None	-	-	None
Storage Length	-	-	175	-	-	-	-	-	0	-	-	-
Veh in Median Storage, #	-	0	-	-	16983	-	-	0	-	-	0	-
Grade, %	-	-2	-	-	0	-	-	1	-	-	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	0	1258	33	0	0	0	0	0	226	0	218	0

Major/Minor	Major1			Minor1			Minor2				
Conflicting Flow All	-	0	0	-	-	-	629	629	1258	-	
Stage 1	-	-	-	-	-	-	-	0	0	-	
Stage 2	-	-	-	-	-	-	-	629	1258	-	
Critical Hdwy	-	-	-	-	-	-	7.04	7.54	6.54	-	
Critical Hdwy Stg 1	-	-	-	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	-	-	-	-	-	-	-	6.54	5.54	-	
Follow-up Hdwy	-	-	-	-	-	-	3.32	3.52	4.02	-	
Pot Cap-1 Maneuver	0	-	-	-	-	-	0	0	418	367 ~ 170	0
Stage 1	0	-	-	-	-	-	0	0	-	-	0
Stage 2	0	-	-	-	-	-	0	0	-	437	241
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	-	-	-	-	418	169 ~ 170	-
Mov Cap-2 Maneuver	-	-	-	-	-	-	-	-	-	169 ~ 170	-
Stage 1	-	-	-	-	-	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-	-	-	-	201	241

Approach	EB	NB	SB
HCM Control Delay, s	0	23.3	216.7
HCM LOS		C	F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	SBLn1
Capacity (veh/h)	418	-	-	170
HCM Lane V/C Ratio	0.54	-	-	1.281
HCM Control Delay (s)	23.3	-	-	216.7
HCM Lane LOS	C	-	-	F
HCM 95th %tile Q(veh)	3.1	-	-	12.5

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

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↗	
Traffic Vol, veh/h	0	0	0	1463	39	0
Future Vol, veh/h	0	0	0	1463	39	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
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	0	0	0	1626	43	0

Major/Minor	Major2	Minor1
Conflicting Flow All	-	813
Stage 1	-	0
Stage 2	-	813
Critical Hdwy	-	6.84
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	-	5.84
Follow-up Hdwy	-	3.52
Pot Cap-1 Maneuver	0	316
Stage 1	0	-
Stage 2	0	396
Platoon blocked, %	-	-
Mov Cap-1 Maneuver	-	316
Mov Cap-2 Maneuver	-	316
Stage 1	-	-
Stage 2	-	396

Approach	WB	NB
HCM Control Delay, s	0	18.2
HCM LOS		C

Minor Lane/Major Mvmt	NBLn1	WBT
Capacity (veh/h)	316	-
HCM Lane V/C Ratio	0.137	-
HCM Control Delay (s)	18.2	-
HCM Lane LOS	C	-
HCM 95th %tile Q(veh)	0.5	-

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

No-Build (2024) AM
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	68	22	93	65	120	37	110	128	93	102	48
Future Volume (vph)	54	68	22	93	65	120	37	110	128	93	102	48
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		150	100		0	150		175
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.964				0.850		0.919				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1796	0	1770	1863	1583	1770	1712	0	1770	1863	1583
Flt Permitted	0.710			0.692			0.684			0.596		
Satd. Flow (perm)	1323	1796	0	1289	1863	1583	1274	1712	0	1110	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1889			1311			1771			2925	
Travel Time (s)		28.6			19.9			26.8			44.3	
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
Adj. Flow (vph)	60	76	24	103	72	133	41	122	142	103	113	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	100	0	103	72	133	41	264	0	103	113	53
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6		6	4			8		8
Detector Phase	2	2		6	6	6	4	4		8	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0		14.0	14.0	14.0
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	56.7%
Maximum Green (s)	19.0	19.0		19.0	19.0	19.0	27.0	27.0		27.0	27.0	27.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	None
Act Effct Green (s)	12.1	12.1		12.1	12.1	12.1	12.7	12.7		12.7	12.7	12.7
Actuated g/C Ratio	0.35	0.35		0.35	0.35	0.35	0.36	0.36		0.36	0.36	0.36
v/c Ratio	0.13	0.16		0.23	0.11	0.24	0.09	0.43		0.26	0.17	0.09
Control Delay	9.8	9.7		10.8	9.3	10.6	7.7	10.6		9.4	7.9	7.5
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	9.8	9.7		10.8	9.3	10.6	7.7	10.6		9.4	7.9	7.5
LOS	A	A		B	A	B	A	B		A	A	A
Approach Delay		9.7			10.3			10.2			8.4	
Approach LOS		A			B			B			A	

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

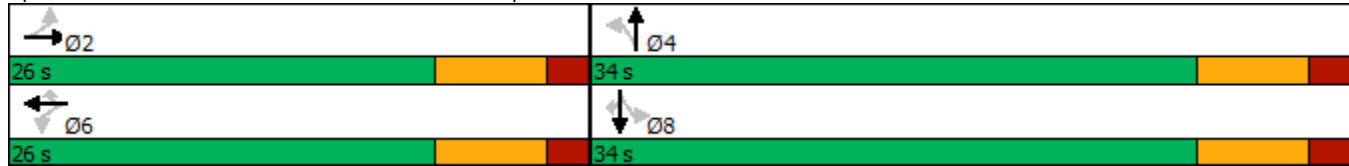
No-Build (2024) AM
Lanes, Volumes, Timings



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	7	12		13	8	16	4	31		11	12	5
Queue Length 95th (ft)	27	39		42	30	51	18	82		38	37	21
Internal Link Dist (ft)		1809			1231			1691			2845	
Turn Bay Length (ft)	250			150		150	100			150		175
Base Capacity (vph)	805	1093		785	1134	964	1071	1440		933	1567	1331
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.07	0.09		0.13	0.06	0.14	0.04	0.18		0.11	0.07	0.04

Intersection Summary	
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	35
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	9.7
Intersection Capacity Utilization	43.8%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A

Splits and Phases: 1: Richardson Rd & Olive Chapel Rd



Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	419	20	83	328	27	97
Future Vol, veh/h	419	20	83	328	27	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	-	-	-	-	0	-
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	466	22	92	364	30	108

Major/Minor	Major1	Major2	Minor1			
Conflicting Flow All	0	0	488	0	1025	477
Stage 1	-	-	-	-	477	-
Stage 2	-	-	-	-	548	-
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	-	-	1075	-	260	588
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	579	-
Platoon blocked, %	-	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1075	-	232	588
Mov Cap-2 Maneuver	-	-	-	-	232	-
Stage 1	-	-	-	-	624	-
Stage 2	-	-	-	-	517	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	16.8
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	441	-	-	1075	-
HCM Lane V/C Ratio	0.312	-	-	0.086	-
HCM Control Delay (s)	16.8	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.3	-	-	0.3	-

Hackney Tract TIA
3: Richardson Rd & Little Gem Ln/Hasse Ave

No-Build (2024) AM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	1.9											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	1	0	1	15	0	103	2	478	10	48	503	1
Future Vol, veh/h	1	0	1	15	0	103	2	478	10	48	503	1
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	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	1	0	1	17	0	114	2	531	11	53	559	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1264	1212	560	1207	1207	537	560	0	0	542	0	0
Stage 1	666	666	-	541	541	-	-	-	-	-	-	-
Stage 2	598	546	-	666	666	-	-	-	-	-	-	-
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	146	182	528	160	183	544	1011	-	-	1027	-	-
Stage 1	449	457	-	525	521	-	-	-	-	-	-	-
Stage 2	489	518	-	449	457	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	111	172	528	153	173	544	1011	-	-	1027	-	-
Mov Cap-2 Maneuver	223	283	-	282	293	-	-	-	-	-	-	-
Stage 1	448	433	-	524	520	-	-	-	-	-	-	-
Stage 2	385	517	-	425	433	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	16.5		15.1		0		0.8	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1011	-	-	314	487	1027	-
HCM Lane V/C Ratio	0.002	-	-	0.007	0.269	0.052	-
HCM Control Delay (s)	8.6	-	-	16.5	15.1	8.7	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1.1	0.2	-

Hackney Tract TIA
4: Richardson Rd & US 64 EB

No-Build (2024) AM
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗						↖↖		↖↖	
Traffic Volume (vph)	0	1124	267	0	0	0	0	0	915	0	719	0
Future Volume (vph)	0	1124	267	0	0	0	0	0	915	0	719	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			0%			1%			0%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95	0.95	1.00
Frt			0.850						0.850			
Flt Protected												
Satd. Flow (prot)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			35	
Link Distance (ft)		3066			489			978			454	
Travel Time (s)		38.0			6.1			14.8			8.8	
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
Adj. Flow (vph)	0	1249	297	0	0	0	0	0	1017	0	799	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1249	297	0	0	0	0	0	1017	0	799	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									8	
Permitted Phases			2						8	8		
Detector Phase		2	2						8	8	8	
Switch Phase												
Minimum Initial (s)		14.0	14.0						7.0	7.0	7.0	
Minimum Split (s)		20.8	20.8						13.2	13.2	13.2	
Total Split (s)		30.0	30.0						30.0	30.0	30.0	
Total Split (%)		50.0%	50.0%						50.0%	50.0%	50.0%	
Maximum Green (s)		23.2	23.2						23.8	23.8	23.8	
Yellow Time (s)		5.4	5.4						3.0	3.0	3.0	
All-Red Time (s)		1.4	1.4						3.2	3.2	3.2	
Lost Time Adjust (s)		-1.8	-1.8						-1.2		-1.2	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0	6.0						2.0	2.0	2.0	
Minimum Gap (s)		3.4	3.4						0.2	0.2	0.2	
Time Before Reduce (s)		15.0	15.0						0.0	0.0	0.0	
Time To Reduce (s)		45.0	45.0						0.0	0.0	0.0	
Recall Mode		C-Min	C-Min						None	None	None	
Act Effect Green (s)		25.2	25.2						24.8		24.8	
Actuated g/C Ratio		0.42	0.42						0.41		0.41	
v/c Ratio		0.83	0.44						0.89		0.55	
Control Delay		22.1	15.1						28.2		10.9	
Queue Delay		0.0	0.0						0.0		0.0	

Hackney Tract TIA
4: Richardson Rd & US 64 EB

No-Build (2024) AM
Lanes, Volumes, Timings

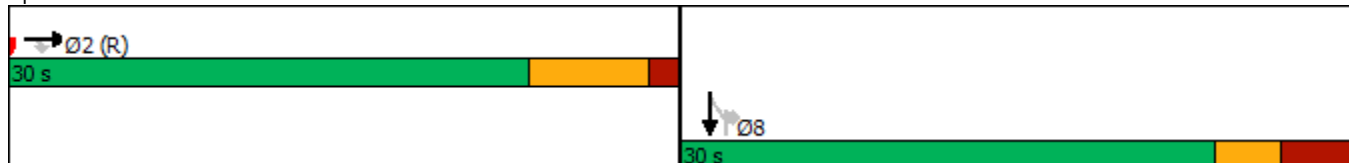


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		22.1	15.1						28.2		10.9	
LOS		C	B						C		B	
Approach Delay		20.7						28.2			10.9	
Approach LOS		C						C			B	
Queue Length 50th (ft)		203	74						183		106	
Queue Length 95th (ft)		#296	132						#311		m120	
Internal Link Dist (ft)		2986				409		898			374	
Turn Bay Length (ft)			175									
Base Capacity (vph)		1502	672						1155		1474	
Starvation Cap Reductn		0	0						0		0	
Spillback Cap Reductn		0	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.83	0.44						0.88		0.54	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 55
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 20.7
 Intersection LOS: C
 Intersection Capacity Utilization 99.9%
 ICU Level of Service F
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Richardson Rd & US 64 EB



Hackney Tract TIA
5: U-Turn East & US 64 WB

No-Build (2024) AM
Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑↑	
Traffic Volume (vph)	0	0	0	1770	247	0
Future Volume (vph)	0	0	0	1770	247	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	3539	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	3433	0
Right Turn on Red		No			No	No
Satd. Flow (RTOR)						
Link Speed (mph)	55			55	25	
Link Distance (ft)	459			2512	426	
Travel Time (s)	5.7			31.1	11.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1967	274	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1967	274	0
Turn Type				NA	Prot	
Protected Phases				6	8	
Permitted Phases						
Detector Phase				6	8	
Switch Phase						
Minimum Initial (s)				14.0	7.0	
Minimum Split (s)				20.2	13.3	
Total Split (s)				46.7	13.3	
Total Split (%)				77.8%	22.2%	
Maximum Green (s)				40.5	7.0	
Yellow Time (s)				5.2	3.0	
All-Red Time (s)				1.0	3.3	
Lost Time Adjust (s)				-1.2	-1.3	
Total Lost Time (s)				5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)				6.0	2.0	
Minimum Gap (s)				3.4	0.2	
Time Before Reduce (s)				15.0	0.0	
Time To Reduce (s)				45.0	0.0	
Recall Mode				C-Min	None	
Act Effct Green (s)				41.7	8.3	
Actuated g/C Ratio				0.70	0.14	
v/c Ratio				0.80	0.58	
Control Delay				9.6	27.8	
Queue Delay				0.0	0.0	
Total Delay				9.6	27.8	
LOS				A	C	
Approach Delay				9.6	27.8	
Approach LOS				A	C	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)				199	50	
Queue Length 95th (ft)				288	m60	
Internal Link Dist (ft)	379			2432	346	
Turn Bay Length (ft)						
Base Capacity (vph)				2459	474	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				0	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.80	0.58	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.80
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization	64.3%
ICU Level of Service	C
Analysis Period (min)	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: U-Turn East & US 64 WB



Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

No-Build (2024) PM
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	119	41	167	104	139	31	103	165	139	147	55
Future Volume (vph)	58	119	41	167	104	139	31	103	165	139	147	55
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		150	100		0	150		175
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.961				0.850		0.908				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1790	0	1770	1863	1583	1770	1691	0	1770	1863	1583
Flt Permitted	0.682			0.645			0.654			0.579		
Satd. Flow (perm)	1270	1790	0	1201	1863	1583	1218	1691	0	1079	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1889			1311			1771			2925	
Travel Time (s)		28.6			19.9			26.8			44.3	
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
Adj. Flow (vph)	64	132	46	186	116	154	34	114	183	154	163	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	178	0	186	116	154	34	297	0	154	163	61
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4				8
Permitted Phases	2			6		6	4			8		8
Detector Phase	2	2		6	6	6	4	4		8	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0		14.0	14.0	14.0
Total Split (s)	29.0	29.0		29.0	29.0	29.0	31.0	31.0		31.0	31.0	31.0
Total Split (%)	48.3%	48.3%		48.3%	48.3%	48.3%	51.7%	51.7%		51.7%	51.7%	51.7%
Maximum Green (s)	22.0	22.0		22.0	22.0	22.0	24.0	24.0		24.0	24.0	24.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	None
Act Effct Green (s)	14.2	14.2		14.2	14.2	14.2	14.6	14.6		14.6	14.6	14.6
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36	0.37	0.37		0.37	0.37	0.37
v/c Ratio	0.14	0.28		0.43	0.17	0.27	0.08	0.47		0.39	0.24	0.10
Control Delay	10.2	10.9		13.9	10.0	11.1	9.6	13.1		13.4	10.4	9.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	10.2	10.9		13.9	10.0	11.1	9.6	13.1		13.4	10.4	9.6
LOS	B	B		B	B	B	A	B		B	B	A
Approach Delay		10.7			12.0			12.7			11.5	
Approach LOS		B			B			B			B	

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

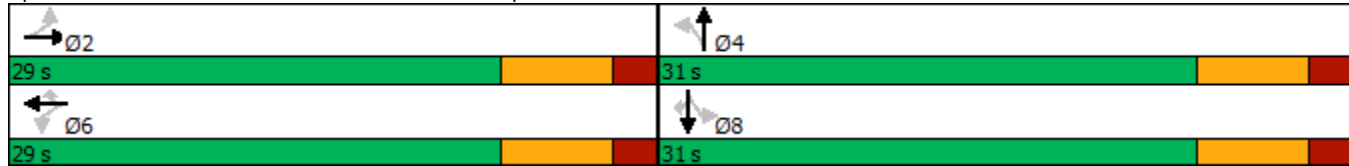
No-Build (2024) PM
Lanes, Volumes, Timings



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	8	24		27	15	21	4	43		21	21	8
Queue Length 95th (ft)	33	73		86	50	66	21	124		73	67	31
Internal Link Dist (ft)		1809			1231			1691			2845	
Turn Bay Length (ft)	250			150		150	100			150		175
Base Capacity (vph)	817	1152		773	1199	1018	849	1179		752	1299	1103
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.08	0.15		0.24	0.10	0.15	0.04	0.25		0.20	0.13	0.06

Intersection Summary	
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	39.4
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.47
Intersection Signal Delay:	11.8
Intersection LOS:	B
Intersection Capacity Utilization	57.9%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: Richardson Rd & Olive Chapel Rd



Intersection						
Int Delay, s/veh	13.1					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	520	46	235	571	28	168
Future Vol, veh/h	520	46	235	571	28	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	578	51	261	634	31	187

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	629	0	1760
Stage 1	-	-	-	-	604
Stage 2	-	-	-	-	1156
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	953	-	93
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	300
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	953	-	54
Mov Cap-2 Maneuver	-	-	-	-	54
Stage 1	-	-	-	-	546
Stage 2	-	-	-	-	173

Approach	EB	WB	NB
HCM Control Delay, s	0	3	92.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	229	-	-	953	-
HCM Lane V/C Ratio	0.951	-	-	0.274	-
HCM Control Delay (s)	92.5	-	-	10.2	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	8.4	-	-	1.1	-

Hackney Tract TIA
 3: Richardson Rd & Little Gem Ln/Hasse Ave

No-Build (2024) PM
 HCM 6th TWSC

Intersection												
Int Delay, s/veh	2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	1	3	15	1	76	2	599	23	111	648	3
Future Vol, veh/h	2	1	3	15	1	76	2	599	23	111	648	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	2	1	3	17	1	84	2	666	26	123	720	3

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1694	1664	722	1653	1652	679	723	0	0	692	0	0
Stage 1	968	968	-	683	683	-	-	-	-	-	-	-
Stage 2	726	696	-	970	969	-	-	-	-	-	-	-
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	73	97	427	78	98	452	879	-	-	903	-	-
Stage 1	305	332	-	439	449	-	-	-	-	-	-	-
Stage 2	416	443	-	304	332	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	53	84	427	69	84	452	879	-	-	903	-	-
Mov Cap-2 Maneuver	138	176	-	177	195	-	-	-	-	-	-	-
Stage 1	304	287	-	438	448	-	-	-	-	-	-	-
Stage 2	337	442	-	260	287	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	21.8		19.1		0		1.4	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	879	-	-	221	357	903	-
HCM Lane V/C Ratio	0.003	-	-	0.03	0.286	0.137	-
HCM Control Delay (s)	9.1	-	-	21.8	19.1	9.6	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.2	0.5	-

Hackney Tract TIA
4: Richardson Rd & US 64 EB

No-Build (2024) PM
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗						↖↖		↖↖	
Traffic Volume (vph)	0	1166	388	0	0	0	0	0	1331	0	971	0
Future Volume (vph)	0	1166	388	0	0	0	0	0	1331	0	971	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			0%			1%			0%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95	0.95	1.00
Frt			0.850						0.850			
Flt Protected												
Satd. Flow (prot)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			35	
Link Distance (ft)		3066			489			978			454	
Travel Time (s)		38.0			6.1			14.8			8.8	
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
Adj. Flow (vph)	0	1296	431	0	0	0	0	0	1479	0	1079	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1296	431	0	0	0	0	0	1479	0	1079	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									8	
Permitted Phases			2						8	8		
Detector Phase		2	2						8	8	8	
Switch Phase												
Minimum Initial (s)		14.0	14.0						7.0	7.0	7.0	
Minimum Split (s)		20.8	20.8						13.2	13.2	13.2	
Total Split (s)		50.0	50.0						70.0	70.0	70.0	
Total Split (%)		41.7%	41.7%						58.3%	58.3%	58.3%	
Maximum Green (s)		43.2	43.2						63.8	63.8	63.8	
Yellow Time (s)		5.4	5.4						3.0	3.0	3.0	
All-Red Time (s)		1.4	1.4						3.2	3.2	3.2	
Lost Time Adjust (s)		-1.8	-1.8						-1.2		-1.2	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0	6.0						2.0	2.0	2.0	
Minimum Gap (s)		3.4	3.4						0.2	0.2	0.2	
Time Before Reduce (s)		15.0	15.0						0.0	0.0	0.0	
Time To Reduce (s)		45.0	45.0						0.0	0.0	0.0	
Recall Mode		C-Min	C-Min						None	None	None	
Act Effect Green (s)		45.0	45.0						65.0		65.0	
Actuated g/C Ratio		0.38	0.38						0.54		0.54	
v/c Ratio		0.97	0.72						0.98		0.56	
Control Delay		55.0	40.2						47.4		19.6	
Queue Delay		0.0	0.0						0.0		0.0	

Hackney Tract TIA
4: Richardson Rd & US 64 EB

No-Build (2024) PM
Lanes, Volumes, Timings

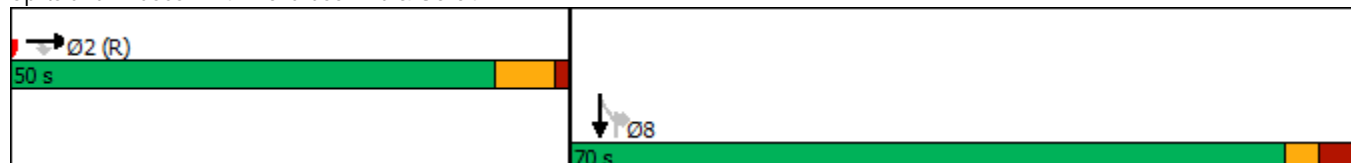


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		55.0	40.2						47.4		19.6	
LOS		E	D						D		B	
Approach Delay		51.3						47.4			19.6	
Approach LOS		D						D			B	
Queue Length 50th (ft)		512	283						613		278	
Queue Length 95th (ft)		#668	408						#817		341	
Internal Link Dist (ft)		2986			409			898			374	
Turn Bay Length (ft)			175									
Base Capacity (vph)		1340	599						1502		1916	
Starvation Cap Reductn		0	0						0		0	
Spillback Cap Reductn		0	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.97	0.72						0.98		0.56	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.98
 Intersection Signal Delay: 42.0
 Intersection LOS: D
 Intersection Capacity Utilization 129.6%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Richardson Rd & US 64 EB



Hackney Tract TIA
5: U-Turn East & US 64 WB

No-Build (2024) PM
Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑↑	
Traffic Volume (vph)	0	0	0	2166	472	0
Future Volume (vph)	0	0	0	2166	472	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	3539	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	3433	0
Right Turn on Red		No			No	No
Satd. Flow (RTOR)						
Link Speed (mph)	55			55	25	
Link Distance (ft)	459			2512	426	
Travel Time (s)	5.7			31.1	11.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	2407	524	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	2407	524	0
Turn Type				NA	Prot	
Protected Phases				6	8	
Permitted Phases						
Detector Phase				6	8	
Switch Phase						
Minimum Initial (s)				14.0	7.0	
Minimum Split (s)				20.2	13.3	
Total Split (s)				70.0	20.0	
Total Split (%)				77.8%	22.2%	
Maximum Green (s)				63.8	13.7	
Yellow Time (s)				5.2	3.0	
All-Red Time (s)				1.0	3.3	
Lost Time Adjust (s)				-1.2	-1.3	
Total Lost Time (s)				5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)				6.0	2.0	
Minimum Gap (s)				3.4	0.2	
Time Before Reduce (s)				15.0	0.0	
Time To Reduce (s)				45.0	0.0	
Recall Mode				C-Min	None	
Act Effct Green (s)				65.0	15.0	
Actuated g/C Ratio				0.72	0.17	
v/c Ratio				0.94	0.92	
Control Delay				20.5	59.9	
Queue Delay				0.0	0.0	
Total Delay				20.5	59.9	
LOS				C	E	
Approach Delay				20.5	59.9	
Approach LOS				C	E	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)				523	152	
Queue Length 95th (ft)				#847	#246	
Internal Link Dist (ft)	379			2432	346	
Turn Bay Length (ft)						
Base Capacity (vph)				2555	572	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				0	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.94	0.92	

Intersection Summary
 Area Type: Other
 Cycle Length: 90
 Actuated Cycle Length: 90
 Offset: 0 (0%), Referenced to phase 6:WBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.94
 Intersection Signal Delay: 27.6
 Intersection LOS: C
 Intersection Capacity Utilization 81.7%
 ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 5: U-Turn East & US 64 WB



Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

Build (2024) AM
Lanes, Volumes, Timings

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	54	70	22	101	70	120	37	110	131	93	102	48
Future Volume (vph)	54	70	22	101	70	120	37	110	131	93	102	48
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		150	100		0	150		175
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.965				0.850		0.918				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1798	0	1770	1863	1583	1770	1710	0	1770	1863	1583
Flt Permitted	0.706			0.691			0.684			0.594		
Satd. Flow (perm)	1315	1798	0	1287	1863	1583	1274	1710	0	1106	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1889			1311			1771			2925	
Travel Time (s)		28.6			19.9			26.8			44.3	
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
Adj. Flow (vph)	60	78	24	112	78	133	41	122	146	103	113	53
Shared Lane Traffic (%)												
Lane Group Flow (vph)	60	102	0	112	78	133	41	268	0	103	113	53
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6		6	4			8		8
Detector Phase	2	2		6	6	6	4	4		8	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0		14.0	14.0	14.0
Total Split (s)	26.0	26.0		26.0	26.0	26.0	34.0	34.0		34.0	34.0	34.0
Total Split (%)	43.3%	43.3%		43.3%	43.3%	43.3%	56.7%	56.7%		56.7%	56.7%	56.7%
Maximum Green (s)	19.0	19.0		19.0	19.0	19.0	27.0	27.0		27.0	27.0	27.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	None
Act Effct Green (s)	12.2	12.2		12.2	12.2	12.2	12.8	12.8		12.8	12.8	12.8
Actuated g/C Ratio	0.35	0.35		0.35	0.35	0.35	0.36	0.36		0.36	0.36	0.36
v/c Ratio	0.13	0.16		0.25	0.12	0.24	0.09	0.43		0.26	0.17	0.09
Control Delay	9.9	9.8		11.1	9.5	10.6	7.8	10.7		9.5	8.0	7.6
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	9.9	9.8		11.1	9.5	10.6	7.8	10.7		9.5	8.0	7.6
LOS	A	A		B	A	B	A	B		A	A	A
Approach Delay		9.8			10.5			10.3			8.5	
Approach LOS		A			B			B			A	

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

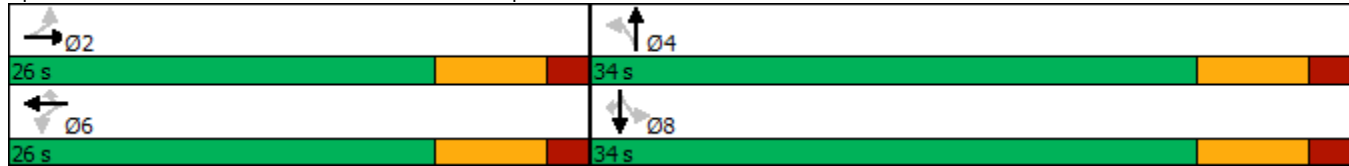
Build (2024) AM
Lanes, Volumes, Timings



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	7	12		14	9	17	4	31		11	12	5
Queue Length 95th (ft)	28	40		46	32	52	18	85		39	38	22
Internal Link Dist (ft)		1809			1231			1691			2845	
Turn Bay Length (ft)	250			150		150	100			150		175
Base Capacity (vph)	796	1088		779	1128	958	1065	1430		924	1558	1323
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.08	0.09		0.14	0.07	0.14	0.04	0.19		0.11	0.07	0.04

Intersection Summary	
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	35.2
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.43
Intersection Signal Delay:	9.8
Intersection Capacity Utilization	44.4%
Analysis Period (min)	15
Intersection LOS:	A
ICU Level of Service	A

Splits and Phases: 1: Richardson Rd & Olive Chapel Rd



Intersection						
Int Delay, s/veh	2.9					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	446	22	83	336	28	97
Future Vol, veh/h	446	22	83	336	28	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	-	-	-	-	0	-
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	496	24	92	373	31	108

Major/Minor	Major1	Major2	Minor1	Minor2	Minor3
Conflicting Flow All	0	0	520	0	1065
Stage 1	-	-	-	-	508
Stage 2	-	-	-	-	557
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1046	-	246
Stage 1	-	-	-	-	604
Stage 2	-	-	-	-	574
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1046	-	219
Mov Cap-2 Maneuver	-	-	-	-	219
Stage 1	-	-	-	-	604
Stage 2	-	-	-	-	510

Approach	EB	WB	NB
HCM Control Delay, s	0	1.7	17.9
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	417	-	-	1046	-
HCM Lane V/C Ratio	0.333	-	-	0.088	-
HCM Control Delay (s)	17.9	-	-	8.8	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	1.4	-	-	0.3	-

Hackney Tract TIA
3: Richardson Rd & Little Gem Ln/Hasse Ave

Build (2024) AM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	1	0	1	15	0	167	2	478	10	67	503	1
Future Vol, veh/h	1	0	1	15	0	167	2	478	10	67	503	1
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	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	1	0	1	17	0	186	2	531	11	74	559	1













Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1342	1254	560	1249	1249	537	560	0	0	542	0	0
Stage 1	708	708	-	541	541	-	-	-	-	-	-	-
Stage 2	634	546	-	708	708	-	-	-	-	-	-	-
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	129	172	528	150	173	544	1011	-	-	1027	-	-
Stage 1	426	438	-	525	521	-	-	-	-	-	-	-
Stage 2	467	518	-	426	438	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	80	159	528	141	160	544	1011	-	-	1027	-	-
Mov Cap-2 Maneuver	170	266	-	267	279	-	-	-	-	-	-	-
Stage 1	425	406	-	524	520	-	-	-	-	-	-	-
Stage 2	307	517	-	394	406	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	19.1		17		0		1	
HCM LOS	C		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1011	-	-	257	501	1027	-
HCM Lane V/C Ratio	0.002	-	-	0.009	0.404	0.072	-
HCM Control Delay (s)	8.6	-	-	19.1	17	8.8	-
HCM Lane LOS	A	-	-	C	C	A	-
HCM 95th %tile Q(veh)	0	-	-	0	1.9	0.2	-

Hackney Tract TIA
4: Richardson Rd & US 64 EB

Build (2024) AM
Lanes, Volumes, Timings

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗						↖↖		↖↖	
Traffic Volume (vph)	0	1124	270	0	0	0	0	0	979	0	735	0
Future Volume (vph)	0	1124	270	0	0	0	0	0	979	0	735	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			0%			1%			0%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95	0.95	1.00
Frt			0.850						0.850			
Flt Protected												
Satd. Flow (prot)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			35	
Link Distance (ft)		3066			489			978			454	
Travel Time (s)		38.0			6.1			14.8			8.8	
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
Adj. Flow (vph)	0	1249	300	0	0	0	0	0	1088	0	817	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1249	300	0	0	0	0	0	1088	0	817	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									8	
Permitted Phases			2						8	8		
Detector Phase		2	2						8	8	8	
Switch Phase												
Minimum Initial (s)		14.0	14.0						7.0	7.0	7.0	
Minimum Split (s)		20.8	20.8						13.2	13.2	13.2	
Total Split (s)		29.0	29.0						31.0	31.0	31.0	
Total Split (%)		48.3%	48.3%						51.7%	51.7%	51.7%	
Maximum Green (s)		22.2	22.2						24.8	24.8	24.8	
Yellow Time (s)		5.4	5.4						3.0	3.0	3.0	
All-Red Time (s)		1.4	1.4						3.2	3.2	3.2	
Lost Time Adjust (s)		-1.8	-1.8						-1.3		-1.2	
Total Lost Time (s)		5.0	5.0						4.9		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0	6.0						2.0	2.0	2.0	
Minimum Gap (s)		3.4	3.4						0.2	0.2	0.2	
Time Before Reduce (s)		15.0	15.0						0.0	0.0	0.0	
Time To Reduce (s)		45.0	45.0						0.0	0.0	0.0	
Recall Mode		C-Min	C-Min						None	None	None	
Act Effect Green (s)		24.0	24.0						26.1		26.0	
Actuated g/C Ratio		0.40	0.40						0.44		0.43	
v/c Ratio		0.87	0.47						0.90		0.53	
Control Delay		25.5	16.3						28.5		9.8	
Queue Delay		0.0	0.0						0.0		0.0	

Hackney Tract TIA
4: Richardson Rd & US 64 EB

Build (2024) AM
Lanes, Volumes, Timings

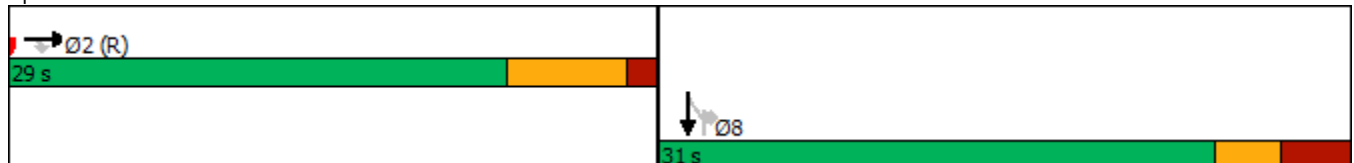


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		25.5	16.3						28.5		9.8	
LOS		C	B						C		A	
Approach Delay		23.7						28.5			9.8	
Approach LOS		C						C			A	
Queue Length 50th (ft)		210	77						197		99	
Queue Length 95th (ft)		#333	138						#333		m110	
Internal Link Dist (ft)		2986			409			898			374	
Turn Bay Length (ft)			175									
Base Capacity (vph)		1430	639						1206		1533	
Starvation Cap Reductn		0	0						0		0	
Spillback Cap Reductn		0	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.87	0.47						0.90		0.53	

Intersection Summary

Area Type: Other
 Cycle Length: 60
 Actuated Cycle Length: 60
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 60
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.90
 Intersection Signal Delay: 22.0
 Intersection LOS: C
 Intersection Capacity Utilization 103.0%
 ICU Level of Service G
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: Richardson Rd & US 64 EB



Hackney Tract TIA
5: U-Turn East & US 64 WB

Build (2024) AM
Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑↑	
Traffic Volume (vph)	0	0	0	1786	258	0
Future Volume (vph)	0	0	0	1786	258	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	3539	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	3433	0
Right Turn on Red		No			No	No
Satd. Flow (RTOR)						
Link Speed (mph)	55			55	25	
Link Distance (ft)	459			2512	426	
Travel Time (s)	5.7			31.1	11.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	1984	287	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	1984	287	0
Turn Type				NA	Prot	
Protected Phases				6	8	
Permitted Phases						
Detector Phase				6	8	
Switch Phase						
Minimum Initial (s)				14.0	7.0	
Minimum Split (s)				21.2	14.0	
Total Split (s)				46.0	14.0	
Total Split (%)				76.7%	23.3%	
Maximum Green (s)				39.8	7.7	
Yellow Time (s)				5.2	3.0	
All-Red Time (s)				1.0	3.3	
Lost Time Adjust (s)				-1.2	-1.3	
Total Lost Time (s)				5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)				6.0	2.0	
Minimum Gap (s)				3.4	0.2	
Time Before Reduce (s)				15.0	0.0	
Time To Reduce (s)				45.0	0.0	
Recall Mode				C-Min	None	
Act Effct Green (s)				41.1	8.9	
Actuated g/C Ratio				0.68	0.15	
v/c Ratio				0.82	0.57	
Control Delay				10.5	26.5	
Queue Delay				0.0	0.0	
Total Delay				10.5	26.5	
LOS				B	C	
Approach Delay				10.5	26.5	
Approach LOS				B	C	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)				215	51	
Queue Length 95th (ft)				312	m59	
Internal Link Dist (ft)	379			2432	346	
Turn Bay Length (ft)						
Base Capacity (vph)				2426	514	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				0	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.82	0.56	

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	60
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.82
Intersection Signal Delay:	12.5
Intersection LOS:	B
Intersection Capacity Utilization:	65.1%
ICU Level of Service:	C
Analysis Period (min):	15
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 5: U-Turn East & US 64 WB



Intersection						
Int Delay, s/veh	0.8					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	5	439	355	9	29	13
Future Vol, veh/h	5	439	355	9	29	13
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
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	6	488	394	10	32	14
























Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	404	0	-	0	894
Stage 1	-	-	-	-	394
Stage 2	-	-	-	-	500
Critical Hdwy	4.12	-	-	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	2.218	-	-	-	3.518
Pot Cap-1 Maneuver	1155	-	-	-	312
Stage 1	-	-	-	-	681
Stage 2	-	-	-	-	609
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	1155	-	-	-	310
Mov Cap-2 Maneuver	-	-	-	-	310
Stage 1	-	-	-	-	678
Stage 2	-	-	-	-	609

Approach	EB	WB	SB
HCM Control Delay, s	0.1	0	16.1
HCM LOS			C

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	1155	-	-	-	370
HCM Lane V/C Ratio	0.005	-	-	-	0.126
HCM Control Delay (s)	8.1	-	-	-	16.1
HCM Lane LOS	A	-	-	-	C
HCM 95th %tile Q(veh)	0	-	-	-	0.4

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

Build (2024) PM
Lanes, Volumes, Timings

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	58	125	41	172	107	139	31	103	174	139	147	55
Future Volume (vph)	58	125	41	172	107	139	31	103	174	139	147	55
Ideal Flow (vphp)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	250		0	150		150	100		0	150		175
Storage Lanes	1		0	1		1	1		0	1		1
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.963				0.850		0.906				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1794	0	1770	1863	1583	1770	1688	0	1770	1863	1583
Flt Permitted	0.681			0.641			0.654			0.573		
Satd. Flow (perm)	1269	1794	0	1194	1863	1583	1218	1688	0	1067	1863	1583
Right Turn on Red			No			No			No			No
Satd. Flow (RTOR)												
Link Speed (mph)		45			45			45			45	
Link Distance (ft)		1889			1311			1771			2925	
Travel Time (s)		28.6			19.9			26.8			44.3	
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
Adj. Flow (vph)	64	139	46	191	119	154	34	114	193	154	163	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	64	185	0	191	119	154	34	307	0	154	163	61
Turn Type	Perm	NA		Perm	NA	Perm	Perm	NA		Perm	NA	Perm
Protected Phases		2			6			4			8	
Permitted Phases	2			6		6	4			8		8
Detector Phase	2	2		6	6	6	4	4		8	8	8
Switch Phase												
Minimum Initial (s)	7.0	7.0		7.0	7.0	7.0	7.0	7.0		7.0	7.0	7.0
Minimum Split (s)	14.0	14.0		14.0	14.0	14.0	14.0	14.0		14.0	14.0	14.0
Total Split (s)	29.0	29.0		29.0	29.0	29.0	31.0	31.0		31.0	31.0	31.0
Total Split (%)	48.3%	48.3%		48.3%	48.3%	48.3%	51.7%	51.7%		51.7%	51.7%	51.7%
Maximum Green (s)	22.0	22.0		22.0	22.0	22.0	24.0	24.0		24.0	24.0	24.0
Yellow Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
All-Red Time (s)	2.0	2.0		2.0	2.0	2.0	2.0	2.0		2.0	2.0	2.0
Lost Time Adjust (s)	-2.0	-2.0		-2.0	-2.0	-2.0	-2.0	-2.0		-2.0	-2.0	-2.0
Total Lost Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	3.0	3.0		3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	Min	Min		Min	Min	Min	None	None		None	None	None
Act Effct Green (s)	14.5	14.5		14.5	14.5	14.5	15.0	15.0		15.0	15.0	15.0
Actuated g/C Ratio	0.36	0.36		0.36	0.36	0.36	0.37	0.37		0.37	0.37	0.37
v/c Ratio	0.14	0.29		0.44	0.18	0.27	0.07	0.49		0.39	0.23	0.10
Control Delay	10.3	11.1		14.2	10.2	11.2	9.8	13.4		13.6	10.5	9.7
Queue Delay	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	10.3	11.1		14.2	10.2	11.2	9.8	13.4		13.6	10.5	9.7
LOS	B	B		B	B	B	A	B		B	B	A
Approach Delay		10.9			12.2			13.0			11.6	
Approach LOS		B			B			B			B	

Hackney Tract TIA
1: Richardson Rd & Olive Chapel Rd

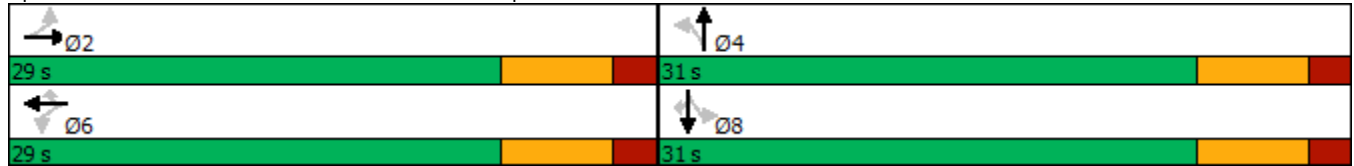
Build (2024) PM
Lanes, Volumes, Timings



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Length 50th (ft)	9	26		29	16	22	4	45		22	21	8
Queue Length 95th (ft)	33	77		89	52	67	21	131		75	69	31
Internal Link Dist (ft)		1809			1231			1691			2845	
Turn Bay Length (ft)	250			150		150	100			150		175
Base Capacity (vph)	804	1137		757	1181	1004	836	1159		733	1280	1088
Starvation Cap Reductn	0	0		0	0	0	0	0		0	0	0
Spillback Cap Reductn	0	0		0	0	0	0	0		0	0	0
Storage Cap Reductn	0	0		0	0	0	0	0		0	0	0
Reduced v/c Ratio	0.08	0.16		0.25	0.10	0.15	0.04	0.26		0.21	0.13	0.06

Intersection Summary	
Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	40.2
Natural Cycle:	40
Control Type:	Actuated-Uncoordinated
Maximum v/c Ratio:	0.49
Intersection Signal Delay:	12.0
Intersection LOS:	B
Intersection Capacity Utilization	59.1%
ICU Level of Service	B
Analysis Period (min)	15

Splits and Phases: 1: Richardson Rd & Olive Chapel Rd



Hackney Tract TIA
 2: Apex Barbecue Rd & Olive Chapel Rd

Build (2024) PM
 HCM 6th TWSC

Intersection						
Int Delay, s/veh	18					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	537	47	235	599	30	168
Future Vol, veh/h	537	47	235	599	30	168
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	597	52	261	666	33	187

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	649	0	1811 623
Stage 1	-	-	-	-	623 -
Stage 2	-	-	-	-	1188 -
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	-	-	937	-	86 486
Stage 1	-	-	-	-	535 -
Stage 2	-	-	-	-	289 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	937	-	48 486
Mov Cap-2 Maneuver	-	-	-	-	48 -
Stage 1	-	-	-	-	535 -
Stage 2	-	-	-	-	161 -

Approach	EB	WB	NB
HCM Control Delay, s	0	2.9	134.5
HCM LOS			F

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	204	-	-	937	-
HCM Lane V/C Ratio	1.078	-	-	0.279	-
HCM Control Delay (s)	134.5	-	-	10.3	0
HCM Lane LOS	F	-	-	B	A
HCM 95th %tile Q(veh)	10.1	-	-	1.1	-

Hackney Tract TIA
3: Richardson Rd & Little Gem Ln/Hasse Ave

Build (2024) PM
HCM 6th TWSC

Intersection												
Int Delay, s/veh	3.1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↕	↕		↕	↕	
Traffic Vol, veh/h	2	1	3	15	1	116	2	599	23	178	648	3
Future Vol, veh/h	2	1	3	15	1	116	2	599	23	178	648	3
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	125	-	-	150	-	-
Veh in Median Storage, #	-	1	-	-	1	-	-	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	2	1	3	17	1	129	2	666	26	198	720	3













Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	1866	1814	722	1803	1802	679	723	0	0	692	0	0
Stage 1	1118	1118	-	683	683	-	-	-	-	-	-	-
Stage 2	748	696	-	1120	1119	-	-	-	-	-	-	-
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	56	78	427	62	80	452	879	-	-	903	-	-
Stage 1	251	282	-	439	449	-	-	-	-	-	-	-
Stage 2	404	443	-	251	282	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	33	61	427	51	62	452	879	-	-	903	-	-
Mov Cap-2 Maneuver	71	133	-	140	158	-	-	-	-	-	-	-
Stage 1	250	220	-	438	448	-	-	-	-	-	-	-
Stage 2	287	442	-	193	220	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	32		21.9		0		2.2	
HCM LOS	D		C					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	879	-	-	140	357	903	-
HCM Lane V/C Ratio	0.003	-	-	0.048	0.411	0.219	-
HCM Control Delay (s)	9.1	-	-	32	21.9	10.1	-
HCM Lane LOS	A	-	-	D	C	B	-
HCM 95th %tile Q(veh)	0	-	-	0.1	1.9	0.8	-

Hackney Tract TIA
4: Richardson Rd & US 64 EB

Build (2024) PM
Lanes, Volumes, Timings

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗						↖↖		↖↖	
Traffic Volume (vph)	0	1166	399	0	0	0	0	0	1371	0	1027	0
Future Volume (vph)	0	1166	399	0	0	0	0	0	1371	0	1027	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Grade (%)		-2%			0%			1%			0%	
Storage Length (ft)	0		175	0		0	0		0	0		0
Storage Lanes	0		1	0		0	0		2	0		0
Taper Length (ft)	100			100			100			100		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	0.88	0.95	0.95	1.00
Frt			0.850						0.850			
Flt Protected												
Satd. Flow (prot)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Flt Permitted												
Satd. Flow (perm)	0	3575	1599	0	0	0	0	0	2773	0	3539	0
Right Turn on Red			No			No			No	No		No
Satd. Flow (RTOR)												
Link Speed (mph)		55			55			45			35	
Link Distance (ft)		3066			489			978			454	
Travel Time (s)		38.0			6.1			14.8			8.8	
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
Adj. Flow (vph)	0	1296	443	0	0	0	0	0	1523	0	1141	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1296	443	0	0	0	0	0	1523	0	1141	0
Turn Type		NA	Perm						Perm		NA	
Protected Phases		2									8	
Permitted Phases			2						8	8		
Detector Phase		2	2						8	8	8	
Switch Phase												
Minimum Initial (s)		14.0	14.0						7.0	7.0	7.0	
Minimum Split (s)		20.8	20.8						13.2	13.2	13.2	
Total Split (s)		49.0	49.0						71.0	71.0	71.0	
Total Split (%)		40.8%	40.8%						59.2%	59.2%	59.2%	
Maximum Green (s)		42.2	42.2						64.8	64.8	64.8	
Yellow Time (s)		5.4	5.4						3.0	3.0	3.0	
All-Red Time (s)		1.4	1.4						3.2	3.2	3.2	
Lost Time Adjust (s)		-1.8	-1.8						-1.2		-1.2	
Total Lost Time (s)		5.0	5.0						5.0		5.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		6.0	6.0						2.0	2.0	2.0	
Minimum Gap (s)		3.4	3.4						0.2	0.2	0.2	
Time Before Reduce (s)		15.0	15.0						0.0	0.0	0.0	
Time To Reduce (s)		45.0	45.0						0.0	0.0	0.0	
Recall Mode		C-Min	C-Min						None	None	None	
Act Effect Green (s)		44.0	44.0						66.0		66.0	
Actuated g/C Ratio		0.37	0.37						0.55		0.55	
v/c Ratio		0.99	0.76						1.00		0.59	
Control Delay		60.5	43.0						50.1		19.5	
Queue Delay		0.0	0.0						0.0		0.0	

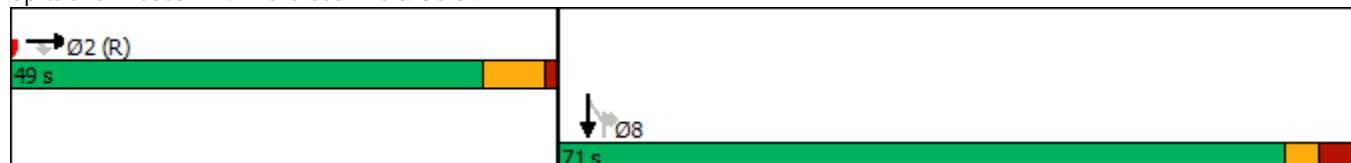


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay		60.5	43.0						50.1		19.5	
LOS		E	D						D		B	
Approach Delay		56.0						50.1			19.5	
Approach LOS		E						D			B	
Queue Length 50th (ft)		520	298						640		295	
Queue Length 95th (ft)		#681	430						#847		361	
Internal Link Dist (ft)		2986			409			898			374	
Turn Bay Length (ft)			175									
Base Capacity (vph)		1310	586						1525		1946	
Starvation Cap Reductn		0	0						0		0	
Spillback Cap Reductn		0	0						0		0	
Storage Cap Reductn		0	0						0		0	
Reduced v/c Ratio		0.99	0.76						1.00		0.59	

Intersection Summary

Area Type: Other
 Cycle Length: 120
 Actuated Cycle Length: 120
 Offset: 0 (0%), Referenced to phase 2:EBT, Start of Green
 Natural Cycle: 100
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 1.00
 Intersection Signal Delay: 44.5
 Intersection LOS: D
 Intersection Capacity Utilization 134.1%
 ICU Level of Service H
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 4: Richardson Rd & US 64 EB



Hackney Tract TIA
5: U-Turn East & US 64 WB

Build (2024) PM
Lanes, Volumes, Timings



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations				↑↑	↑↑	
Traffic Volume (vph)	0	0	0	2222	479	0
Future Volume (vph)	0	0	0	2222	479	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	1.00
Frnt						
Flt Protected					0.950	
Satd. Flow (prot)	0	0	0	3539	3433	0
Flt Permitted					0.950	
Satd. Flow (perm)	0	0	0	3539	3433	0
Right Turn on Red		No			No	No
Satd. Flow (RTOR)						
Link Speed (mph)	55			55	25	
Link Distance (ft)	459			2512	426	
Travel Time (s)	5.7			31.1	11.6	
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	2469	532	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	2469	532	0
Turn Type				NA	Prot	
Protected Phases				6	8	
Permitted Phases						
Detector Phase				6	8	
Switch Phase						
Minimum Initial (s)				14.0	7.0	
Minimum Split (s)				20.2	13.3	
Total Split (s)				70.0	20.0	
Total Split (%)				77.8%	22.2%	
Maximum Green (s)				63.8	13.7	
Yellow Time (s)				5.2	3.0	
All-Red Time (s)				1.0	3.3	
Lost Time Adjust (s)				-1.2	-1.3	
Total Lost Time (s)				5.0	5.0	
Lead/Lag						
Lead-Lag Optimize?						
Vehicle Extension (s)				6.0	2.0	
Minimum Gap (s)				3.4	0.2	
Time Before Reduce (s)				15.0	0.0	
Time To Reduce (s)				45.0	0.0	
Recall Mode				C-Min	None	
Act Effct Green (s)				65.0	15.0	
Actuated g/C Ratio				0.72	0.17	
v/c Ratio				0.97	0.93	
Control Delay				24.1	62.1	
Queue Delay				0.0	0.0	
Total Delay				24.1	62.1	
LOS				C	E	
Approach Delay				24.1	62.1	
Approach LOS				C	E	



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Queue Length 50th (ft)				567	155	
Queue Length 95th (ft)				#886	#252	
Internal Link Dist (ft)	379			2432	346	
Turn Bay Length (ft)						
Base Capacity (vph)				2555	572	
Starvation Cap Reductn				0	0	
Spillback Cap Reductn				0	0	
Storage Cap Reductn				0	0	
Reduced v/c Ratio				0.97	0.93	

Intersection Summary

Area Type:	Other
Cycle Length:	90
Actuated Cycle Length:	90
Offset:	0 (0%), Referenced to phase 6:WBT, Start of Green
Natural Cycle:	90
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.97
Intersection Signal Delay:	30.9
Intersection LOS:	C
Intersection Capacity Utilization:	83.4%
ICU Level of Service:	E
Analysis Period (min):	15
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.	

Splits and Phases: 5: U-Turn East & US 64 WB



Intersection						
Int Delay, s/veh	0.6					
Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations	↘	↗	↗	↘	↘	↘
Traffic Vol, veh/h	15	566	599	30	18	8
Future Vol, veh/h	15	566	599	30	18	8
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	100	-	-	100	0	-
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	629	666	33	20	9

Major/Minor	Major1	Major2	Minor2		
Conflicting Flow All	699	0	-	0	1329 666
Stage 1	-	-	-	-	666 -
Stage 2	-	-	-	-	663 -
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	898	-	-	-	171 459
Stage 1	-	-	-	-	511 -
Stage 2	-	-	-	-	512 -
Platoon blocked, %		-	-	-	
Mov Cap-1 Maneuver	898	-	-	-	168 459
Mov Cap-2 Maneuver	-	-	-	-	168 -
Stage 1	-	-	-	-	501 -
Stage 2	-	-	-	-	512 -

Approach	EB	WB	SB
HCM Control Delay, s	0.2	0	25
HCM LOS			D

Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR	SBLn1
Capacity (veh/h)	898	-	-	-	209
HCM Lane V/C Ratio	0.019	-	-	-	0.138
HCM Control Delay (s)	9.1	-	-	-	25
HCM Lane LOS	A	-	-	-	D
HCM 95th %tile Q(veh)	0.1	-	-	-	0.5



www.vhb.com



Student Assignment

Glenn Carrozza
5625 Dillard Drive
Cary, NC 27518

tel: (919) 431-7333
fax: (919) 694-7753

February 17, 2021

Dianne Khin, AICP
Director, Department of Planning and Community Development
Town of Apex
Dianne.Khin@apexnc.org

Dear Dianne,

The Wake County Public School System (WCPSS) Office of School Assignment received information about a proposed rezoning/development within the Town of Apex planning area. We are providing this letter to share information about WCPSS's capacity related to the proposal. The following information about the proposed rezoning/development was provided through the Wake County Residential Development Notification database:

- Date of application: November 2, 2020
- Name of development: 20CZ14 Hackney Tracts PUD
- Address of rezoning/development: 0, 2500, & 2600 Olive Chapel Rd
- Total number of proposed residential units: 319
- Type(s) of residential units proposed: Single-family; townhouse; townhouse, detached; accessory apartment

Based on the information received at the time of application, the Office of School Assignment is providing the following assessment of possible impacts to the Wake County Public School System:

- Schools at all grade levels within the current assignment area for the proposed rezoning/development are anticipated to have sufficient capacity for future students.
- Schools at the following grade levels within the current assignment area for the proposed rezoning/development are anticipated to have insufficient capacity for future students; transportation to schools outside of the current assignment area should be anticipated:

Elementary Middle High

The following mitigation of capacity concerns due to school construction or expansion is anticipated:

- Not applicable – existing school capacity is anticipated to be sufficient.
- School expansion or construction within the next five years is not anticipated to address concerns.
- School expansion or construction within the next five years may address concerns at these grade levels:

Elementary Middle High

Thank you for sharing this information with the Town of Apex Planning Board and Town Council as they consider the proposed rezoning/development.

Sincerely,

Glenn Carrozza

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Liz Loftin, Senior Planner

Department(s): Planning and Community Development

Requested Motion

Motion to set Public Hearing for the March 23, 2021 Town Council meeting regarding Rezoning Application #21CZ02 Abbey Spring PUD. The applicant, Isabel Worthy Mattox, Mattox Law Firm, seeks to rezone approximately 5.01 acres located at 0 W. Williams Street (PIN 0742026247) from Planned Unit Development-Conditional Use (PUD-CU #02CU13) to Planned Unit Development-Conditional Zoning (PUD-CZ).

Approval Recommended?

The Planning and Community Development Department recommends approval.

Item Details

Attachments

- Vicinity Map
- Application





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 #: 2021-002 Submittal Date: 1/4/2021
Fee Paid: \$ 500.00 Check #: 5074

PETITION TO AMEND THE OFFICIAL ZONING DISTRICT MAP

Project Name: Abbey Spring

Address(es): 0 W. Williams Street, Apex, NC 27502

PIN(s) 0742026247

Acreage: 5.01

Current Zoning: PUD-CU Proposed Zoning: PUD-CZ

Current 2045 LUM Designation: _____

Requested 2045 LUM Designation: _____

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: Isabel Worthy Mattox, Mattox Law Firm

Address: 127 W. Hargett Street, Suite 500

City: Raleigh State: NC Zip: 27601

Phone: 919-828-7171 E-mail: Isabel@mattoxlawfirm.com

Owner Information

Name: Lidl US Operations, LLC

Address: HQ Real Estate Department, 3500 S. Clarke Place

City: Arlington State: VA Zip: 22202-4033

Phone: _____ E-mail: _____

Agent Information

Name: Isabel Worthy Mattox, Mattox Law Firm

Address: 127 W. Hargett Street, Suite 500

City: Raleigh State: NC Zip: 27601

Phone: 919-828-7171 E-mail: Isabel@mattoxlawfirm.com

Other contacts: Timothy G. Morgan, VP

Evergreen Construction Company

7706 Six Forks Road, Raleigh, NC 27615

CERTIFIED LIST OF NEIGHBORING PROPERTY OWNERS

Application #: 2021-002

Submittal Date: 1/4/21

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 list attached as Exhibit B.	
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		
11.		
12.		
13.		
14.		
15.		

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

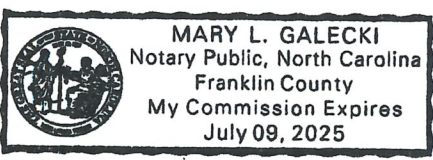
Date: December 16, 2020

By: 

COUNTY OF WAKE STATE OF NORTH CAROLINA

Sworn and subscribed before me this the 16th day of December, 2020 by Isabel Worthy Mattox.

SEAL



Mary L. Galecki
Notary Public

Mary L. Galecki
Print Name

My Commission Expires: July 9, 2025

DEVELOPMENT NAME APPROVAL APPLICATION

Application #: 2021-002

Submittal Date: 1/4/21

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 #: 2021-002

Submittal Date: 1/4/21

Proposed Subdivision/Development Information

Description of location: 0 W. Williams Street; 5.01 Acre Parcel; New McIver Parcel BM2006-02021

Nearest intersecting roads: W. Williams Street and Olive Chapel Road

Wake County PIN(s): 0742026247

Township: White Oak

Contact Information (as appropriate)

Contact person: Isabel Worthy Mattox, Mattox Law Firm

Phone number: (919) 828-7171 Fax number: N/A

Address: 127 W. Hargett Street, Suite 500, Raleigh, NC 27601

E-mail address: Isabel@mattoxlawfirm.com

Owner: Lidl US Operations, LLC

Phone number: _____ Fax number: _____

Address: HQ Real Estate Department, 3500 S. Clark Place, Arlington, VA 22202

E-mail address: c/o Isabel Worthy Mattox email: Isabel@mattoxlawfirm.com

Proposed Subdivision/Development Name

1st Choice: Abbey Spring

2nd Choice (Optional): _____

Town of Apex Staff Approval:

Town of Apex Planning Department Staff

Date

TOWN OF APEX UTILITIES OFFER AND AGREEMENT

Application #: 2021-002

Submittal Date: 1-4-21

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

WAKE COUNTY, NORTH CAROLINA CUSTOMER SELECTION AGREEMENT

0 W. Williams Street

PIN 0742026247 (Real Estate ID #0036171)

(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.

Evergreen Construction Co., 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: Evergreen Construction Company

TOWN OF APEX

BY: ** signature to follow at later date **
Authorized Agent

BY: _____
Authorized Agent

DATE: _____

DATE: _____

AGENT AUTHORIZATION FORM

Application #: 2021-002

Submittal Date: 1/4/21

Lidl US Operations, LLC is the owner* of the property for which the attached application is being submitted:

- Land Use Amendment
- Rezoning: For Conditional Zoning and Planned Development rezoning applications, this authorization includes express consent to zoning conditions that are agreed to by the Agent which will apply if the application is approved.
- Site Plan
- Subdivision
- Variance
- Other: _____

The property address is: 0 W. Williams Street

The agent for this project is: _____

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

Agent Name: Isabel Worthy Mattox, Mattox Law Firm




Address: 127 W. Hargett Street, Suite 500, Raleigh, NC 27601

Telephone Number: 919-828-7171

E-Mail Address: Isabel@mattoxlawfirm.com

Signature(s) of Owner(s)*

See Signature Page of Owner attached as Exhibit C

	Type or print name	Date
		
Connor P. Deane	NICHOLAS V. CACACI	1/11/21
	Sr. Director DE	
	Type or print name	Date
	DIRECTOR OF REAL ESTATE	

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.

Pursuant to Article 40 of Chapter 66 of the North Carolina General Statutes (the Uniform Electronic Transactions Act) this application and all documents related hereto containing an electronic or digitized signature are legally binding in the same manner as are hard copy documents executed by hand signature. The parties hereby consent to use electronic or digitized signatures in accordance with the Town's Electronic Signature Policy and intend to be bound by the application and any related documents. If electronic signatures are used the application shall be delivered in an electronic record capable of retention by the recipient at the time of receipt.

AFFIDAVIT OF OWNERSHIP

Application #: 2021-002

Submittal Date: 1-4-21

The undersigned, Lidl US Operations, LLC (the "Affiant") first being duly sworn, hereby swears or affirms as follows:

1. Affiant is over eighteen (18) years of age and authorized to make this Affidavit. The Affiant is the sole owner, or is the authorized agent of all owners, of the property located at 0 W. Williams Street, Apex, NC 27502 and legally described in **Exhibit "A"** attached hereto and incorporated herein (the "Property").
2. This Affidavit of Ownership is made for the purpose of filing an application for development approval with the Town of Apex.
3. If Affiant is the owner of the Property, Affiant acquired ownership by deed, dated May 10, 2016, and recorded in the Wake County Register of Deeds Office on May 13, 2016, in Book 16383 Page 2673.
4. If Affiant is the authorized agent of the owner(s) of the Property, Affiant possesses documentation indicating the agency relationship granting the Affiant the authority to apply for development approval on behalf of the owner(s).
5. If Affiant is the owner of the Property, from the time Affiant was deeded the Property on May 13, 2016, Affiant has claimed sole ownership of the Property. Affiant or Affiant's predecessors in interest have been in sole and undisturbed possession and use of the property during the period of ownership. Since taking possession of the Property on May 13, 2016, no one has questioned Affiant's ownership or right to possession nor demanded any rents or profits. To Affiant's knowledge, no claim or action has been brought against Affiant (if Affiant is the owner), or against owner(s) (if Affiant is acting as an authorized agent for owner(s)), which questions title or right to possession of the property, nor is any claim or action pending against Affiant or owner(s) in court regarding possession of the Property.

This the 11th day of January, 2021.

LIDL US OPERATIONS, LLC, a Delaware limited liability company

By: [Signature]
 Name: Amos P. Berry
 Title: Sr. Director Real Estate

By: [Signature]
 Name: Nicholas V. Cacaci
 Title: Director of Real Estate

Notary Acknowledgement Follows

NOTARY ACKNOWLEDGEMENT
Affidavit of Ownership

STATE OF Virginia
COUNTY OF Arlington

I, the undersigned, a Notary Public in and for the County of Arlington, hereby certify that Connor P. Bevans, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.



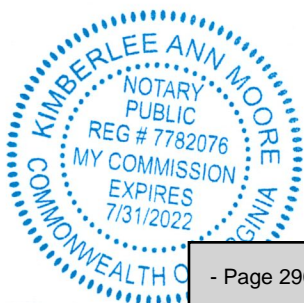
[NOTARY SEAL]

Kimberlee Ann Moore Today's date: 1/11/2021
Notary Public
State of Virginia
My Commission Expires: 7/31/2022

STATE OF Virginia
COUNTY OF Arlington

I, the undersigned, a Notary Public in and for the County of Arlington, hereby certify that Nicholas V. Caraci, Affiant, personally known to me or known to me by said Affiant's presentation of said Affiant's, personally appeared before me this day and acknowledged the due and voluntary execution of the foregoing Affidavit.

[NOTARY SEAL]



Kimberlee Ann Moore Today's date: 1/11/2021
Notary Public
State of Virginia
My Commission Expires: 7/31/2022

AFFIDAVIT OF OWNERSHIP: EXHIBIT A – LEGAL DESCRIPTION

Application #: _____

Submission Date: _____

Insert legal description below.

Lying and being in White Oak Township, Wake County, North Carolina and being more particularly described as follows:


BEGINNING at an existing iron pipe being the common corner of the property owned by Yorktown 1031 LLC (now or formerly) as described in that instrument recorded in Book 12433, Page 1977 and shown on Book of Maps 2006, Page 2021 and in the eastern boundary line of property owned by Spring Arbor of Apex Limited Partnership(now or formerly) as described in that instrument recorded in Book 8326, Page 2273 in the Wake County Public Registry, said existing iron pipe being located South 76° 54' 27" East 15,634.31 feet from N.C.G.S. Monument "Roger" having NAD 83 (2011) North Carolina State Plane Grid Coordinates N=726,051.44 feet and E=2,025,090.57 feet, with a combined grid reduction factor of 0.99989851; thence with the southern boundary of aforesaid property the following nine (9) courses and distances: (1) South 48° 42' 02" East 68.33 feet to an existing PK Nail and (2) South 81 ° 1 O' 51" East 146.59 feet to an existing iron pipe and (3) North 72° 23' 18" East 30.41 feet to an existing iron pipe and (4) North 79° 49' 28" East 27.92 feet to an existing iron pipe and (5) South 81 ° 09' 41" East 85.26 feet to an existing iron pipe and (6) North 08° 43' 00" East 39.03 feet to an existing iron pipe and (7) South 81 ° 09' 41" East 110.63 feet to an existing iron pipe and (8) North 84° 13' 18" East 47.23 feet to an existing iron pipe and (9) North 69° 35' 51" East 16.32 feet to a computed point on the western margin of West Williams Street (also known as NC Highway 55) having a 100 foot public right-of-way; thence with the western margin of the right-of-way of aforesaid street the following three (3) courses and distances: (1) with a curve to the right having a radius of 2939.35 feet and an arc length of 45.23 feet, having a chord of South 21 °42' 13" East 45 .23 feet to a computed point and (2) South 21 ° 13' 50" East 5. 77 feet to an computed point and (3) South 21 ° 18' 22" East (passing an iron pipe at 349.04 feet) for a total distance of 381.23 feet to an existing iron pipe being the common corner of the property owned by the United States Postal Service as described in that instrument recorded in Book 3972, Page 16 in that aforesaid Registry; thence leaving aforesaid street and following the northern boundary of aforesaid property North 85° 42' 33" West 280.39 feet to an existing iron pipe, continuing with aforesaid property North 85° 38' 49" West 155.03 feet to an existing iron pipe marking the northeast corner of the property owned by Don E. Thomas (now or formerly) as described in that instrument recorded in Book 6803, Page 244 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 85° 32' 28" West 69.92 feet to an existing iron pipe marking the northwest corner of aforesaid property and the northeast corner of property owned by Jane F. Seeger (now or formerly) as described in that instrument recorded in Book 15602, Page 1601 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 85° 41' 13" West 155 .09 feet to an existing iron pipe marking the northwest property corner of aforesaid property and marking the northeast corner of property owned by Michael Herbert (now or formerly) as described in that instrument recorded in Book 15146, Page 1573 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 84° 58' 20" West 27.53 feet to an existing railroad rail marking the southeast corner of property owned by Glen Arbor Townhome Associations Inc. (now or formerly) as described in that instrument recorded in Book 9747, Page 2515 in that aforesaid Registry; thence with eastern boundary of aforesaid property North 02° 05' 59" East 277.43 feet to an existing iron pipe marking the northeast corner of the aforesaid property and marking the southeast corner of the property owned by Spring Arbor of Apex Limited Partnership (now or formerly) as described in that instrument recorded in Book 8326, Page 2273 in that aforesaid Registry; thence with the eastern boundary of aforesaid property North 02° 09' 12" East 107.66 feet to the POINT OR PLACE OF BEGINNING, containing 5.00 acres, more or less, as shown on survey titled "ALT AI ACSM Land Title Survey of Lands For: MOP Retail Consulting, LLC, West Williams Street (aka: NC Highway 55), dated March 18, 2015, and prepared by Michael D. Case of SEPI Engineering & Construction, N.C.P.L.S. No. L-2828.


BEING part of the property conveyed to Mciver Family Holdings, a North Carolina limited liability company, by deed dated December 28, 2000 and recorded in Book 8770, Page 92 in the aforesaid Registry.

EXHIBIT C

SIGNATURE PAGE OF PROPERTY OWNER
PD Plan Amendment Application – Town of Apex
Property: 0 W. Williams Street, Apex, NC 27502

LIDL US OPERATIONS, LLC, a Delaware limited liability company

By: 
Name: Connor P. Gomez
Title: Sen. Dirctor Real Estate

By: 
Name: Nicholas V. Casar
Title: Director of Real Estate

Date: 1/11/21



Wake County Residential Development Notification

Please complete each section of this form and submit with your application.

Town of Apex staff will enter this information into the online WCPSS form.

Please send any questions about this form to:
studentassignment-gis-group@wcpss.net

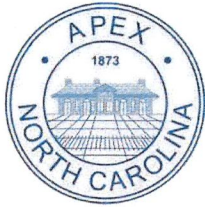
Developer Company Information	
Company Name	Evergreen Construction Company
Company Phone Number	919-848-2041
Developer Representative Name	Evergreen Construction Company, Timothy G. Morgan
Developer Representative Phone Number	919-848-2041
Developer Representative Email	Tim@eccmgt.com

New Residential Subdivision Information	
Date of Application for Subdivision	January 2021
City, Town or Wake County Jurisdiction	Town of Apex; White Oak Township
Name of Subdivision	Abbey Spring
Address of Subdivision (if unknown enter nearest cross streets)	0 W. Williams Street, Apex, NC 27502
REID(s)	0036171
PIN(s)	0742026247

Projected Dates Information	
Subdivision Completion Date	December 2023
Subdivision Projected First Occupancy Date	January 2024

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
Single Family																
Townhomes																
Condos																
Apartments	84															
Other																

Revised 08/10/2018



Instruction Packet and Affidavit for Neighborhood Meetings

Town of Apex
Planning Department
PO Box 250
Apex, NC 27502

T: 919-249-3426

F: 919-249-3338

This packet consists of instructions and templates for conducting a required Neighborhood Meeting. Planning Department staff are available to advise you in the preparation of these materials. Call the Planning Department at (919) 249-3426 for more information.

WHAT IS THE PURPOSE OF A NEIGHBORHOOD MEETING?

A neighborhood meeting is a required form of community outreach to receive initial feedback regarding certain project types prior to submittal to the Planning Department per the standards found in UDO Sec. 2.2.7. The intention of the meeting is to initiate neighbor communication and identify issues and concerns early on and provide the applicant an opportunity to address neighbor concerns about the potential impacts of the project prior to submitting an application. A neighborhood meeting is valid for six (6) months prior to the submission of an application; a delay in submission requires a new neighborhood meeting.

WHEN IS A NEIGHBORHOOD MEETING REQUIRED?

- Rezoning (including Planned Unit Developments);
- Major Site Plans;
- Residential Master Subdivision Plans (excluding exempt subdivisions); or
- Special Use Permits

INSTRUCTIONS

Prior to submitting an application for a Rezoning, Major Site Plan, residential Master Subdivision Plan (excluding exempt subdivisions), or Special Use Permit, the applicant must conduct at least one (1) Neighborhood Meeting. The applicant shall submit all forms included in this packet with the initial application submittal.

The Neighborhood Meeting must be held in accordance with the following rules:

These groups and individuals must be invited to the meeting:

- The applicant is required to notify the 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, not including the day of mailing. The applicant shall use their own return address on the envelopes as the meeting is a private meeting between the applicant and the neighbors.
- The applicant shall include with the meeting notice a vicinity map in addition to either the existing zoning map of the area or preliminary plans of the proposed development (see Handout requirements below).

The meeting must be held within specific timeframes and meet certain requirements:

- The meeting must be held for a minimum of two (2) hours, Monday through Thursday, during the 5:00 p.m. - 9:00 p.m. time period. The meeting cannot be held on a Town recognized holiday (which coincide with the State of North Carolina recognized holidays).
- The meeting shall be held at a place that is generally accessible to neighbors that reside in close proximity to the land subject to the application.
- A sign-in sheet must be used in order to verify attendance. Ensure each attendee signs in. Please note if any person(s) refuses to sign in. Note if no one attended.
- Handout requirements:
 - For rezonings (excluding rezonings to PUD-CZ, TND-CZ and MEC-CZ), a vicinity map and existing zoning map of the area must be provided to help facilitate discussion.
 - For rezonings to PUD-CZ, TND-CZ and MEC-CZ; Major Site Plans; residential Master Subdivision Plans; and Special Use Permits, preliminary plans of the proposed development must be available at the meeting to help facilitate discussion. Neighbors may request emailed/mailed copies of the maps or plans from the applicant by checking the “send plans” box on the sign-in sheet; applicant shall provide reduced copies upon request.
 - Printed copies must equal the number of notices required to be sent.
 - Contact information for the applicant’s representative and Town Staff must be provided on the attached “Project Contact Information” form.
 - “Common Construction Issues & Who to Call” sheet (attached) must be included as part of the handout.
 - A copy of the handout must be included as part of the Neighborhood Meeting report.
- The agenda of the meeting shall include:
 - Explanation of all processes the meeting is being held for (rezoning, subdivision, etc.).
 - Explanation of future meetings (additional neighborhood meetings, Planning Board, Town Council, etc.).
 - Explanation of development proposal – uses and conditions for rezonings, layout for subdivision and site plans, and builder/end user if known/public knowledge.
- Questions or concerns by attendees, and responses by the applicant, if any, must be noted. Provide blank comment sheets or notecards for neighbors to submit written comments. The applicant shall also include any questions and concerns received via written correspondence (such as email) or phone call along with responses provided by the applicant.
- The applicant shall be responsible for notifying any neighbors who check the “Send Plans & Updates” box on the sign-in sheet of any additional neighborhood meetings and the actual submittal date to the Town with a link to the Town of Apex’s Interactive Development Map.

For accountability purposes, please submit the following with your application:

- A copy of the letter mailed to neighbors and neighborhood organizations (use attached invitation template);
- A list of those persons and neighborhood organizations invited to the meeting;
- A copy of the sign-in sheet (use attached sign-in sheet template);
- A summary of the meeting and a list of any changes made to the project as a result of the neighborhood comments (use attached meeting summary template);
- The affidavit, signed, dated, and notarized (use attached affidavit template); and
- One reduced copy of the maps and/or plans presented to the neighbors at the Neighborhood Meeting.

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.

December 4, 2020

Date

Dear Neighbor:

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

0 W. Williams Street, Apex, NC 27502

0742026247

Address(es)

PIN(s)

in accordance with the Town of Apex Neighborhood Meeting procedures. This meeting is intended to be 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):

Application Type		Approving Authority
<input checked="" type="checkbox"/>	Rezoning (including Planned Unit Development)	Town Council
<input type="checkbox"/>	Major Site Plan	Town Council (QJPH*)
<input type="checkbox"/>	Special Use Permit	Town Council (QJPH*)
<input type="checkbox"/>	Residential Master Subdivision Plan (excludes exempt subdivisions)	Technical Review Committee (staff)

*Quasi-Judicial Public Hearing: The Town Council cannot discuss the project prior to the public hearing.

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

Estimated submittal date: January 4, 2021

MEETING INFORMATION:

Property Owner(s) name(s): Lidl US Operations, LLC

Applicant(s): Isabel Worthy Mattox, Mattox Law firm

Contact information (email/phone): Isabel@mattoxlawfirm.com; 919-828-7171

Meeting Address: See attached meeting notice letter dated December 4, 2020

Date of meeting**: December 15, 2020

Time of meeting**: 5:00 pm

MEETING AGENDA TIMES:

Welcome: 5:00 pm Project Presentation: 5:15 pm Question & Answer: 5:45 pm

**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>.

MATTOX LAW FIRM

Telephone (919) 828-7171

Isabel Worthy Mattox
Isabel@mattoxlawfirm.com
Matthew Joel Carpenter
Matthew@mattoxlawfirm.com

December 4, 2020

TO ALL ADDRESSEES:

RE: **NOTICE OF MEETING** Regarding Proposed Rezoning Application of:

0 W. Williams Street, Apex, NC 27502 (5.01 acres) (PIN 0742026247)
Book 16383, Page 2673, owned by LIDL US Operations, LLC, a Delaware
limited liability company (the "Rezoning Property")

Dear Property Owners:

You are invited to a neighborhood meeting to review and discuss the development proposal for the above-referenced Property in accordance with the Town of Apex Unified Development Ordinance and Electronic Neighborhood Meeting procedures. The Neighborhood Meeting is intended as a way for the applicants to discuss the project and review the proposed plans with adjacent neighbors and neighborhood organizations before the submittal of an application to the Town of Apex. 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 of Apex, it may be tracked using the [Interactive Developments Map](#) or the [Apex Development Report](#) located on the Town of Apex website at www.apexnc.org. If at all feasible given emergency declarations, limits on in-person gatherings, and social distancing, an additional in-person Neighborhood Meeting may be scheduled and held prior to a public hearing or staff decision on the application.

In accordance with the requirements of the Town of Apex Unified Development Ordinance, notice is hereby given to you as the owner of the Rezoning Property, or the owner of property within 300 feet of the Rezoning Property, of a meeting to discuss the prospective rezoning to be held remotely **via Zoom on Tuesday, December 15, 2020, at 5:00 PM.**

You can join the meeting in any of the following ways:

1. Type the following URL into your internet browser: <https://us02web.zoom.us/j/86452781121>
2. Email Matthew Carpenter at Matthew@mattoxlawfirm.com and receive an e-mail invitation.
3. Call in to the meeting at **929-205-6099** and enter meeting ID: **864 5278 1121**.

To ensure that we are able to address as many questions as possible, please submit questions via email to Matthew@mattoxlawfirm.com prior to the meeting. The meeting will include an introduction, answers to submitted questions, and followed by a general question and answer session. To aid in your participation in the meeting, please find attached a GIS site location and aerial photograph of the Rezoning

All Addressees
December 4, 2020
Page 2 of 2

Property, a zoning map of the Rezoning Property, and Town of Apex Notice of Electronic Neighborhood Meeting information.

If you plan to attend the meeting, please email Matthew Carpenter with your name and the address of your property either before or after the meeting. Your email response will allow us to assemble an accurate attendance roster.

If the Rezoning Application is filed as now planned in January, it will be vetted by Town of Apex staff over the next few weeks and referred to the Planning Board for review. In addition to the application tracking process mentioned above, you may contact the Town of Apex Planning Department at (919) 249-3426. If you have any questions about the proposed Rezoning Application, either before our meeting of December 15, 2020, or at any time after our meeting, please contact me.

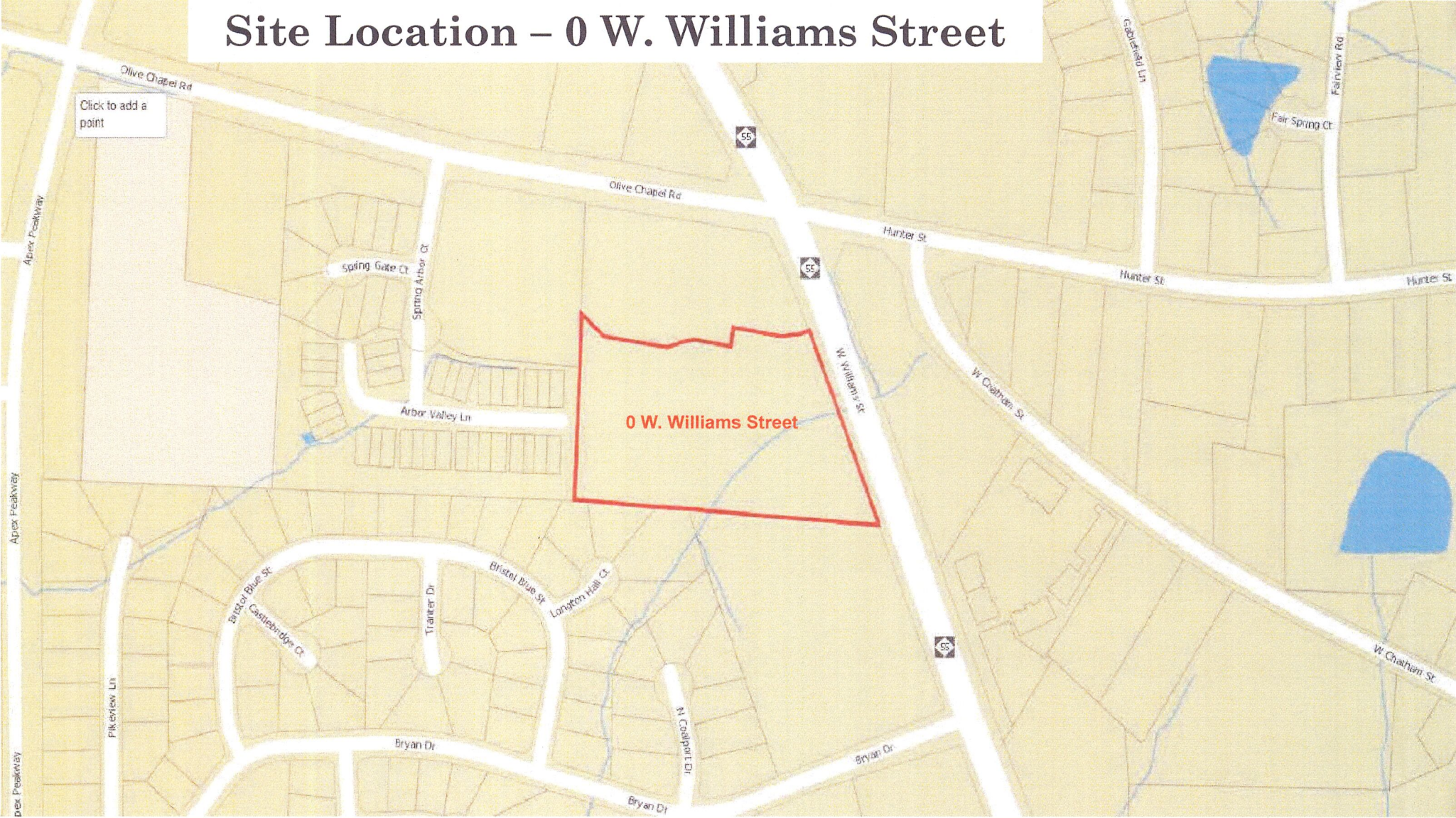
Yours very truly,

Isabel Mattox

Isabel Worthy Mattox

cc: Timothy G. Morgan (via email Tim@eccmgt.com)

Site Location – 0 W. Williams Street



Aerial

Click to add a point



PROJECT CONTACT INFORMATION

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.

Development Contacts:

Project Name: Abbey Spring Zoning: PUD-CU
 Location: 0 W. Williams Street, Apex, NC
 Property PIN(s): 0742026247 Acreage/Square Feet: 5.01 acres

Property Owner: Lidl US Operations, LLC
 Address: HQ Real Estate Department, 3500 S. Clark Place
 City: Arlington State: VA Zip: 22202-4033
 Phone: _____ Email: _____

Developer: Timothy G. Morgan, Evergreen Construction Company
 Address: 7706 Six Forks Road
 City: Raleigh State: NC Zip: 27615
 Phone: 919-848-2041 Fax: n/a Email: Tim@eccmgt.com

Engineer: Rick Baker, Timmons Group
 Address: 5410 Trinity Road, Suite 102
 City: Raleigh State: NC Zip: 27607
 Phone: 919-859-5663 Fax: n/a Email: Rick.Baker@timmons.com

Builder (if known): _____
 Address: _____
 City: _____ State: _____ Zip: _____
 Phone: _____ Fax: _____ Email: _____

Please note that Town staff will not have complete information about a proposed development until the application is submitted for review. If you have a question about Town development standards and how they relate to the proposed development, please contact the appropriate staff person listed below.

Town of Apex Department Contacts

Planning Department Main Number (Provide development name or location to be routed to correct planner)	(919) 249-3426
Parks, Recreation & Cultural Resources Department Angela Reincke, Parks Planner	(919) 249-7468
Public Works - Transportation Russell Dalton, Senior Transportation Engineer	(919) 249-3358
Water Resources Department Mike Deaton, Stormwater & Utility Engineering Manager	(919) 249-3413
Stan Fortier, Senior Engineer (Sedimentation & Erosion Control)	(919) 249-1166
Electric Utilities Division Rodney Smith, Electric Technical Services Manager	(919) 249-3342

Providing Input to Town Council:

Each Town Council meeting agenda includes a Public Forum time when anyone is permitted to speak for three (3) minutes on any topic with the exception of items listed as Public Hearings for that meeting. The Town Council meets on the 1st and 3rd Tuesdays of each month at 6:00 p.m. (except for holidays, see schedule of meetings at <http://www.apexnc.org/838/Agendas-Minutes>). You may also contact Town Council by e-mail at AllCouncil@apexnc.org.

Private Agreements and Easement Negotiation:

The Town of Apex cannot enforce private agreements between developers and neighbors and is not a party to the easement and right-of-way negotiation that occurs between developers and neighboring property owners for easements or rights-of-way that are necessary to build the project.

It is recommended that all private agreements be made in writing and that if a property owner feels it necessary, they should obtain private legal counsel in order to protect their interests in both private agreements and during easement negotiations. The only conditions that the Town of Apex can enforce are those conditions that are made a part of the conditional zoning of the property by agreement of the developer and the Town.

As an example, if a developer offers to build a fence for a neighbor to mitigate some impact, the Town can only enforce the construction of the fence if the fence becomes a condition of the rezoning. This would occur by the developer offering the condition as part of their conditional zoning application package or at the Town Council public hearing on the conditional zoning and the Town accepting it as a condition. Private agreements regarding a fence being constructed will not be enforced by the Town.

To request that any agreement with a developer is made a part of the conditional zoning at the time of approval, you may ask at the Town Council public hearing if the agreement is included in the conditions. If it is not, you may request that the Town Council not approve the rezoning without the agreement being included in the conditions (note that it is up to Town Council whether to approve or deny the rezoning but they cannot impose conditions that the applicant does not agree to add). The developer's proposed conditions can be viewed any time after a rezoning is submitted on the Interactive Development Map at: <http://apexnc.maps.arcgis.com/apps/OnePane/basicviewer/index.html?appid=fa9ba2017b784030b15ef4da27d9e795>

Documentation:

Neighbors to a requested new development and/or rezoning are strongly encouraged to fully document (such as through dated photographs) the condition of their property before any work is initiated for the new development. Stormwater controls installed on developed property are not designed to and will likely not remove 100% of the soil particles transported by stormwater runoff. As a result, creeks and ponds could become cloudy for a period of time after rain events.

COMMON CONSTRUCTION ISSUES & WHO TO CALL

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.

Noise & Hours of Construction: Non-Emergency Police 919-362-8661

Noise from tree removal, grading, excavating, paving, and building structures is a routine part of the construction process. The Town generally limits construction hours from 7:00 a.m. to 8:30 p.m. so that there are quiet times even during the construction process. Note that construction outside of these hours is allowed with special permission from the Town when it makes more sense to have the construction occur at night, often to avoid traffic issues. In addition, the Town limits hours of blasting rock to Monday through Friday from 8:00 a.m. to 5:00 p.m. Report violations of construction hours and other noise complaints to the Non-Emergency Police phone number at 919-362-8661.

Construction Traffic: James Misciagno 919-372-7470

Construction truck traffic will be heavy throughout the development process, including but not limited to removal of trees from site, loads of dirt coming in and/or out of the site, construction materials such as brick and wood brought to the site, asphalt and concrete trucks come in to pave, etc. The Town requires a construction entrance that is graveled to try to prevent as much dirt from leaving the site as possible. If dirt does get into the road, the Town can require they clean the street (see "Dirt in the Road" below).

Road Damage & Traffic Control: Water Resources – Infrastructure Inspections 919-362-8166

There can be issues with roadway damage, roadway improvements, and traffic control. Potholes, rutting, inadequate lanes/signing/stripping, poor traffic control, blocked sidewalks/paths are all common issues that should be reported to Water Resources – Infrastructure Inspections at 919-249-3427. The Town will get NCDOT involved if needed.

Parking Violations: Non-Emergency Police 919-362-8661

Unless a neighbor gives permission, there should be no construction parking in neighbors' driveways or on their property. Note that parking in the right-of-way is allowed, but Town regulations prohibit parking within 15 feet of driveways so as not to block sight triangles. Trespassing and parking complaints should be reported to the Non-Emergency Police phone number at 919-362-8661.

Dirt in the Road: James Misciagno 919-372-7470

Sediment (dirt) and mud gets into the existing roads due to rain events and/or vehicle traffic. These incidents should be reported to James Misciagno. He will coordinate the cleaning of the roadways with the developer.

Dirt on Properties or in Streams: James Misciagno 919-372-7470
Danny Smith Danny.Smith@ncdenr.gov

Sediment (dirt) can leave the site and get onto adjacent properties or into streams and stream buffers; it is typically transported off-site by rain events. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the appropriate repairs with the developer. Impacts to the streams and stream buffers should also be reported to Danny Smith (danny.smith@ncdenr.gov) with the State.

Dust: James Misciagno 919-372-7470

During dry weather dust often becomes a problem blowing into existing neighborhoods or roadways. These incidents should be reported to James Misciagno at 919-372-7470 so that he can coordinate the use of water trucks onsite with the grading contractor to help control the dust.

Trash: James Misciagno 919-372-7470

Excessive garbage and construction debris can blow around on a site or even off of the site. These incidents should be reported to James Misciagno at 919-372-7470. He will coordinate the cleanup and trash collection with the developer/home builder.

Temporary Sediment Basins: James Misciagno 919-372-7470

Temporary sediment basins during construction (prior to the conversion to the final stormwater pond) are often quite unattractive. Concerns should be reported to James Misciagno at 919-372-7470 so that he can coordinate the cleaning and/or mowing of the slopes and bottom of the pond with the developer.

Stormwater Control Measures: Mike Deaton 919-249-3413

Post-construction concerns related to Stormwater Control Measures (typically a stormwater pond) such as conversion and long-term maintenance should be reported to Mike Deaton at 919-249-3413.

Electric Utility Installation: Rodney Smith 919-249-3342

Concerns with electric utility installation can be addressed by the Apex Electric Utilities Department. Contact Rodney Smith at 919-249-3342.

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: Remote Zoom Meeting -- https://us02web.zoom.us/j/86452781121

Date of meeting: December 15, 2020 Time of meeting: 5:00 pm

Property Owner(s) name(s): Lidl US Operations, LLC

Applicant(s): Isabel Worthy Mattox, Mattox Law Firm

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.	Isabel Worthy Mattox Mattox Law Firm				
2.	Matthew J. Carpenter Mattox Law Firm				
3.	Rick Baker Timmons Group				
4.	Tim Morgan Evergreen Construction				
5.	Diana Londono				Y
6.	Tonya Headen-Lee				Y
7.	Mike Herbert				Y
8.	Paul Dewey				Y
9.	Becky Ellet				Y
10.	Joanne Flayhart				Y
11.	Mark Wyman				Y
12.	Michael Sumney				Y
13.	Mike Herbert				Y
14.	Tom Hall				Y

Use additional sheets, if necessary.

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: Remote Zoom Meeting -- https://us02web.zoom.us/j/86452781121
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 Applicant(s): Isabel Worthy Mattox, Mattox Law Firm

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.	Steve Martin				Y
2.	Donald Thomas				Y
3.	Kenneth Muzzillo				
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					

Use additional sheets, if necessary.

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, Isabel Worthy Mattox, 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 Remote Zoom Meeting (location/address) on December 15, 2020 (date) from 5:00 pm (start time) to 7:00 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.

12-16-20

Date

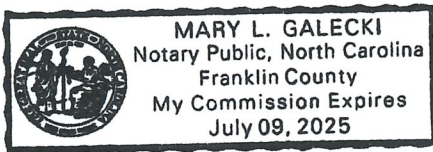
By: _____



STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me this the 16th day of December, 2020 by Isabel Worthy Mattox.

SEAL



Mary L. Galecki

Notary Public

Mary L. Galecki

Print Name

My Commission Expires: July 9, 2025

EXHIBIT B - Certified List of Neighboring Property Owners

0732927220
GLEN ARBOR TOWNEHOME OWNERS
ASSOCIATION INC
R S FINCHER & CO
315 S SALEM ST
APEX NC 27502-1863

0742011877
HITTNER, SUSAN
709 BRISTOL BLUE ST
APEX NC 27502-4114

0742013841
RIEBER, JOHN W
RIEBER, MICHELLE E
706 BRISTOL BLUE ST
APEX NC 27502-4138

0742014942
MUZZILLO, KENNETH
MUZZILLO, GINA
602 LONGTON HALL CT
APEX NC 27502-4108

0742018833
UNITED STATES POSTAL SERVICE
PO BOX 8601
PHILADELPHIA PA 19197-0001

0742020243
BRIDGERS, JEAN B
1008 ARBOR VALLEY LN
APEX NC 27502-3936

0742020328
MURRAY, MARISA CHRISTINE
1003 ARBOR VALLEY LN
APEX NC 27502-3937

0742021098
VELASQUEZ, CHRISTOPHER D
VELASQUEZ, KRISTEN E
101 NOTTINGHILL WALK
APEX NC 27502-4344

0742021262
MARTIN, STEPHEN K
MARTIN, JONNIE L
1016 ARBOR VALLEY LN
APEX NC 27502-3936

0742021326
PLUMLY, MICHAEL R
PLUMLY, MARY M
500 WINDSTREAM WAY
CARY NC 27518-9038

0732929079
STULTZ, CHRISTOPHER NEAL
GALEYEVA, OLGA
800 BRISTOL BLUE ST
APEX NC 27502-4115

0742011902
PITTNER, STEVE T
PITTNER, HEIDI K
713 BRISTOL BLUE ST
APEX NC 27502-4114

0742013868
MUZZILLO, KENNETH
MUZZILLO, GINA
602 LONGTON HALL CT
APEX NC 27502-4108

0742015848
HALL, MURREY T III
608 N COALPORT DR
APEX NC 27502-4106

0742020059
VANGORDER, RYAN
VANGORDER, ANGELA
716 BRISTOL BLUE ST
APEX NC 27502-4113

0742020273
IREALTY LLC
2054 KILDAIRE FARM RD STE 318
CARY NC 27518-6614

0742020357
MEEKS, BARBARA H
DENNIS, TANYA
1005 ARBOR VALLEY LN
APEX NC 27502-3937

0742021202
SUMNEY, MICHAEL W.
SUMNEY, DEBRA L.
1012 ARBOR VALLEY LN
APEX NC 27502-3936

0742021292
WIX, SUSAN R TRUSTEE
1018 ARBOR VALLEY LN
APEX NC 27502-3936

0742021356
WHITE, SUSAN H
1011 ARBOR VALLEY LN
APEX NC 27502-3937

0742010933
HARRIS, BELINDA WOODARD
715 BRISTOL BLUE ST
APEX NC 27502-4114

0742012959
VIZCAINO, ANDRES VINA LONDONO
ZULUAGA, DIANA KARIME
601 LONGTON HALL CT
APEX NC 27502-4108

0742014840
HARMON, THOMAS
HARMON, LETICIA
607 N COALPORT DR
APEX NC 27502-4107

0742016810
HERNANDEZ, LORI L
606 N COALPORT DR
APEX NC 27502-4106

0742020203
SMAILES, ROBERT PATRICK
1006 ARBOR VALLEY LN
APEX NC 27502-3936

0742020309
FLAYHART, JOANNE M
1001 ARBOR VALLEY LN
APEX NC 27502-3937

0742021018
ARSENAULT, GLADYS M
714 BRISTOL BLUE ST
APEX NC 27502-4113

0742021232
LEE, JENNY C
517 GREENWOOD DR
CARY NC 27511-4648

0742021306
KURIAN, JOICE
KURIAN, BINCY JOICE
105 RUTHWIN DR
MORRISVILLE NC 27560-6799

0742021559
SPRING ARBOR OF APEX LMTD PRNTSHP
800 HETHWOOD BLVD
BLACKSBURG VA 24060-4207

0742022096
HERBERT, MICHAEL
HERBERT, MICHELLE
603 LONGTON HALL CT
APEX NC 27502-4108

0742022222
MCCORMICK, CECILIA WEI
1020 ARBOR VALLEY LN
APEX NC 27502-3936

0742022252
PANGBURN, EDWARD C
PANGBURN, JANET D
1022 ARBOR VALLEY LN
APEX NC 27502-3936

0742022306
MARGARET T OKEEFFE TRUST
1013 ARBOR VALLEY LN
APEX NC 27502-3937

0742022335
FU, SHUJUN
MU, LILI
1605 S 8TH ST
ALHAMBRA CA 91803-3416

0742022366
LEROUX ENTERPRISES LLC
1017 ARBOR VALLEY LN
APEX NC 27502-3937

0742023077
SEEGER, JANE F
605 LONGTON HALL CT
APEX NC 27502-4108

0742024094
THOMAS, DON E
THOMAS, GWEN L
604 LONGTON HALL CT
APEX NC 27502-4108

0742025548
UKRAINIAN AMERICAN SOCCER ASSN INC
WALGREENS CO
300 WILMOT RD
DEERFIELD IL 60015-4614

0742026247
LIDL US OPERATIONS LLC
HQ REAL ESTATE DEPARTMENT
3500 S CLARK PL
ARLINGTON VA 22202-4033

0742028991
WIDEWATERS IX APEX CO LLC
WALGREENS CO
PO BOX 1159
DEERFIELD IL 60015-6002

0742111997
JONES FAMILY PROPERTIES OF APEX LLC
PO BOX 945
APEX NC 27502-0945

0742112920
LEGAL VENTURE LLC
510 W WILLIAMS ST
APEX NC 27502-1846

0742120376
SCI NORTH CARLINA FUNERAL SERVICES
LLC
1929 ALLEN PKWY
HOUSTON TX 77019-2506

0742120376
MCIVER FAMILY HOLDINGS, LLC
PO BOX 130548
HOUSTON TX 77219-0548

0742121986
WAKE COUNTY
WAKE CO ATTORNEYS OFFICE
PO BOX 550
RALEIGH NC 27602-0550

0742123010
BEAVERS OFFICE PARK CONDOS
PWA
1146 EXECUTIVE CIR
CARY NC 27511-4526

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): LIDL US Operations, LLC

Applicant(s): Isabel Worthy Mattox, Mattox Law Firm

Contact information (email/phone): _____

Meeting Address: Remote Zoom Meeting -- https://us02web.zoom.us/j/86452781121

Date of meeting: December 15, 2020 Time of meeting: 5:00 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:

See Questions/Concerns attached as Exhibit D.

Applicant's Response:

Question/Concern #2:

Applicant's Response:

Question/Concern #3:

Applicant's Response:

Question/Concern #4:

Applicant's Response:

EXHIBIT D

to

Town of Apex – PD Plan/PUD-CZ Petition
Property: 0 W. Williams Street, Apex, NC 27502

QUESTIONS FOR APEX REZONING NEIGHBORS MEETING

- What is the setback from the adjacent homes? 20 feet?

We propose a 40- Type A buffer adjacent to single family homes and a 20' Type B buffer adjacent to townhomes.

- What will be done with the two existing ponds on the property?

There are a sedimentation area and a stormwater pond serving the Walgreens property. Those will be incorporated into underground stormwater detention.

- What protections are there for the adjacent homeowners from light, water, sound, and air pollution?

Light fixtures will be directed downward to avoid light trespass. Stormwater flowing from the property will be initially stored underground and filtered (probably through a sand filter) before being released to adjoining properties. We do not expect any significant noise to be generated by this senior development, probably much less than some uses such as restaurants which are permitted under the existing zoning. We also do not expect this development to cause air pollution. There will be significantly lower traffic generated than from uses under existing zoning.

- What went into the decision of where to place the building?

Building placement shown on graphic is not final, but considerations include: driveway access points, Apex requirement to place most parking on the side of or behind the building.

- Why does the building not back up to Walgreens instead?

Driveway access points

- Has a noise study been done?

No, but we do not expect any significant noise to be generated by this senior development, probably much less than some uses such as restaurants which are permitted under the existing zoning.

- Dumpster location?

Location on graphics are not final, but we need to locate where a truck can adequately maneuver. Also keep in mind that the dumpster will be enclosed and landscaping will be required around the enclosure.

Site Plan:

- What are the specific elevations for the building, parking lot, dumpster pad, and driveways?

We have not done a grading study and cannot give accurate site elevations for improvements.

- Will there be a retaining wall? If so, how tall and what are the details of the location and size?

Given the grades, there will very likely be one or more retaining walls but we do not know the height at this time.

- How will storm water run off be managed? - it is already a significant issue without development at this time.

Stormwater will be managed through an underground detention system which collects runoff, filters and releases over a period of time.

- How will the existing creek/stream be addressed as it currently runs under the proposed building location?

Our information indicates that the stream ends before it reaches the building location. We will have the stream delineated by the NC Division of Water Quality and the US Army Corps of Engineers. If a protected stream is in the proposed building location, we will need to relocate the building.

- How will protected natural areas be preserved with proposed development?

We will maintain buffers along the south and west borders. These will be maintained by the Owner.

Traffic:

- Is Walgreens Corporation and the local site aware of the dependency of access through their parking lot from this proposed development?

Yes we believe they were aware and recorded access agreements in their development.

- Have current traffic studies been done assessing the large amount of traffic along this section of W. Williams which already impinges upon Amhurst, postal office, and church traffic, especially for a left turn? How will the increased traffic of up to 126 additional vehicles be addressed? (84 units x 1.5 parking spaces on design plan).

Project engineer Timmons Group has prepared a Trip Generation Report for this site and our proposed use. It indicates that traffic from this site will be significantly less than what could be developed on site under the current zoning

- How does the proposed development plan to address traffic concerns, including future widening of W. Williams and the proposed dividing median which would run in front of this property?

Access will be through joint access drive with Walgreens. There will not be additional access point on Williams. There are likely to be road dedication and/or improvement requirements with this development.

Rezoning Issues:

- What specifically is the rezoning proposal? Documents received reference changing it from PUD-CU to PUD-CU. However, there is currently a booklet of all the details applicable to the current zoning for the site. Multifamily or residential of any kind is not currently allowed anywhere within the present zoning uses. This is a significant change being requested without any prior communication or collaboration with the adjoining property owners.

The rezoning request has not been filed. This is the very beginning of the process. We want to engage with you tonight and in the future to hear your concerns and suggestions. We will file the rezoning request to allow multifamily development.

- Use of the land was to be limited to office hours for any structure located along residential property lines and other structures would be businesses such as restaurants or coffee shop that would close overnight providing neighboring residents privacy and quiet enjoyment of their property. How will proposed development address car and people noise, lights, and 24/7 residential living adjacent to property owners?

Although residential is a 24 hour use, we do not believe a senior affordable development will generate significant noise, traffic or activity at night time. The current zoning allowed restaurants and retail/service uses which would be far noisier and would generate significantly more traffic.

- Proposed building significantly exceeds current approved building square footage. How is this addressed in the rezoning application?

When you add all the building footprint areas together, they may not be significantly more than the footprint we propose.

- Would the current detailed PUD-CU zoning with use and development restrictions be replaced as a whole with the new proposed zoning? If so, is the developer willing to work with property owners to address buffers, landscape screening, storm water runoff, lighting, dumpster noise, and other currently protected right for adjacent property owners?

We are changing the PUD only with respect to the subject tract. The remainder of the PUD zoning will stay as is. We absolutely want to work with property owners to address development issues and concerns.

- Who would be responsible for maintaining buffer areas?

The property owner who will be Evergreen which develops, manages and continues to own its developments.

- How does a 3 story large residential building on this lot meet current zoning for property in this area? The height profile for most commercial structures, especially in this immediate area, is one story with the exception of the church.

We are requesting rezoning to allow more height. As our area grows and land becomes more scarce we must grow up to accommodate our growing communities.

- What is the next step after this call? Who will be the contact? What rights do the adjacent property owners have? What is the detail or date of next step?

After this call we will work to complete our rezoning application which we plan to file before January 4. Then there will be a period of Staff review. If things go according to schedule, we would go to the Planning Board on March 8, 2021 and to Town Council on March 23, 2021. You have the right to appear at either of these public meetings and to speak at those meetings.

Senior Living Development:

- Applicants must be 55+. Would residents be allowed to have other under 55 residents living with them, including young and school age children? Is there a maximum number of residents per unit and how is that enforced?

Yes applicants can have a younger spouse or companion --the minimum age is 45 for someone living with a resident over 55. The limit is 2 people per bedroom plus an additional person but our typical resident is single and about 65 years old.

- Will all 84 units be offered at below market rates or subsidized to meet affordable criteria?

Yes at 30%, 40%. 50% and 60% or Annual Median Income

- Who will manage, approve applicants, and maintain the facility?

The property owner who will be Evergreen which develops, manages and continues to own its developments. It will screen applicants and maintain the facility.

- What percentage of rental units will be 1 bedroom or 2 bedroom?

Approximately 50% 1-BR and 50% 2- BR.

- What is the breakdown of the economic affordability that will be used, and how many units will apply at each % of medium area income for Wake Co.?

Approximately 21 units at 30%, 12 units at 40%, 8 units at 50% and 43 units at 60% of Annual Median Income.

- Will a bus stop or other public transportation be placed near or on the property?

We think that is likely.

Affordable Housing:

- Is it a conflict of interest that the developer on this proposed application is also a Steering Committee member of the Apex Affordable Housing Plan? (Timothy Morgan, Evergreen Construction Co.)

Tim Morgan was asked to serve on the Apex Committee because of his knowledge of affordable housing development. He has also served with similar groups in Raleigh and _____. He has no part in the process of approval of rezoning cases. We do not see this as a conflict.

- Has any funding to assist with this development already been secured? If so, how much and through which agencies?

No funding has been secured, but we will apply to NCHFA for tax credits and to Wake County for financing.

- Why this site verses other options within the broader community? The one existing Affordable Housing development in Apex is a 72 unit complex of 2 and 3 bedroom units built by DHIC at 610 Upchurch Street which is less than 1 mile south off of W. Williams Street. All of these units are offered at less than 50% of median area income.

The existing DHIC development is a family development and does not serve the senior population that our development will serve.

- Currently there is a development plan that has been funded and approved to be built by DHIC known as Broadstone Walk across from Cambridge Village senior center. The information on this project shows 2 phases, with the first being 72 units for families and a second phase targeted for senior living. This development would be approximately 1.7 miles south from this proposed site. Could this development at the corner of S. Hughes and Apex Peakway address the need for affordable senior housing?

The proposed development which had included a senior component was not approved by NCHFA. It has now been changed to 100% family. So neither of these developments is the same as ours which is an entirely senior development.

- Are there state and local requirements that exist to prevent the clustering of affordable housing in close proximity to one another? Based on the distances of the 2 developments mentioned above, a problem with clustering would seem to exist with this rezoning proposal.

There are sometimes local requirements (but not in Apex) promulgated to reduce overconcentration of affordable housing, however those would not apply where a family and senior development are in the same area.

Town of Apex – PD Plan/PUD-CZ Petition
Property: 0 W. Williams Street, Apex, NC 27502
Response to Staff Comments – Review No. 1 (1-22-2021)

Petition No. 21CZ02 Abbey Spring

PD PLAN TEXT
Section 1: Table of Contents

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Section 4:	Statement Permitted
Section 5:	Uses
Section 6:	Design Controls
Section 7:	Architectural Standards
Section 8:	Parking and Loading
Section 9:	Signs
Section 10:	Natural Resource and Environmental Data
Section 11:	Stormwater Management
Section 12:	Parks and Recreation
Section 13:	Public Facilities
Section 14:	Phasing
Section 15:	Consistency with Land Use Plan
Section 16:	Compliance with the UDO

PD PLAN TEXT
Section 3: Project Data

Name of the Project: Abbey Spring (Affordable Senior Apartments)

Prepared By: Isabel Worthy Mattox
Mattox Law Firm
PO Box 946
Raleigh, NC 27602

Rick Baker, PE
Project Engineer
Timmons Group
5410 Trinity Road, Suite 102
Raleigh, NC 27607

Becky Bascom Kelly, RA
Project Architect
Tightlines Designs
19 W. Hargett Street, Suite 501
Raleigh, NC 27601

Property Owner: Lidl US Operations, LLC
HQ Real Estate Department
3500 S. Clark Street
Arlington, VA 22202-4033

Contract Purchaser: Evergreen Construction Company
c/o Tim Morgan
7706 Six Forks Road
Raleigh, NC 27615

Existing Zoning: PUD-CZ (02CU13)

Proposed Zoning: PUD-CZ

Current land use designation: Mixed Use, including office and retail

Proposed land use designation: High Density Residential/Commercial Services

Area of Tract: 5.01 acres

Area Proposed as Non-Residential*: 0 acres

Area Proposed as Residential: 5.01 acres (across two phases)

Percent Proposed as Non-Residential: 0%

Percent Proposed as Residential: 100%

PD PLAN TEXT
Section 4: Purpose Statement

Purpose Statement

(explain how this project meets the Development Parameters found in UDO Sec. 2.3.4(F)(I)(iv)-(vi).)

Section 2.3.4(F)(I)(iv) – The proposed development will provide for the connection of land uses through a variety of modes including pedestrian and bicycle facilities, roadway improvements and other facilities. The project will conform to the requirements of the Apex Transportation Plan by constructing or improving connecting roadways and/or driveways between Williams Street (Hwy 55) and Olive Chapel Road. The proposed development will offer a pedestrian connection between the proposed multifamily residential and (i) the adjacent Walgreen’s retail development to the north and (ii) the adjacent United States Postal Service property to the south.

Section 2.3.4(F)(I)(v) – The purpose of the proposed development is to provide much-needed affordable housing for seniors situated in the Town Center area, close to high-quality mixed-use development, itself in close proximity to the intersection of several major transportation thoroughfares. The proposed development will integrate well with existing different land uses in close proximity to the subject site and thereby increases the overall connectivity of the area while providing additional opportunities for use and patronage of the existing land uses, including grocery, pharmacy, restaurants and healthcare providers. Within the development proposal, particular attention will be paid to preserving perimeter buffers while also promoting an internal network of interconnected streets, pedestrian, and bicycle facilities (including bicycle parking).

Section 2.3.4(F)(J)(v) – The proposed residential development is intended to integrate with the existing and planned future development of the area. Appropriate buffers are contemplated to ensure the development is shielded from existing single family and townhouse development. Connection with the adjacent Walgreen’s retail property is provided through two vehicular connections and a pedestrian footpath, helping to reduce vehicular trips on public rights-of-way and foster a more walkable environment. In addition, the proposed development will integrate well with existing healthcare providers, including Wake Med-Apex Healthplex, Walgreens and other healthcare providers. In addition, the developer will seek a pedestrian connection to the Glen Arbor Townhome site. The proposed development will maintain the architectural feel and identity of Apex, and enhance adjoining property values by offering a high-quality product that will complement the surrounding area.

PD PLAN TEXT
Section 5: Permitted Use

Residential Uses (Medium and High Density Residential)

4.3.1 Residential Uses*

A. Age Restricted Multi-Family or Apartment meeting the federal definition of elderly housing, having at least eighty percent (80%) of the occupied units occupied by at least one person fifty-five (55) or older per unit.

** The allowed residential uses must meet the requirements of the Section 42 of the Internal Revenue Code (“Code”) or a substantially equivalent form of affordable rental housing. 100% of the dwelling units developed on the property must meet this requirement. Accordingly, rents shall be set at a price that on average is affordable to a household with an annual income that is no greater than 60% of the Area Median Income for the respectively-sized household in the Raleigh, NC MSA, as determined by the United States Department of Housing and Urban Development (HUD) at the time of move-in.*

PD PLAN TEXT
Section 6: Design Controls

Residential (Medium and High Density Residential)

Maximum density: 17du/acre

Maximum Building Height**

Residential three (3) stories; 48 feet

***Certain architectural elements (project identity features, towers, spires, etc.) may surpass this height limit with Town approval as part of the site plan review process.*

Setbacks

Residential

Vehicle Use Areas: 5' from established buffers

Buildings: 5' from established buffers

Buffers

Street Front Buffers

Williams Street*: A 30' Thoroughfare buffer will be maintained along the frontage of Williams Street located on the eastern boundary of the property.

Perimeter Buffers

South: 40' Type A – adjacent to PINs 0742024094 (Thomas), 0742023077 (Seeger) and 0742022096 (Herbert).

West: 20' Type A – adjacent to PINs 0732927220 (Glen Arbor HOA).

North: A 20' setback along the common line with the Walgreen's development

Impervious Surface

Amount and percentage of built upon area allowed: Seventy percent (70%)

Amount and percentage of built upon area proposed: Less than seventy percent (<70%)

[Exact percentage to be determined at site plan stage of development]

PD PLAN TEXT
Section 7: Architectural Standards

The building scale and mass for this multifamily community will reflect the residential scale and character of traditional Apex architecture. Building materials to be used for the apartments shall include a variety and diversity of colors, textures, and features provide a unique character while still maintaining a level of

consistency and compatibility with the Apex style. Further detailing shall be provided at the time of site plan submittal.

The scale of new structures will be appropriate to the building type and will also relate appropriately to adjacent land uses. Apartment structures will be in scale with proposed retail development adjacent to those uses. Height, mass, form and roof configurations will be given particular attention as elements of scale. The main exterior building materials are brick and vinyl lap siding, with accent vinyl vertical siding. Awnings, gable vents, Juliet balconies, a cupola and accent metal roofing will be included to add variation and interest throughout the building. The building design will also feature a rear porch, a porte cochere and a balcony with seating.

Various architectural and landscape street elements will be incorporated to enhance the traditional character and walkability of the community. These elements may include patios, railings, benches, lighting, entry features, lawn areas and open space.

This building will be built to the Energy Star Multifamily New Construction Program standards. This includes items that will be built to a higher standard of efficiency, including: energy efficient lighting and appliances, Energy Star windows, higher resistance envelope insulation (it will be at least R-15 for walls), and higher efficiency HVAC. The design will also include light sensors for exterior lighting and movement sensors for interior common area lighting.

PD PLAN TEXT
Section 8: Parking and Loading

A reduction in parking to 1.1 space per dwelling unit is requested.*

** While the proposed development would not technically qualify as Congregate Care, it otherwise being an age-restricted property marketed and leased specifically to seniors is the basis for the request to reduce the parking minimum to 1.1 space per dwelling unit, the approved minimum for Congregate Care facilities. The developer has experienced success with such ratios on other senior projects, for example an approximately 1.1:1 ratio at its Ryan Spring project located in Cary and its Amber Spring project located in Raleigh. In addition 1.1 parking space per unit is the ratio required by NCHFA based on its experience with both legal and practical parking requirements over multiple projects in North Carolina. The developer feels a 1.1:1 ratio at this project would not unduly impact adjacent property owners or residents' lives or their ability to maintain personal transportation at their residence.*

Further justifying the reduction in parking requirements are (a) a planned transit stop in close walking distance, and (b) provision bicycle parking.

It is anticipated that the Town of Apex will install a new bus stop for GoApex Route 1 in front of the United States Post Office on West Williams Street. This is a funded project with designs approved by NCDOT. The approved design includes an amenity pad, bench, and other improvements, with room for a future shelter. If the Town has completed those improvements prior to the completion of the proposed development, the applicant shall construct the following at the new bus stop: shelter, trash receptacle. These improvements would be made within the existing right of way prior to the issuance of a CO for the development.

PD PLAN TEXT
Section 9: Signs

Signage will comply with all applicable requirements of the UDO.

PD PLAN TEXT

Section 10: Natural Resource and Environmental Data

Watershed:

The site is within the Upper Beaver Creek Drainage Basin.
The site does not contain a FEMA designated 100-year floodplain.

Stream and Buffers:

The delineation of wetlands and riparian buffers were completed by Town of Apex Water Resource Department on February 25, 2021. In accordance with the Town of Apex Stream Buffer Report dated February 26, 2021 and Section 6.1.11 of the Town UDO, a stream classification of S1A has been determined requiring a 50' stream buffer. Applicant has submitted a revised site plan delineating the 50' stream buffer located at the southern boundary line of the site.

RCA Requirements:

PUD-CZ #02CU13 provided for 2.29 acres of RCA over the entire 13.28- acre PUD covered by that case. A significant portion of the RCA (approximately 62,000 square feet) was provided on the subject property. The Applicant will maintain at least 62,162 square feet (1.45 acres) of RCA, consistent with UDO Section 8.1.2.B.1.i., to include any areas that are disturbed to be replanted and counted as RCA.

Historic Structure:

The site does not contain any historic structures as defined by UDO Section 12.2 "Historic Structure".

Planting and Landscaping and other Environmental Issues:

Biodiversity. The project will promote biodiversity through: (i) planting pollinator-friendly flora; and planting native flora.

Green Infrastructure. The project will provide diverse and abundant pollinator and bird food sources (e.g., nectar, pollen, and berries from blooming plants) that bloom in succession from spring to fall.

Gardens. The development will include a community garden and/or a native pollinator demonstration garden.

Drought Resistance. The development will include landscaping that requires less irrigation and chemical use and warm season grasses that facilitate drought resistance.

Trees. The development will increase the number of native hardwood tree species to at least 3 species.

Pet Waste Stations. The development will include pet waste stations.

Signage. The development will include signage identifying environmentally sensitive areas.

PD PLAN TEXT

Section 11: Stormwater Management

The post development on-site storm water discharge rate for the apartment development shall not exceed the pre-development rate. Quantity measures for stormwater management will be designed to the 1-year, 24-hour and the 10-year, and 25-year, 24-hour design storms. Stormwater management for the entire site will be managed through the use of above ground or underground Stormwater Control Measures (SCMs) to achieve both quantity and quality requirements. The preferred standard of care and use of approved SCMs shall be taken with regard to erosion control and assurance of storm water quality. Currently there is a stormwater pond serving the adjacent Walgreen's development to the north. It is anticipated that the proposed development will include a shared SCM which will serve both the Walgreen's store and this site.

In addition, the project proposes the installation of signage near SCMs, whether above ground or underground in order to: (i) reduce pet waste; and (ii) eliminate fertilizer near SCM drainage areas.

PD PLAN TEXT

Section 12: Parks and Recreation

The property is located close to Apex Jaycee Park and Beaver Creek Greenway. The project will pay a fee-in-lieu of dedication of park space unless such fee is waived. In addition, current site plan contemplates a large, flat, multiuse lawn area to serve the development as well as outdoor patio areas and an indoor fitness center.

The Parks, Recreation and Cultural Resources Advisory Commission reviewed the Abbey Spring project at the regular meeting on February 24, 2021. The Commission made a unanimous recommendation for a fee-in-lieu of dedication.

PD PLAN TEXT

Section 13: Public Facilities

Sanitary Sewer:

The proposed development will connect to the existing public sewer line located in the right-of-way of Williams Street.

Water Systems:

The proposed development will be served by an existing water main located within Williams Street. Proposed water mains will extend through the subject property to provide water service and fire protection to the future development.

Roadways:

The site enjoys good access to both Williams Street and Olive Chapel Road through joint access drives through the Walgreen's development to the north. An additional southbound lane and a 10' pedestrian path will be added along W. Williams Street as a part of the apartment development. Another pedestrian path will be constructed to connect the proposed apartments with the Walgreen's property. Where public streets are proposed or required, the streets will be designed to Town of Apex public road standards. The proposed development roadway layout is in accordance with the proposed Apex Transportation Plan. The proposed plan is below the traffic volume thresholds that would otherwise require a traffic impact analysis by the Town of Apex. Proposed access to the public street(s) and associated improvements is subject to review and approval by the Town of Apex and NCDOT at the time of site

plan submittal. The site plan shall provide right of way dedication along West Williams Street in accordance with Advance Apex. See attached Trip Generation Report. In addition, we are aware of the NCDOT Project U-2901 – NC 55 Widening Project and the Project's current construction delays.

A 24' vehicular cross-access easement within a 34' driveway construction easement shall be provided from the joint access driveway with Walgreens identified as PIN 0742025548 to the joint property line with the United States Postal Service property to the south identified as PIN 0742 01 8833. The site will be designed to accommodate the possible future extension of a driveway to the adjoining property to the south. No physical cross access improvements will be built as part of the initial development of the property for affordable senior housing. Any parking spaces located within the easement shall count toward parking requirements and any area of the easement outside of the parking lot shall count toward the Resource Conservation Area (RCA) requirement. Any RCA area within the easement, not including buffers, shall not be required to be planted to a specific standard. Any parking spaces removed through the construction of the cross access easement in the future would need to be replaced by the entity installing the cross access easement.

PD PLAN TEXT
Section 14: Phasing

The apartment development will be constructed in a single phase.

PD PLAN TEXT
Section 15: Consistency with Land Use Plan

The proposed development is consistent with the proposed amended Land Use Plan scheduled to be reviewed by the Planning Board and Town Council in early 2021 and the intent and goals thereof, some of which include the preservation of Apex's character, improved economic health, providing compatibility between new development and existing development; the protection of natural resources; the provision of infrastructure that helps achieve land use and growth management objectives and also promotes pedestrian and bicycle facilities throughout Apex and the efficient circulation of traffic; and (perhaps most notably) providing options for affordable housing.

Apex grew around a transportation center with a mix of residential and commercial uses. Throughout its history, the community has sought to be a self-sufficient center of commerce and a great place to live. The proposed development will continue the pattern of mixed-use development within the Town Center area by locating a high-quality multifamily development within close proximity of existing retail and mixed-use developments, thereby increasing the community's tax base and economic health.

The Project will add another housing option for older and economically disadvantaged citizens. Development will be steered away from the more environmentally sensitive areas on site in order to meet the goal preservation of significant RCAs.

The efficient circulation of traffic will be achieved by the connection of Williams Street and Olive Chapel Road, pedestrian connection between the proposed development and existing retail, and many other transportation facility improvements. In addition, the close proximity to a variety of existing uses will support alternative modes of transportation by placing residents within walking or biking distance of grocery, pharmacy, restaurants and jobs. A 10' side path will be constructed along W. Williams Street to improve pedestrian and bicycle connectivity.

Most importantly, the proposed development will bring much-needed affordable housing to the area for seniors. The median housing value in Apex is over \$350,000, making homeownership unaffordable for a significant segment of the population. Median rent is over \$1,100 per month. It is estimated that over 30% of renters pay more than 35% of their annual income for rent. This leaves fewer dollars available

for basic necessities such as food, transportation, education, health care, and other needs. Furthermore, while the housing stock of Apex has been growing in recent years, the focus has primarily been in single-family/townhome uses; there are very few small to medium apartment buildings. The proposed development aligns well with Wake County's Affordable Housing Plan and will provide economic benefits to the Town of Apex while also providing immediate personal benefits to many senior Apex residents.

PD PLAN TEXT

Section 16: Compliance with the UDO

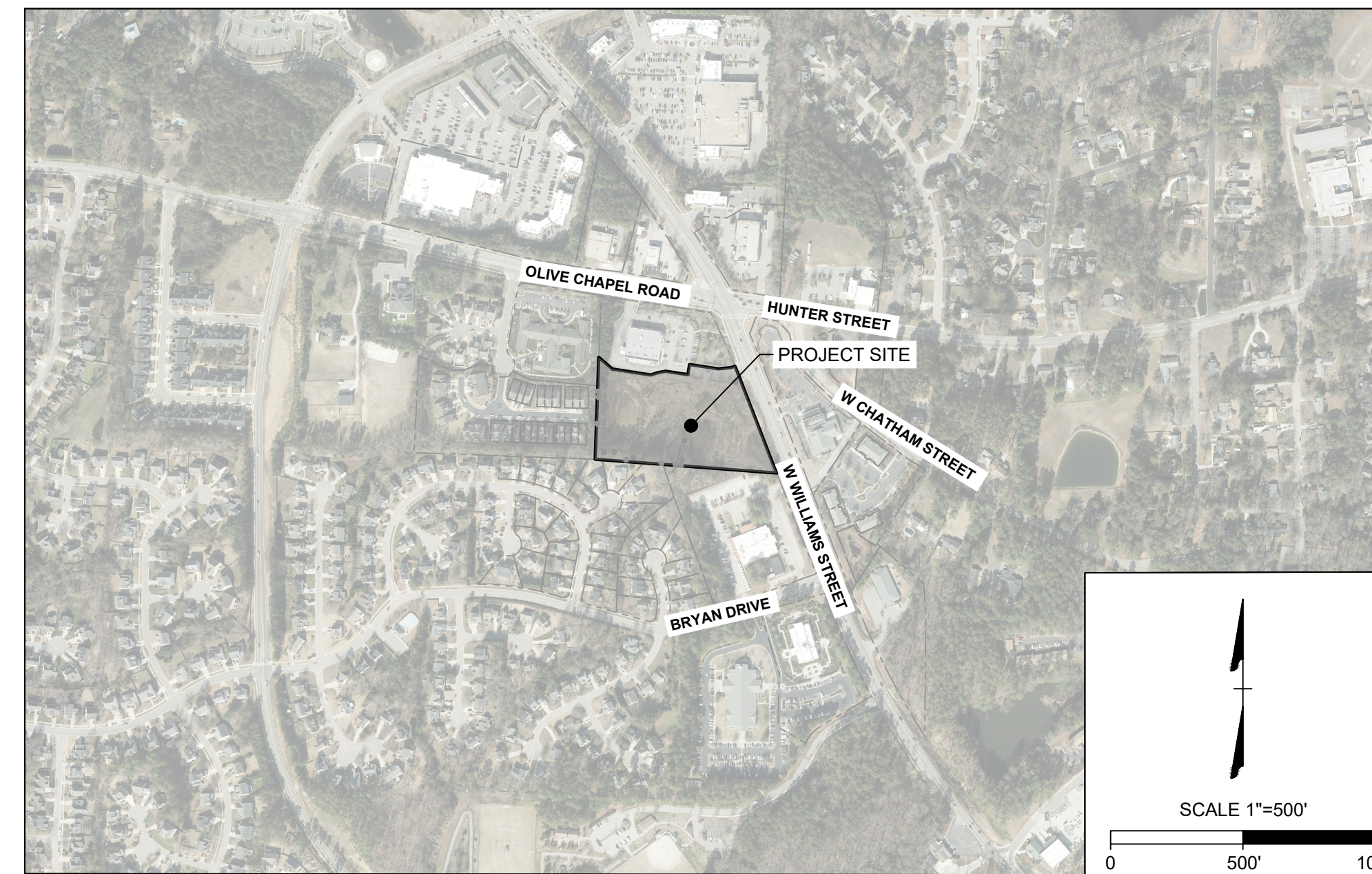
The Project will comply with all other relevant portions of the UDO.

EVERGREEN - ABBEY SPRING

A SENIOR LIVING COMMUNITY

PLANNED UNIT DEVELOPMENT - CONDITIONAL ZONING

0 W WILLIAMS STREET
 APEX, WAKE COUNTY, NORTH CAROLINA, 27502
 PIN(S): 0742026247



VICINITY MAP

DEVELOPER:
 EVERGREEN CONSTRUCTION
 7706 SIX FORKS ROAD; SUITE 202
 RALEIGH, NC 27615
 TIMOTHY G. MORGAN
 (919) 848-2041
 TIM@ECCMGMT.COM

CIVIL ENGINEER:
 TIMMONS GROUP
 5410 TRINITY ROAD, STE. 102
 RALEIGH, NC 27607
 RICK BAKER, PE
 (919) 866-4939
 RICK.BAKER@TIMMONS.COM

ARCHITECT:
 TIGHT LINES DESIGNS
 19 W. HARGETT STREET, SUITE 501
 RALEIGH, NC 27601
 BECKY BASCOM KELLY
 (919) 834-3600
 BECKY@TIGHTLINESDESIGNS.COM

Sheet List Table	
Sheet Number	Sheet Title
C0.0	COVER SHEET
C1.0	EXISTING CONDITIONS PLAN
C2.0	SITE AND UTILITY PLAN

SITE DATA TABLE	
PROJECT NAME:	EVERGREEN CONSTRUCTION - ABBEY SPRING
PROPERTY OWNER:	LIDL US OPERATIONS LLC HQ REAL ESTATE DEPARTMENT 3500 S CLARK STREET ARLINGTON, VA 22202
DEVELOPER:	EVERGREEN CONSTRUCTION TIMOTHY MORGAN 7706 SIX FORKS ROAD; SUITE 202 RALEIGH, NC 27615
PROPERTY ADDRESS:	0 W WILLIAMS ST, APEX, NC 27502
PIN:	0742-02-6247
DEED REFERENCE:	DB 16383 PG 2673
PLAT REFERENCE:	BM 2006 PG 2021
EXISTING ZONING:	PUD-CU
PROPOSED ZONING:	PUD-CZ
EXISTING TRACT SIZE:	217,944 SF (5.01 AC)
EXISTING LAND USE:	VACANT
PROPOSED LAND USE:	MULTI-FAMILY
CURRENT 2045 LAND USE MAP DESIGNATION:	COMMERCIAL SERVICES
PROPOSED 2045 LAND USE MAP DESIGNATION:	HIGH DENSITY MULTI-FAMILY/COMMERCIAL SERVICES ("A")
AREA DESIGNATED AS MIXED USE ON 2045 LAND USE MAP:	
AREA OF MIXED USE PROPERTY PROPOSED AS NON-RESIDENTIAL DEVELOPMENT:	0 SF
PERCENT OF MIXED USE AREAS PROPOSED AS NON-RESIDENTIAL:	0%
HISTORIC STRUCTURE ONSITE:	N/A
WATERSHED:	UPPER BEAVER CREEK
WATERSHED PROTECTION OVERLAY DISTRICT:	SECONDARY
RESOURCE CONSERVATION AREA	
MINIMUM REQUIRED:	62,162 SF
PROPOSED:	62,258 SF
BUILDING/STRUCTURE SETBACKS:	
FRONT (FROM PRIMARY STREET):	20'
SIDE LOT LINE:	20'
REAR LOT LINE:	20'
PARKING SETBACKS:	5' FROM ANY BUFFER OR RCA
PROPOSED BUILDING INFORMATION:	
PROPOSED DWELLING UNITS:	1-BR UNITS: 42 UNITS 2-BR UNITS: 42 UNITS TOTAL: 84 UNITS
EXISTING BUILDING FLOOR AREA:	0 SF
PROPOSED BUILDING FLOOR AREA:	93,311 SF
EXISTING AND PROPOSED GROSS SQUARE FOOTAGE OF BUILDINGS:	93,311 SF
PROPOSED BUILDING HEIGHT:	3-STORIES, 48'
PARKING SUMMARY:	
AUTO PARKING PROPOSED:	1.1 SPACES PER UNIT
BICYCLE PARKING PROPOSED:	6 MIN.

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 TEL 919.866.4931 FAX 919.833.8124 www.timmons.com

YOUR VISION ACHIEVED THROUGH OURS.

DATE: 02/11/21
 DATE: 01/08/2021
 DRAWN BY: T. DAEKE
 DESIGNED BY: R. BAKER
 CHECKED BY: R. BAKER
 SCALE: AS SHOWN

TIMMONS GROUP
 NORTH CAROLINA LICENSE NO. C-1652
EVERGREEN - ABBEY SPRING
 APEX - WAKE COUNTY - NORTH CAROLINA
COVER SHEET

JOB NO.
 42601.008
 SHEET NO.
 C0.0

PLAN SHEETS ARE INTENDED FOR ILLUSTRATIVE USE ONLY

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- SURVEY NOTES**
- ON SITE BOUNDARY, TOPOGRAPHY AND PLANIMETRIC INFORMATION IS TAKEN FROM WAKE COUNTY GIS.
 - ALL DISTANCES SHOWN ON SURVEY ARE HORIZONTAL GROUND DISTANCES UNLESS OTHERWISE NOTED.
 - OTHER SOURCES OF INFORMATION INCLUDE WAKE COUNTY GIS, AERIAL IMAGERY, AND OTHER MAPPING DATA.
 - NOT LOCATED IN FLOOD HAZARD AREA PER FEMA MAPS #3720074200J (05-02-2006).
 - RECORDED PROPERTY DATA:
5.1. BOOK OF MAPS 2006; PAGE 2021
 - NO KNOWN EXISTING VEGETATION 18" CALIPER OR LARGER LOCATED ONSITE.
 - NO KNOWN UNDERGROUND STORAGE TANKS, HAZARDOUS WASTE AND DEBRIS, SEPTIC TANKS, NOR SIMILAR STRUCTURES LOCATED ONSITE.

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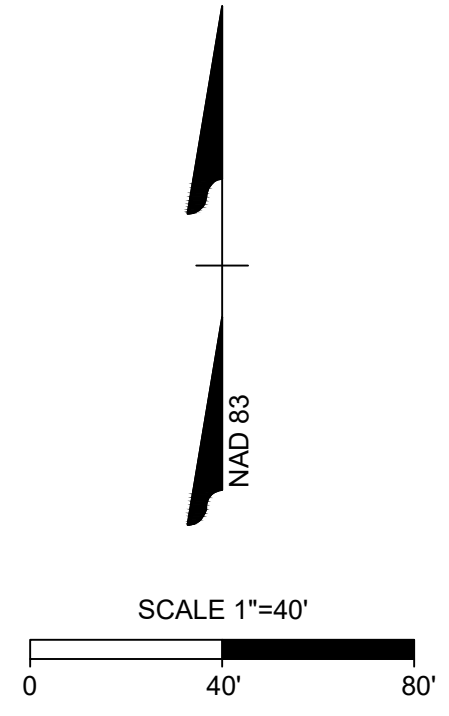
REVISION DESCRIPTION	PER TOWN OF APEX COMMENTS

DATE	DATE
02/11/21	01/08/2021

DRAWN BY	T. DAEKE
DESIGNED BY	R. BAKER
CHECKED BY	R. BAKER
SCALE	AS SHOWN

TIMMONS GROUP
NORTH CAROLINA LICENSE NO. C-1652
EVERGREEN - ABBEY SPRING
APEX - WAKE COUNTY - NORTH CAROLINA
EXISTING CONDITIONS PLAN

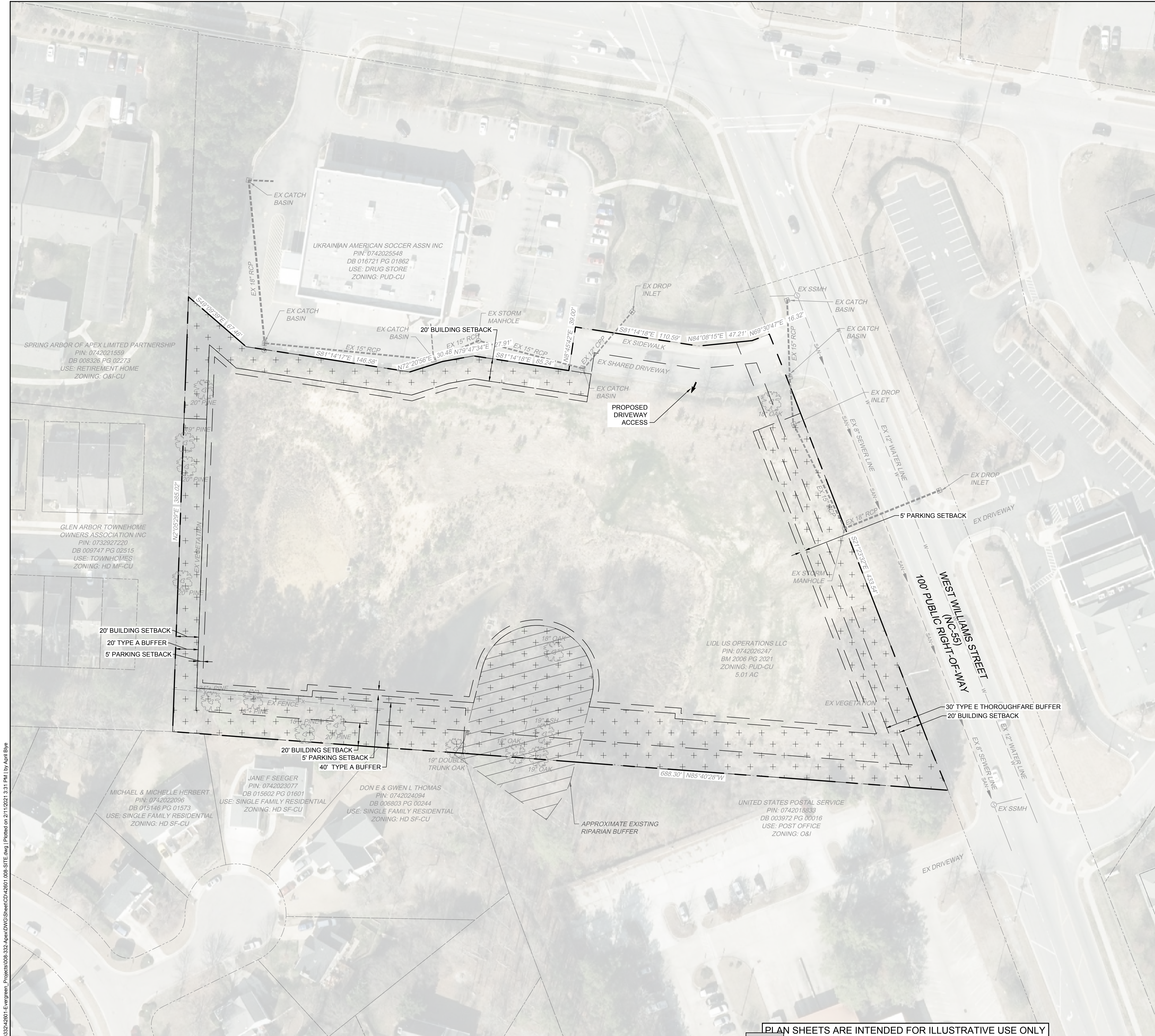
JOB NO.	42601.008
SHEET NO.	C1.0



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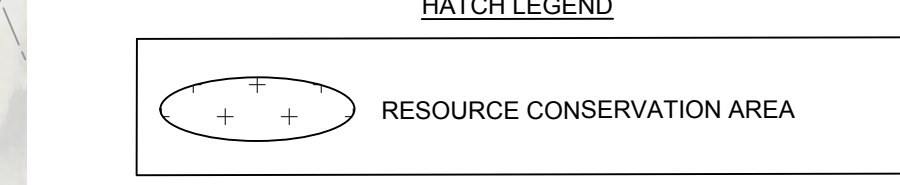
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PRELIMINARY STORMWATER MANAGEMENT PLAN:
 PRE-DEVELOPMENT RUNOFF RATE FOR 24 HOUR STORM:
 $Q = C \cdot I \cdot A$
 $C = 0.27$
 $I_{1\text{ YEAR}} = 0.120 \text{ IN/HR}$
 $I_{10\text{ YEAR}} = 0.210 \text{ IN/HR}$
 $I_{25\text{ YEAR}} = 0.249 \text{ IN/HR}$
 $A = 5.01 \text{ AC}$
 $Q_{1\text{ YEAR}} = 0.163 \text{ CFS}$
 $Q_{10\text{ YEAR}} = 0.284 \text{ CFS}$
 $Q_{25\text{ YEAR}} = 0.337 \text{ CFS}$
 THE POST-DEVELOPMENT RATE OF ON-SITE STORMWATER DISCHARGE WILL NOT EXCEED PRE-DEVELOPMENT LEVELS PER UDO SEC. 6.1.7.
 A SHARED SCM WILL BE DESIGNED FOR THE PROPOSED SITE AND THE PROPERTY PIN #0742025548 (CURRENTLY WALGREENS). DESIGN CRITERIA TO BE DETERMINED BY DISCUSSION WITH TOWN OF APEX STAFF.

- ENVIRONMENTAL ADVISORY BOARD (EAB) COMMITMENTS:
- BIODIVERSITY. THE PROJECT WILL PROMOTE BIODIVERSITY THROUGH: (I) PLANTING POLLINATOR-FRIENDLY FLORA; AND PLANTING NATIVE FLORA.
 - GREEN INFRASTRUCTURE. THE PROJECT WILL PROVIDE DIVERSE AND ABUNDANT POLLINATOR AND BIRD FOOD SOURCES (E.G., NECTAR, POLLEN, AND BERRIES FROM BLOOMING PLANTS) THAT BLOOM IN SUCCESSION FROM SPRING TO FALL.
 - GARDENS. THE DEVELOPMENT WILL INCLUDE A COMMUNITY GARDEN AND/OR A NATIVE POLLINATOR DEMONSTRATION GARDEN.
 - DROUGHT RESISTANCE. THE DEVELOPMENT WILL INCLUDE LANDSCAPING THAT REQUIRES LESS IRRIGATION AND CHEMICAL USE AND WARM SEASON GRASSES THAT FACILITATE DROUGHT RESISTANCE.
 - TREES. THE DEVELOPMENT WILL INCREASE THE NUMBER OF NATIVE HARDWOOD TREE SPECIES TO AT LEAST 3 SPECIES.
 - WATER QUALITY. INSTALL SIGNAGE NEAR ENVIRONMENTAL SENSITIVE AREAS IN ORDER TO REDUCE PET WASTE AND ELIMINATE FERTILIZER.
 - WASTE REDUCTION. INSTALL PET WASTE STATION(S).



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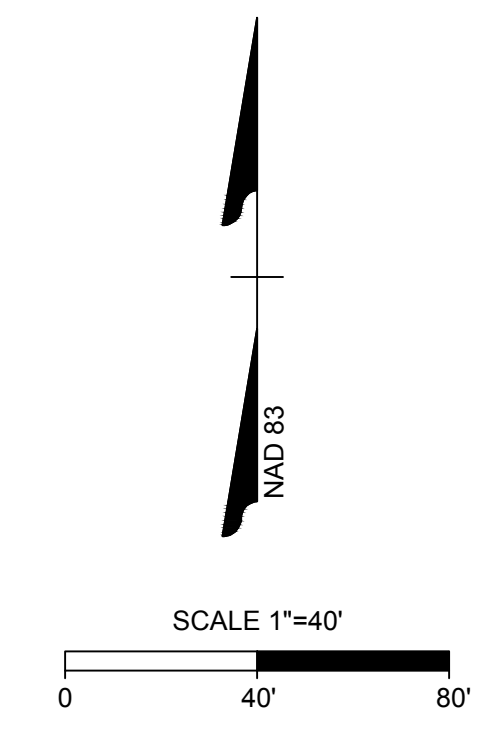
YOUR VISION ACHIEVED THROUGH OURS.

DATE	REVISION DESCRIPTION	PER TOWN OF APEX COMMENTS
02/11/21		

DATE: 01/08/2021
 DRAWN BY: T. DAEKE
 DESIGNED BY: R. BAKER
 CHECKED BY: R. BAKER
 SCALE: AS SHOWN

TIMMONS GROUP
 NORTH CAROLINA LICENSE NO. C-1652
EVERGREEN - ABBEY SPRING
 APEX - WAKE COUNTY - NORTH CAROLINA
 PUD PLAN

JOB NO. 42601.008
 SHEET NO. C2.0



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The following trip generation information is for the proposed residential development to be constructed in Apex, NC.

The site-generated trips shown in **Table 1** and **2** are based on trip generation information provided in the 10th Edition of the Institute of Transportation Engineer's (ITE's) *Trip Generation Manual* and compare the construction of 84 attached age restricted apartments with the proposed land uses that can be constructed under existing zoning (24,000 square-foot (SF) medical office building, 6,800 SF commercial, and 3,000 SF restaurant with drive-through window). The residential trip generation was calculated using the proposed number of units as the independent variable where the commercial was calculated using the proposed square-footages as the independent variable. The provided equation was used to generate trips for the apartments and shopping center land uses where the provided rate was used to generate trips for the medical office building and fast-food restaurant (per NCDOT standards).

**Table 1: Trip Generation Summary
Senior Apartment Units**

ITE Land Use Code	Independent Variable	Daily			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
252 - Senior Adult Housing - Attached	84 Units	156	156	312	6	11	17	12	10	22

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 10th Edition (2017)

As shown in **Table 1**, AM peak hour trips generated totaled 6 incoming and 11 outgoing where PM peak hour trips totaled 12 incoming and 10 outgoing. Average daily traffic (ADT) volumes generated by the development totaled 312 vehicles per day (VPD).

**Table 2 Trip Generation Summary
Existing Zoning Land Uses**

ITE Land Use Code	Independent Variable	Daily			AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
720 - Medical-Dental Office Building	24,000 SF	417	418	835	52	15	67	23	60	83
820 - Shopping Center	6,800 SF	483	483	966	96	59	155	35	39	74
934 - Fast-Food Restaurant with Drive-Through Window	3,000 SF	706	707	1413	61	60	121	51	47	98
Subtotal		1606	1608	3214	209	134	343	109	146	255
Pass-Bys (820 - 34% PM / 934 - 49% AM & 50% PM)		--	--	--	30	29	59	37	37	74
Total		1606	1608	3214	179	105	284	72	109	181

SOURCE: Institute of Transportation Engineers' *Trip Generation Manual* 10th Edition (2017)

Per **Table 2**, prior to trip reductions due to pass-bys, AM peak hour trips generated totaled 209 incoming and 134 outgoing where PM peak hour trips totaled 109 incoming and 146 outgoing. ADT volumes generated by the development totaled 3,214 vehicles per day. Per NCDOT standards and procedures, pass-by percentages were applied to the projected traffic volumes for the shopping center and fast-food developments. A pass-by percentage of 34% was applied to the PM peak hour traffic for land use code (LUC) 820. Pass-by percentages of 49% and 50% were applied to the AM and PM peak hour traffic for LUC 934, respectively. Following all reductions, trips totaled 179 incoming and 105 outgoing AM peak hour trips and 72 incoming



and 109 outgoing PM peak hour trips for of the proposed development. The ADT volume totaled 3,214 VPD.

A comparison of the two tables revealed a reduction in projected site trips between the existing zoning land uses and the proposed senior apartment units. A difference of 267 trips and 154 trips were calculated during the AM and PM peak hours.

Sincerely,

A handwritten signature in black ink, appearing to read "J. P. Hochanadel". The signature is fluid and cursive, written over two lines.

Jeffrey P. Hochanadel, PE, PTOE
North Carolina Transportation Department Manager

February 8, 2021

To whom it concerns,

On February 6, 2021, I made a site visit to the Wake County parcel identified as #0742026247 in Apex, NC, to document existing trees 18" DBH and larger, as requested by Rick Baker, PE (Timmons Group). The parcel is located in the SW quadrant of the intersection of West Williams Street (NC 55) and Hunter Street, adjacent to the Walgreens parcel.

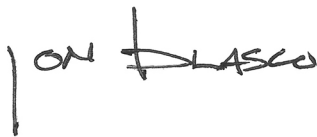
The parcel is bounded by NC 55 on its eastern property line, Walgreens on its northern property line, a US post office and the Amherst residential subdivision on its southern property line and the Glen Arbor residential subdivision on the western property line.

The parcel is mostly wooded, with the majority of vegetation consisting of scrub pine. Mature hardwoods and pines with an open understory were witnessed along the western and southern perimeter of the site. Based on the existing vegetation, it is assumed that the property was previously cleared. A constructed stormwater treatment pond is in the middle of the site and a small creek runs north to south through a portion of the property.

Fourteen (14) trees 18" DBH and larger were inventoried on the site. All were either along the perimeter of the property or along the existing creek. Some trees at the SW corner of the property were inaccessible due to a wood privacy fence that prohibited access without crossing private property. These were visually identified as being 18" DBH or larger. All other trees noted were measured. The attached map documents the trees' approximate locations and is based off a field survey that was completed by SEPI in 2015.

Please do not hesitate to reach out to me with any questions about this report.

Respectfully,



Jon Blasco, PLA/ASLA
Timmons Group



LEGEND OF SYMBOLS & ABBREVIATIONS

- THESE STANDARD SYMBOLS WILL BE FOUND IN THE DRAWING.
- ⊕ TBM-TEMPORARY BENCHMARK
 - ⊕ BH-BORHOLE
 - ⊕ CP-COMPUTED POINT
 - CO-CLEANOUT
 - EPK-EXISTING PK NAIL
 - EIP-EXISTING IRON PIPE
 - EIR-EXISTING IRON REBAR
 - ⊕ PK5-PK NAIL SET
 - ⊕ P.HOLES-PUNCH HOLE SET
 - ⊕ FH-FIRE HYDRANT
 - ⊕ GM-GAS METER
 - ⊕ GY-GUY WIRE
 - ⊕ IPS-IRON PIPE SET
 - ⊕ LP-LAMP POLE
 - ⊕ MH-MANHOLE
 - ⊕ PP-POWER POLE
 - ⊕ TRBX-TRAFFIC SIGNAL BOX
 - ⊕ SSMH-SANITARY SEWER MANHOLE
 - ⊕ TPED-TELEPHONE PEDESTAL
 - ⊕ TMH-TELEPHONE MANHOLE
 - TREE
 - ⊕ WM-WATER METER
 - ⊕ WV-WATER VALVE
 - ⊕ SDMH-STORM MANHOLE
 - ⊕ CATCH BASIN
 - DROP INLET
 - ⊕ SIGN
 - ⊕ TRPOLE-TRAFFIC SIGNAL POLE
 - ⊕ NCGS-NORTH CAROLINA GEODETIC SURVEY
 - ⊕ R/W.MON-RIGHT-OF-WAY MONUMENT
 - WELL

- BOUNDARY LINE
- BOUNDARY ADJACENT LINE
- BOUNDARY PROPERTY TIE
- SETBACK LINE
- LANDSCAPE BUFFER
- EASEMENT PER CONDITIONAL USE PLAN
- EXISTING UNDERGROUND GAS LINE
- EXISTING UNDERGROUND TELEPHONE LINE
- EXISTING UNDERGROUND CABLE
- EXISTING UNDERGROUND WATER
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD POWER LINE
- EXISTING UNDERGROUND WATER
- EXISTING FIBER OPTIC LINE
- EXISTING STORM DRAINAGE LINE
- EXISTING SANITARY SEWER LINE
- EXISTING TREE LINE
- EXISTING MAJOR CONTOUR LINE
- EXISTING MINOR CONTOUR LINE
- EXISTING FENCE
- EXISTING BUILDING LINE
- RIGHT-OF-WAY LINE
- PERMANENT UTILITY EASEMENT
- TRAFFIC SIGNAL LINE

- EXISTING SIDE WALK HATCH
- EXISTING RIP RAP

REFERENCES:

- DEED BOOK 8770, PAGE 92
- BOOK OF MAPS 2000, PAGE 2283
- BOOK OF MAPS 2003, PAGE 1417
- BOOK OF MAPS 2004, PAGE 165 & 166
- BOOK OF MAPS 2006, PAGE 2021

ZONING INFORMATION

ZONING INFORMATION TAKEN FROM LITTLE'S TEST FIT SITE PLAN.

THE SUBJECT PROPERTY IS ZONED "PUD-CU" PLANNED USE DEVELOPMENT - CONDITIONAL USE.

PARKING REQUIRED (MINIMUM): 1 SPACE/200 S.F. = 165 REQUIRED PARKING SPACES

PARKING PROVIDED: 177 STANDARD SPACES & ACCESSIBLE SPACES

FRONT YARD SETBACK (HIGHWAY 55/W WILLIAMS): 20 FEET

SIDE YARD SETBACK: 20 FEET

REAR YARD SETBACK: 20 FEET

LANDSCAPE BUFFERS: VARIES SEE PLAN

WETLANDS: SITE CONTAINS POSSIBLE WETLANDS

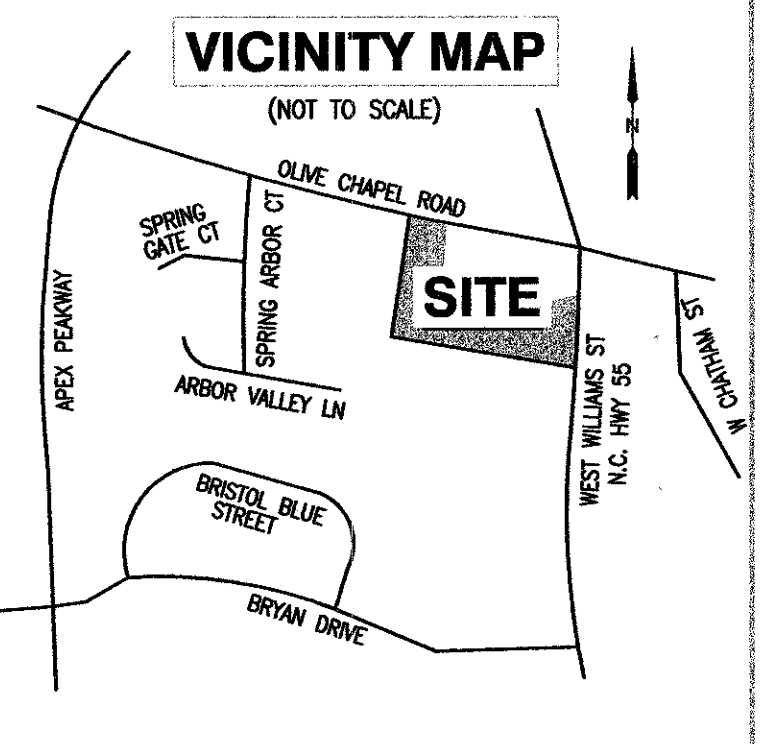
MAXIMUM BUILDING HEIGHT: 48 FEET

MAXIMUM BUILT UPON AREA: 60% OF SITE

ITEMS CORRESPONDING TO SCHEDULE B-II

COMMITMENT NO.: 15AM.47471
SCHEDULE B - SECTION 2 - EXCEPTIONS

1. Defects, liens, encumbrances, adverse claims or other matters, if any created, first appearing in the public records or attaching subsequent to the effective date hereof but prior to the date the proposed insured acquires for value of record the estate or interest or mortgage thereon covered by this Commitment. DOES NOT AFFECT SURVEY.
2. The lien of all taxes for the year 2015 and thereafter, which are not yet due and payable. DOES NOT AFFECT SURVEY.
3. Any encroachment, encumbrance, violation, variation, or adverse circumstance affecting the Title that would be disclosed by an accurate and complete land survey of the Land.
4. Building restriction lines, easements, and any other matters shown on map or plot recorded in Book of Maps 2006, Page 2021; Book of Maps 2004, Pages 165-166; Book of Maps 2000, page 2283; Book of Maps 2003, Page 1417 and Book of Maps 1976, Page 315. AS SHOWN ON SURVEY.
5. Easement(s) or right(s)-of-way in favor of Town of Apex recorded in Book 8612, Page 860 and re-recorded in Book 9612, Page 2590. DOES NOT AFFECT SURVEY - EASEMENT LIES IN THE NE QUADRANT OF NC HWY 55 AND HUNTER STREET.
6. Easement and Restriction Agreement with MD/CP-Apex, LLC recorded in Book 11303, Page 499. AS SHOWN ON SURVEY.
7. Rights or claims of parties in possession as tents under unrecorded leases. NONE OBSERVED.
8. Statutory liens of mechanics, laborers and materialmen that have performed or furnished labor, professional design or surveying services, or furnished materials or rental equipment of which no notice appears of record. (NOTE: This exception will be deleted only upon receipt of documentation satisfactory to the Company satisfying the Material and Labor Liens requirements set out in Scheduled B-1 of this Commitment.). NONE OBSERVED.



RECORD DESCRIPTION

EXHIBIT "A"
Lying and being in Wake County, North Carolina, and more particularly described as follows:

All of (i) Lot 1 containing approximately 4.250 acres, (ii) Lot 1A containing approximately 0.149 acre, (iii) Lot 2 containing approximately 1.714 acres, (iv) Lot 2A containing approximately 0.322 acre, (v) Lot 2B containing approximately 0.004 acre, (vi) Lot 3 containing approximately 0.858 acre, (vii) Lot 3A containing approximately 0.432 acre, (viii) Lot 4 containing approximately 1.178 acres and (ix) Lot 4A containing approximately 0.432 acre all shown on that plat entitled "Recombination Survey for McIver Family" dated July 13, 2000, prepared by Smith and Smith Surveyors and recorded in Book of Maps 2000, Page 2283, Wake County Registry.

This being the same property conveyed to Seller pursuant to North Carolina Non-Warranty Deed recorded in Book 8770, Page 92 of Wake County Register of Deeds.

LESS AND EXCEPT that certain 2.80 acres, 121,962 sq. ft. shown on that certain Final Recombination Plat, prepared for McIver Family Holdings LLC, by Hunter Civil Technologies, PLLC, dated September 8, 2003, and recorded in Book of Maps 2004, Page 165 and 166 of the Wake County Registry which was conveyed to MD/CP-Apex, LLC by Deed recorded in Book 11303, Page 499 of the Wake County Registry.

The foregoing tract also being known as that certain 5.01 acres, 218,026 sq. ft., on that certain Final Recombination Plat prepared for McIver Family Holdings LLC by Hunter Civil Technologies, PLLC dated September 8, 2003, and recorded in Book of Maps 2004, Page 165 and 166 of the Wake County Registry.

SURVEY DESCRIPTION

Lying and being in White Oak Township, Wake County, North Carolina and being more particularly described as follows:

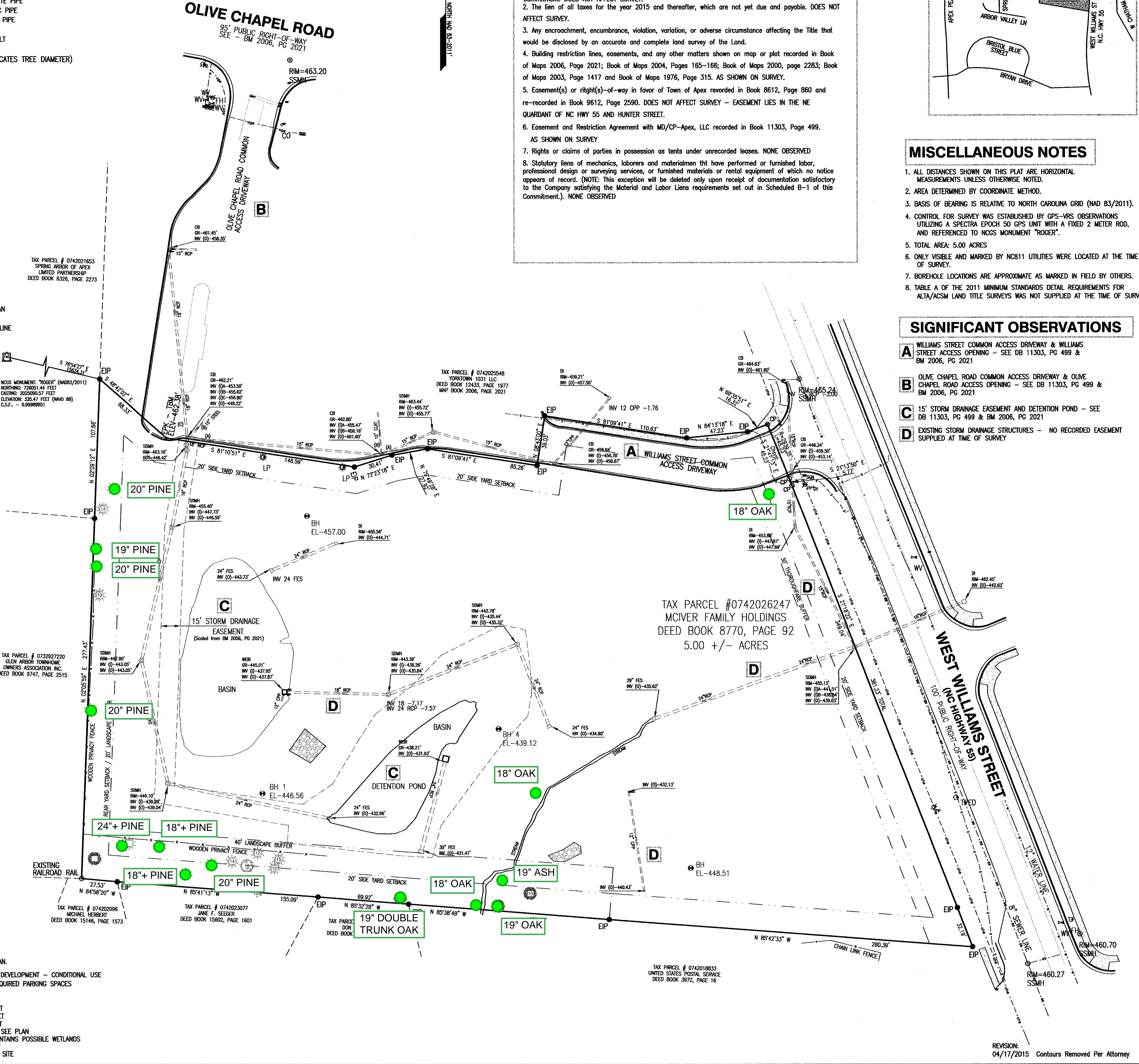
BEGINNING at an existing iron pipe being the common corner of the property owned by Yorktown 1031 LLC (now or formerly) as described in that instrument recorded in Book 12433, Page 1977 and shown on Book of Maps 2006, Page 2021 and in the eastern boundary line of property owned by Spring Arbor of Apex Limited Partnership (now or formerly) as described in that instrument recorded in Book 8326, Page 2273 in the Wake County Public Registry, said existing iron pipe being located South 76° 54' 27" East 15,634.31 feet from N.C.G.S. Monument "Roger" having NAD 83 (2011) North Carolina State Plane Grid Coordinates N=726,051.44 feet and E=2,025,090.57 feet, with a combined grid reduction factor of 0.99989851; thence with the southern boundary of aforesaid property the following nine (9) courses and distances: (1) South 48° 42' 02" East 68.33 feet to an existing PK Nail and (2) South 81° 10' 51" East 146.59 feet to an existing iron pipe and (3) North 72° 23' 18" East 30.41 feet to an existing iron pipe and (4) North 73° 49' 28" East 27.92 feet to an existing iron pipe and (5) South 81° 09' 41" East 85.26 feet to an existing iron pipe and (6) North 08° 43' 00" East 39.03 feet to an existing iron pipe and (7) South 81° 09' 41" East 110.63 feet to an existing iron pipe and (8) North 84° 13' 18" East 47.23 feet to an existing iron pipe and (9) North 69° 35' 51" East 16.32 feet to a computed point on the western margin of West Williams Street (also known as NC Highway 55) having a 100 foot public right-of-way, thence with the western margin of the right-of-way of aforesaid street the following three (3) courses and distances: (1) with a curve to the right having a radius of 2939.35 feet and an arc length of 45.23 feet, having a chord of South 21° 42' 13" East 45.23 feet to a computed point and (2) South 21° 13' 50" East 5.77 feet to an existing iron pipe and (3) South 21° 18' 22" East (passing an iron pipe at 348.04 feet) for a total distance of 381.23 feet to an existing iron pipe being the common corner of the property owned by the United States Postal Service as described in that instrument recorded in Book 3972, Page 16 in that aforesaid Registry; thence leaving aforesaid street and following the northern boundary of aforesaid property North 85° 42' 33" West 280.39 feet to an existing iron pipe, continuing with aforesaid property North 85° 38' 49" West 155.03 feet to an existing iron pipe marking the northeast corner of the property owned by Don E. Thomas (now or formerly) as described in that instrument recorded in Book 6803, Page 244 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 85° 32' 28" West 69.92 feet to an existing iron pipe marking the northwest corner of aforesaid property and the northeast corner of property owned by Jane F. Seeger (now or formerly) as described in that instrument recorded in Book 15602, Page 1601 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 85° 41' 13" West 155.09 feet to an existing iron pipe marking the northwest corner of aforesaid property and marking the northeast corner of property owned by Michael Herbert (now or formerly) as described in that instrument recorded in Book 15146, Page 1573 in that aforesaid Registry; thence with the northern boundary of aforesaid property North 84° 58' 20" West 27.53 feet to an existing railroad rail marking the southeast corner of property owned by Glen Arbor Townhome Associations Inc. (now or formerly) as described in that instrument recorded in Book 9747, Page 2515 in that aforesaid Registry; thence with eastern boundary of aforesaid property North 02° 05' 59" East 277.43 feet to an existing iron pipe marking the northeast corner of the aforesaid property and marking the southeast corner of the property owned by Spring Arbor of Apex Limited Partnership (now or formerly) as described in that instrument recorded in Book 8326, Page 2273 in that aforesaid Registry; thence with the eastern boundary of aforesaid property North 02° 09' 12" East 107.66 feet to the POINT OR PLACE OF BEGINNING, containing 5.00 acres, more or less, as shown on survey titled "ALTA/ACSM Land Title Survey of Lands For: MGP Retail Consulting, LLC, West Williams Street (aka: NC Highway 55), dated March 18, 2015, and prepared by Michael D. Case of SEPI Engineering & Construction, N.C.P.L.S. No. L-2828.

MISCELLANEOUS NOTES

1. ALL DISTANCES SHOWN ON THIS PLAT ARE HORIZONTAL MEASUREMENTS UNLESS OTHERWISE NOTED.
2. AREA DETERMINED BY COORDINATE METHOD.
3. BASIS OF BEARING IS RELATIVE TO NORTH CAROLINA GRID (NAD 83/2011).
4. CONTROL FOR SURVEY WAS ESTABLISHED BY GPS-VRS OBSERVATIONS UTILIZING A SPECTRA EPOCH 50 GPS UNIT WITH A FIXED 2 METER ROD, AND REFERENCED TO NCGS MONUMENT "ROGER".
5. TOTAL AREA: 5.00 ACRES
6. ONLY VISIBLE AND MARKED BY NCGS11 UTILITIES WERE LOCATED AT THE TIME OF SURVEY.
7. BORHOLE LOCATIONS ARE APPROXIMATE AS MARKED IN FIELD BY OTHERS.
8. TABLE A OF THE 2011 MINIMUM STANDARDS DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS WAS NOT SUPPLIED AT THE TIME OF SURVEY.

SIGNIFICANT OBSERVATIONS

- A WILLIAMS STREET COMMON ACCESS DRIVEWAY & WILLIAMS STREET ACCESS OPENING - SEE DB 11303, PG 499 & BM 2006, PG 2021
- B OLIVE CHAPEL ROAD COMMON ACCESS DRIVEWAY & OLIVE CHAPEL ROAD ACCESS OPENING - SEE DB 11303, PG 499 & BM 2006, PG 2021
- C 15' STORM DRAINAGE EASEMENT AND DETENTION POND - SEE DB 11303, PG 499 & BM 2006, PG 2021
- D EXISTING STORM DRAINAGE STRUCTURES - NO RECORDED EASEMENT SUPPLIED AT TIME OF SURVEY



SURVEY CERTIFICATION

I, Michael D. Case, PLS indicate to one or more of the following as indicated thus: "X"

- A. That this plat is of a survey that creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land;
- B. That this plat is of a survey that is located in such portion of a county or municipality that is unregulated as to an ordinance that regulates parcels of land;
- C. That this plat is of a survey of an existing parcel or parcels of land;
- D. That this plat is of a survey of another category, such as the recombination of existing parcels; a court-ordered survey or other exceptions to the definition of subdivision;
- E. That the information available to this surveyor is such that I am unable to make a determination to the best of my professional ability as to provisions contained in (a) through (d) above.

Surveyor: *Michael D. Case*

ALTA/ACSM LAND TITLE SURVEY

FOR:
MGP RETAIL CONSULTING, LLC
WEST WILLIAMS STREET (AKA: NC HIGHWAY 55)
TOWN OF APEX
WHITE OAK TOWNSHIP, WAKE COUNTY, NORTH CAROLINA

SURVEYOR'S CERTIFICATION
TO: MGP RETAIL CONSULTING, LLC AND FIDELITY NATIONAL TITLE INSURANCE COMPANY, TOGETHER WITH THEIR RESPECTIVE SUCCESSOR AND/OR ASSIGNS.

THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2011 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/ACSM LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS, AND DOES NOT INCLUDE ITEMS 1-22 OF TABLE A THEREOF. THE FIELD WORK WAS COMPLETED ON MARCH 18, 2015.

REGISTER SURVEYORS: MICHAEL D. CASE
PROFESSIONAL LAND SURVEYOR NO.: 2828
STATE OF NORTH CAROLINA
DATE OF SURVEY: MARCH 18, 2015
DATE LAST REVISION: APRIL 17, 2015
DATE PRINTED: APRIL 17, 2015

SEPI ENGINEERING & CONSTRUCTION
1025 WIDE AVENUE
RALEIGH, NORTH CAROLINA
919-789-9775
WWW.SEPIENGINEERING.COM
5030 NEW CENTRE DRIVE, SUITE B
WILMINGTON, NORTH CAROLINA
910-323-9715
WWW.SEPIENGINEERING.COM
INFO @ SEPIENGINEERING.COM
COMPANY LICENSE C-2197
TRANSPORTATION + TRAFFIC + SURVEYING
ENVIRONMENTAL + SITE CIVIL + INSPECTIONS

GRAPHIC SCALE 1"=40'

DRAWN BY: ERIC CASE
CHECKED BY: MICHAEL D. CASE

PROJECT MANAGER: MICHAEL D. CASE
JOB: SR15.003.01



WEST ELEVATION



EAST ELEVATION



NORTH ELEVATION



SOUTH ELEVATION



February 26, 2021

Jay Keller
Principal
Keller Environmental
(919) 749-8259 cell
(984) 242-4416 fax

Subject: Stream Buffer Determination
W. Williams Street- Abbey Spring
Cape Fear River Basin

Apex 20-007

Dear Mr. Keller,

On February 25th, 2021, Mr. James Misciagno went to the subject site to evaluate 2 (2) drainage features and determine if they are subject to the Town of Apex (Town) riparian buffer rules. Based on the information obtained during the site visit and per the requirements set forth in Section 6.1.11 of the Town Unified Development Ordinance (UDO), I concur with the stream classifications as shown on the attached sketch initialed by James Misciagno on February 26, 2021

Drainage Feature	Shown as on USGS	Shown as on Soil Survey	Determination made in the field	Determined Buffer Width
Feature S1A	Not Present	Intermittent	Intermittent	50 feet
Feature S1	Not Present	Not Present	Ephemeral	0 feet

This on-site determination shall expire five (5) years from the date of this letter. Landowners or affected parties that dispute a determination made by the Division of Water Resources (DWR) or Delegated Local Authority in the Jordan Lake watershed may request a determination by the DWR Director.

An appeal request must be made within sixty (60) days of date of this letter or from the date the affected party (including downstream and/or adjacent owners) is notified of this letter. A request for a determination by the Director shall be referred to the Director in writing c/o Karen Higgins, DWR – 401 & Buffer Permitting Unit; 1617 Mail Service Center, Raleigh, NC 27699-1617. Otherwise the appeal procedure will be in accordance with UDO Section 6.1.11.

If you dispute the Director's determination, you may file a petition for an administrative hearing. You must file the petition with the Office of Administrative Hearings within sixty (60) days of receipt of this notice of decision. A petition is considered filed when it is received in the Office of Administrative Hearings

during normal office hours. The Office of Administrative Hearings accepts filings Monday through Friday between the hours of 8:00am and 5:00pm, except for official State holidays.

To request a hearing, send the original and one (1) copy of the petition to the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. A copy of the petition must also be served to the Department of Natural Resources, c/o Mary Penny Thompson, General Counsel, 1601 Mail Service Center, Raleigh, NC 27699-1601.

This determination is final and binding unless, as detailed above, you ask for a hearing or appeal within sixty (60) days. This project may require a Section 404/401 Permit for the proposed activity. Any inquiries should be directed to the US Army Corp of Engineers (Raleigh Regulator Field Office) at (919) 554-4884. If you have any questions, please do not hesitate to contact me at (919) 249-3413.

Sincerely,



Jessica Bolin, PE
Environmental Engineering Manager

TOWN OF APEX

The Peak of Good Living

PO Box 250 Apex, NC 27504 | (919) 249-3400 | www.apexnc.org



Riparian Buffer Call Application

This application is required to be fully completed and submitted to Town staff prior to conducting a buffer call. Please submit the application package electronically to jessica.bolln@apexnc.org.

PROPERTY INFORMATION

Owner(s): Lidl US Operations LLC
Site Address: 0 West Williams St, Apex NC 27502

CONSULTANT INFORMATION (If applicable)

Name: Jay Keller
Address: 7921 Haymarket Ln
Email: jay@kellerenvironmental.com
Phone: (919) 749-8259

CHECKLIST

Please place a checkmark in the spaces provided below to indicate that the required information has been provided with this submittal.

Right of Entry Form	✓
NCDEQ Stream Identification Forms (v. 4.11)	✓
Sketch Map*	✓

Topo Map (most recent version)	✓
1970 Wake County Soil Survey Map	✓

*Sketch map should show all drainage features on the property with all applicable riparian buffers shown. Please clearly indicate or list which features are being called with this application.

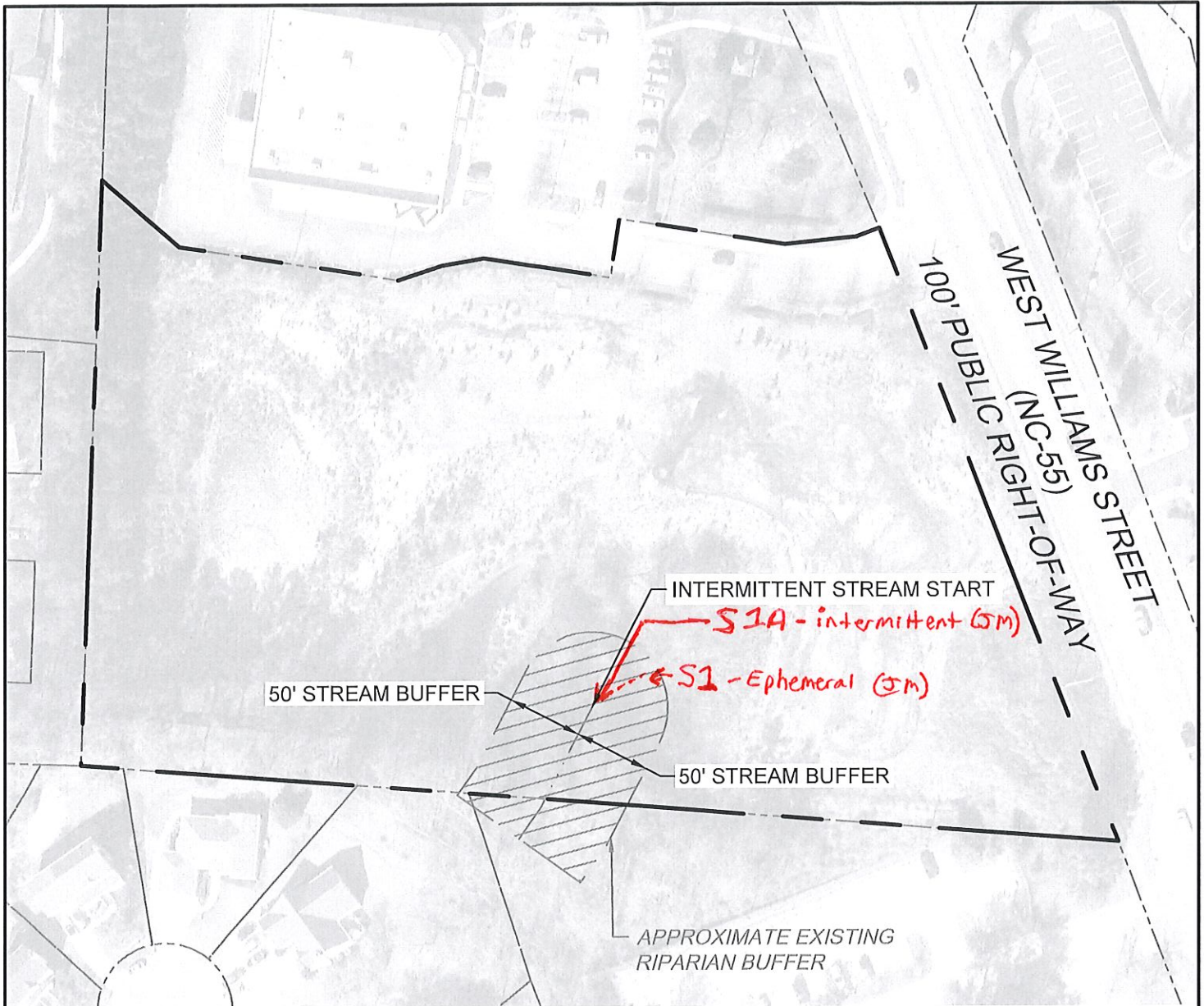
NOTES

SIGNATURE (Consultant or Responsible Party)

By my signature below, I certify that the information provided with this application is accurate and truthful.

[Signature] Date: 2/25/21

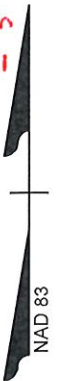
JM 2/25/21



LEGEND	
	SITE PROPERTY LINE
	ADJACENT PROPERTY LINE
	EXISTING INTERMITTENT STREAM
	RIPARIAN BUFFER

SM confirmed origin flag locations 2/15/2021

SM 2/16/2021 [Signature]



SCALE 1"=100'



TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.

THIS DRAWING PREPARED AT THE
RALEIGH OFFICE
5410 Trinity Road, Suite 102 | Raleigh, NC 27607
TEL 919.866.4951 FAX 919.833.8124 www.timmons.com

SHEET NO. EX1.0	JOB NO. 42601.008	EVERGREEN - ABBEY SPRING TOWN OF APEX, WAKE COUNTY, NORTH CAROLINA INTERMITTENT STREAM EXHIBIT	SCALE AS SHOWN	DESIGNED BY R. BAKER	CHECKED BY R. BAKER	DRAWN BY T. DAENE	DATE 02/26/2021	DATE	REVISION DESCRIPTION

These plans and associated documents are the exclusive property of TIMMONS GROUP and may not be reproduced for any purpose whatsoever, inclusive, but not limited to construction, bidding, and/or construction staking without the written consent of TIMMONS GROUP.

shall not be used for
of TIMMONS GROUP.

NC DWQ Stream Identification Form Version 4.11

Date: 2/23/21	Project/Site: Abbey Spring	Latitude: 35.7432
Evaluator: JK	County: Wake	Longitude: -78.8630
Total Points: Stream is at least intermittent if ≥ 19 or perennial if $\geq 30^*$ 27	Stream Determination (circle one) Ephemeral <u>Intermittent</u> Perennial	Other e.g. Quad Name: Apex

A. Geomorphology (Subtotal = 17.5)	Absent	3 Weak	7 Moderate	7.5 Strong
1 ^a . Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

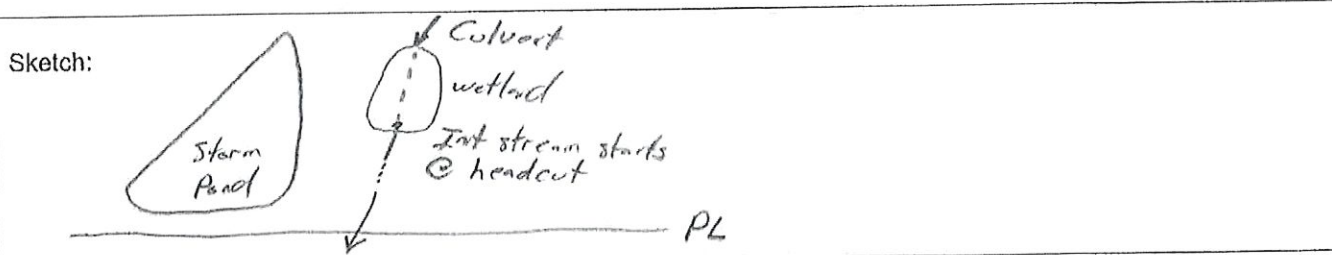
^aartificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 4)	Absent	1	2	3
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 5.5)	3	2	1	0
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:



JK 2/26/2021

S1

NC Division of Water Quality –Methodology for Identification of Intermittent and Perennial Streams and Their Origins v. 4.11

NC DWQ Stream Identification Form Version 4.11

Date: 2/23/21	Project/Site: Abbey Spring	Latitude: 35.7344
Evaluator: JK	County: Wake	Longitude: -78.8629
Total Points: Stream is at least intermittent if ≥ 19 or perennial if ≥ 30* 16.75	Stream Determination (circle one) Ephemeral Intermittent Perennial	Other e.g. Quad Name: Apex

A. Geomorphology (Subtotal = 6.5)	Absent	Weak	Moderate	Strong
1 ^a Continuity of channel bed and bank	0	1	2	3
2. Sinuosity of channel along thalweg	0	1	2	3
3. In-channel structure: ex. riffle-pool, step-pool, ripple-pool sequence	0	1	2	3
4. Particle size of stream substrate	0	1	2	3
5. Active/relict floodplain	0	1	2	3
6. Depositional bars or benches	0	1	2	3
7. Recent alluvial deposits	0	1	2	3
8. Headcuts	0	1	2	3
9. Grade control	0	0.5	1	1.5
10. Natural valley	0	0.5	1	1.5
11. Second or greater order channel	No = 0		Yes = 3	

^a artificial ditches are not rated; see discussions in manual

B. Hydrology (Subtotal = 6)	Absent	Weak	Moderate	Strong
12. Presence of Baseflow	0	1	2	3
13. Iron oxidizing bacteria	0	1	2	3
14. Leaf litter	1.5	1	0.5	0
15. Sediment on plants or debris	0	0.5	1	1.5
16. Organic debris lines or piles	0	0.5	1	1.5
17. Soil-based evidence of high water table?	No = 0		Yes = 3	

C. Biology (Subtotal = 4.25)	Absent	Weak	Moderate	Strong
18. Fibrous roots in streambed	3	2	1	0
19. Rooted upland plants in streambed	3	2	1	0
20. Macroinvertebrates (note diversity and abundance)	0	1	2	3
21. Aquatic Mollusks	0	1	2	3
22. Fish	0	0.5	1	1.5
23. Crayfish	0	0.5	1	1.5
24. Amphibians	0	0.5	1	1.5
25. Algae	0	0.5	1	1.5
26. Wetland plants in streambed	FACW = 0.75; OBL = 1.5 Other = 0			

*perennial streams may also be identified using other methods. See p. 35 of manual.

Notes:

Sketch:

Right of Entry Memo

Site Overview

Region	CLT
Store Number	1066
Town	Apex
Address	0 West Williams Street
State	North Carolina

Memorandum Overview

Topic	
Description	This Right of Entry Form gives the Town of Apex permission to enter the subject property for the purposes of conducting environmental investigations. This does not convey any ownership and the Town and it's representatives assume all risks.


Director of Real Estate

Senior Director of Real Estate

Megan Sizemore

Director of Real Estate (Print Name)

Connor Bevans

Senior Director of Real Estate (Print Name)

JM 2/26/2021

NORTH CAROLINA
WAKE COUNTY

RIGHT OF ENTRY

This Right of Entry is executed this 22nd day of February, 2021 by Lidl US Operations LLC and _____ (the “_____”).

WHEREAS, the Town of Apex (“Town”) is seeking to make a stream buffer determination across the property known as 0 West Williams St in the Town of Apex, North Carolina and designated as PIN # 0742026247 by the Wake County Revenue Department (the “**Subject Property**”);

WHEREAS, the Lidl US Operations LLC are agreeable to provide the Town with this Right of Entry under the terms and conditions stated herein so that the above referenced determination may proceed.

NOW THEREFORE in light of the above premises, the Lidl US Operations LLC do hereby grant and give freely and without coercion, the right of access and entry to the Subject Property on the terms and conditions as stated below:

1. The Town of Apex and its contractors may enter the Subject Property for the purpose of conducting on-site environmental investigations and issuing a determination based on those investigations as it relates to stream buffer determination.
2. This Right of Entry does not convey to the Town any title or ownership interest in the Subject Property.
3. The Town and its employees, contractors, agents and representatives enter upon the Subject Property at their own risk and assume all risks related to the property.
4. The undersigned agrees and warrants to hold harmless the Town of Apex, its agencies, departments, contractors, and subcontractors, and discharges and waives any action, either equitable or legal that arise from the activities described above on the property except in the case of negligence by the Town.

Witness: _____



By: _____



By: _____

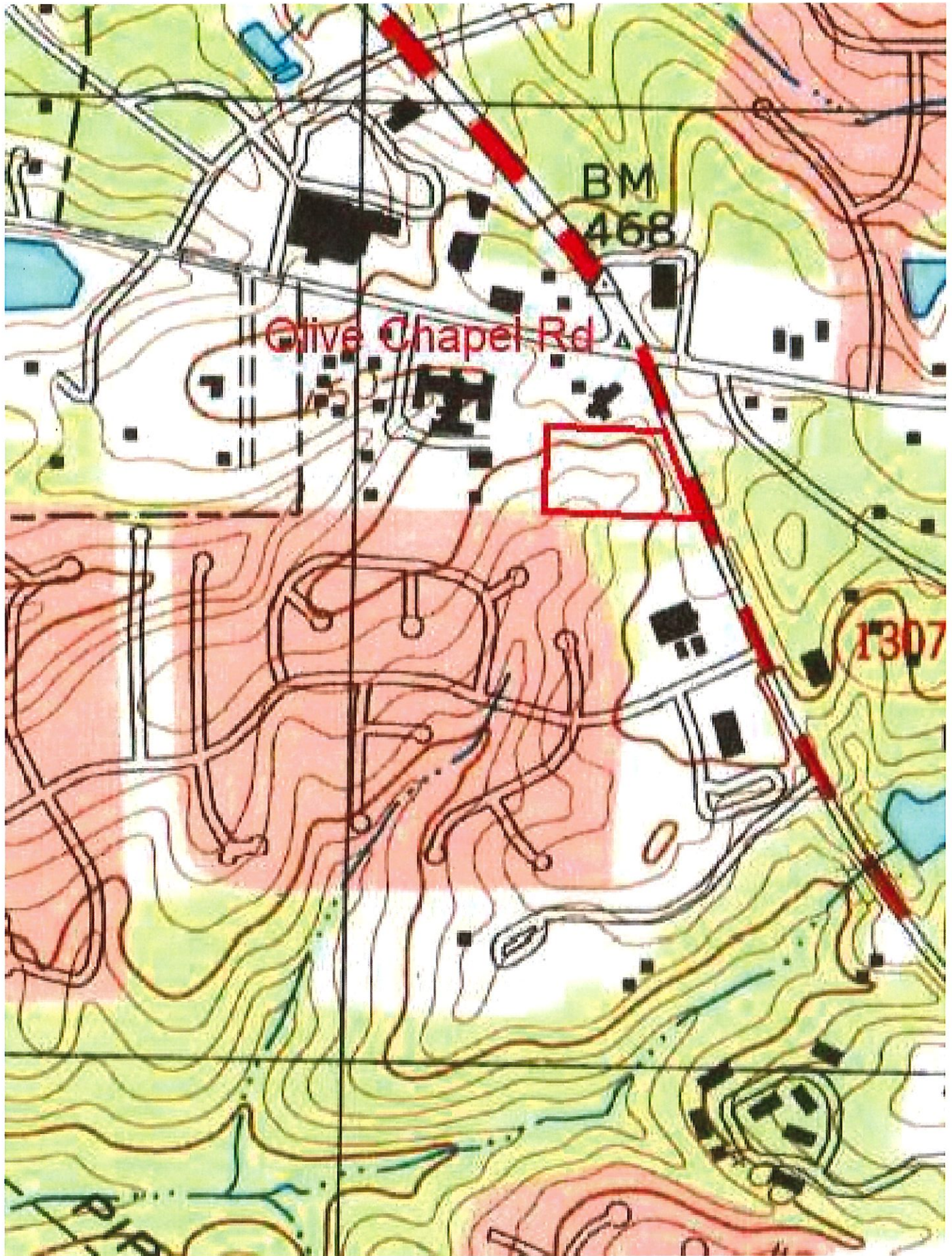


JM 2/20



soils - Intermittent

JM/2/26/2021



USGS NOT present

10/20/2021

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Amanda Bunce, Current Planning Manager

Department(s): Planning and Community Development

Requested Motion

Motion to set the Public Hearing for the March 23, 2021 Town Council meeting regarding amendments to the Unified Development Ordinance related to variance standards in the Watershed Protection Overlay Districts.

Approval Recommended?

The Planning and Community Development Department recommends approval.

Item Details

Summary of UDO Amendment Requested by Planning Staff:

1. Amendments to Sec. 6.1.13.E.2 *Watershed Protection Overlay Districts, Modifications by Variance, Standards* in order to allow property owners to request a variance from the standards of the Watershed Protection Overlay Districts regardless of when the property was purchased. The current standard requires the Board of Adjustment to find that the property owner did not purchase the property after Sec. 6.1 was added to the Unified Development Ordinance.

Attachments

- N/A



| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Marty Stone – Assistant Town Manager

Department(s): Administration

Requested Motion

Motion to approve an encroachment agreement between the Town and property owner Bond Building & Design, Inc. to install 75 S.F. of private driveway that will encroach onto the Town's 20' Public Utility Drainage Easement and authorize the Town Manager to execute the same.

Approval Recommended?

Yes

Item Details

Approve Encroachment Agreement between the Town and property owner Bond Building & Design, Inc. (Grantee) for the property described as a residential lot known as Wake County PIN#0721-92-0177, Book of Maps 2016, Page 812, Lot 176, 2407 Anzio Way, Apex, NC, 27502. Grantee wishes to install certain improvements, more particularly described as a private driveway that will encroach 75 S.F. onto the 20' Public Utility Drainage Easement.

Attachments

- Encroachment Agreement
- Exhibit A



After Recording Mail To: Development Services
Town of Apex
PO Box 250
Apex, NC 27502

**STATE OF NORTH CAROLINA
COUNTY OF WAKE**

ENCROACHMENT AGREEMENT

THIS ENCROACHMENT AGREEMENT, being made this ____ day of _____, 2021, by and between Bond Building & Design, Inc. hereinafter referred to as "Grantee," and the Town of Apex, hereinafter referred to as the "Town."

WHEREAS, the Grantee is the owner of a certain residential lot of land in the County of Wake, State of North Carolina, which is designated as PIN #0721-92-0177 by the Wake County Revenue Department and more particularly described as **Lot 176** of the subdivision known as **The Manors at Bella Casa Phase 8B SE 1** as shown on that certain plat recorded in **Book of Maps 2016, Page 812**, Wake County Registry (hereinafter the "**Subdivision Plat**"). The residential lot is also known as **2407 Anzio Way, Apex, NC 27502**. The residential lot described in this paragraph is hereinafter referred to as the "**Residential Lot.**"

WHEREAS, the Town is the owner of a **20' Public Utility Drainage Easement (Centered on Structure)** as shown on the **Subdivision Plat** hereinafter referred to as the "**Public Utility Drainage Easement.**"

WHEREAS, Grantee wishes to install certain improvements, more particularly described as a **private driveway that will encroach 75 SF into the Public Utility Drainage Easement** which serves the Residential Lot, hereinafter referred to as the “**Encroachment**”, all as shown on the attached **Exhibit A**. Grantee’s desire to make certain agreements and covenants regarding the Encroachment.

WHEREAS, the Town, under the terms and conditions herein set forth, is willing to allow the above-described Encroachment upon the **Public Utility Drainage Easement**.

NOW, THEREFORE, in consideration of these promises and other consideration, the receipt and sufficiency of which is hereby acknowledged, Grantee and the Town hereby covenant and agree:

1. Subject to the terms herein, the Town agrees to allow Grantee, and Grantees’ successors and assigns at Grantee sole risk and expense, to encroach into the **Public Utility Drainage Easement** of the Town as shown in the attached **Exhibit A**, and incorporated by reference as though fully set forth herein.

2. The Encroachment shall not be enlarged or increased beyond the Encroachment shown in **Exhibit A** and described in this Encroachment Agreement. Grantee is responsible for any and all expenditures of labor or materials required for the installation, erection, repair, removal, or maintenance of the above-referenced Encroachment.

3. Grantee is fully responsible for any and all property damage or injury or death of any person which results from any and all negligence, omission, defect in design, maintenance, or workmanship created by the Encroachment described herein, or any cause of action arising out of the installation, maintenance, removal, destruction, or location of said Encroachment.

4. Grantee agrees to and does hereby hold the Town, its officers, council members and employees harmless from any and all liability arising out of such negligence, omission, defect or other cause of action; that it will defend the Town, its officers, council members and employees, and pay all attorney fees in any and all actions brought as a result of such; and that it will indemnify the Town, its officers, council members, and employees against any and all loss sustained by reason of such negligence, omission, defect, or other cause of action, claim, cost, or expense arising out of the installation, maintenance, removal, or location of said Encroachment.

5. Sections 3 and 4 shall survive the termination of this Encroachment Agreement for any reason.

6. All notices required herein shall be deemed given by depositing such in the United States mail, first class, and addressed to:

To Town: Town Manager
Town of Apex
PO Box 250
Apex, NC 27502

To Grantee: Bond Building & Design, Inc.
Steven Bond
1421 Salem Church Road
Apex, NC 27523

7. In the event there is a dispute between the parties concerning the interpretation of the terms of this Encroachment Agreement or their respective rights and obligations hereunder, such dispute or controversy shall be adjudged pursuant to the laws of the State of North Carolina.

8. Grantee agrees to abide by all applicable laws, regulations, statutes and ordinances.

9. This Encroachment Agreement shall not divest the Town of any rights or interest in said **Public Utility Drainage Easement** and the Town may terminate this Encroachment Agreement by giving Grantee ninety (90) days written notice of termination. Prior to the termination date, Grantee shall remove, at its own expense, all or part of the Encroachment as specified by the Town.

10. If the Town deems, within its sole discretion, that there is not time to give the Grantee notice as provided in Paragraph 9 and that removal of the Encroachment is necessary in order to operate, protect, maintain, modify, replace, add-to or improve its facilities located within the **Public Utility Drainage Easement**, then no notice shall be required and the Town may remove the Encroachment from the **Public Utility Drainage Easement** without cost, risk or liability to the Town.

11. Grantee agrees to pay and reimburse the Town the entire expense and cost of removal of the Encroachment in the event that the Town removes the Encroachment as provided in Paragraph 10 or if

Grantee fails to remove the Encroachment within the time limit after receiving notice under Paragraph 9.

12. Grantee, during the life of this Encroachment Agreement, agrees to procure or cause to be procured from a responsible insurance carrier or carriers authorized under the laws of the State of North Carolina, insurance in the minimum amounts of \$300,000/\$500,000/\$300,000 covering full liability for any and all personal injury, property damage or wrongful death caused by the construction, maintenance, location, repair or visual obstruction of said Encroachment. Grantee shall furnish the Town, without demand, each July a certification from the insurance carrier or carriers with whom the insurance herein mentioned is carried, stating that such compensation is covered by such carrier or carriers and showing such insurance to be in full force and effect. Both Grantee and the Town shall be named as insured parties by endorsement of the policy. In the event of any change in the insurance policy, Grantee shall give the Town thirty (30) days notice of such change. Should Grantee fail to pay premiums upon said insurance or to perform any of the agreement, terms or conditions herein contained, the Town, at its option, by written notice may declare this Encroachment Agreement canceled and terminated and all rights acquired hereunder by Grantee shall thereupon terminate.

13. Notwithstanding Section 14 below, Grantee shall be released from its obligation under this Encroachment Agreement only upon the assumption of said obligations either by a successor in title to real property known as **Lot 176, The Manors at Bella Casa PH8B SE1 (2407 Anzio Way, Apex, NC 27502)**, or by assumption of said obligations by an incorporated property or condominium owners association for **The Manors at Bella Casa PH8B SE1**. The Town's consent to such assumption and release shall be required but shall not be withheld, conditioned or delayed if, as reasonably determined by the Town, the party assuming Grantee obligations possesses adequate financial resources and ownership interest, and Grantee delegate and proposed assignee assume and agree to fulfill, in writing, all of Grantee duties set forth in this Encroachment Agreement.

14. The right to encroach is appurtenant to and runs with the land hereinabove referred to and shall forever be subject to the conditions above agreed on between the parties. This Encroachment Agreement is binding upon the heirs, assigns, transferees, and successors in interest of the Grantee and shall, upon execution, be recorded in the Office of the Register of Deeds of Wake County, North Carolina.

In testimony whereof, said Grantee and said Town have here unto set their hands and seals, the day and year first above written.

GRANTEE

Bond Building & Design, Inc.

By: [Signature] (SEAL)
Steven Bond
President

NORTH CAROLINA

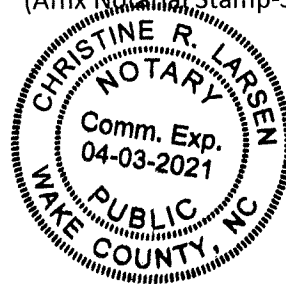
COUNTY OF *[county in which acknowledgement taken]*

I, Christine P. Larsen, a Notary Public of Wake County, North Carolina, certify that **Steven Bond**, personally appeared before me this day and acknowledged that he is the **President** for **Bond Building & Design, Inc.**, a corporation, and that he as **President** being authorized to do so, executed the foregoing on behalf of the corporation.

Witness my hand and official stamp or seal, this 14 day of February, 2021.

[Signature]
[Signature of Notary Public]

(Affix Notarial Stamp-Seal)



My Commission Expires: 4/3/2021

TOWN OF APEX

Ralph Clark
Interim Town Manager

(Corporate Seal)

ATTEST:

Donna B. Hosch, MMC, NCCMC
Town Clerk

STATE OF NORTH CAROLINA

COUNTY OF _____ [county in which acknowledgement taken]

I, _____, a Notary Public of _____ County, North Carolina, 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 **Interim Town Manager**, sealed with its corporate seal and attested by her as its **Town Clerk**.

Witness my hand and official stamp or seal, this _____ day of _____, 2021.

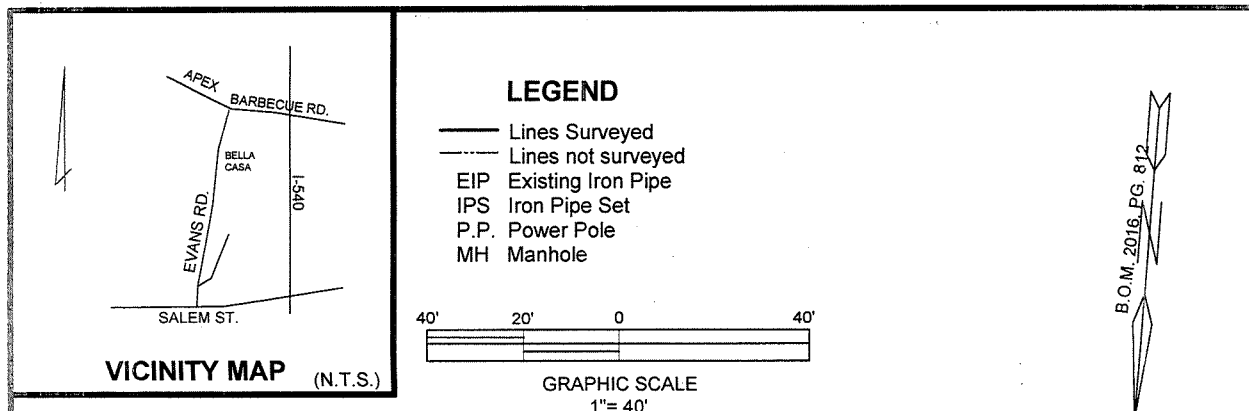
[Signature of Notary Public]

(Seal)

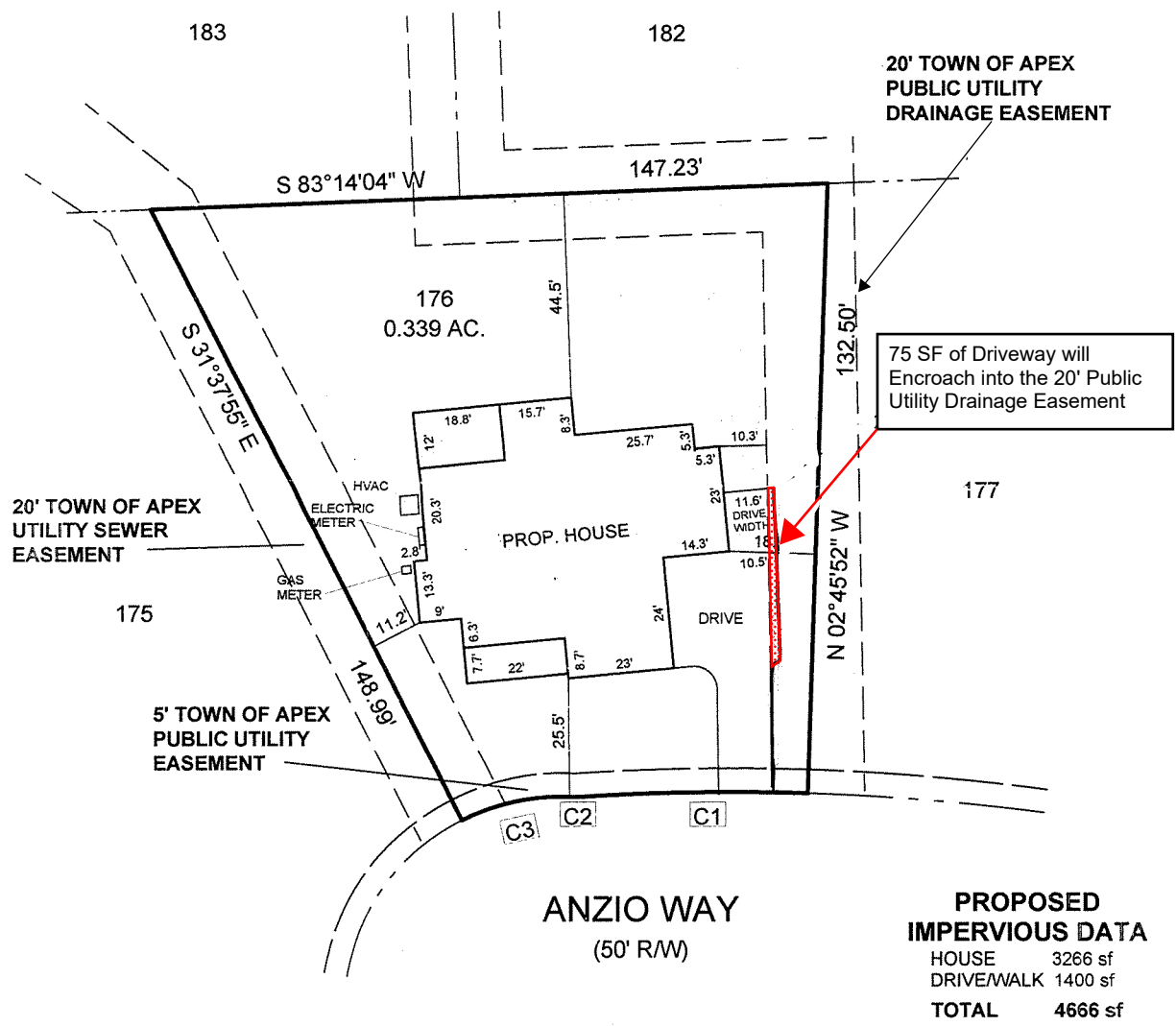
My Commission Expires: _____

EXHIBIT A

2407 Anzio Way



Id	Radius	Arc Length	Chord	Ch Bear
C1	525.00'	49.21'	49.19'	N 84°33'02" E
C2	25.00'	2.61'	2.61'	N 84°51'43" E
C3	47.00'	24.19'	23.92'	N 73°06'48" E



LOT 176, THE MANORS AT BELLA CASA, PH.8B, SECTION 1,
RECORDED IN B.O.M. 2016, PG. 812, WAKE CO.

PRELIMINARY PLOT

NOTE:
THIS MAY NOT BE A CERTIFIED SURVEY AND HAS NOT BEEN REVIEWED BY LOCAL GOVERNMENT AGENCY FOR COMPLIANCE WITH ANY APPLICABLE LAND DEVELOPMENT REGULATIONS AND HAS NOT BEEN REVIEWED FOR COMPLIANCE WITH RECORDING REQUIREMENTS FOR PLATS

2407 ANZIO WAY	APEX, N.C.
SCALE: 1" = 40'	
DATE: 11/3/2020	
BOOK:	

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Vance Holloman, Finance Director

Department(s): Finance

Requested Motion

Motion to approve contract for audit services for the fiscal year ending June 30, 2021 with Cherry Bekaert LLP of Raleigh, North Carolina.

Approval Recommended?

Yes

Item Details

Town staff issued a request for proposal (RFP) for audit services for the 2021 fiscal year. After carefully evaluating responses we concluded that Cherry Bekaert was the best choice to perform the audit. Their local audit clients include Cary, Wake Forest, Morrisville and Fuquay Varina. They will bring a fresh perspective to the audit as well as the experience of having recently audited both towns of a similar size and larger size than Apex.

The fee for the audit will be \$43,000.

Attachments

- Contract to Audit Accounts FY 2021
- Audit Engagement Letter FY 2021



March 2, 2021

VIA EMAIL:

vance.holloman@apexnc.org

Mr. Vance Holloman, Finance Officer
Town of Apex
73 Hunter Street
P.O. Box 250
Apex, NC 27502

Dear Vance:

This engagement letter between Town of Apex (hereafter referred to as the “Town” or “you” or “your” or “management”) and Cherry Bekaert LLP (the “Firm” or “Cherry Bekaert” or “we” or “us” or “our”) sets forth the nature and scope of the services we will provide, the Town’s required involvement and assistance in support of our services, the related fee arrangements, and other Terms and Conditions, which are attached hereto and incorporated by reference, designed to facilitate the performance of our professional services and to achieve the mutually agreed-upon objectives of the Town.

Summary of services

We will provide the following services to the Town as of and for the year ended June 30, 2021:

Audit and attestation services

1. We will audit the basic financial statements of the Town as of and for the year ended June 30, 2021 including the governmental activities, the business type activities, each major fund and the remaining fund information.
2. We will audit the schedule of expenditures of federal and state awards. As part of our engagement we will apply certain procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America (“GAAS”).
3. We will audit the combining and individual fund statements and schedules, budgetary schedules, and other schedules. As part of our engagement, we will apply certain procedures, including comparing and reconciling such information directly to underlying accounting and other records used to prepare the financial statements themselves.
4. The supplementary information, such as the introductory and statistical sections accompanying the financial statements, will not be subjected to the auditing procedures applied in our audit of the financial statements and our auditor’s report will not provide an opinion or any assurance on that information.

5. We will apply limited procedures to the required supplementary information (RSI), such as management's discussion and analysis (MD&A), the Law Enforcement Officers' Special Separation Allowance, the Local Governmental Employees' Retirement System, and the Other Post-Employment Benefits, which will consist of inquiries of Town's Management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the financial statements.

Nonattest accounting and other services

We will provide the following additional services:

1. Complete the appropriate sections and sign the Data Collection Form.

Your expectations

Our services plan, which includes our audit plan, is designed to provide a foundation for an effective, efficient, and quality-focused approach to accomplish the engagement objectives and meet or exceed the Town's expectations. Our services plan will be reviewed with you periodically and will serve as a benchmark against which you will be able to measure our performance. Any additional services that you may request, and that we agree to provide, will be the subject of separate written arrangements.

The Town recognizes that our professional standards require that we be independent from the Town in our audit of the Town's financial statements and our accompanying report in order to ensure that our objectivity and professional skepticism have not been compromised. As a result, we cannot enter into a fiduciary relationship with the Town and the Town should not expect that we will act only with due regard to the Town's interest in the performance of this audit, and the Town should not impose on us special confidence that we will conduct this audit with only the Town's interest in mind. Because of our obligation to be independent of the Town, no fiduciary relationship will be created by this engagement or audit of the Town's financial statements.

The engagement will be led by April Adams, who will be responsible for assuring the overall quality, value, and timeliness of the services provided to you.

Audit and attestation services

The objective of our audit is the expression of opinions as to whether the Town's basic financial statements are fairly presented, in all material respects, in conformity with U.S. generally accepted accounting principles and to report on the fairness of the additional information referred to in the Summary of Services section when considered in relation to the basic financial statements taken as a whole. The objective also includes reporting on:

- Internal control over financial reporting and compliance with the provisions of applicable laws, regulations, contracts, and grant agreements, noncompliance with which could have a material effect on the financial statements in accordance with *Government Auditing Standards*

- Internal control over compliance related to major programs and an opinion (or disclaimer of opinion) on compliance with laws, regulations and the provisions of contracts or grant agreements that could have a direct and material effect on each major program in accordance with the Single Audit Act Amendments of 1996 and *Title 2 U.S. Code of Federal Regulations (CFR) Part 200, Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (“Uniform Guidance”), and the State Single Audit Implementation Act.

The *Government Auditing Standards* report on internal control over financial reporting and on compliance and other matters will include a paragraph that states that (1) the purpose of the report is solely to describe the scope of testing of internal control and compliance and the result of that testing, and not to provide an opinion on the effectiveness of the Town’s internal control or on compliance, and (2) the report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity’s internal control and compliance. The Uniform Guidance report on internal control over compliance will include a paragraph that states that the purpose of the report on internal control over compliance is solely to describe the scope of testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Both reports will state that the report is not suitable for any other purpose.

Our audit will be conducted in accordance with auditing standards generally accepted in the United States of America; and the standards for financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States; and the provisions of Uniform Guidance; the Single Audit Act Amendments of 1996; State Single Audit Implementation Act and OMB *Guidance for Grants and Agreements* (2 CFR 200), and will include tests of accounting records, a determination of major programs in accordance with Uniform Guidance, and other procedures as deemed necessary to enable us to express such opinions. We will also issue written reports upon completion of our Single Audit. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion or add emphasis-of-matter or other-matter paragraphs. If our opinion is other than unmodified, we will discuss the reasons with you in advance. If, for any reason, we are unable to complete the audit or are unable to form or have not formed an opinion, we may decline to express opinions or issue reports, or may withdraw from this engagement.

Nonattest accounting and other services

In connection with any of the audit, accounting, or other services noted below, we will provide a copy of all schedules or other support for you to maintain as part of your books and records supporting your basic financial statements. You agree to take responsibility for all documents provided by Cherry Bekaert and will retain copies based on your needs and document retention policies. By providing these documents to you, you confirm that Cherry Bekaert is not responsible for hosting your records or maintaining custody of your records or data and that Cherry Bekaert is not providing business continuity or disaster recovery services. You confirm you are responsible for maintaining internal controls over your books and records including business continuity and disaster recovery alternatives. In addition, any documents provided to Cherry Bekaert by the Town in connection with these services will be considered to be copies and will not be retained by Cherry Bekaert after completion of the accounting and other services. You are expected to retain anything you upload to a Cherry Bekaert portal and are responsible for downloading and retaining anything we upload in a timely manner. Portals are only meant as a method of transferring data, are not intended for the storage of client information, and may be deleted at any time.

You are expected to maintain control over your accounting systems to include the licensing of applications and the hosting of said applications and data. We do not provide electronic security or back-up services for any of your data or records. Giving us access to your accounting system does not make us hosts of information contained within.

The accounting and other services described in this section are nonaudit services, which do not constitute audit services under *Government Auditing Standards*, and such services will not be conducted in accordance with *Government Auditing Standards*. We will perform the services in accordance with applicable professional standards. We, in our sole professional judgment, reserve the right to refuse to perform any procedure or take any action that could be construed as assuming Town's management responsibilities.

In conjunction with providing these accounting and other services, we may use third party software or templates created by Cherry Bekaert for use on third party software. Management expressly agrees that the Town has obtained no rights to use such software or templates and that Cherry Bekaert's use of the Town's data in those applications is not deemed to be hosting, maintaining custody, providing business continuity, or disaster recovery services.

Data collection form

We will complete the appropriate sections of and sign the Data Collection Form that summarizes our audit findings. We will provide copies of our reports to the Town; however, it is the Town's management's responsibility to submit the reporting package (including financial statements, schedule of expenditures of federal and state awards, summary schedule of prior audit findings, auditors' reports, and corrective action plan) along with the Data Collection Form to the designated federal audit clearinghouse and, if appropriate, to pass-through entities. The Data Collection Form and the reporting package must be submitted within the earlier of 30 days after receipt of the auditors' reports or nine months after the end of the audit period.

Town's management responsibilities related to accounting and other services

For all nonattest services we perform in connection with the engagement, you are responsible for designating a competent employee to oversee the services, make any management decisions, perform any management functions related to the services, evaluate the adequacy of the services, retain relevant copies supporting your books and records, and accept overall responsibility for the results of the services.

Prior to the release of the report, the Town's management will need to sign a representation letter acknowledging its responsibility for the results of these services, and acknowledging receipt of all appropriate copies.

Town's management responsibilities related to the audit

The Town's management is responsible for (1) designing, implementing, and maintaining effective internal controls, including internal controls over federal and state awards, and for evaluating and monitoring ongoing activities to help ensure that appropriate goals and objectives are met; (2) following laws and regulations; (3) ensuring that there is reasonable assurance that government programs are administered in compliance with compliance requirements; and (4) ensuring that the Town's management and financial information is reliable and properly reported.

The Town's management is also responsible for implementing systems designed to achieve compliance with applicable laws, regulations, contracts, and grant agreements. You are also responsible for the selection and application of accounting principles; for the preparation and fair presentation of the financial statements, schedule of expenditures of federal and state awards and all accompanying information in conformity with U.S. GAAP; and for compliance with applicable laws and regulations (including federal and

state statutes) and the provisions of contracts and grant agreements (including award agreements). Your responsibilities also include identifying significant contractor relationship in which the contractor has responsibility for program compliance and for the accuracy and completeness of that information.

The Town's management is responsible for making all financial records and related information available to us and for the accuracy and completeness of that information. You are also responsible for providing us with (1) access to all information of which it is aware that is relevant to the preparation and fair presentation of the financial statements, (2) access to personnel, accounts, books, records, supporting documentation, and other information as needed to perform an audit under the Uniform Guidance, (3) additional information that we may request for the purpose of the audit and (4) unrestricted access to persons within the Town from whom we determine it necessary to obtain audit evidence.

Your responsibilities include adjusting the financial statements to correct material misstatements and for confirming to us in the written representation letter that the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

You are responsible for the design and implementation of programs and controls to prevent and detect fraud, and for informing us about all known or suspected fraud affecting the Town involving (1) the Town's management, (2) employees who have significant roles in internal control, and (3) others where the fraud could have a material effect on the financial statements. Your responsibilities include informing us of your knowledge of any allegations of fraud or suspected fraud affecting the Town received in communications from employees, former employees, grantors, regulators, or other. In addition, you are responsible for identifying and ensuring that the Town complies with applicable laws, regulations contracts, agreements, and grants and for taking timely and appropriate steps to remedy fraud and noncompliance with provisions of laws, regulations, contracts, or grant agreements that we report. Additionally, as required by the Uniform Guidance, it is the Town's management's responsibility to evaluate and monitor noncompliance with federal and state statutes, regulations, and the terms and conditions of federal and state awards; take prompt action when instances of noncompliance are identified including noncompliance identified in audit findings; promptly follow up and take corrective action on reported audit findings; and prepare a summary schedule of prior audit findings and a separate corrective action plan.

The Town's management is responsible for identifying all federal and state awards received and understanding and complying with the compliance requirements and for the preparation of the schedule of expenditures of federal and state awards (including notes and noncash assistance received) in conformity with the Uniform Guidance.

You agree to include our report on the schedule of expenditures of federal and state awards in any document that contains and indicates that we have reported on the schedule of expenditures of federal and state awards.

You also agree to include the audited financial statements with any presentation of the schedule of expenditures of federal and state awards that includes our report thereon OR make the audited financial statements readily available to intended users of the schedule of expenditures of federal and state awards no later than the date the schedule of expenditures of federal and state awards is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the schedule of expenditures of federal and state awards in accordance with the Uniform Guidance, (2) you believe the schedule of expenditures of federal and state awards, including its form and content, is stated fairly in accordance with the Uniform Guidance, (3) the methods of measurement or presentation have not changed from those used in the prior period or, if they have changed, the reasons for such changes), and (4) the Town has disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the schedule of expenditures of federal and state awards.

You are responsible for the preparation of the supplementary information, which we have been engaged to report on, in conformity with U.S. GAAP. You agree to include our report on the supplementary information in any document that contains and indicates that we have reported on the supplementary information. You also agree to include the audited financial statements with any presentation of the supplementary information that includes our report thereon OR make the audited financial statements readily available to users of the supplementary information no later than the date the supplementary information is issued with our report thereon. Your responsibilities include acknowledging to us in the written representation letter that (1) you are responsible for presentation of the supplementary information in accordance with GAAP, (2) you believe the supplementary information, including its form and content, is fairly presented in accordance with GAAP, (3) the methods of measurement or presentation have not changed from those used in the prior period (or, if they have changed, the reasons for such changes), and (4) you have disclosed to us any significant assumptions or interpretations underlying the measurement or presentation of the supplementary information.

The Town's management is responsible for establishing and maintaining a process for tracking the status of audit findings and recommendations. The Town's management is also responsible for identifying and providing report copies of previous financial audits, attestation engagements, performance audits or other studies related to the objectives discussed in the *Audit and attestation services* section of this letter. This responsibility includes relaying to us corrective actions taken to address significant findings and recommendations resulting from those audits, attestation engagements, performance audits, or other studies. You are also responsible for providing Town's management views on our current findings, conclusions, and recommendations, as well as your planned corrective actions, for the report, and for the timing and format for providing that information.

The Town's management agrees to assume all management responsibilities relating to the financial statements, schedule of expenditures of federal and state awards and related notes, and any other nonaudit services we provide.

You will be required to acknowledge in the management representation letter our assistance with preparation of the financial statements, schedule of expenditures of federal and state awards, and related notes and that you have reviewed and approved the financial statements, schedule of expenditures of federal and state awards, and related notes prior to their issuance and have accepted responsibility for them. Further, you agree to oversee the nonaudit services by designating an individual, preferably from senior management, with suitable skill, knowledge, or experience; evaluate the adequacy and results of those services; and accept responsibility for them.

Management Representations

The Firm will rely on the Town's management providing the above noted representations to us, both in the planning and performance of the audit, and in considering the fees that we will charge to perform the audit.

Fees

The estimated fees contemplate only the services described in the Summary of Services section of this letter. If the Town's management requests additional services not listed above, we will provide an estimate of those fees prior to commencing additional work.

The following summarizes the fees for the services described above:

Description of services	Estimated fee
Audit services	
Audit of the financial statements (includes 1 federal and 1 state single audit program)	\$43,000
Audit of each additional single audit program beyond two, if applicable (\$3,500)	
Total	<u>\$43,000</u>

The fees will be billed periodically. Invoices are due on presentation. A service charge will be added to past due accounts equal to 1½% per month (18% annually) on the previous month's balance less payments received during the month, with a minimum charge of \$2.00 per month.

If the foregoing is in accordance with your understanding, please sign a copy of this letter in the space provided and return it to us. No change, modification, addition, or amendment to this letter shall be valid unless in writing and signed by all parties. The parties agree that this letter may be electronically signed and that the electronic signatures will be deemed to have the same force and effect as handwritten signatures.

If you have any questions, please call April Adams at 919-782-1040.

Sincerely,

CHERRY BEKAERT LLP



ATTACHMENT – Engagement Letter Terms and Conditions

TOWN OF APEX

ACCEPTED BY: _____

TITLE: _____ DATE: _____

Cherry Bekaert LLP Engagement Letter Terms and Conditions

The following terms and conditions are an integral part of the attached engagement letter and should be read in their entirety in conjunction with your review of the letter.

Limitations of the audit report

Should the Town wish to include or incorporate by reference these financial statements and our report thereon into *any* other document at some future date, we will consider granting permission to include our report into another such document at the time of the request. However, we may be required by generally accepted auditing standards (“GAAS”) to perform certain procedures before we can give our permission to include our report in another document such as an annual report, private placement, regulator filing, official statement, offering of debt securities, etc. You agree that the Town will not include or incorporate by reference these financial statements and our report thereon, or our report into any other document without our prior written permission. In addition, to avoid unnecessary delay or misunderstandings, it is important to provide us with timely notice of your intention to issue any such document.

Limitations of the audit process

In conducting the audit, we will perform tests of the accounting records and such other procedures as we consider necessary in the circumstances to provide a reasonable basis for our opinion on the financial statements. We also will assess the accounting principles used and significant estimates made by the Town’s management, as well as evaluate the overall financial statement presentation.

Our audit will include procedures designed to obtain reasonable assurance of detecting misstatements due to errors or fraud that are material to the financial statements. Absolute assurance is not attainable because of the nature of audit evidence and the characteristics of fraud. For example, audits performed in accordance with GAAS are based on the concept of selective testing of the data being examined and are, therefore, subject to the limitation that material misstatements due to errors or fraud, if they exist, may not be detected. Also, an audit is not designed to detect matters that are immaterial to the financial statements. In addition, an audit conducted in accordance with GAAS does not include procedures specifically designed to detect illegal acts having an indirect effect (e.g., violations of fraud and abuse statutes that result in fines or penalties being imposed on the Town) on the financial statements.

Similarly, in performing our audit we will be aware of the possibility that illegal acts may have occurred. However, it should be recognized that our audit provides no assurance that illegal acts generally will be detected, and only reasonable assurance that illegal acts having a direct and material effect on the determination of financial statement amounts will be detected. We will inform you with respect to errors and fraud, or illegal acts that come to our attention during the course of our audit unless clearly inconsequential. In the event that we have to consult with the Town’s counsel or counsel of our choosing regarding any illegal acts we identify, additional fees incurred may be billed to the Town. You agree that the Town will cooperate fully with any procedures we deem necessary to perform with respect to these matters.

We will issue a written report upon completion of our audit of the Town's financial statements. If, for any reason, we are unable to complete the audit, or are unable to form, or have not formed an opinion on the financial statements, we may decline to express an opinion or decline to issue a report as a result of the engagement. We will notify the appropriate party within your organization of our decision and discuss the reasons supporting our position.

Audit procedures – general

An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements; therefore, our audit will involve professional judgment about the number of transactions to be examined and the areas to be tested. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by the Town's management, as well as evaluating the overall presentation of the financial statements. We will plan and perform the audit to obtain reasonable rather than absolute assurance about whether the financial statements are free of material misstatement, whether from (1) errors, (2) fraudulent financial reporting, (3) misappropriation of assets, or (4) violations of laws or governmental regulations that are attributable to the Town or to acts by the Town's management or employees acting on behalf of the Town. Because the determination of waste and abuse is subjective, *Government Auditing Standards* do not expect auditors to perform specific procedures to detect waste or abuse in financial audits, nor do they expect auditors to provide reasonable assurance of detecting waste and abuse.

Because of the inherent limitations of an audit, combined with the inherent limitations of internal control, and because we will not perform a detailed examination of all transactions, there is a risk that material misstatements or noncompliance may exist and not be detected by us, even though the audit is properly planned and performed in accordance with U.S. generally accepted auditing standards and *Government Auditing Standards*. In addition, an audit is not designed to detect immaterial misstatements or violations of laws or governmental regulations that do not have a direct and material effect on the financial statements or major programs. However, we will inform the appropriate level of the Town's management of any material errors and fraud, or illegal acts that come to our attention during the course of our audit. We will also inform you of any violations of laws or governmental regulations that come to our attention, unless clearly inconsequential. Our responsibility as auditor is limited to the period covered by our audit and does not extend to any later periods for which we are not engaged as auditor.

Our procedures will include tests of documentary evidence supporting the transactions recorded in the accounts, and may include tests of the physical existence of inventories, and direct confirmation of receivables and certain other assets and liabilities by correspondence with selected individuals, creditors and financial institutions. We will request written representations from the Town's attorneys as part of the engagement, and they may bill the Town for responding to this inquiry. At the conclusion of our audit, we will also require certain written representations from you about the financial statements; compliance with laws, regulations, contracts, and grant agreements; and other responsibilities required by generally accepted auditing standards.

Audit procedures – internal controls

Our audit will include obtaining an understanding of the Town and its environment, including internal controls, sufficient to assess the risks of material misstatement of the financial statements and to design the nature, timing, and extent of further audit procedures. Tests of controls may be performed to test the effectiveness of certain controls that we consider relevant to preventing and detecting errors and fraud that are material to the financial statements and to preventing and detecting misstatements resulting from illegal acts and other noncompliance matters that have a direct and material effect on the financial statements. Our tests, if performed, will be less in scope than would be necessary to render an opinion on internal control, including cybersecurity, and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to *Government Auditing Standards*.

As required by the Uniform Guidance and the State Single Audit Implementation Act, we will perform tests of controls over compliance to evaluate the effectiveness of the design and operation of controls that we consider relevant to preventing or detecting material noncompliance with compliance requirements applicable to each major federal and state award program. However, our tests will be less in scope than would be necessary to render an opinion on those controls and, accordingly, no opinion will be expressed in our report on internal control issued pursuant to the Uniform Guidance and the State Single Audit Implementation Act.

An audit is not designed to provide assurance on internal control or to identify significant deficiencies or material weaknesses. However, during the audit, we will communicate to the Town's management and those charged with governance internal control related matters that are required to be communicated under American Institute of Certified Public Accountants ("AICPA") professional standards, *Government Auditing Standards*, the Uniform Guidance, and the State Single Audit Implementation Act.

Audit procedures - compliance

As part of obtaining reasonable assurance about whether the basic financial statements are free of material misstatement, we will perform tests of the Town's compliance with provisions of applicable laws and regulations, contracts and agreements, including grant agreements. However, the objective of those procedures will not be to provide an opinion on overall compliance and we will not express such an opinion in our report on compliance issued pursuant to *Government Auditing Standards*.

The Uniform Guidance and the State Single Audit Implementation Act requires that we also plan and perform the audit to obtain reasonable assurance about whether the auditee has complied with federal and state statutes, regulations, and the terms and conditions of federal and state awards applicable to major programs. Our procedures will consist of tests of transactions and other applicable procedures described in the *OMB Compliance Supplement* for the types of compliance requirements that could have a direct and material effect on each of the Town's major programs. The purpose of these procedures will be to express an opinion on the Town's compliance with requirements applicable to each of its major programs in our report on compliance issued pursuant to the Uniform Guidance and the State Single Audit Implementation Act.

Nonattest services

All nonattest services to be provided in the attached engagement letter (if applicable) shall be provided pursuant to the AICPA Code of Professional Conduct. The AICPA Code of Professional Conduct requires that we establish objectives of the engagement and the services to be performed, which are described under nonattest services in the attached letter.

You agree that the Town's designated individual will assume all the Town's management responsibilities for the nonattest services we provide; oversee the services by designating an individual, with suitable skill, knowledge, or experience; evaluate the adequacy and results of the services; and accept responsibility for them. In order to ensure we provide such services in compliance with all professional standards, the designated individual is responsible for:

- Making all financial records and related information available to us
- Ensuring that all material information is disclosed to us
- Granting unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence
- Identifying and ensuring that such nonattest complies with the laws and regulations

The accuracy and appropriateness of such nonattest services shall be limited by the accuracy and sufficiency of the information provided by the Town's designated individual. In the course of providing such nonattest services, we may provide professional advice and guidance based on knowledge of accounting, tax and other compliance, and of the facts and circumstances as provided by the Town's designated individual. Such advice and guidance shall be limited as permitted under the AICPA Code of Professional Conduct.

Communications

At the conclusion of the audit engagement, we may provide the Town's management and those charged with governance a letter stating any significant deficiencies or material weaknesses which may have been identified by us during the audit and our recommendations designed to help the Town make improvements in its internal control structure and operations related to the identified matters discovered in the financial statement audit. As part of this engagement, we will ensure that certain additional matters are communicated to the appropriate members of the Town. Such matters include (1) our responsibilities under GAAS, (2) the initial selection of and changes in significant accounting policies and their application, (3) our independence with respect to the Town, (4) the process used by Town's management in formulating particularly sensitive accounting estimates and the basis for our conclusion regarding the reasonableness of those estimates, (5) audit adjustments, if any, that could, in our judgment, either individually or in the aggregate be significant to the financial statements or our report, (6) any disagreements with the Town's management concerning a financial accounting, reporting, or auditing matter that could be significant to the financial statements, (7) our views about matters that were the subject of the Town's management's consultation with other accountants about auditing and accounting matters, (8) major issues that were discussed with the Town's management in connection with the retention of our services, including, among other matters, any discussions regarding the application of accounting principles and auditing standards, and (9) serious difficulties that we encountered in dealing with the Town's management related to the performance of the audit.

Other matters

Access to working papers

The working papers and related documentation for the engagement are the property of the Firm and constitute confidential information. We have a responsibility to retain the documentation for a period of time to satisfy legal or regulatory requirements for records retention. It is our policy to retain all workpapers and client information for seven years from the date of issuance of the report. It is our policy to retain emails and attachments to emails for a period of 12 months, except as required by any governmental regulation. Except as discussed below, any requests for access to our working papers will be discussed with you prior to making them available to requesting parties. Any parties seeking voluntary access to our working papers must agree to sign our standard access letter.

We may be requested to make certain documentation available to regulators, governmental agencies (e.g., SEC, PCAOB, HUD, DOL, etc.), or their representatives ("Regulators") pursuant to law or regulations. If requested, access to the documentation will be provided to the Regulators. The Regulators may intend to distribute to others, including other governmental agencies, our working papers and related documentation without our knowledge or express permission. You hereby acknowledge and authorize us to allow Regulators access to and copies of documentation as requested. In addition, our Firm, as well as all other major accounting firms, participates in a "peer review" program covering our audit and accounting practices as required by the AICPA. This program requires that once every three years we subject our quality assurance practices to an examination by another accounting firm. As part of the process, the other firm will review a sample of our work. It is possible that the work we perform for the Town may be selected by the other firm for their review. If it is, they are bound by professional standards to keep all information confidential. If you object to having the work we do for you reviewed by our peer reviewer, please notify us in writing.

Electronic transmittals

During the course of our engagement, we may need to electronically transmit confidential information to each other, within the Firm, and to other entities engaged by either party. Although email is an efficient way to communicate, it is not always a secure means of communication and thus, confidentiality may be compromised. As an alternative, we recommend using our Client Portal ("Portal") to transmit documents. Portal allows the Town, us, and other involved entities to upload and download documents in a secure location. You agree to the use of email, Portal, and other electronic methods to transmit and receive information, including confidential information, between the Firm, the Town, and other third party providers utilized by either party in connection with the engagement.

Use of third party providers

In the normal course of business, we may on occasion use the services of an independent contractor or a temporary or loaned employee, all of whom may be considered a third party service provider. On these occasions, we remain responsible for the adequate oversight of all services performed by the third party service provider and for ensuring that all services are performed with professional competence and due professional care. We will adequately plan and supervise the services provided by the third party service provider; obtain sufficient relevant data to support the work product; and review compliance with technical standards applicable to the professional services rendered.

We will enter into a contractual agreement with the third party service provider to maintain the confidentiality of information and be reasonably assured that the third party service provider has appropriate procedures in place to prevent the unauthorized release of confidential information to others.

Subpoenas

In the event we are requested or authorized by the Town, or required by government regulation, subpoena, or other legal process to produce our working papers or our personnel as witnesses with respect to our engagement for the Town, the Town will, so long as we are not a party to the proceeding in which the information is sought, reimburse us for our professional time and expense, as well as the fees and expenses of our counsel, incurred in responding to such a request at standard billing rates.

Dispute resolution provision

This Dispute Resolution Provision sets forth the dispute resolution process and procedures applicable to any dispute or claim arising out of or relating to this engagement letter or the services provided hereunder, or any other audit or attest services provided by or on behalf of the Firm or any of its subcontractors or agents to the Town or at its request (“Disputes”), and shall apply to the fullest extent of the law, whether in contract, statute, tort (such as negligence), or otherwise.

Mediation

All Disputes shall be first submitted to nonbinding confidential mediation by written notice to the parties, and shall be treated as compromise and settlement negotiations under the standards set forth in the Federal Rules of Evidence and all applicable state counterparts, together with any applicable statutes protecting the confidentiality of mediations or settlement discussions. If the parties cannot agree on a mediator, the International Institute for Conflict Prevention and Resolution (“CPR”), at the written request of a party, shall designate a mediator.

Arbitration procedures

If a Dispute has not been resolved within 90 days after the effective date of the written notice beginning the mediation process (or such longer period, if the parties so agree in writing), the mediation shall terminate and the Dispute shall be settled by binding arbitration to be held at a mutually agreeable location. The arbitration shall be conducted in accordance with the CPR Rules for Non-Administered Arbitration that are in effect at the time of the commencement of the arbitration, except to the extent modified by this Dispute Resolution Provision (the “Rules”). The arbitration shall be conducted before a panel of three arbitrators. Each of the Town and the Firm shall designate one arbitrator in accordance with the “screened” appointment procedure provided in the Rules, and the two party-designated arbitrators shall jointly select the third in accordance with the Rules. No arbitrator may serve on the panel unless he or she has agreed in writing to enforce the terms of the engagement letter and to abide by the terms of the Rules. Except with respect to the interpretation and enforcement of these arbitration procedures (which shall be governed by the Federal Arbitration Act), the arbitrators shall apply the laws of the Commonwealth of Virginia (without giving effect to its choice of law principles) in connection with the Dispute. The arbitrators may render a summary disposition relative to all or some of the issues, provided that the responding party has had an adequate opportunity to respond to any such application for such disposition. Any discovery shall be conducted in accordance with the Rules. The result of the arbitration shall be binding on the parties, and judgment on the arbitration award may be entered in any court having jurisdiction.

Costs

Each party shall bear its own costs in both the mediation and the arbitration; however, the parties shall share the fees and expenses of both the mediators and the arbitrators equally.

Waiver of trial by jury

In the event the parties are unable to successfully arbitrate any dispute, controversy, or claim, the parties agree to WAIVE TRIAL BY JURY and agree that the court will hear any matter without a jury.

Independent contractor

Each party is an independent contractor with respect to the other and shall not be construed as having a trustee, joint venture, agency, or fiduciary relationship.

No third party beneficiaries

The parties do not intend to benefit any third party by entering into this agreement, and nothing contained in this agreement confers any right or benefit upon any person or entity who or which is not a signatory of this agreement.

Statute of limitations

The Town agrees not to bring any claims against any partner or employee of the Firm in any form for any reason. The Town and the Firm agree that any suit arising out of or related to the services contemplated by this engagement letter must be filed within two years after the cause of action arises. The cause of action arises upon the earlier of (i) delivery of the final work product for which the firm has been engaged, (ii) where applicable, filing of the final work product for which the firm has been engaged, or (iii) the date which the services contemplated under this engagement letter are terminated by either party.

Terms and conditions supporting fees

The estimated fees set forth in the attached engagement letter are based on anticipated full cooperation from the Town's personnel, timely delivery of requested audit schedules and supporting information, timely communication of all significant accounting and financial reporting matters, the assumption that unexpected circumstances will not be encountered during the audit, as well as working space and clerical assistance as mutually agreed upon and as is normal and reasonable in the circumstances. We strive to ensure that we have the right professionals scheduled on each engagement. As a result, sudden Town requested scheduling changes or scheduling changes necessitated by the agreed information not being ready on the agreed-upon dates can result in expensive downtime for our professionals. Any last minute schedule changes that result in downtime for our professionals could result in additional fees. Our estimated fees do not include assistance in bookkeeping or other accounting services not previously described. If, for any reason, the Town is unable to provide such schedules, information, and assistance, the Firm and the Town will mutually revise the fee to reflect additional services, if any, required of us to achieve these objectives.

The estimated fees contemplate that the Town will provide adequate documentation of its systems and controls related to significant transaction cycles and audit areas.

In providing our services, we will consult with the Town with respect to matters of accounting, financial reporting, or other significant business issues as permitted by professional standards. Accordingly, time necessary to affect a reasonable amount of such consultation is reflected in our fees. However, should a matter require research, consultation, or audit work beyond that amount, the Firm and the Town will agree to an appropriate revision in our fee.

The estimated fees are based on auditing and accounting standards effective as of the date of this engagement letter and known to apply to the Town at this time, but do not include any time related to the application of new auditing or accounting standards that impact the Town for the first time. If new auditing or accounting standards are issued subsequent to the date of this letter and are effective for the period under audit, we will estimate the impact of any such standard on the nature, timing, and extent of our planned audit procedures and will communicate with the Town concerning the scope of the additional procedures and the estimated fees.

The Town agrees to pay all costs of collection (including reasonable attorneys' fees) that the Firm may incur in connection with the collection of unpaid invoices. In the event of nonpayment of any invoice rendered by us, we retain the right to (a) suspend the performance of our services, (b) change the payment conditions under this engagement letter, or (c) terminate our services. If we elect to suspend our services, such services will not be resumed until your account is paid. If we elect to terminate our services for nonpayment, the Town will be obligated to compensate us for all time expended and reimburse us for all expenses through the date of termination.

This engagement letter sets forth the entire understanding between the Town and the Firm regarding the services described herein and supersedes any previous proposals, correspondence, and understandings whether written or oral. Any subsequent changes to the terms of this letter, other than additional billings, will be rendered in writing and shall be executed by both parties. Should any portion of this engagement letter be ruled invalid, it is agreed that such invalidity will not affect any of the remaining portions.

January 21, 2020

Michelle Thompson
Cherry Bekaert LLP
2626 GLENWOOD AVE STE 200
RALEIGH, NC 27608-1367

Dear Michelle Thompson:

It is my pleasure to notify you that on January 15, 2020, the National Peer Review Committee accepted the report on the most recent System Review of your firm. The due date for your next review is October 31, 2022. This is the date by which all review documents should be completed and submitted to the administering entity.

As you know, the report had a peer review rating of pass. The Committee asked me to convey its congratulations to the firm.

Thank you for your cooperation.

Sincerely,



Michael Fawley
Chair, National PRC
nprc@aicpa.org
+1.919.402.4502

National Peer Review Committee

cc: Marc Fogarty, David Bettler

Firm Number: 900010011816

Review Number: 568293

Report on the Firm's System of Quality Control

October 22, 2019

To the Partners of Cherry Bekaert LLP and the National Peer Review Committee

We have reviewed the system of quality control for the accounting and auditing practice of Cherry Bekaert LLP (the firm) applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended April 30, 2019. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards). A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility

The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

Required Selections and Considerations

Engagements selected for review included engagements performed under Government Auditing Standards, including compliance audits under the Single Audit Act; audits of employee benefit plans, an audit performed under FDICIA, an audit of broker-dealers, and an examination of service organizations [SOC 1 engagement].

As a part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

Opinion

In our opinion, the system of quality control for the accounting and auditing practice of Cherry Bekaert LLP applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended April 30, 2019, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of pass, pass with deficiency(ies) or fail. Cherry Bekaert LLP has received a peer review rating of pass.

EisnerAmper LLP
EisnerAmper LLP



The	Governing Board Town Council
	Primary Government Unit (or charter holder) Town of Apex, North Carolina
of	
and	Discretely Presented Component Unit (DPCU) (if applicable) N/A

Primary Government Unit, together with DPCU (if applicable), hereinafter referred to as Governmental Unit(s)

and	Auditor Name Cherry Bekaert LLP
	Auditor Address 3800 Glenwood Avenue, Suite 200, Raleigh, North Carolina 27612

Hereinafter referred to as Auditor

for	Fiscal Year Ending	Audit Report Due Date
	06/30/21	10/31/21

Must be within four months of FYE

hereby agree as follows:

1. The Auditor shall audit all statements and disclosures required by U.S. generally accepted auditing standards (GAAS) and additional required legal statements and disclosures of all funds and/or divisions of the Governmental Unit(s). The non-major combining, and individual fund statements and schedules shall be subjected to the auditing procedures applied in the audit of the basic financial statements and an opinion shall be rendered in relation to (as applicable) the governmental activities, the business- type activities, the aggregate DPCUs, each major governmental and enterprise fund, and the aggregate remaining fund information (non-major government and enterprise funds, the internal service fund type, and the fiduciary fund types).

2. At a minimum, the Auditor shall conduct his/her audit and render his/her report in accordance with GAAS. The Auditor shall perform the audit in accordance with *Government Auditing Standards* if required by the State Single Audit Implementation Act, as codified in G.S. 159-34. If required by OMB *Uniform Administration Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance) and the State Single Audit Implementation Act, the Auditor shall perform a Single Audit. This audit and all associated audit documentation may be subject to review by Federal and State agencies in accordance with Federal and State laws, including the staffs of the Office of State Auditor (OSA) and the Local Government Commission (LGC). If the audit requires a federal single audit performed under the requirements found in Subpart F of the Uniform Guidance (§200.501), it is recommended that the Auditor and Governmental Unit(s) jointly agree, in advance of the execution of this contract, which party is responsible for submission of the audit and the accompanying data collection form to the Federal Audit Clearinghouse as required under the Uniform Guidance (§200.512).

If the audit and Auditor communication are found in this review to be substandard, the results of the review may be forwarded to the North Carolina State Board of CPA Examiners (NC State Board).

3. If an entity is determined to be a component of another government as defined by the group audit standards, the entity's auditor shall make a good faith effort to comply in a timely manner with the requests of the group auditor in accordance with AU-6 §600.41 - §600.42.
4. This contract contemplates an unmodified opinion being rendered. If during the process of conducting the audit, the Auditor determines that it will not be possible to render an unmodified opinion on the financial statements of the unit, the Auditor shall contact the LGC Staff to discuss the circumstances leading to that conclusion as soon as is practical and before the final report is issued. The audit shall include such tests of the accounting records and such other auditing procedures as are considered by the Auditor to be necessary in the circumstances. Any limitations or restrictions in scope which would lead to a qualification should be fully explained in an attachment to this contract.
5. If this audit engagement is subject to the standards for audit as defined in *Government Auditing Standards*, 2018 revision, issued by the Comptroller General of the United States, then by accepting this engagement, the Auditor warrants that he/she has met the requirements for a peer review and continuing education as specified in *Government Auditing Standards*. The Auditor agrees to provide a copy of the most recent peer review report to the Governmental Unit(s) and the Secretary of the LGC prior to the execution of an audit contract. Subsequent submissions of the report are required only upon report expiration or upon auditor's receipt of an updated peer review report. If the audit firm received a peer review rating other than pass, the Auditor shall not contract with the Governmental Unit(s) without first contacting the Secretary of the LGC for a peer review analysis that may result in additional contractual requirements.

If the audit engagement is not subject to *Government Accounting Standards* or if financial statements are not prepared in accordance with U.S. generally accepted accounting principles (GAAP) and fail to include all disclosures required by GAAP, the Auditor shall provide an explanation as to why in an attachment to this contract or in an amendment.

6. It is agreed that time is of the essence in this contract. All audits are to be performed and the report of audit submitted to LGC Staff within four months of fiscal year end. If it becomes necessary to amend this due date or the audit fee, an amended contract along with a written explanation of the delay shall be submitted to the Secretary of the LGC for approval.
7. It is agreed that GAAS include a review of the Governmental Unit's (Units') systems of internal control and accounting as same relate to accountability of funds and adherence to budget and law requirements applicable thereto; that the Auditor shall make a written report, which may or may not be a part of the written report of audit, to the Governing Board setting forth his/her findings, together with his recommendations for improvement. That written report shall include all matters defined as "significant deficiencies and material weaknesses" in AU-C 265 of the *AICPA Professional Standards (Clarified)*. The Auditor shall file a copy of that report with the Secretary of the LGC.
8. All local government and public authority contracts for audit or audit-related work require the approval of the Secretary of the LGC. This includes annual or special audits, agreed upon procedures related to internal controls, bookkeeping or other assistance necessary to prepare the Governmental Unit's (Units') records for audit, financial statement preparation, any finance-related investigations, or any other audit-related work in the State of North Carolina. Approval is not required on contracts and invoices for system improvements and similar services of a non-auditing nature.
9. Invoices for services rendered under these contracts shall not be paid by the Governmental Unit(s) until the invoice has been approved by the Secretary of the LGC. (This also includes any progress billings.) [G.S. 159-34 and 115C-447] All invoices for Audit work shall be submitted in PDF format to the Secretary of the LGC for approval. The invoice marked 'approved' with approval date shall be returned to

the Auditor to present to the Governmental Unit(s) for payment. This paragraph is not applicable to contracts for audits of hospitals.

10. In consideration of the satisfactory performance of the provisions of this contract, the Governmental Unit(s) shall pay to the Auditor, upon approval by the Secretary of the LGC if required, the fee, which includes any costs the Auditor may incur from work paper or peer reviews or any other quality assurance program required by third parties (federal and state grantor and oversight agencies or other organizations) as required under the Federal and State Single Audit Acts. This does not include fees for any pre-issuance reviews that may be required by the NC Association of CPAs (NCACPA) Peer Review Committee or NC State Board of CPA Examiners (see Item 13).

11. If the Governmental Unit(s) has/have outstanding revenue bonds, the Auditor shall submit to LGC Staff, either in the notes to the audited financial statements or as a separate report, a calculation demonstrating compliance with the revenue bond rate covenant. Additionally, the Auditor shall submit to LGC Staff simultaneously with the Governmental Unit's (Units') audited financial statements any other bond compliance statements or additional reports required by the authorizing bond documents, unless otherwise specified in the bond documents.

12. After completing the audit, the Auditor shall submit to the Governing Board a written report of audit. This report shall include, but not be limited to, the following information: (a) Management's Discussion and Analysis, (b) the financial statements and notes of the Governmental Unit(s) and all of its component units prepared in accordance with GAAP, (c) supplementary information requested by the Governmental Unit(s) or required for full disclosure under the law, and (d) the Auditor's opinion on the material presented. The Auditor shall furnish the required number of copies of the report of audit to the Governing Board upon completion.

13. If the audit firm is required by the NC State Board, the NCACPA Peer Review Committee, or the Secretary of the LGC to have a pre-issuance review of its audit work, there shall be a statement in the engagement letter indicating the pre-issuance review requirement. There also shall be a statement that the Governmental Unit(s) shall not be billed for the pre-issuance review. The pre-issuance review shall be performed prior to the completed audit being submitted to LGC Staff. The pre-issuance review report shall accompany the audit report upon submission to LGC Staff.

14. The Auditor shall submit the report of audit in PDF format to LGC Staff. For audits of units other than hospitals, the audit report should be submitted when (or prior to) submitting the final invoice for services rendered. The report of audit, as filed with the Secretary of the LGC, becomes a matter of public record for inspection, review and copy in the offices of the LGC by any interested parties. Any subsequent revisions to these reports shall be sent to the Secretary of the LGC along with an Audit Report Reissued Form (available on the Department of State Treasurer website). These audited financial statements, excluding the Auditors' opinion, may be used in the preparation of official statements for debt offerings by municipal bond rating services to fulfill secondary market disclosure requirements of the Securities and Exchange Commission and for other lawful purposes of the Governmental Unit(s) without requiring consent of the Auditor. If the LGC Staff determines that corrections need to be made to the Governmental Unit's (Units') financial statements, those corrections shall be provided within three business days of notification unless another deadline is agreed to by LGC Staff.

15. Should circumstances disclosed by the audit call for a more detailed investigation by the Auditor than necessary under ordinary circumstances, the Auditor shall inform the Governing Board in writing of the need for such additional investigation and the additional compensation required therefore. Upon approval by the

Secretary of the LGC, this contract may be modified or amended to include the increased time, compensation, or both as may be agreed upon by the Governing Board and the Auditor.

16. If an approved contract needs to be modified or amended for any reason, the change shall be made in writing and pre-audited if the change includes a change in audit fee (pre-audit requirement does not apply to charter schools or hospitals). This amended contract shall be completed in full, including a written explanation of the change, signed and dated by all original parties to the contract. It shall then be submitted to the Secretary of the LGC for approval. No change to the audit contract shall be effective unless approved by the Secretary of the LGC, the Governing Board, and the Auditor.

17. A copy of the engagement letter, issued by the Auditor and signed by both the Auditor and the Governmental Unit(s), shall be attached to this contract, and except for fees, work, and terms not related to audit services, shall be incorporated by reference as if fully set forth herein as part of this contract. In case of conflict between the terms of the engagement letter and the terms of this contract, the terms of this contract shall take precedence. Engagement letter terms that conflict with the contract are deemed to be void unless the conflicting terms of this contract are specifically deleted in Item 28 of this contract. Engagement letters containing indemnification clauses shall not be accepted by LGC Staff.

18. Special provisions should be limited. Please list any special provisions in an attachment.

19. A separate contract should not be made for each division to be audited or report to be submitted. If a DPCU is subject to the audit requirements detailed in the Local Government Budget and Fiscal Control Act and a separate audit report is issued, a separate audit contract is required. If a separate report is not to be issued and the DPCU is included in the primary government audit, the DPCU shall be named along with the primary government on this audit contract. DPCU Board approval date, signatures from the DPCU Board chairman and finance officer also shall be included on this contract.

20. The contract shall be executed, pre-audited (pre-audit requirement does not apply to charter schools or hospitals), and physically signed by all parties including Governmental Unit(s) and the Auditor, then submitted in PDF format to the Secretary of the LGC.

21. The contract is not valid until it is approved by the Secretary of the LGC. The staff of the LGC shall notify the Governmental Unit and Auditor of contract approval by email. The audit should not be started before the contract is approved.

22. Retention of Client Records: Auditors are subject to the NC State Board of CPA Examiners' Retention of Client Records Rule 21 NCAC 08N .0305 as it relates to the provision of audit and other attest services, as well as non-attest services. Clients and former clients should be familiar with the requirements of this rule prior to requesting the return of records.

23. This contract may be terminated at any time by mutual consent and agreement of the Governmental Unit(s) and the Auditor, provided that (a) the consent to terminate is in writing and signed by both parties, (b) the parties have agreed on the fee amount which shall be paid to the Auditor (if applicable), and (c) no termination shall be effective until approved in writing by the Secretary of the LGC.

24. The Governmental Unit's (Units') failure or forbearance to enforce, or waiver of, any right or an event of breach or default on one occasion or instance shall not constitute the waiver of such right, breach or default on any subsequent occasion or instance.

25. There are no other agreements between the parties hereto and no other agreements relative hereto that shall be enforceable unless entered into in accordance with the procedure set out herein and approved by the Secretary of the LGC.

26. E-Verify. Auditor shall comply with the requirements of NCGS Chapter 64 Article 2. Further, if Auditor utilizes any subcontractor(s), Auditor shall require such subcontractor(s) to comply with the requirements of NCGS Chapter 64, Article 2.

27. **Applicable to audits with fiscal year ends of June 30, 2020 and later.** For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct and Governmental Auditing Standards, 2018 Revision (as applicable). Financial statement preparation assistance shall be deemed a "significant threat" requiring the Auditor to apply safeguards sufficient to reduce the threat to an acceptable level. If the Auditor cannot reduce the threats to an acceptable level, the Auditor cannot complete the audit. If the Auditor is able to reduce the threats to an acceptable level, the documentation of this determination, including the safeguards applied, must be included in the audit workpapers.

All non-attest service(s) being performed by the Auditor that are necessary to perform the audit must be identified and included in this contract. The Governmental Unit shall designate an individual with the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the services and accept responsibility for the results of the services performed. If the Auditor is able to identify an individual with the appropriate SKE, s/he must document and include in the audit workpapers how he/she reached that conclusion. If the Auditor determines that an individual with the appropriate SKE cannot be identified, the Auditor cannot perform both the non-attest service(s) and the audit. See "Fees for Audit Services" page of this contract to disclose the person identified as having the appropriate SKE for the Governmental Unit.

28. **Applicable to audits with fiscal year ends of June 30, 2021 and later.** The auditor shall present the audited financial statements including any compliance reports to the government unit's governing body or audit committee in an official meeting in open session as soon as the audited financial statements are available but not later than 45 days after the submission of the audit report to the Secretary. The auditor's presentation to the government unit's governing body or audit committee shall include:

- a) the description of each finding, including all material weaknesses and significant deficiencies, as found by the auditor, and any other issues related to the internal controls or fiscal health of the government unit as disclosed in the management letter, the Single Audit or Yellow Book reports, or any other communications from the auditor regarding internal controls as required by current auditing standards set by the Accounting Standards Board or its successor;
- b) the status of the prior year audit findings;
- c) the values of Financial Performance Indicators based on information presented in the audited financial statements; and
- d) notification to the governing body that the governing body shall develop a "Response to the Auditor's Findings, Recommendations, and Fiscal Matters," if required under 20 NCAC 03 .0508.

29. Information based on the audited financial statements shall be submitted to the Secretary for the purpose of identifying Financial Performance Indicators and Financial Performance Indicators of Concern.

30. Applicable to charter school contracts only: No indebtedness of any kind incurred or created by the charter school shall constitute an indebtedness of the State or its political subdivisions, and no indebtedness of the charter school shall involve or be secured by the faith, credit, or taxing power of the State or its political subdivisions.

31. All of the above paragraphs are understood and shall apply to this contract, except the following numbered paragraphs shall be deleted (See Item 16 for clarification).

32. The process for submitting contracts, audit reports and invoices is subject to change. Auditors and units should use the submission process and instructions in effect at the time of submission. Refer to the N.C. Department of State Treasurer website at <https://www.nctreasurer.com/state-and-local-government-finance-division/local-government-commission/submitting-your-audit>

33. All communications regarding audit contract requests for modification or official approvals will be sent to the email addresses provided on the signature pages that follow.

34. Modifications to the language and terms contained in this contract form (LGC-205) are not allowed.

FEES FOR AUDIT SERVICES

1. For all non-attest services, the Auditor shall adhere to the independence rules of the AICPA Professional Code of Conduct (as applicable) and *Governmental Auditing Standards, 2018 Revision*. Refer to Item 27 of this contract for specific requirements. The following information must be provided by the Auditor; contracts presented to the LGC without this information will not be approved.

Financial statements were prepared by: Auditor Governmental Unit Third Party

If applicable: Individual at Governmental Unit designated to have the suitable skills, knowledge, and/or experience (SKE) necessary to oversee the non-attest services and accept responsibility for the results of these services:

Name:

Title and Unit / Company:

Email Address:

Vance Holloman

Finance Officer

vance.holloman@apexnc.org

OR Not Applicable (Identification of SKE Individual not applicable for GAAS-only audit or audits with FYEs prior to June 30, 2020.)

2. Fees may not be included in this contract for work performed on Annual Financial Information Reports (AFIRs), Form 990s, or other services not associated with audit fees and costs. Such fees may be included in the engagement letter but may not be included in this contract or in any invoices requiring approval of the LGC. See Items 8 and 13 for details on other allowable and excluded fees.

3. Prior to submission of the completed audited financial report, applicable compliance reports and amended contract (if required) the Auditor may submit invoices for approval for services rendered, not to exceed 75% of the billings for the last annual audit of the unit submitted to the Secretary of the LGC. Should the 75% cap provided below conflict with the cap calculated by LGC Staff based on the billings on file with the LGC, the LGC calculation prevails. All invoices for services rendered in an audit engagement as defined in 20 NCAC .0503 shall be submitted to the Commission for approval before any payment is made. Payment before approval is a violation of law. (This paragraph not applicable to contracts and invoices associated with audits of hospitals).

PRIMARY GOVERNMENT FEES

Primary Government Unit	Town of Apex, North Carolina
Audit Fee	\$ 43,000 (includes 2 major programs)
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	\$ 3,500 over 2 major programs
Writing Financial Statements	\$ N/A
All Other Non-Attest Services	\$ N/A
75% Cap for Interim Invoice Approval (not applicable to hospital contracts)	\$ 37,425.00

DPCU FEES (if applicable)

Discretely Presented Component Unit	N/A
Audit Fee	\$ N/A
Additional Fees Not Included in Audit Fee:	
Fee per Major Program	\$ N/A
Writing Financial Statements	\$ N/A
All Other Non-Attest Services	\$ N/A
75% Cap for Interim Invoice Approval (not applicable to hospital contracts)	\$

SIGNATURE PAGE

AUDIT FIRM

Audit Firm* Cherry Bekaert LLP	
Authorized Firm Representative (typed or printed)* April Adams	Signature* <i>April Adams</i>
Date* 3/2/2021	Email Address* aadams@cbh.com

GOVERNMENTAL UNIT

Governmental Unit* Town of Apex, North Carolina	
Date Primary Government Unit Governing Board Approved Audit Contract* (G.S. 159-34(a) or G.S. 115C-447(a))	
Mayor/Chairperson (typed or printed)*	Signature*
Date	Email Address

Chair of Audit Committee (typed or printed, or "NA")	Signature
Date	Email Address

GOVERNMENTAL UNIT – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

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

Primary Governmental Unit Finance Officer* (typed or printed) Vance Holloman	Signature*
Date of Pre-Audit Certificate*	Email Address* vance.holloman@apexnc.org

**SIGNATURE PAGE – DPCU
(complete only if applicable)**

DISCRETELY PRESENTED COMPONENT UNIT

DPCU*	
N/A	
Date DPCU Governing Board Approved Audit Contract* (Ref: G.S. 159-34(a) or G.S. 115C-447(a))	
DPCU Chairperson (typed or printed)*	Signature*
Date*	Email Address*

Chair of Audit Committee (typed or printed, or "NA")	Signature
Date	Email Address

DPCU – PRE-AUDIT CERTIFICATE

Required by G.S. 159-28(a1) or G.S. 115C-441(a1).
Not applicable to hospital contracts.

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

DPCU Finance Officer (typed or printed)*	Signature*
Date of Pre-Audit Certificate*	Email Address*

Remember to print this form, and obtain all required signatures prior to submission.

PRINT

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Vance Holloman, Finance Director and Michael Deaton, Water Resources Director

Department(s): Finance and Water Resources

Requested Motion

Motion to approve Budget Ordinance Amendment No. 15 appropriating funds for the purpose of reimbursing the developer of Children's Lighthouse Daycare located at 2001 Apex Peakway. This reimbursement is in accordance with a December 2011 agreement executed by the Town of Apex, Brookfield Properties, LLC (Brookfield), and Vineyard Development, LLC (Vineyard).

Approval Recommended?

Yes

Item Details

In December 2011, the Town entered into an agreement with Brookfield and Vineyard to allow for proper realignment and construction of the Apex Peakway from Old Raleigh Road to North Salem Street. As a condition of a State permit, the Town was required to meet diffuse flow conditions for its stormwater discharge locations including the construction of a level spreader on the east side of the Apex Peakway and the Brookfield property. As part of the agreement, if and when the Brookfield property developed, the Town was committed to paying the costs associated with abandoning the level spreader and replacement of its water quality benefit on any future new development project. On January 12, 2021, the Children's Lighthouse Daycare facility received a certificate of occupancy and submitted an invoice of \$21,366 to the Town. Legal and Water Resources department staff have reviewed the invoice and find it to be acceptable and in accordance with the original agreement.

The amount of \$21,366 will be deposited into the Water Resources – Contracted Services budget (10-5410 44500).

Attachments

- Budget Ordinance Amendment No. 15





Town of Apex

Budget Ordinance Amendment No. 15

BE IT ORDAINED, by the Council of the Town of Apex that the following Budget Amendment for the Fiscal Year 2020-2021 Budget Ordinance be adopted:

GENERAL FUND

Section 1. Revenues:

Appropriated Fund Balance	\$21,366
Total Revenues	\$21,366

Section 2. Expenditures:

Water Resources-Contracted Services	\$21,366
Total Expenditures	\$21,366

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 9th day of March, 2021

Attest:

Jacques K. Gilbert, Mayor

Donna B. Hosch, MMC, Town Clerk

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Mary Beth Manville, Human Resources Director

Department(s): Human Resources

Requested Motion

Motion to approve the addition of one full-time equivalent Recreation Customer Service Specialist, salary grade 15, to staff the Senior Center.

Approval Recommended?

Yes

Item Details

This position was requested for FY 2021; however, the request was pushed out until we had a firmer construction completion and opening date for the Senior Center. This staff member would function as the first point of contact for the Senior Center front desk & responsible for opening the building – Monday-Friday at 7:45 a.m. Responsibilities would include greeting visitors, processing registrations, executing rental agreements, selling memberships, permits and passes, handling financial transactions to include daily balancing of all receipts, overseeing the Facilities Resources calendar for the facility, and providing administrative support to the Recreation Program Supervisor in charge of Senior and Special Population Programs.

Attachments

-



| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: CONSENT AGENDA

Meeting Date: March 9, 2021

Item Details

Presenter(s): Vance Holloman, Finance Officer

Department(s): Finance

Requested Motion

Motion to adopt Temporary Ordinance Modifications extending the current suspension of utility disconnections and application of penalties and fees for unpaid utility balances

Approval Recommended?

N/A

Item Details

At their December 15, 2020 meeting, the Town Council passed a resolution to continue the suspension of utility disconnections for non-payment and the application of late fees and penalties through February 28, 2021. Acknowledging that the current pandemic has made it difficult for some of our customers to pay their entire bill, the Council wanted to ensure our customers did not have service disconnected due to their inability to pay. At their February 23 meeting, Council indicated they wanted to extend the suspension of utility disconnections for non-payment and the application of late fees and penalties through May 31, 2021.

As of February 28, 2021, we had 1,948 customers that would be subject to disconnection with a total outstanding balance of \$1,274,964. As of the end of February, 640 customers have asked for a payment plan.

Attachments

- Temporary Ordinance Modification



ORDINANCE NO. 2021-0309-09
AN ORDINANCE TEMPORARILY SUSPENDING TOWN CODE
SECTIONS 12-37 through 12-39

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

Section 1. Under the authority of N.C.G.S. § 160A-314(b), Sections 12-37 through 12-39 of the Apex Town Code of Ordinances is temporarily suspended through May 32, 2021.

Section 2. The following utility customer fees designated on the Town of Apex Fee Schedule are suspended through May 31, 2021:

- a. Non-Payment Service Fee
- b. Late Fee
- c. Reconnect Disconnected Water Fee

Section 3. The ordinance shall be effective upon enactment.

This the 9th day of March 2021.

Introduced by Councilmember _____

Seconded by Councilmember _____

Attest:

TOWN OF APEX

Donna B. Hosch, MMC, NCCMC
Town Clerk

Jacques K. Gilbert
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: March 9, 2021

Item Details

Presenter: Dianne Khin, Director of Planning and Community Development

Department: Planning and Community Development

Requested Motion

Public hearing and possible motion to adopt an Ordinance on the Question of Annexation – Apex Town Council's intent to annex Lufkin Leased Fee, LLC (3050 Lufkin Road) property containing 3.33 acres located at 3050 Lufkin Road, Annexation #707 into the Town's corporate limits.

Approval Recommended?

Yes, by the Planning and Community Development Department.

Item Details

The Town Clerk certifies to the investigation of said annexation.

Attachments

- Annexation Ordinance
- Annexation Petition
- Legal Description
- Preliminary Plat





TOWN OF APEX, NORTH CAROLINA
Municipality No. 333

After recording, please return to:
Donna Hosch, MMC, NCCMC, Town Clerk
Town of Apex
P.O. Box 250
Apex, NC 27502

ORDINANCE NO. 2021-0309-08
ANNEXATION PETITION NO. #707
Lufkin Leased Fee, LLC

AN ORDINANCE TO EXTEND THE CORPORATE LIMITS
OF THE TOWN OF APEX, NORTH CAROLINA
P.O. Box 250, Apex, North Carolina 27502

WHEREAS, the Apex Town Council has been petitioned under G.S. § 160A-31, as amended, to annex the area described herein; and

WHEREAS, the Apex Town Council has by Resolution directed the Town Clerk to investigate the sufficiency of said petition; and

WHEREAS, the Town Clerk has certified the sufficiency of said petition and a public hearing on the question of this annexation was held at Apex Town Hall at 6:00 p.m. on March 9, 2021, after due notice by posting to the Town of Apex website, <http://www.apexnc.org/news/public-notice-legal-ads>; and

WHEREAS, the Apex Town Council does hereby find as a fact that said petition meets the requirements of G.S. § 160A-31, as amended.

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

Section 1. By virtue of the authority granted by G.S.§160A-31, as amended, the territory described in the attached property description and also shown as "Annexation Area" on the below identified survey plat is hereby annexed and made part of the Town of Apex, North Carolina, as of the date of adoption of this Ordinance on March 9, 2021. The survey plat that describes the annexed territory is that certain survey plat entitled "Annexation Map for The Town of Apex, EDR Engineering, dated February 3, 2021" and recorded in Book of Maps book number 2021 and page number [REDACTED], Wake County Registry.

Section 2. Upon and after the adoption of this ordinance, the territory described herein and its citizens and property shall be subject to all debts, laws, ordinances and regulations in force in the Town of Apex, North Carolina, and shall be entitled to the same privileges and benefits as other parts of the Town of Apex. Said territory shall be subject to municipal taxes according to G.S.§160A-58.10, as amended.

Section 3. The Clerk of the Town of Apex, North Carolina shall cause to be recorded in the Office of the Register of Deeds of Wake County and in the Office of the Secretary of State at Raleigh, North Carolina and in the Office of the Wake County Board of Elections an accurate map of the annexed territory, described in Section 1 hereof, together with a duly certified copy of this Ordinance.

Adopted this the 9th day of March 2021.

Jacques K. Gilbert
Mayor

ATTEST:

Donna B. Hosch, MMC, NCCMC
Town Clerk

APPROVED AS TO FORM:

Laurie L. Hohe
Town Attorney

Legal Description

The description hereon is of a tract of land situated in Wake County, North Carolina having Wake County Parcel Identification Numbers (WC PIN) of #0751-27-6575, Book of Maps (B.M.) 2012 Page (PG) 584. Said tract of land is now or formerly owned by Lufkin Lease Fee, LLC. The following description is the exterior boundary of said parcel for Annexation purposes. Lying and being in the County of Wake, State of North Carolina and more particularly described as follows: Beginning at a Point (POB) located on the South Right of Way of Lufkin Road, an existing Right of Way, being a variable width public right of way, said point having the NC Grid (NAD83) coordinate of N=717,853.59 and E=2,052,482.54, said coordinates from above B.M 2012 PG 584,; Thence run with said Right of Way along an arc to the left of said curve, having a Radius of 582.50 feet, a Chord Bearing of S 76°43'54" E and a Chord Length of 377.99 feet, for an Arc Length of 384.96 feet to a point, said point being a common corner with a tract of land having the Wake County PIN #0751-37-1753 now of formerly owned by NGO TU HA, LLC,; Thence run with the HA tract S 04°03'31" W for a distance of 132.59 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-37-1306, now or formerly owned by 2410 LTD Partners, LLC,; Thence leaving said HA tract run with said Partners tract S 00°39'43" E for a distance of 290.03 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-27-6002, now or formerly owned by 1701 Pinnacle Center, LLC., Thence leaving said Partners tract run with said Pinnacle Center LLC tract N 87°54'34" W a distance of 435.84 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-27-1697, now or formerly owned by BCP Lufkin, LLC., Then run with said BCP tract the following three (3) courses: N 36°51'20" E for a distance of 156.98 feet to a point, N 20°07'19" E for a distance of 173.85 feet to a point, N 21°27'11" W for a distance of 219.50 feet to a point, said point being the Point of Beginning. Said annexation area containing 144,952 sq. ft / 3.33 acres ±. Property is subject to any and all easements either recorded or implied.

Page 4

STATE OF NORTH CAROLINA

COUNTY OF WAKE

CLERK'S CERTIFICATION

I, Donna B. Hosch, MMC, NCCMC, Town Clerk, Town of Apex, North Carolina, do hereby certify the foregoing is a true and correct copy of Annexation Ordinance No. 2021-0309-08, adopted at a meeting of the Town Council, on 9th day of March, 2021 the original of which will be on file in the Office of the Town Clerk of Apex, North Carolina.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the official Seal of the Town of Apex, North Carolina, this the 10th day of March 2021.

Donna B. Hosch, MMC, NCCMC
Town Clerk

(SEAL)

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 #:	<u>707</u>	Submittal Date:	<u>2/3/2021</u>
Fee Paid	\$ <u>200</u>	Check #	<u>2119</u>

TO THE TOWN COUNCIL APEX, NORTH CAROLINA

- 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.
- 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.
- 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

<u>LUFKIN LEASED FEE LLC</u>	<u>0751276575</u>
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u>919-825-1567</u>	<u>lindsay@brookwoodcp.com</u>
Phone	E-mail Address
<u> </u>	<u> </u>
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u> </u>	<u> </u>
Phone	E-mail Address
<u> </u>	<u> </u>
Owner Name (Please Print)	Property PIN or Deed Book & Page #
<u> </u>	<u> </u>
Phone	E-mail Address

Surveyor Information

Surveyor: EDR Engineering

Phone: 919-747-3012 Fax:

E-mail Address: tom.duttlinger@edreng.com

Annexation Summary Chart

Property Information		Reason(s) for annexation (select all that apply)	
Total Acreage to be annexed:	<u>3.33</u>	Need water service due to well failure	<input type="checkbox"/>
Population of acreage to be annexed:	<u>3.33</u>	Need sewer service due to septic system failure	<input type="checkbox"/>
Existing # of housing units:	<u>0</u>	Water service (new construction)	<input checked="" type="checkbox"/>
Proposed # of housing units:	<u>0</u>	Sewer service (new construction)	<input checked="" type="checkbox"/>
Zoning District*:	<u>PC-CU</u>	Receive Town Services	<input checked="" type="checkbox"/>

*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 at 919-249-3426 for questions.

PETITION FOR VOLUNTARY ANNEXATION

Application #: 700

Submittal Date: 2/3/2021

COMPLETE IF IN A LIMITED LIABILITY COMPANY

In witness whereof, Lutkin Leased Fee, LLC a limited liability company, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this the 11 day of December, 2020.

Name of Limited Liability Company Lutkin Leased Fee, LLC

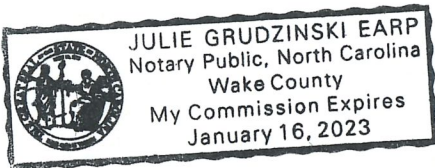
By: [Signature]
Signature of Member/Manager

STATE OF NORTH CAROLINA
COUNTY OF WAKE

Sworn and subscribed before me, Julie Grudzinski EARP, a Notary Public for the above State and County, this the 11th day of December, 2020.

[Signature]
Notary Public

SEAL



My Commission Expires: 1/16/23

COMPLETE IF IN A PARTNERSHIP

In witness whereof, _____, a partnership, caused this instrument to be executed in its name by a member/manager pursuant to authority duly given, this the _____ day of _____, 20____.

Name of Partnership _____

By: _____
Signature of General Partner

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____.

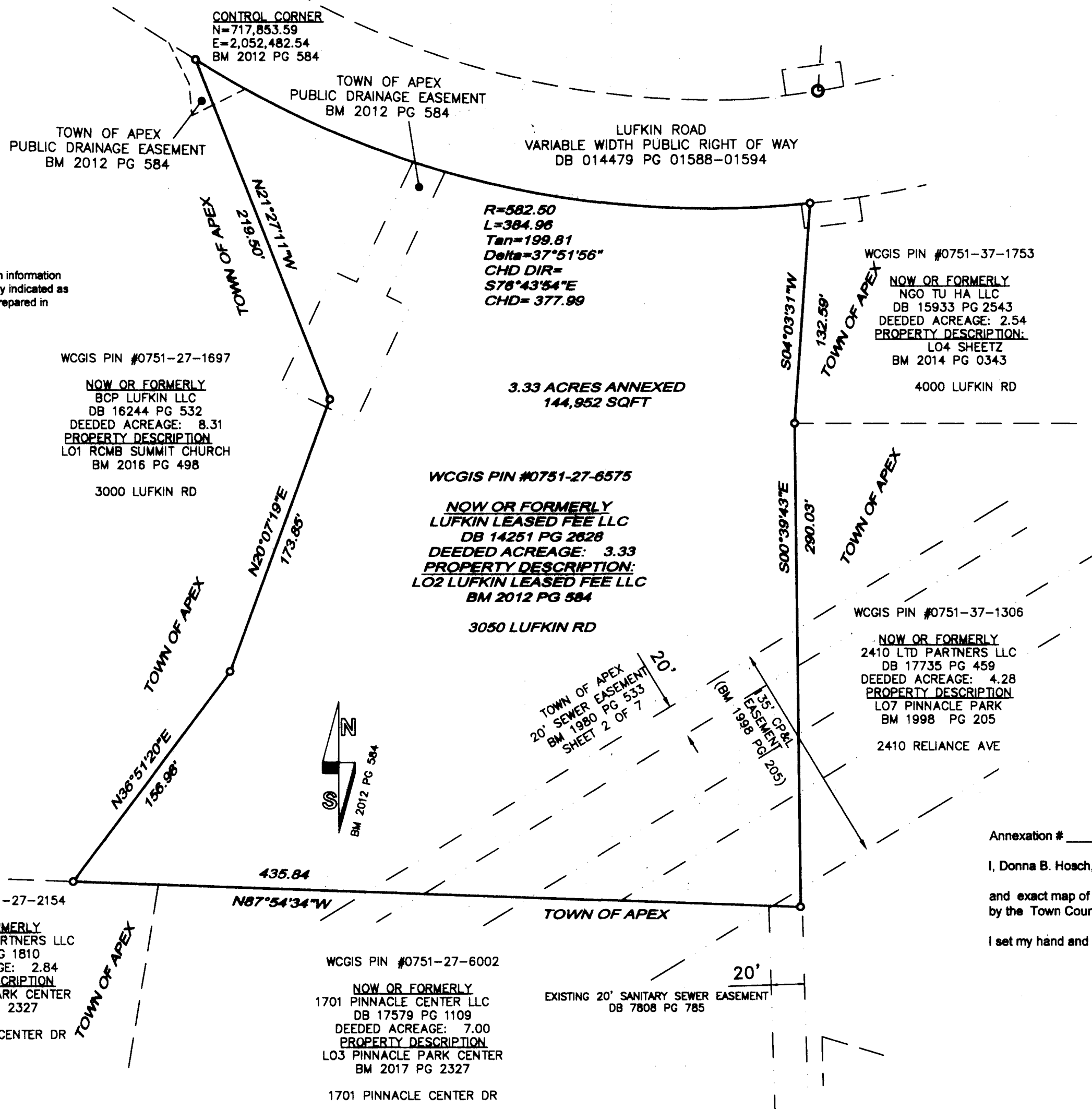
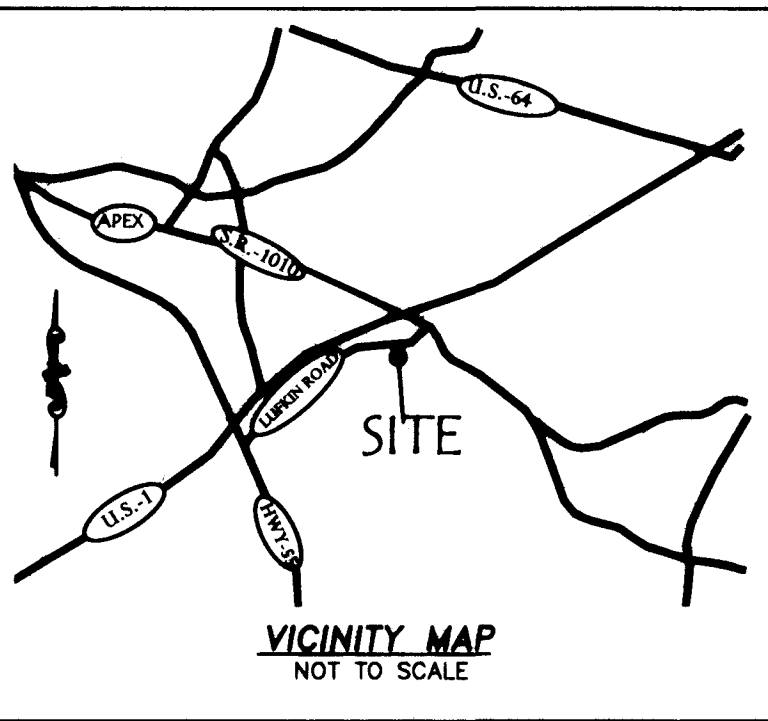
Notary Public

SEAL

My Commission Expires: _____

Description of a Tract of land to be Annexed by the Town of Apex

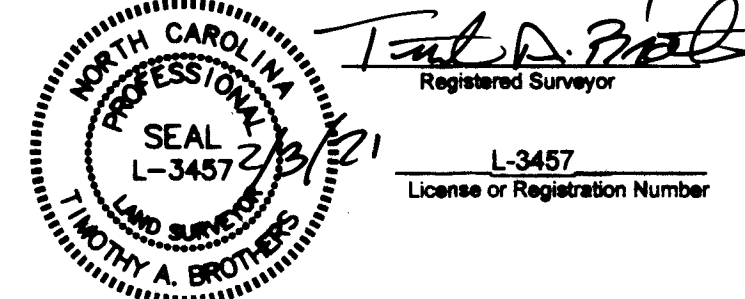
The description hereon is of a tract of land situated in Wake County, North Carolina having Wake County Parcel Identification Numbers (WC PIN) of #0751-27-6575, Book of Maps (B.M.) 2012 Page (PG) 584. Said tract of land is now or formerly owned by Lufkin Lease Fee, LLC. The following description is the exterior boundary of said parcel for Annexation purposes. Lying and being in the County of Wake, State of North Carolina and more particularly described as follows: Beginning at a Point (POB) located on the South Right of Way of Lufkin Road, an existing Right of Way, being a variable width public right of way, said point having the NC Grid (NAD83) coordinate of N=717,853.59 and E=2,052,482.54, said coordinates from above B.M 2012 PG 584,; Thence run with said Right of Way along an arc to the left of said curve, having a Radius of 582.50 feet, a Chord Bearing of S 76°43'54" E and a Chord Length of 377.99 feet, for an Arc Length of 384.96 feet to a point, said point being a common corner with a tract of land having the Wake County PIN #0751-37-1753 now of formerly owned by NGO TU HA, LLC,; Thence run with the HA tract S 04°03'31" W for a distance of 132.59 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-37-1306, now or formerly owned by 2410 LTD Partners, LLC,; Thence leaving said HA tract run with said Partners tract S 00°39'43" E for a distance of 290.03 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-27-6002, now or formerly owned by 1701 Pinnacle Center, LLC., Thence leaving said Partners tract run with said Pinnacle Center LLC tract N 87°54'34" W a distance of 435.84 feet to a point, said point being the common corner with a tract of land having the WC PIN #0751-27-1697, now or formerly owned by BCP Lufkin, LLC., Then run with said BCP tract the following three (3) courses: N 36°51'20" E for a distance of 156.98 feet to a point, N 20°07'19" E for a distance of 173.85 feet to a point, N 21°27'11" W for a distance of 219.50 feet to a point, said point being the Point of Beginning. Said annexation area containing 144,952 sq. ft / 3.33 acres ±. Property is subject to any and all easements either recorded or implied.



CERTIFICATE OF SURVEY AND ACCURACY

I, TIMOTHY A. BROTHERS, certify that this plat was drawn under my supervision from information found in Book and Page as shown hereon; that the boundaries not surveyed are clearly indicated as drawn from information found in Book and Page as shown hereon; that this plat was prepared in accordance with G.S. 47-30, as amended.

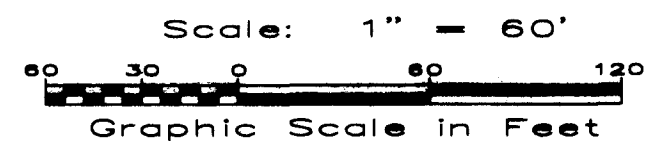
Witness my hand and seal this 3RD day of FEBRUARY A.D., 2021



I, TIMOTHY A. BROTHERS, L-3457 DO HEREBY CERTIFY TO:

① THAT THE SURVEY IS OF ANOTHER CATEGORY, SUCH AS THE RECOMBINATION OF EXISTING PARCELS, A COURT-ORDERED SURVEY, OR OTHER EXCEPTION TO THE DEFINITION OF SURVEYING: (G.S. 47-30 (b)(1)(k))

NAME: Timothy A. Brothers DATE: 2/3/21



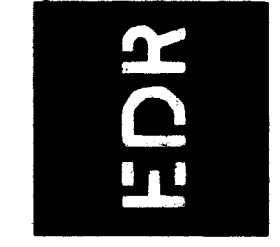
LEGEND

———	PLATTED BOUNDARY LINES
---	PLATTED EASEMENT LINES
---	UN-SURVEYED LINES
○	EXISTING IRON PIPE FOUND

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 _____, 20____ by the Town Council.
 I set my hand and seal of the Town of Apex, _____ Day/Month/Year
 Donna B. Hosch, MMC, NCCMC, Town Clerk

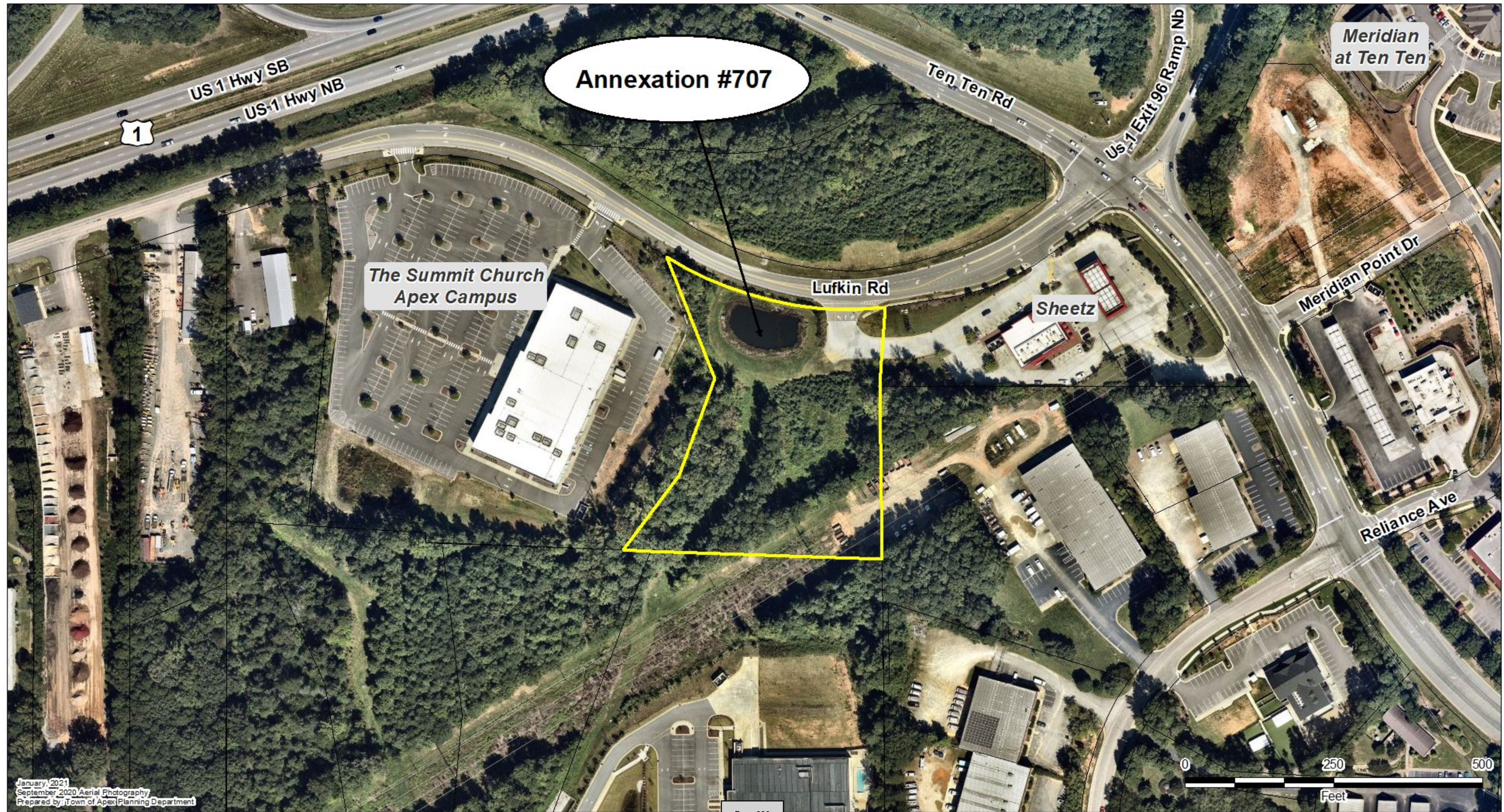
- NOTES:**
1. BEARING BASIS TAKEN FROM PLAT RECORDED AT WAKE COUNTY REGISTER OF DEEDS IN BOOK OF MAPS 2012 PAGE 584 TITLED "EASEMENT DEDICATION AND EXEMPT SUBDIVISION PLAT".
 2. THIS PLAT IS FOR ANNEXATION PURPOSES ONLY AND IS NOT INTENDED TO BE A BOUNDARY OR EASEMENT DEDICATION PLAT.
 3. PLAT CREATED WITHOUT BENEFIT OF TITLE EXAMINATION. NO TITLE EXAMINATION PROVIDED TO, NOR PERFORMED BY, EDR ENGINEERING.
 4. PROPERTY IS SUBJECT TO ANY AND ALL EASEMENTS AND RESTRICTIONS OF RECORD IN ADDITION TO ANY SHOWN HEREON. A NORTH CAROLINA LICENSED ATTORNEY-AT-LAW SHOULD BE CONSULTED REGARDING QUESTIONS OF OWNERSHIP AND PURPOSE OF EASEMENTS, RIGHTS-OF-WAY, AND ANY OTHER ENCUMBRANCES OR QUESTIONS OF TITLE AS MAY BE REVEALED OR DISCOVERED BY A THOROUGH TITLE EXAMINATION.
 5. ALL DISTANCES ARE HORIZONTAL GROUND MEASUREMENTS IN U.S. SURVEY FEET, UNLESS OTHERWISE NOTED.
 6. ALL AREAS SHOWN HEREON COMPUTED BY COORDINATE COMPUTATION.

EDR ENGINEERING
 5605 CHAPEL HILL ROAD SUITE 110
 RALEIGH, NORTH CAROLINA 27607-5251
 PH: (919) 747-3012
 NORTH CAROLINA LICENSE NO. 3325



CLIENT: **A.B. GOODRICH CONTRACTING, LLC**
ANNEXATION MAP FOR THE TOWN OF APEX
 3050 LUFKIN ROAD
 TOWNSHIP OF WHITE OAK, COUNTY OF WAKE
 STATE OF NORTH CAROLINA

DATE:	2/3/2021
DRAWN BY:	TAB
CHECKED BY:	
FIG: 026	
CH:	
SCALE: 1"=60'	1 of 1



Annexation #707

**The Summit Church
Apex Campus**

Sheetz

**Meridian
at Ten Ten**

US 1 Hwy SB
US-1 Hwy NB

1

Ten Ten Rd

Us 1 Exit 96 Ramp Nb

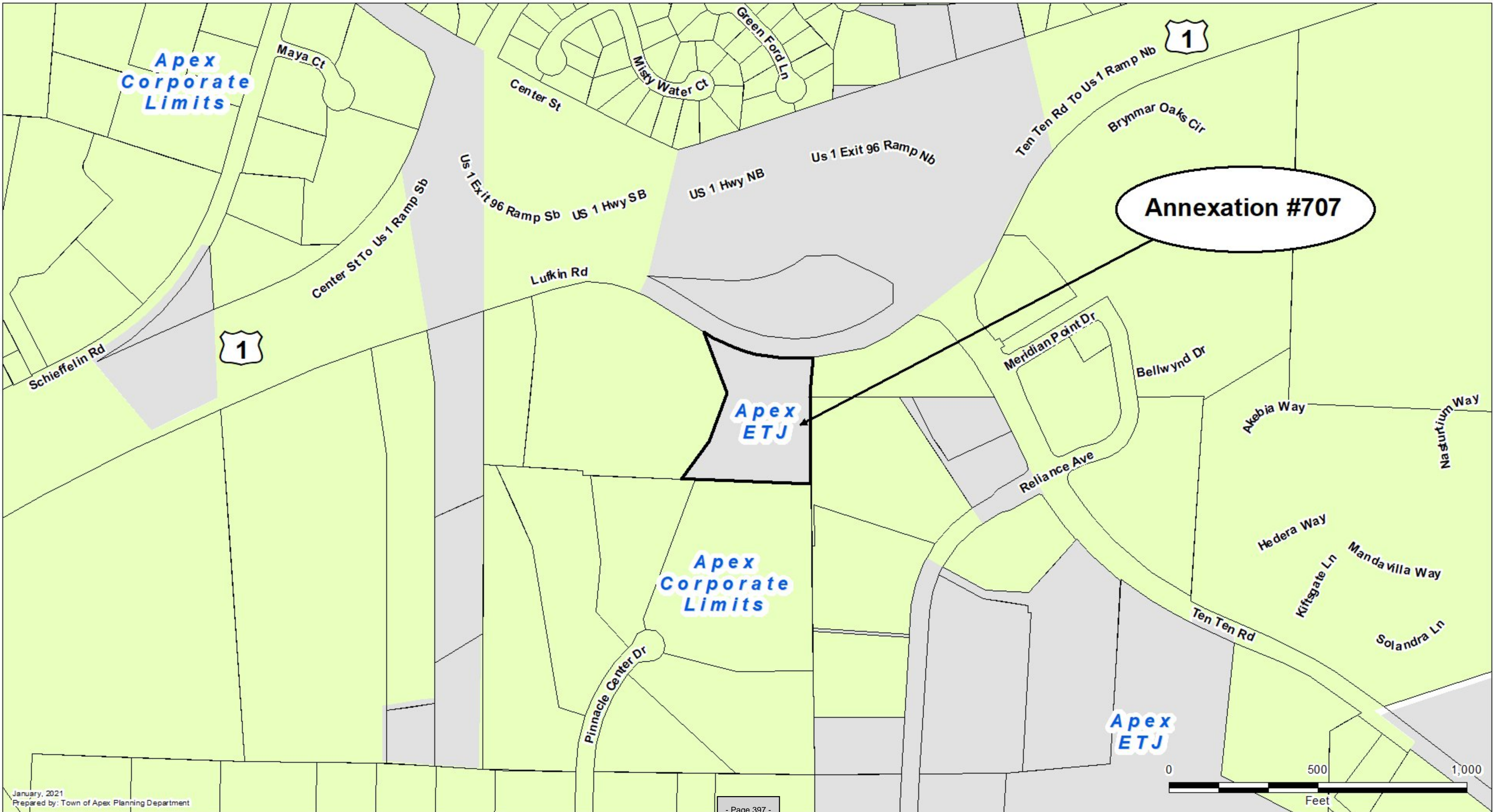
Lufkin Rd

Meridian Point Dr

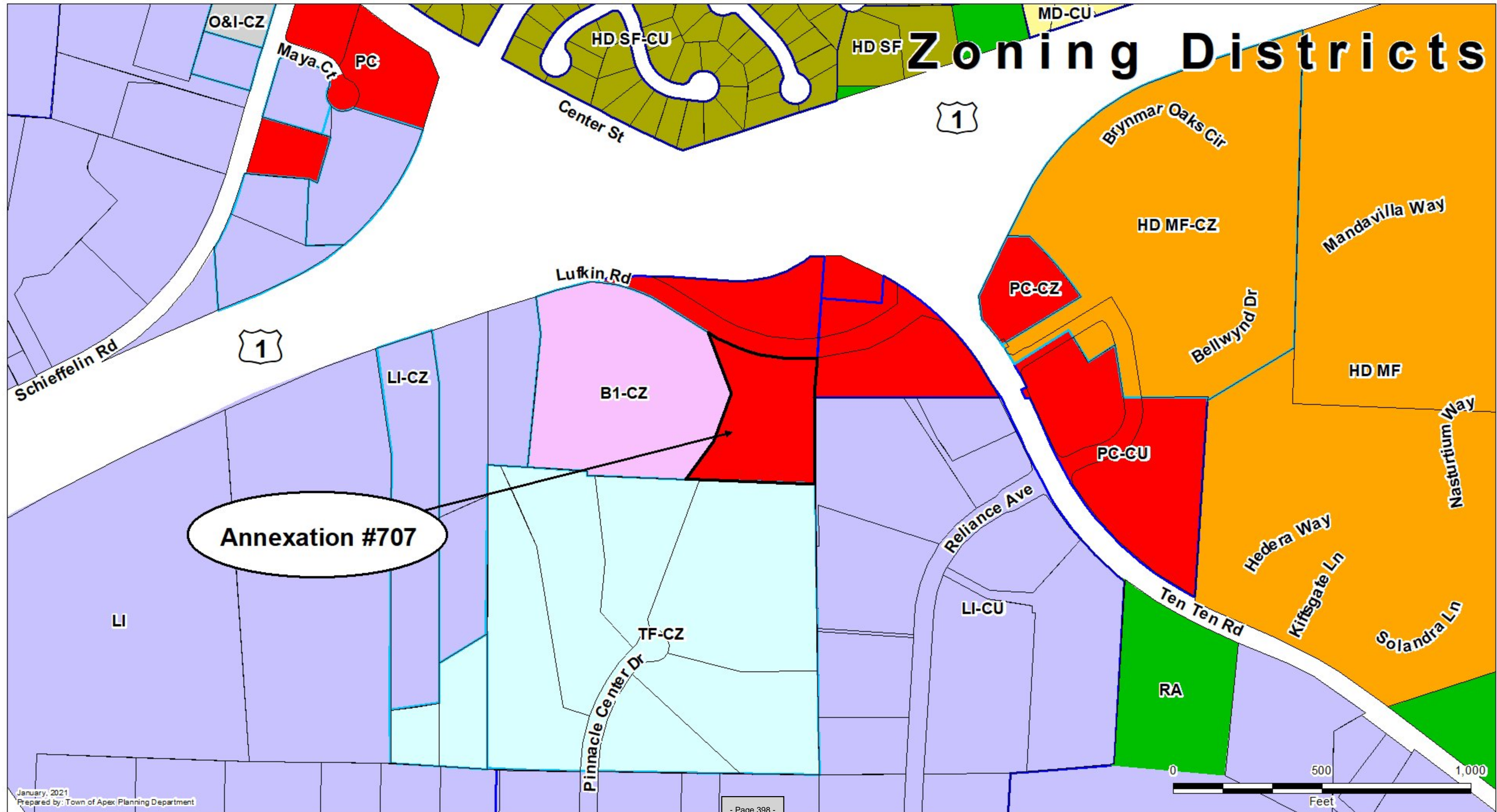
Reliance Ave

0 250 500

Feet



Zoning Districts



| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: March 9, 2021

Item Details

Presenter(s): Amanda Bunce, Current Planning Manager

Department(s): Planning and Community Development

Requested Motion

Public Hearing and possible motion regarding an amendment to the Unified Development Ordinance related to Resource Conservation Area in North Carolina Certified Sites.

Approval Recommended?

The Planning and Community Development Department recommends approval.

The Planning Board will hear this amendment at their March 8, 2021 meeting. Planning staff will provide the Board's recommendation at the Town Council meeting.

Item Details

Summary of UDO Amendment

Requested by Planning Staff:

1. Amendment to Sec. 8.1.2.C.10 *Size of the RCA, North Carolina Certified Sites* in order to set a maximum amount of Resource Conservation Area (RCA) that is required in a development designated as a North Carolina Certified site by the North Carolina Department of Revenue.

Attachments

- Staff Report
- Ordinance
- Public Notice



STAFF REPORT

Amendments to the Unified Development Ordinance

March 9, 2021 Town Council Meeting



Requested by Planning Staff:

1. **Amendment to Sec. 8.1.2.C.10 *Size of the RCA, North Carolina Certified Sites* in order to set a maximum amount of Resource Conservation Area (RCA) that is required in a development designated as a North Carolina Certified site by the North Carolina Department of Revenue.**

8.1.2.C *Size of the RCA*

...

10) *North Carolina Certified Sites*

Any development designated as a North Carolina Certified Site by the North Carolina Department of Commerce shall provide RCA equal to or greater than the area located within required perimeter and street buffers, riparian buffers, and preserved wetlands, but shall not be less than 15%. **On properties where the combined acreage of required perimeter and street buffers, riparian buffers, and preserved wetlands exceeds 35% of the gross acreage of the site, RCA may be reduced to no less than 35% to permit grading in portions of riparian buffers where state regulations and UDO Sec. 6.1 Watershed Protection Overlay Districts allow and to reduce buffer widths where permitted by UDO Sec. 8.1.2.C.7 Resource Conservation Area Exchanged for Reduced Width Buffers.**

PLANNING STAFF RECOMMENDATION:

Planning staff recommends approval of the proposed UDO amendments.

PLANNING BOARD RECOMMENDATION:

The Planning Board will hear this amendment at their March 8, 2021 meeting. Planning staff will present their recommendation at the Town Council meeting.



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 Planning Staff:

1. Amendment to Secs. 8.1.2.C.10 *Size of the RCA, North Carolina Certified Sites* in order to set a maximum amount of Resource Conservation Area (RCA) that is required in a development designated as a North Carolina Certified site by the North Carolina Department of Revenue.

Public Hearing Location: Apex Town Hall
Council Chambers, 2nd Floor
73 Hunter Street, Apex, North Carolina

Town Council Public Hearing Date and Time: March 9, 2021 6:00 PM

You may attend the meeting in person or view the meeting through the Town's YouTube livestream at: <https://www.youtube.com/c/townofapexgov>.

If you are unable to attend, you may share comments by noon on Monday, March 8, 2021, following instructions in the <http://www.apexnc.org/DocumentCenter/View/31397>. The policy includes options to provide comments by email (public.hearing@apexnc.org, 350-word limit) or voicemail (919-362-7300, 3-minute limit). You must provide your name and address for the record. These comments will be read during the Town Council meeting.

If the Council meeting is held with at least one member attending virtually, the vote on the subject of this public hearing will be delayed per State law to allow for comments to be submitted between publication of any required notice and 24 hours after the public hearing. Comments must be provided according to the means specified above. This item will be then be scheduled for the next Town Council meeting. Please note that at this subsequent meeting, Town Council may choose to vote on the item, table the discussion to a later date, or take other action which would delay Council action to another time.

The UDO can be accessed online at: <http://www.apexnc.org/233>.

Dianne F. Khin, AICP
Director of Planning and Community Development

Published Dates: February 25-March 9, 2021



TOWN OF APEX

POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

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Dianne F. Khin, AICP

Planning and Community Development

- Page 402 -

Published Dates: February 25-March 9, 2021



TOWN OF APEX

POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

REVISED 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 Planning Staff:

1. Amendment to Secs. 8.1.2.C.10 *Size of the RCA, North Carolina Certified Sites* in order to set a maximum amount of Resource Conservation Area (RCA) that is required in a development designated as a North Carolina Certified site by the North Carolina Department of Revenue.

Public Hearing Location: ~~Apex Town Hall~~
~~Council Chambers, 2nd Floor~~
~~73 Hunter Street, Apex, North Carolina~~

Town Council **Remote** Public Hearing Date and Time: March 9, 2021 6:00 PM

You may ~~attend the meeting in person or~~ view the meeting through the Town's YouTube livestream at: <https://www.youtube.com/c/townofapexgov>.

~~If you are unable to attend,~~ You may share comments by noon on Monday, March 8, 2021 by email (public.hearing@apexnc.org, 350-word limit) or voicemail (919-362-7300, 3-minute limit) according to the Remote Participation Policy at: <http://www.apexnc.org/DocumentCenter/View/31397/>. You must provide your name and address for the record. These comments will be read during the Town Council meeting.

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Dianne F. Khin, AICP
Director of Planning and Community Development

Published Dates: ~~February 25~~ March 3-March 9, 2021



TOWN OF APEX

POST OFFICE BOX 250
APEX, NORTH CAROLINA 27502
PHONE 919-249-3426

REVISED 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 Planning Staff:

1. Amendment to Secs. 8.1.2.C.10 *Size of the RCA, North Carolina Certified Sites* in order to set a maximum amount of Resource Conservation Area (RCA) that is required in a development designated as a North Carolina Certified site by the North Carolina Department of Revenue.

Public Hearing Location: ~~Apex Town Hall
Council Chambers, 2nd Floor
73 Hunter Street, Apex, North Carolina~~

Town Council Remote Public Hearing Date and Time: March 9, 2021 6:00 PM

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Dianne F. Khin, AICP

Planning and Community Development

- Page 404 -

Published Dates: ~~February 25~~ March 3-March 9

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 8.1.2.C.10 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:

8.1.2.C *Size of the RCA*

...

10) *North Carolina Certified Sites*

Any development designated as a North Carolina Certified Site by the North Carolina Department of Commerce shall provide RCA equal to or greater than the area located within required perimeter and street buffers, riparian buffers, and preserved wetlands, but shall not be less than 15%. **On properties where the combined acreage of required perimeter and street buffers, riparian buffers, and preserved wetlands exceeds 35% of the gross acreage of the site, RCA may be reduced to no less than 35% to permit grading in portions of riparian buffers where state regulations and UDO Sec. 6.1 Watershed Protection Overlay Districts allow and to reduce buffer widths where permitted by UDO Sec. 8.1.2.C.7 Resource Conservation Area Exchanged for Reduced Width Buffers.**

Section 2. The Director of Planning and Community Development 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 _____ 2021.

Introduced by Council Member _____

Seconded by Council Member _____

Attest: TOWN OF APEX

Donna Hosch, MMC, NCCMC
Town Clerk

Jacques K. Gilbert
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: March 9, 2021

Item Details

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

Department(s): Planning and Community Development

Requested Motion

Public hearing and possible motion regarding proposed amendments to the Thoroughfare and Collector Street Plan map related to the site known as Cash Corporate Center, south of Production Drive and Burma Drive and north of Pristine Water Drive.

Approval Recommended?

Planning staff recommends adoption of the proposed amendments to the Thoroughfare and Collector Street Plan map.

The Planning Board will hold a public hearing on March 8, 2021. The Planning Board's recommendation will be presented during the Town Council public hearing.

Item Details

The purpose of these amendments is to adjust the planned roadway network based on the anticipated pattern of development of the Cash Corporate Center site as well as to reflect additional design work completed for both the Burma Drive extension and Production Drive extension.

Attachments

- Staff report





The Thoroughfare and Collector Street Plan map (last amended November 17, 2020) represents a network of current and future facilities that provide guidance on what is likely to be suitable for long term growth and connectivity. The plan does not require a schedule for implementation nor does it set aside funding for improvements. The purpose of the public hearing is to consider proposed amendments to the network of planned thoroughfare and collector streets in order to formulate a decision.

The proposed amendments are related to the site known as Cash Corporate Center, south of Production Drive and Burma Drive and north of Pristine Water Drive. The amendments would revise the planned roadway network as shown in Figure 1.

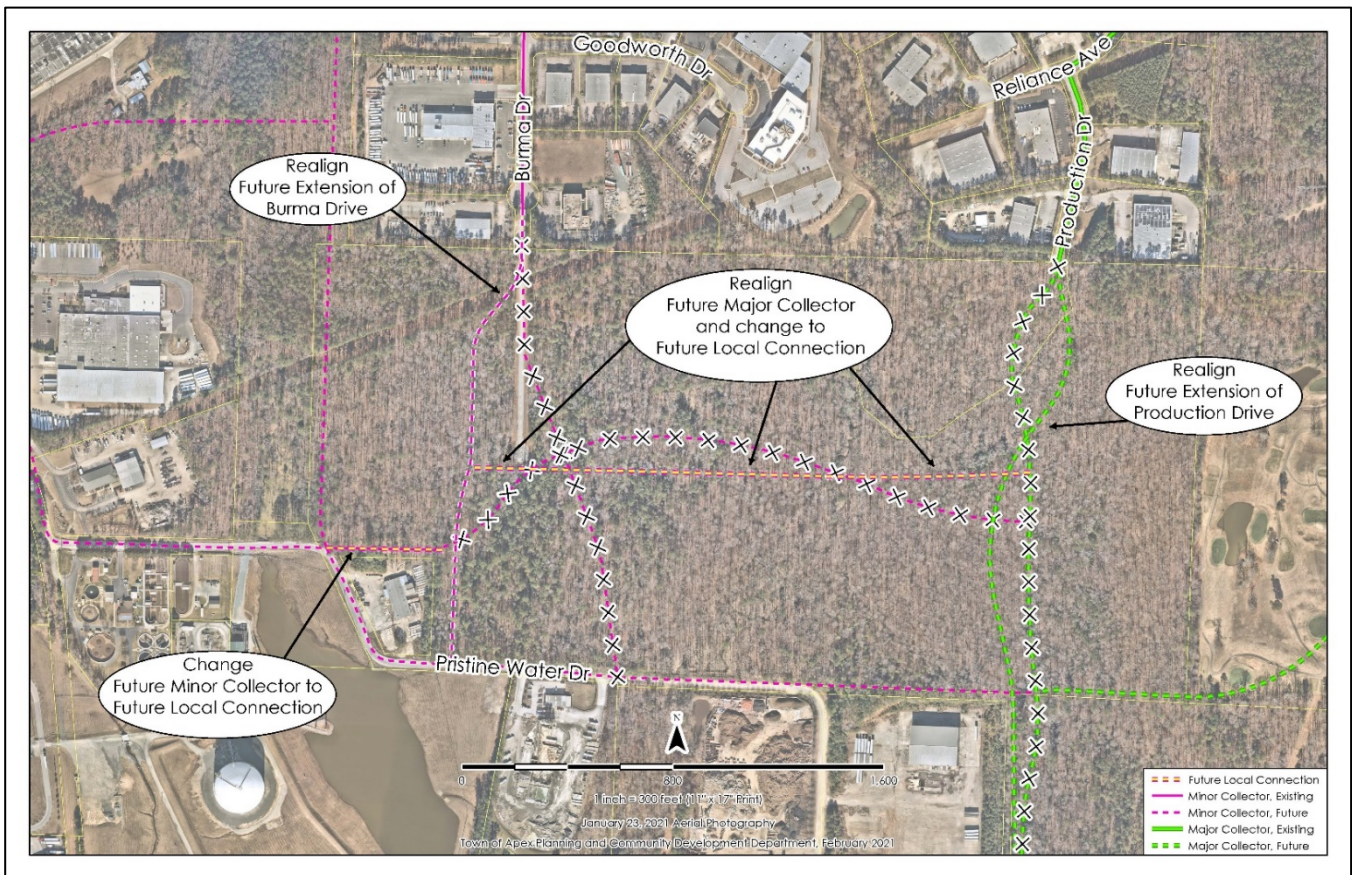


Figure 1. Proposed amendments to the Thoroughfare and Collector Street Plan map

The purpose of these amendments is to adjust the planned roadway network based on the anticipated pattern of development of the Cash Corporate Center site as well as to reflect additional design work completed for both the Burma Drive extension and Production Drive extension.

Short sections of both Burma Drive and Production Drive are anticipated to be constructed to the extent they are needed for access to proposed developments within the Cash Corporate Center site. There are no funded projects to complete construction of the roadway network within the Cash Corporate Center site at this time.

Several requests for capital improvement program projects for the Cash Corporate Center site have been submitted and are under consideration as part of the Town's budget development process.

Staff Recommendation:

Planning staff recommend supporting the proposed amendments to the Thoroughfare and Collector Street Plan map. The proposed amendments were reviewed with staff from Public Works and Transportation, Economic Development, Administration, Fire, and Police. Representative staff indicated support for the proposed amendments.

Planning Board Recommendation:

The Planning Board will consider the proposed amendments during a public hearing on March 8, 2021. Their recommendation will be presented during the Town Council meeting.

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: PUBLIC HEARING

Meeting Date: March 9, 2021

Item Details

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

Department(s): Planning and Community Development

Requested Motion

Public hearing and possible motion regarding proposed amendments to the Thoroughfare and Collector Street Plan map along and in the vicinity of New Hill Olive Chapel Road near Old US 1 Highway.

Approval Recommended?

Planning staff will present two alternative amendments to the Thoroughfare and Collector Street Plan map. Planning staff recommends adoption of Alternative 1, removal of the future grade-separation of New Hill Olive Chapel Road and the railroad tracks and removal of the future local connection between New Hill Olive Chapel Road and Old US 1 Highway.

The Planning Board will hold a public hearing on March 8, 2021. The Planning Board's recommendation will be presented during the Town Council public hearing.

Item Details

The purpose of these amendments is to consider recommendations from the regional Southwest Area Study for New Hill Olive Chapel Road and New Hill Holleman Road in the vicinity of Old US 1 Highway and the parallel railroad tracks.

Attachments

- Staff report





The Thoroughfare and Collector Street Plan map (last amended November 17, 2020) represents a network of current and future facilities that provide guidance on what is likely to be suitable for long term growth and connectivity. The plan does not require a schedule for implementation nor does it set aside funding for improvements. The purpose of the public hearing is to consider proposed amendments to the network of planned thoroughfare and collector streets in order to formulate a decision.

The proposed amendments are along and adjacent to New Hill Olive Chapel Road and New Hill Holleman Road near Old US 1 Highway and the parallel railroad tracks. There are two alternatives proposed for these amendments, as shown in Figure 1 and Figure 2.

Explanation of Alternatives:

The adopted Thoroughfare and Collector Street Plan map shows a future grade separation of New Hill Olive Chapel Road over (or under) the railroad tracks south of and paralleling Old US 1 Highway. The adopted plan also shows a future local connection between New Hill Olive Chapel Road and Old US 1 Highway to accommodate movements between these roadways if a grade-separated crossing is constructed.

Alternative 1 removes both the future grade-separated crossing along New Hill Olive Chapel Road and the future local connection between New Hill Olive Chapel Road and Old US 1 Highway. Essentially, an at-grade intersection of both Old US 1 Highway and the railroad would remain, with plans for future widening of New Hill Holleman Road south of Old US 1 Highway, and widening Old US 1 Highway east of New Hill Olive Chapel Road.

In 2019, as part of the regional Southwest Area Study (SWAS), a future grade-separated crossing was further studied and additional recommendations were made. The SWAS recommended: (1) upgrading the Town's plan for New Hill Olive Chapel Road between Olive Chapel Road and Old US 1 Highway from a Two-lane Thoroughfare to a Four-lane, Median-divided Thoroughfare, and (2) relocating the planned grade separation of the New Hill Olive Chapel Road/Old US 1 Highway further east, along a proposed bypass of the New Hill Historic District. The recommendations from the SWAS are depicted in Figure 2 (Alternative 2) with explanatory text. Since Town Council previously voted against showing New Hill Olive Chapel Road as a Four-lane, Median-divided Thoroughfare, this alternative has been modified to terminate the proposed four-lane section at Humie Olive Road. North of Humie Olive Road, New Hill Olive Chapel Road would continue as a Two-lane Thoroughfare. A second image of the SWAS recommendation is shown in Figure 3, along with the boundary of the New Hill Historic District.

The SWAS recommendation is based on the need for increased capacity on this regional corridor and commuter route. The traffic model runs project 15,000 – 17,700 vehicles per day along New Hill Olive Chapel Road by 2045. The North Carolina Department of Transportation measured 6,900 vehicles per day along this corridor in 2019. The SWAS recommendations for New Hill Olive Chapel Road are consistent with recommendations to upgrade the corridor to highway standards and designate it as NC 751. The extended corridor for future NC 751 would stretch 20 miles, from where it currently terminates north of US 64 to US 401 in Lillington.

The SWAS planning effort involved opportunities for public comment. Several comments were received regarding concerns about the proposed bypass of the New Hill Historic District. In particular, it was suggested that many of the historic structures within the district have been removed or destroyed. Avoiding impacts to the historic district with a bypass, meanwhile, would have substantial impacts on other property.

To better consider these comments, Planning staff requested that Wake County inventory which historic structures surrounding the intersection remain standing. Capital Area Preservation completed a site visit and documented the status (existing or removed) of the historic structures in the vicinity of the intersection. That status is show in Figure 4. Figure 4 also shows the potential right-of-way that would be required along New Hill Holleman Road and Old US 1 Highway for a Future Four-Lane Thoroughfare with Median. This right-of-way is based on a planning-level estimate of symmetrical widening of 55' on either side of the existing centerline and does not account for field survey and engineering and design.

The proposed bypass, widening New Hill Olive Chapel Road, widening New Hill Holleman Road, nor widening Old US 1 Highway are programmed in the Town's 5-year Capital Improvement Program, nor the State's 10-year Transportation Improvement Program.

Staff Recommendation:

Planning staff recommend supporting the proposed amendments to the Thoroughfare and Collector Street Plan map shown in Figure 1 and described as Alternative 1. The proposed amendments were reviewed with staff from Public Works and Transportation, Fire, and Police. Representative staff indicated support for the proposed amendments in comparison to Alternative 2. Staff considered the following as part of forming this recommendation:

- **Concerns about Alternative 1**

While Alternative 1 is recommended by Planning staff, there are some concerns that should be considered:

- In the future, widening New Hill Holleman Road may be needed to address anticipated traffic volumes. There are historic structures adjacent to the roadway. If a design is unable to avoid these structures, they may need to be moved.
- NCDOT and CSX approval for widening New Hill Holleman Road across the railroad tracks may be challenging.
- This alternative does not separate vehicular and railroad traffic.
- This alternative is inconsistent with regional recommendations for the corridor.

- **Concerns about Alternative 2**

- Property impacts for a bypass alternative will be substantial.
- Once a grade-separated bypass is constructed, the existing at-grade intersection of New Hill Holleman Road and the railroad may be required to be closed. This concern was validated by NCDOT Rail Division staff.
 - Removal of the at-grade intersection is unacceptable to the Fire Department as Fire Station #2 is located between Old US 1 Highway and the railroad tracks and it is anticipated the bypass route would increase response times.
 - Planning staff are concerned about the impact to the crossroads area of Old US 1 Highway and New Hill Olive Chapel Road if the at-grade intersection is severed to the south.
- Town Council already voted against the SWAS recommendation to plan on a Future Four-Lane, Median-Divided Thoroughfare for New Hill Olive Chapel between Olive Chapel Road and Old US 1 Highway. Removal of this portion of the SWAS recommendations will make the bypass less effective overall.

Planning Board Recommendation:

The Planning Board will consider the proposed amendments during a public hearing on March 8, 2021. Their recommendation will be presented during the Town Council meeting.

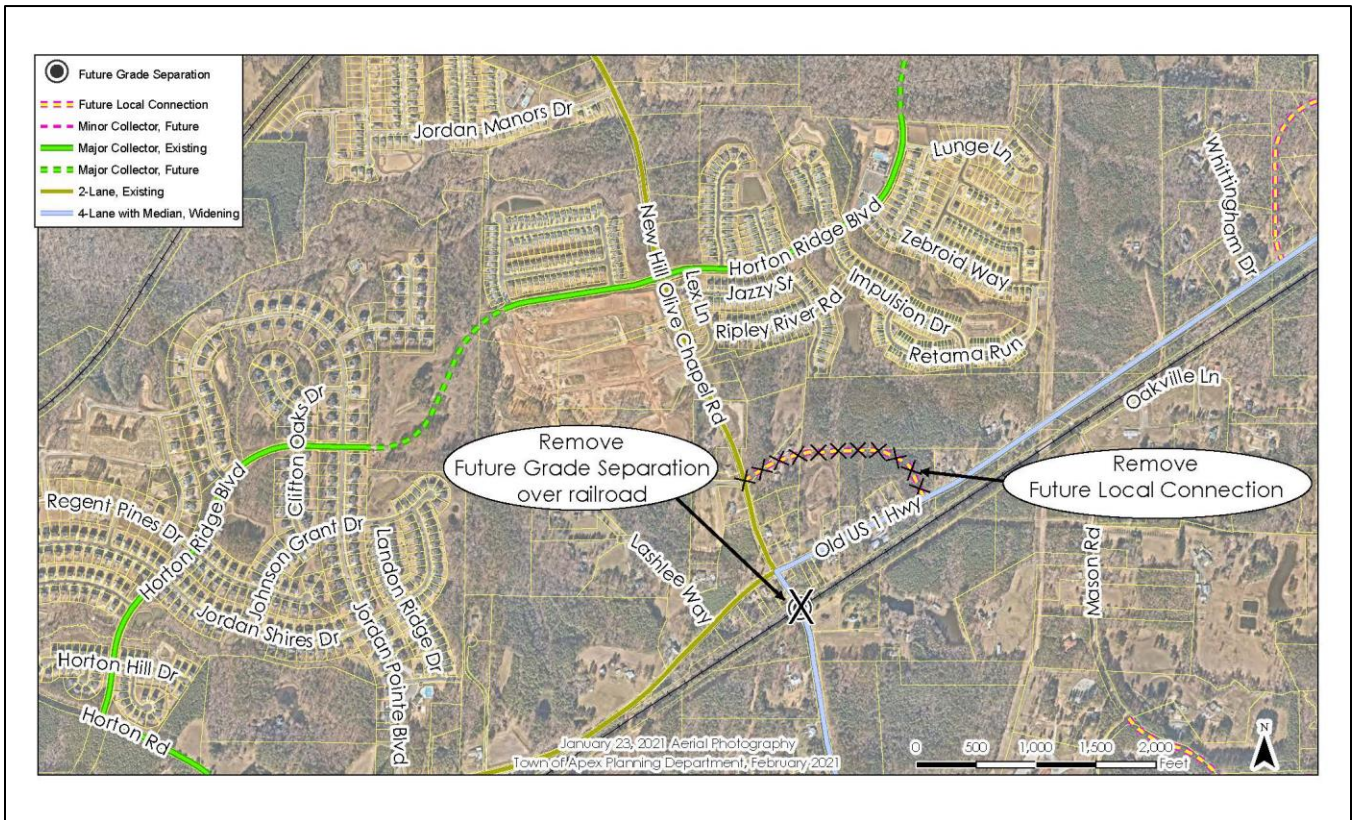


Figure 1. Proposed amendments to the Thoroughfare and Collector Street Plan map – Alternative 1

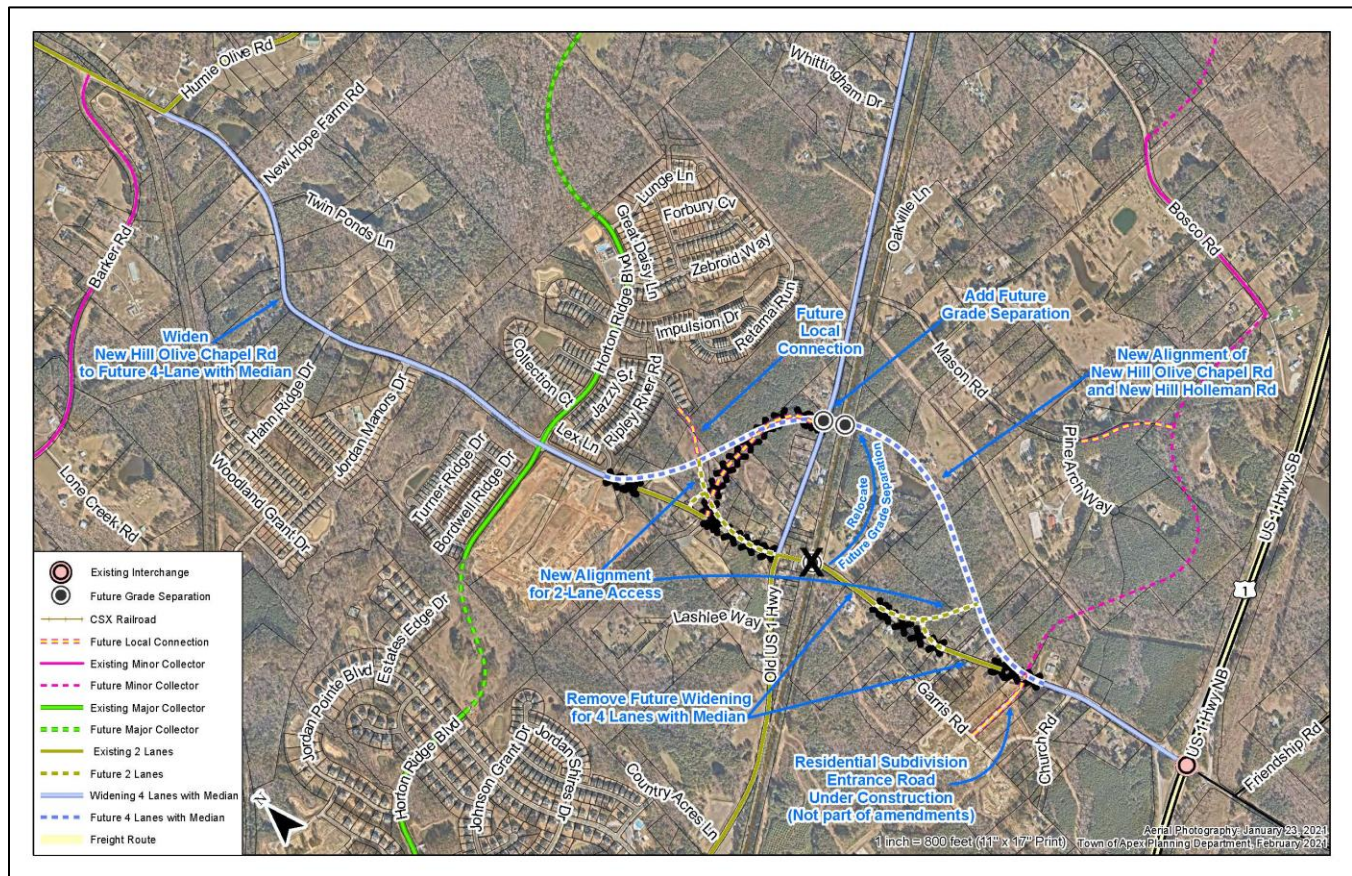


Figure 2. Proposed amendments to the Thoroughfare and Collector Street Plan map – Alternative 2

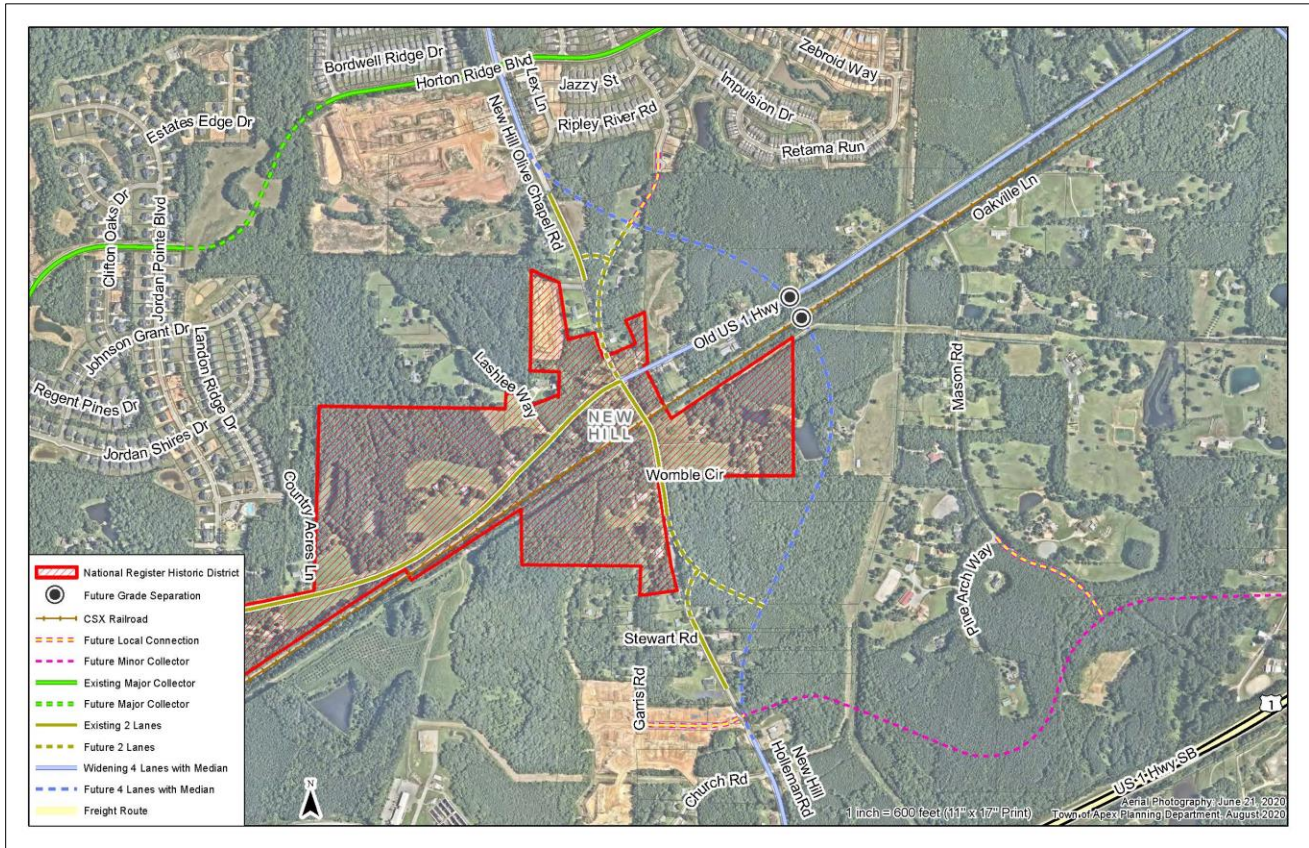


Figure 3. New Hill Bypass Alternative (Alternative 2) showing the New Hill Historic District

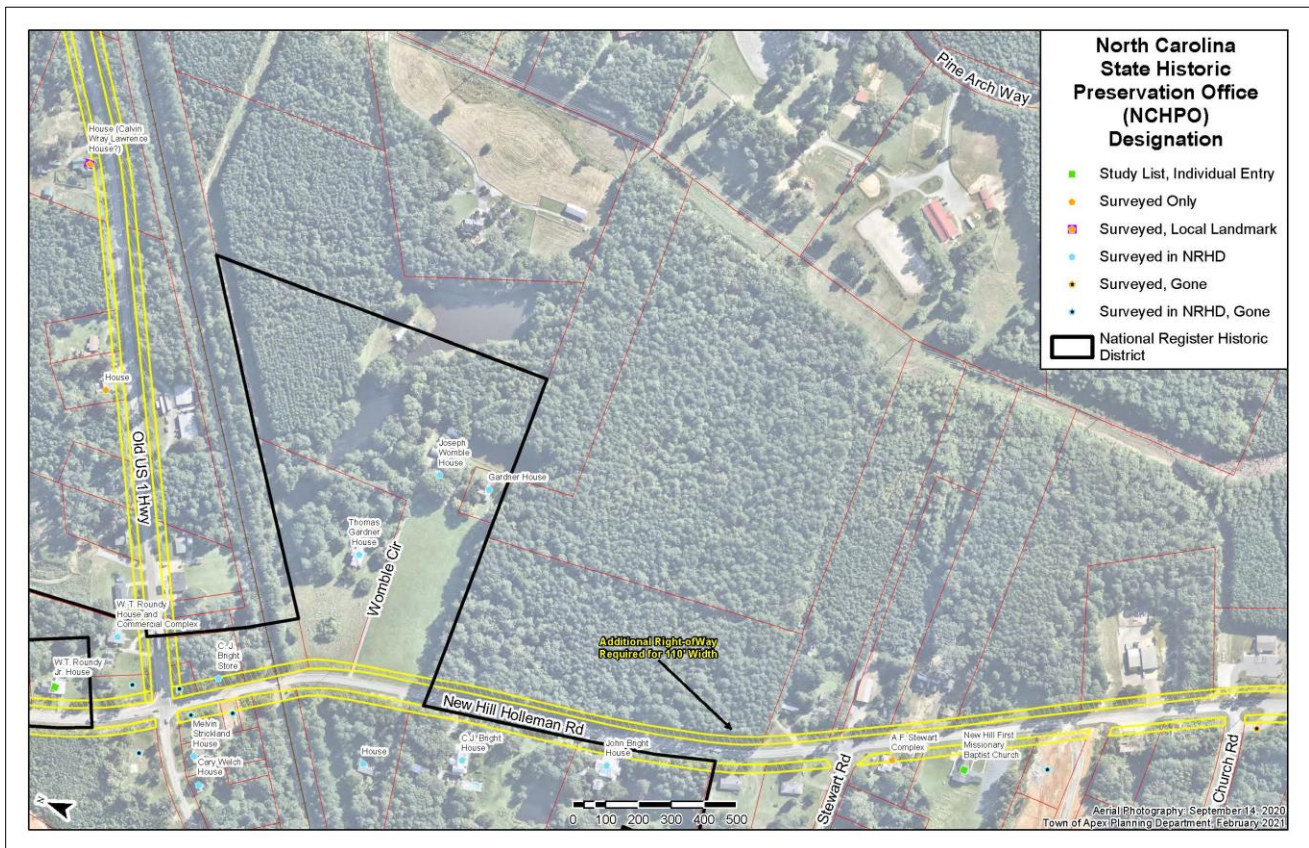


Figure 4. Status of historic structures with overlay of potential future right-of-way along New Hill Holleman Road and Old US 1 Highway

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: UNFINISHED BUSINESS

Meeting Date: March 09, 2021

Item Details

Presenter(s): Jenna Shouse, Long Range Planner II & John Bosio, MERJE

Department(s): Planning and Community Development

Requested Motion

Staff will present updates on the Town of Apex Wayfinding Signage Program, including public input received on the gateway design options and updates made to the sign designs; and request any input from Town Council in order to finalize the Wayfinding sign design package.

Approval Recommended?

Not Applicable

Item Details

Not Applicable

Attachments

- Staff Report
- Wayfinding Sign Design Package
- Gateway Options for Public Review





The purpose of the Town of Apex Wayfinding Signage Program is to provide consistent and attractive information to enhance the pedestrian, cyclist, transit rider, and driver experience as they discover and navigate to key destinations in Town. The purpose of this Unfinished Business item is to provide a final update on the Wayfinding Signage Program and to request Town Council review of the updated Wayfinding sign design package.

At the December 1, 2020 Town Council meeting, Town Council provided guidance to use the scallop sign design for low-speed vehicular directional signs in downtown and to start with all static (i.e., no digital) kiosks. Town Council also indicated a preference for Gateway Option 1. Staff shared that an opportunity to provide public input on the gateway designs would begin soon.

This staff report includes a summary of public input received on gateway design options, the recommended gateway design, and a recommended Wayfinding sign design package. Staff will present these materials and request any input from the Town Council in order to finalize the Wayfinding sign design package.

Gateway Updates

Three gateway design options were released for public input from December 8, 2020 through January 8, 2021. The timeline for public input was consistent with the approach used to gather input on the Wayfinding sign designs. An exhibit of the three gateway options presented to the public is attached. Public input was collected through an online survey and an opportunity for written comments was made available at a kiosk outside of Town Hall. Information about the public input survey was made available on the Town website and Facebook. An email advertising the opportunity for public input was sent to those on the email distribution list for Long Range Planning efforts.

Members of the community were asked to prioritize the gateway options according to how well they represent the Town of Apex and provide written comments on each gateway option. 409 individuals participated in the online survey. 327 comments were submitted through the online survey.

Online survey gateway preference results:

1. Option 1 (Average rank 1.33)
2. Option 3 (Average rank 1.94)
3. Option 2 (Average rank 2.35)

Many of the comments on Option 1 noted that the design was simple, legible, neat, clean, classic, traditional, or cohesive. Survey respondents also noted that they like the use of brick or the brick columns and like the overall design and materials. Some survey respondents like how 'Apex' stands out clearly while others noted that the 'A' or 'Apex' is too big or that having the 'A' directly beside / aligned with 'Apex' may be read as 'A-Apex'. Some survey respondents noted that they do not like the new logo or that the logo should be downplayed.

In response to the public input received, staff recommend moving forward with Gateway Option 1. The Circle 'A' symbol has been shifted down on the brick column for consistency with the new logo standard and in response to the comments submitted.



Additional Design Updates

An updated Wayfinding sign design package is attached as an exhibit. This package includes a design for each of the sign types in the proposed Wayfinding Signage Program. This package was shared with the Wayfinding Staff Advisory Committee and Stakeholder Groups for comments. The attached package reflects final comments received from these groups as well as public input on the gateways. Updates since the last sign design update to Town Council are listed below.

- The scallop design has been incorporated into the Downtown Low Speed Vehicular Directional signs (page 3).
- A historic district marker has been added to Downtown Gateways (page 1).
- The Bike sign designs have been refined to include the new Town logo with the Bike Apex logo gears (page 3).
- The option to incorporate digital parking occupancy has been added to the Parking signs (page 4).
- A design for a potential gateway feature on the Creekside Landing Drive Bridge over US 64 has been developed (page 2).

Next Steps

- Finalize the Wayfinding sign design package based on Town Council feedback.
- Update sign location plan based on field review.
- Submit sign location and design package to NCDOT for review.
Develop Design Intent Drawings and Technical Specifications.
Develop final cost estimates and phasing plan.
- Complete the Wayfinding Signage Program by the end of the fiscal year.

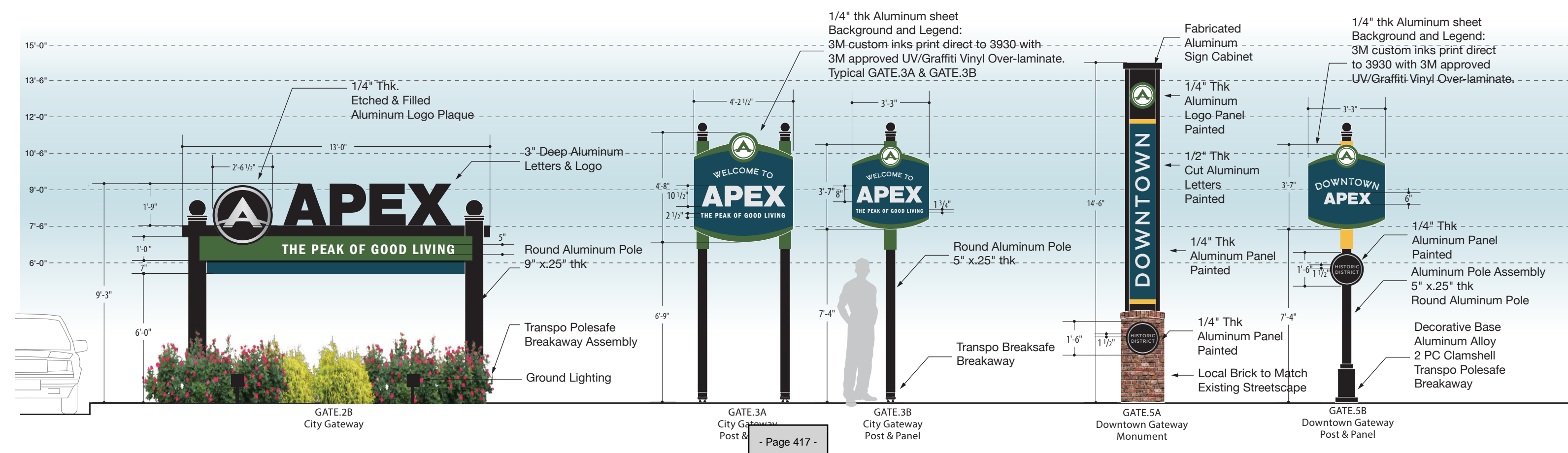
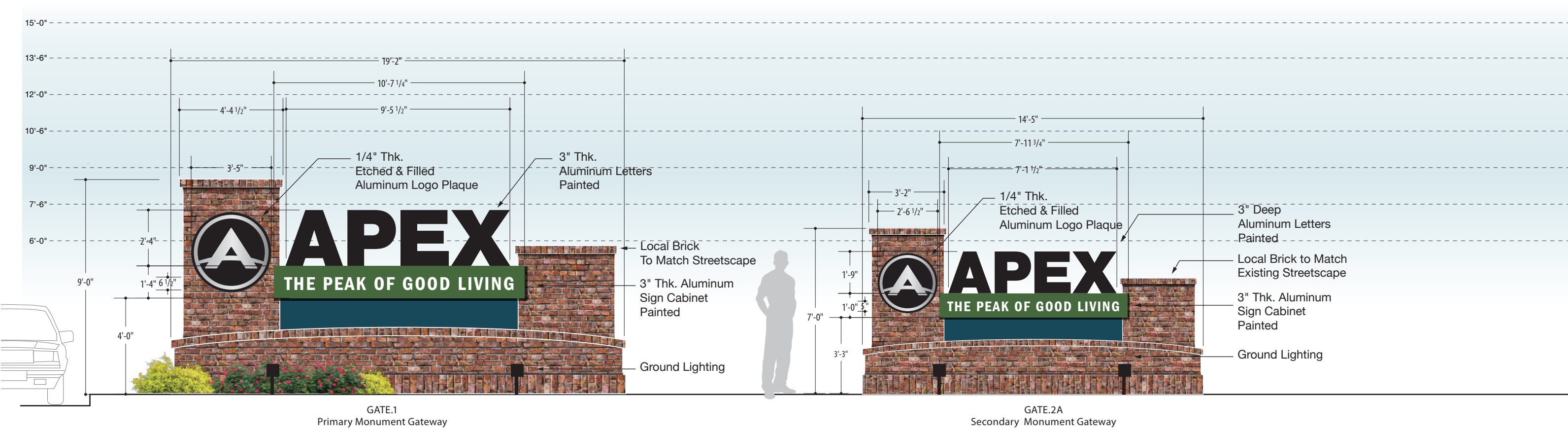
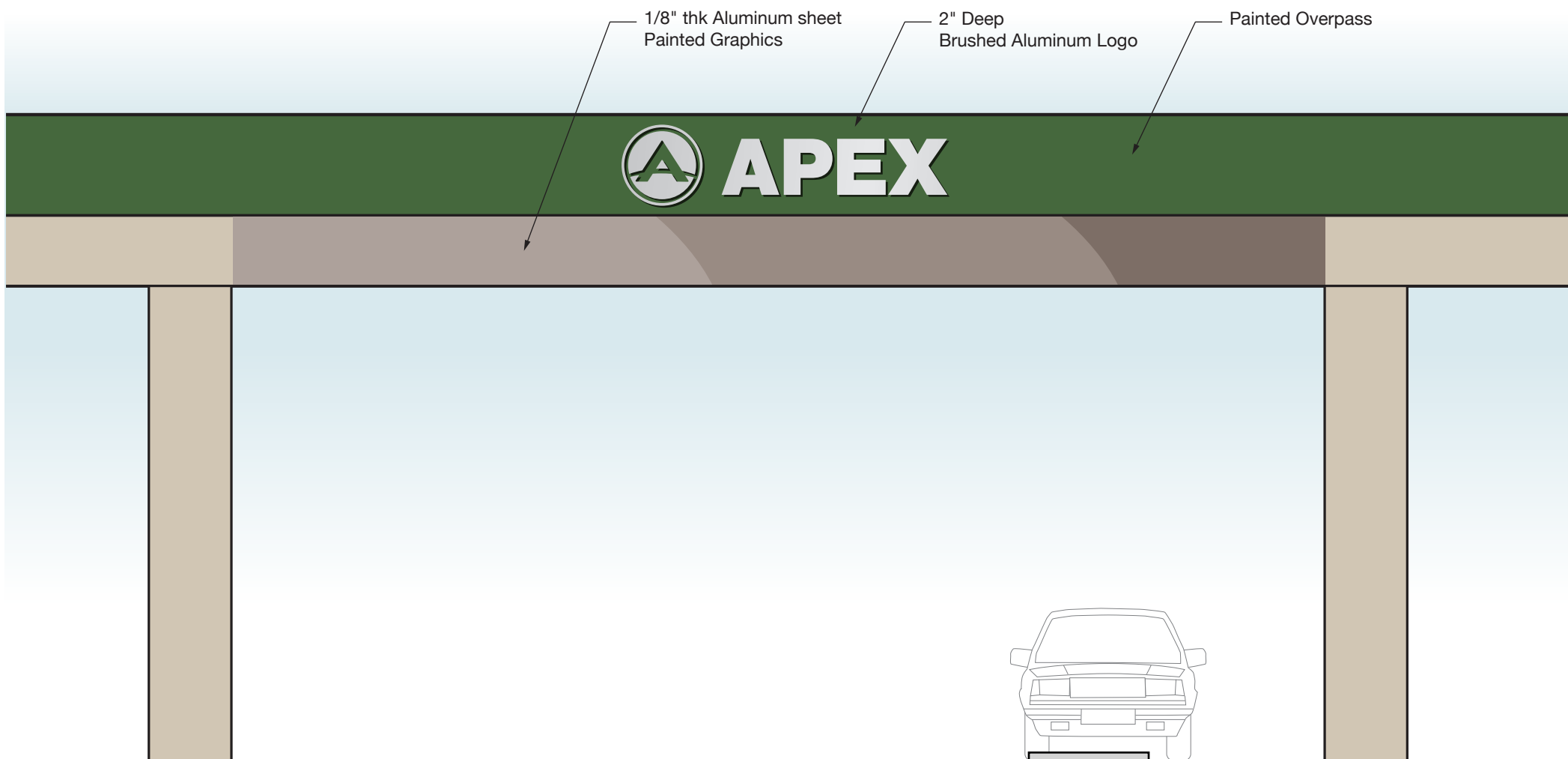
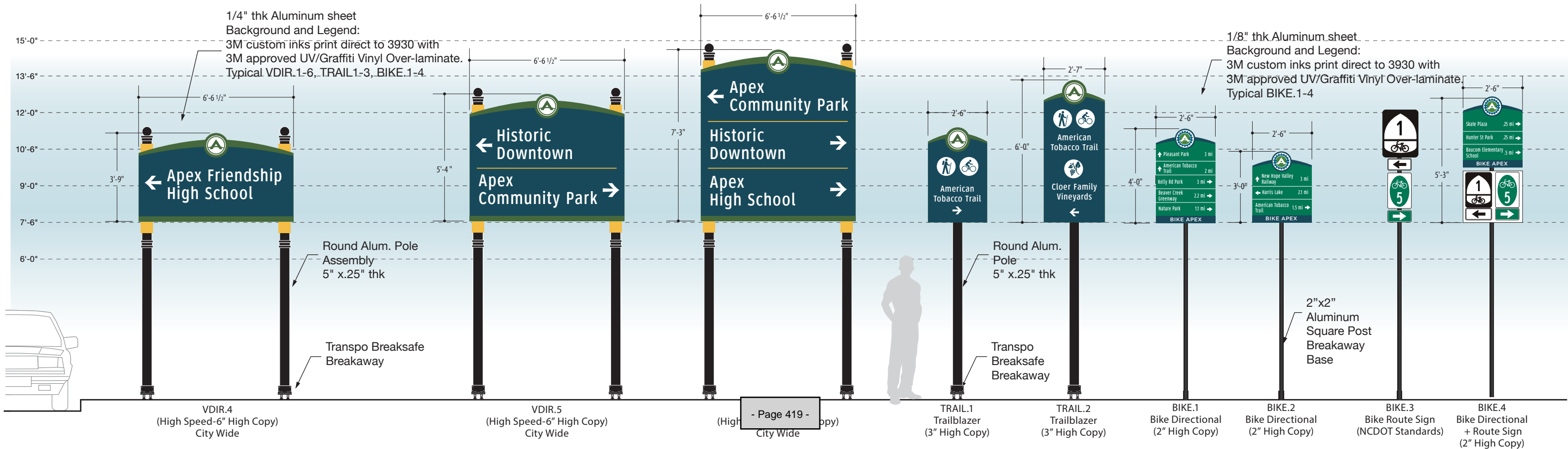
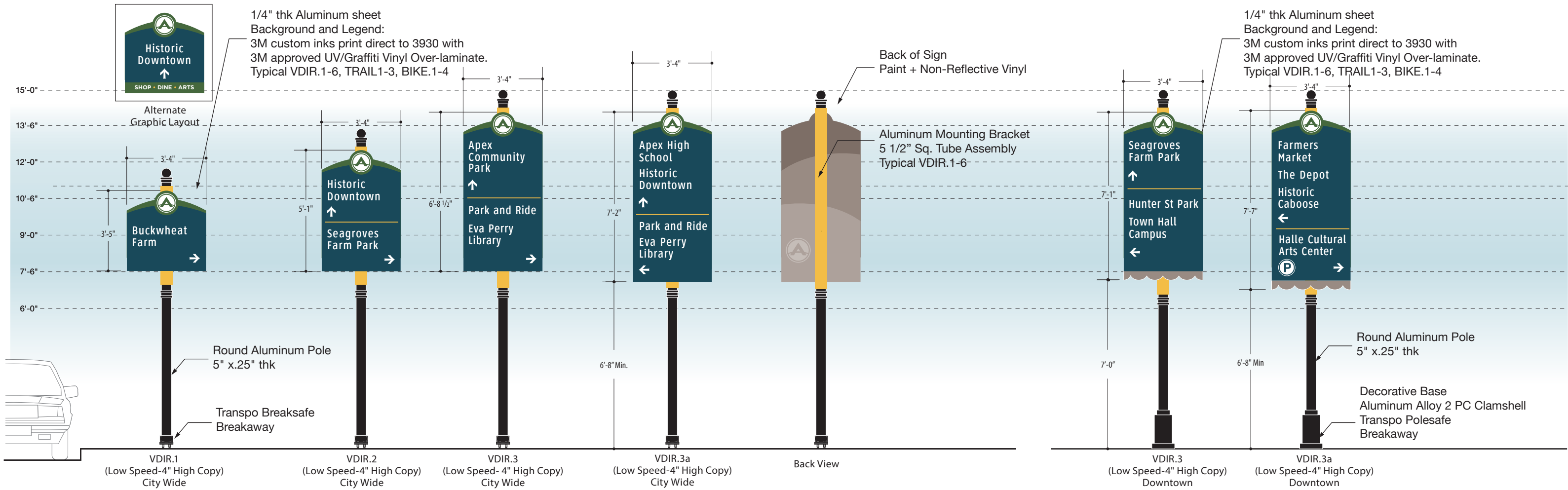
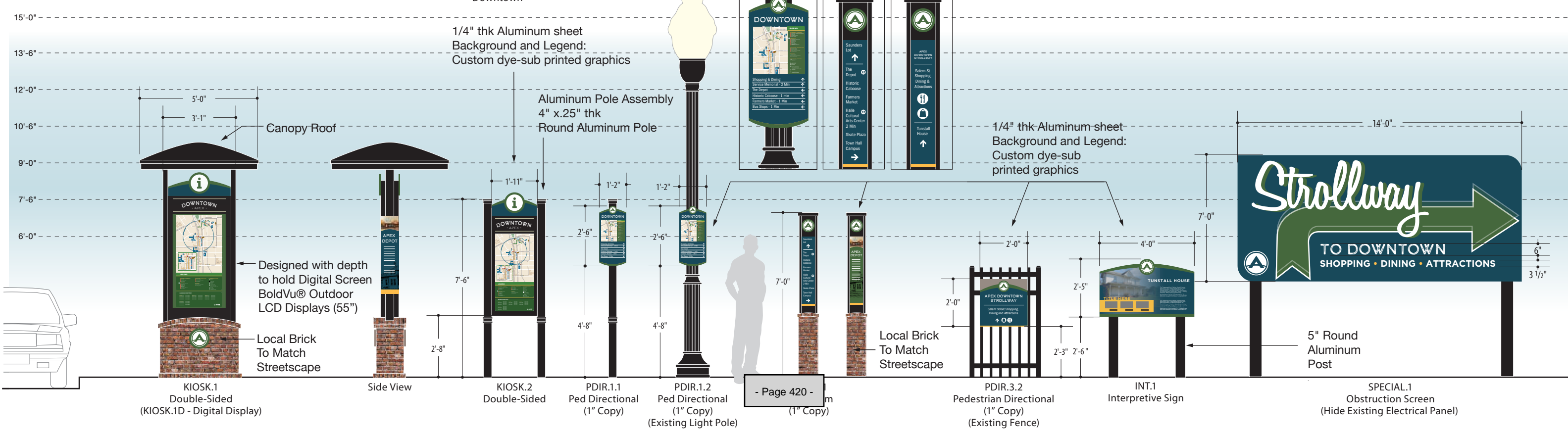
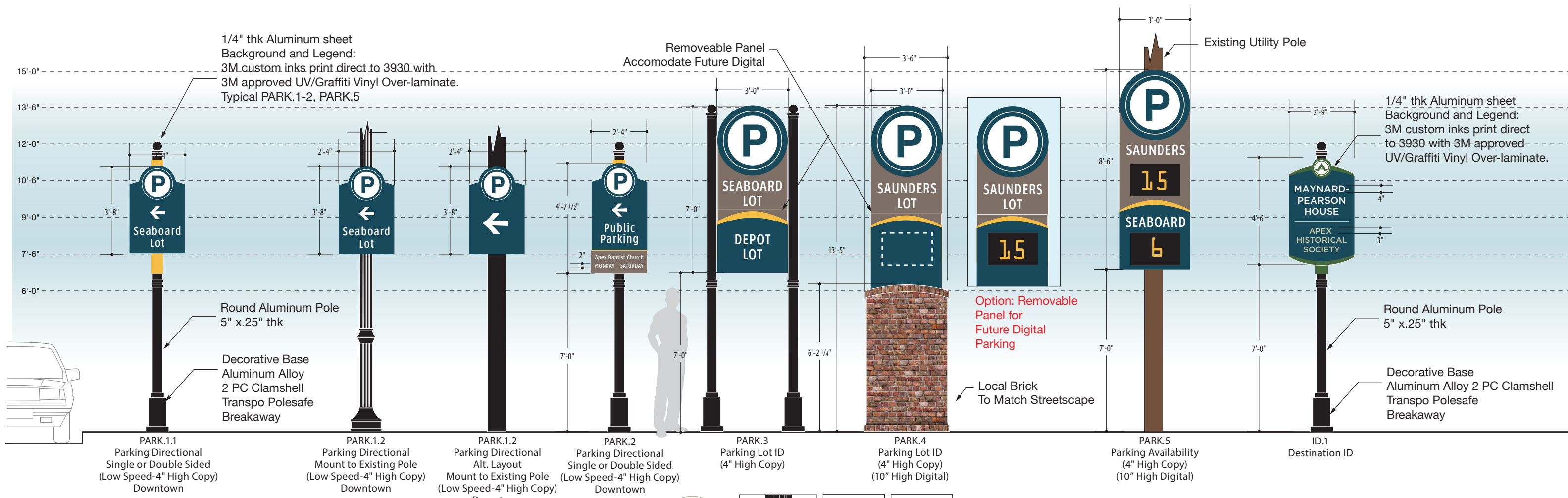


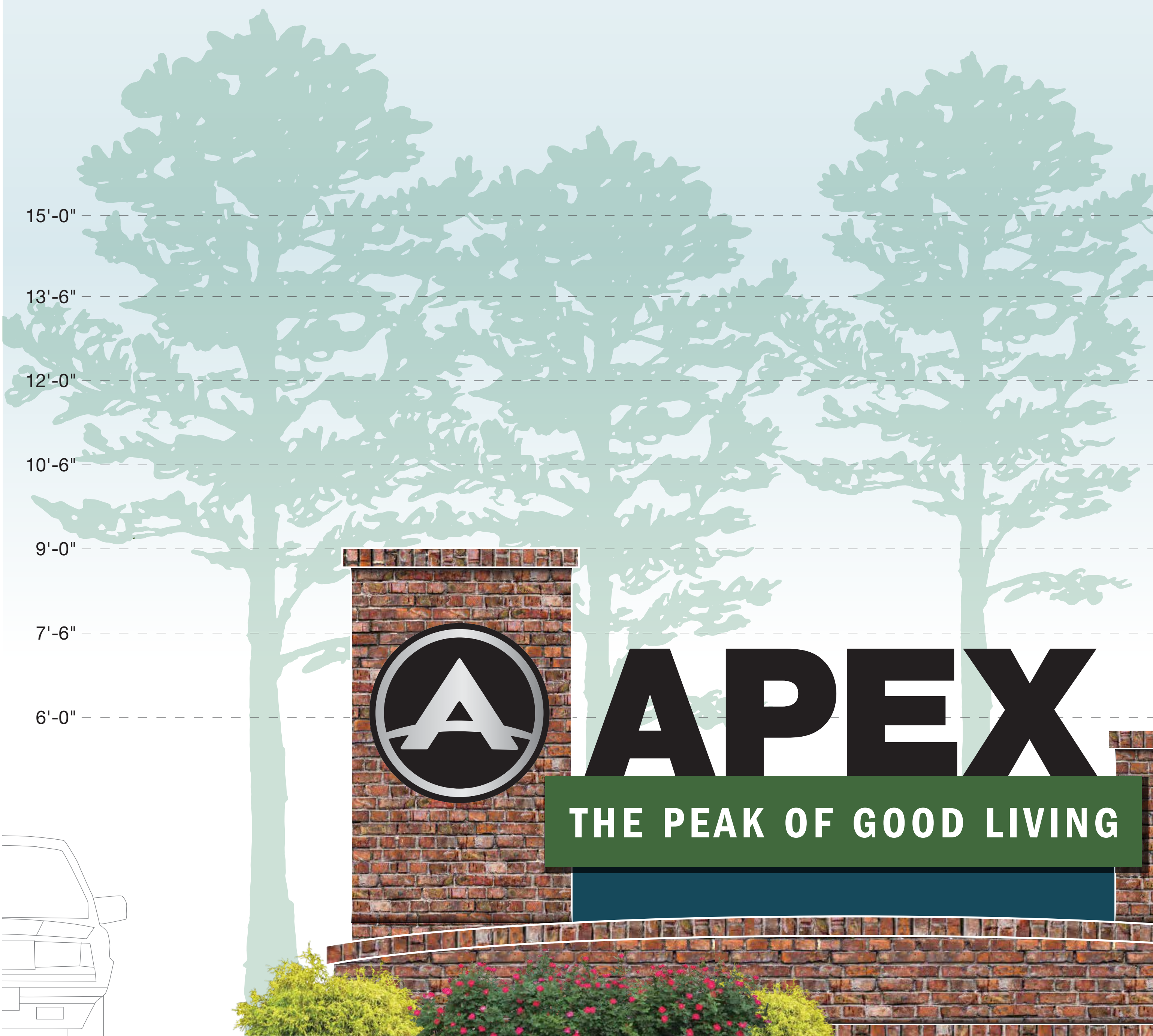


Photo Rendering

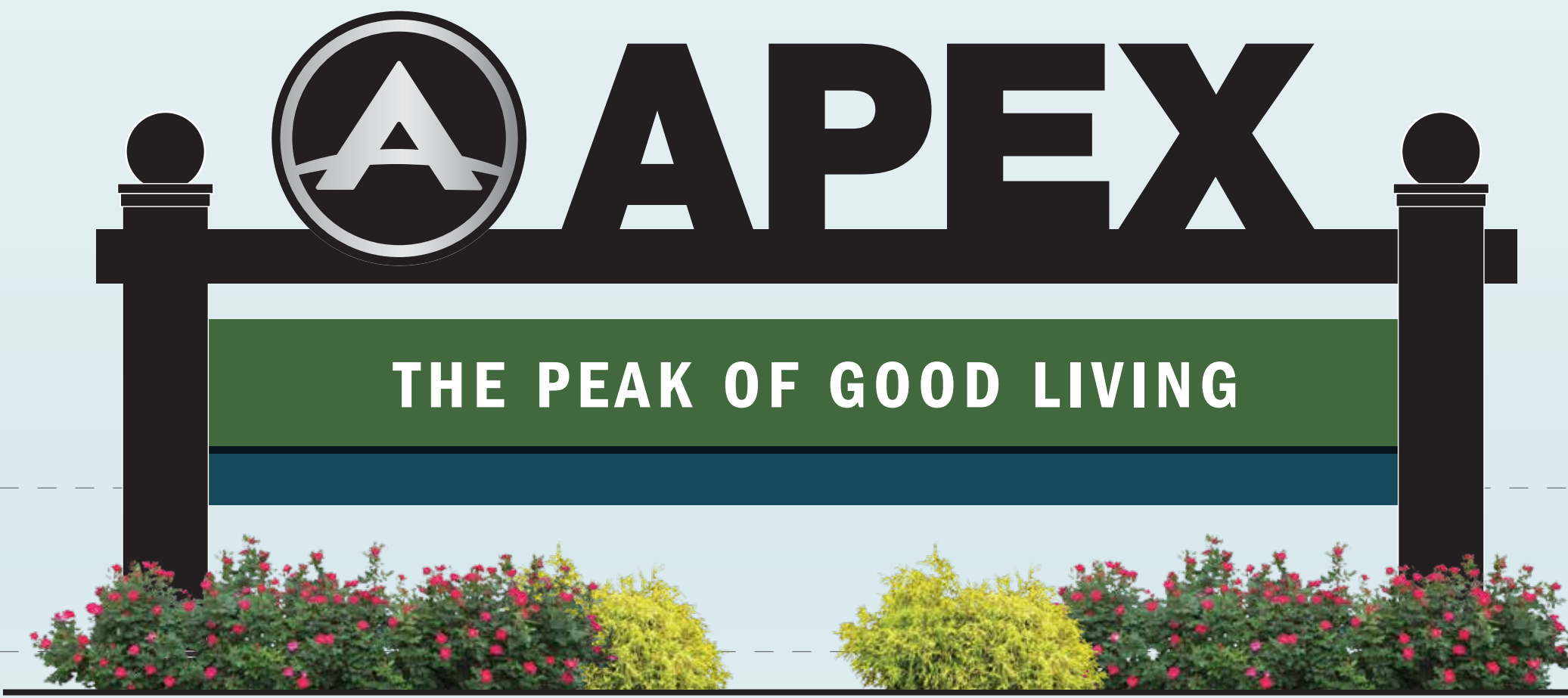








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12'-0"
10'-6"
9'-0"
7'-6"
6'-0"

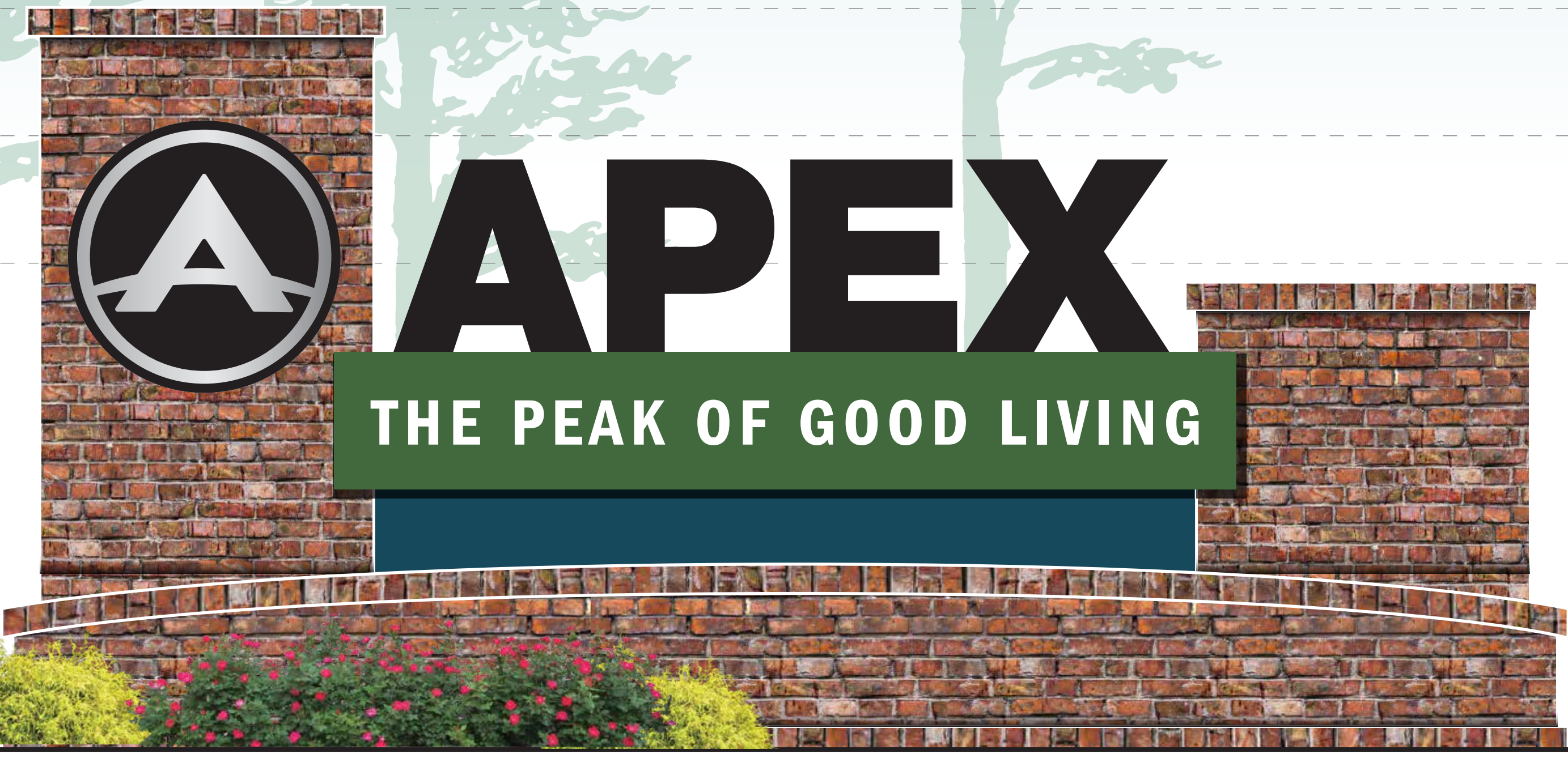


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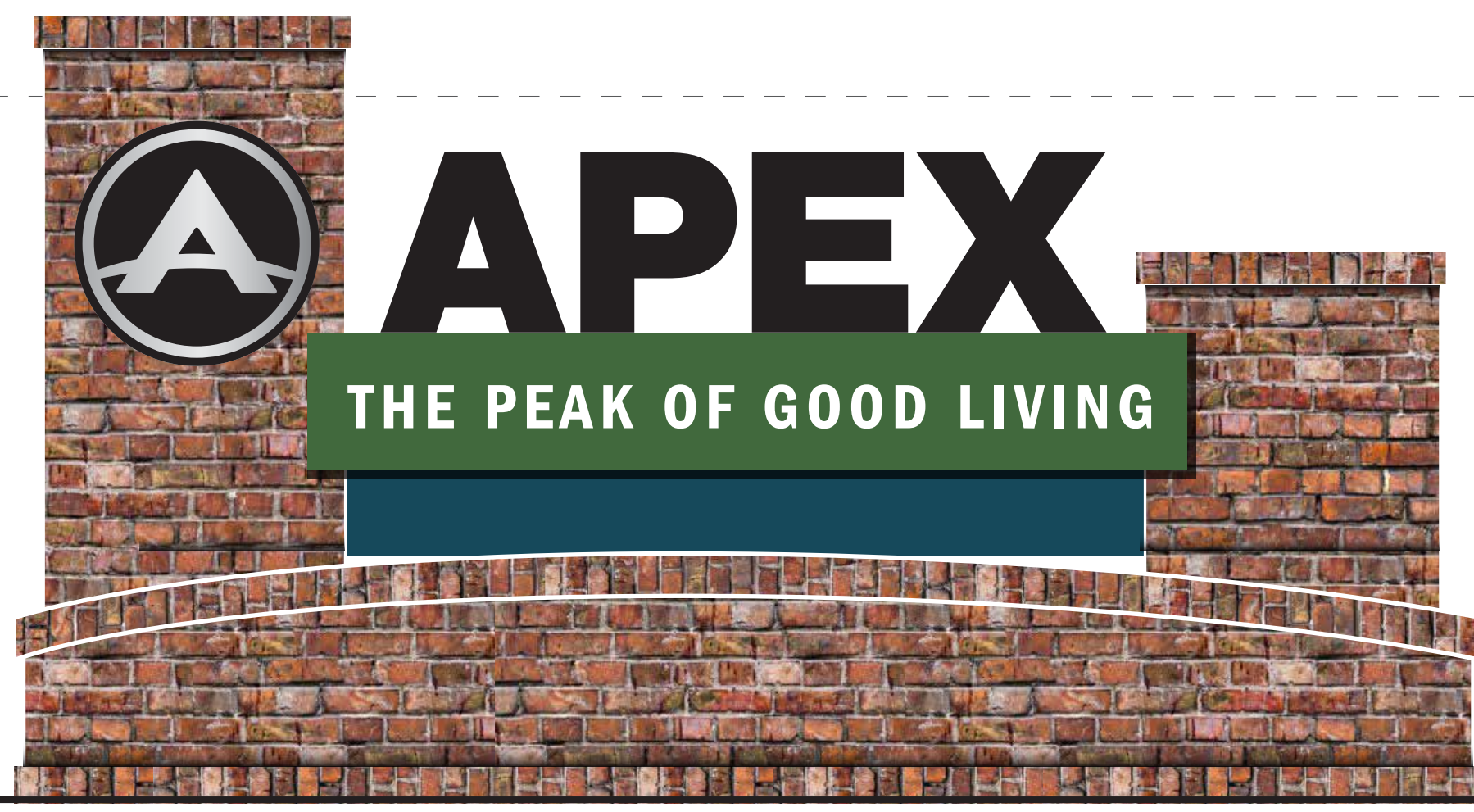


GATE.2c

GATE.3



GATE.1

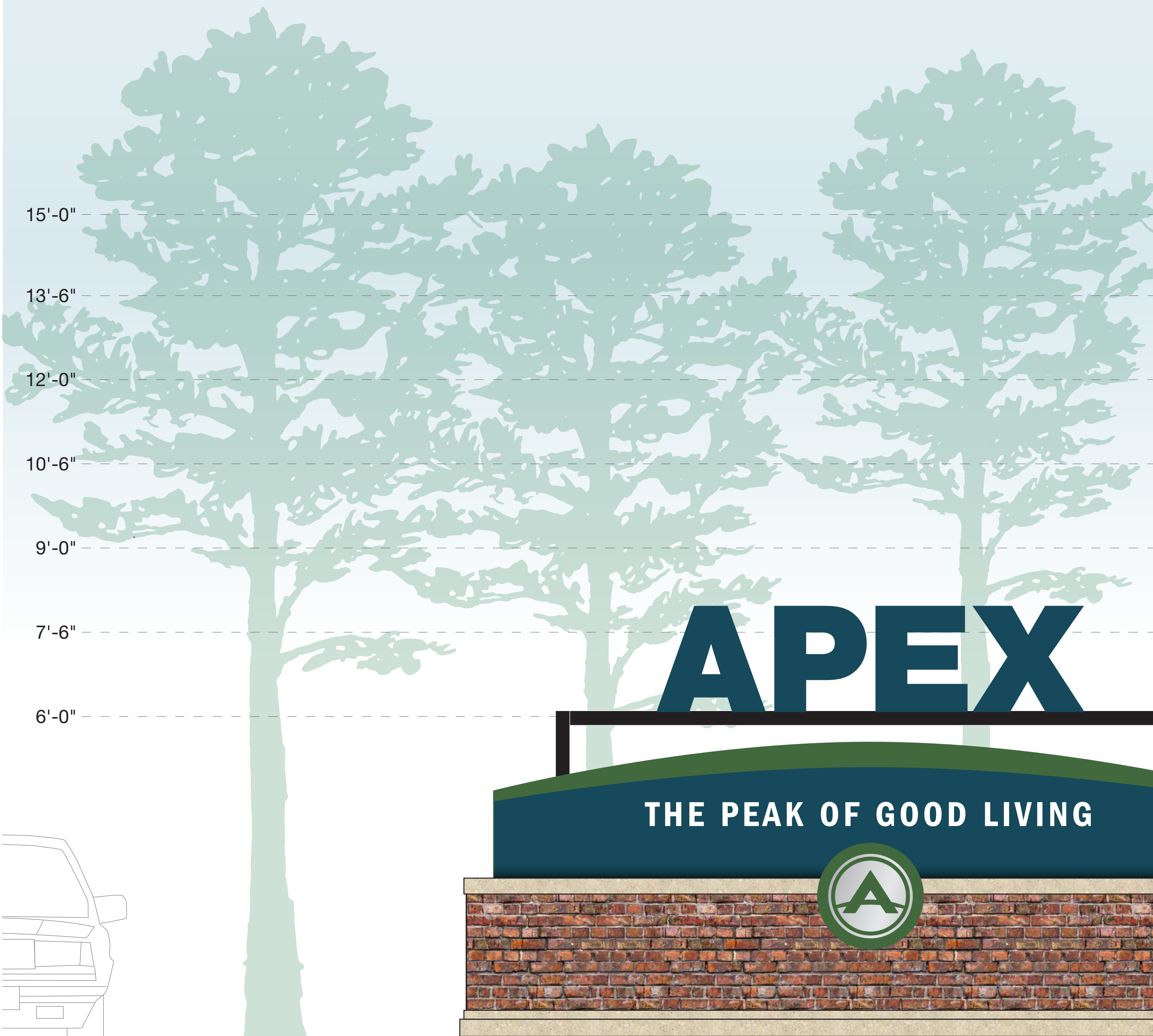


GATE.2a

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SCALE: 3/4" = 1'-0"



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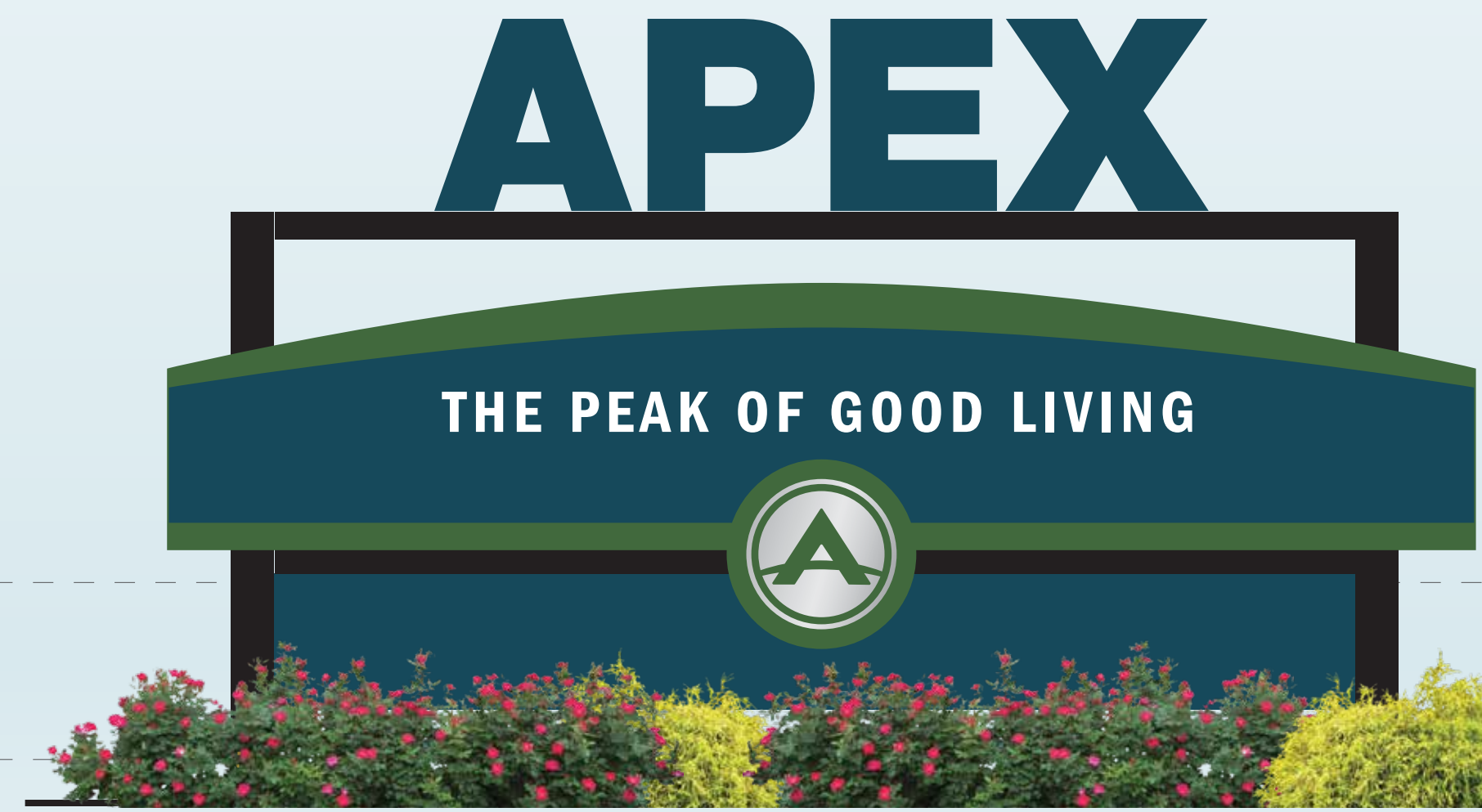
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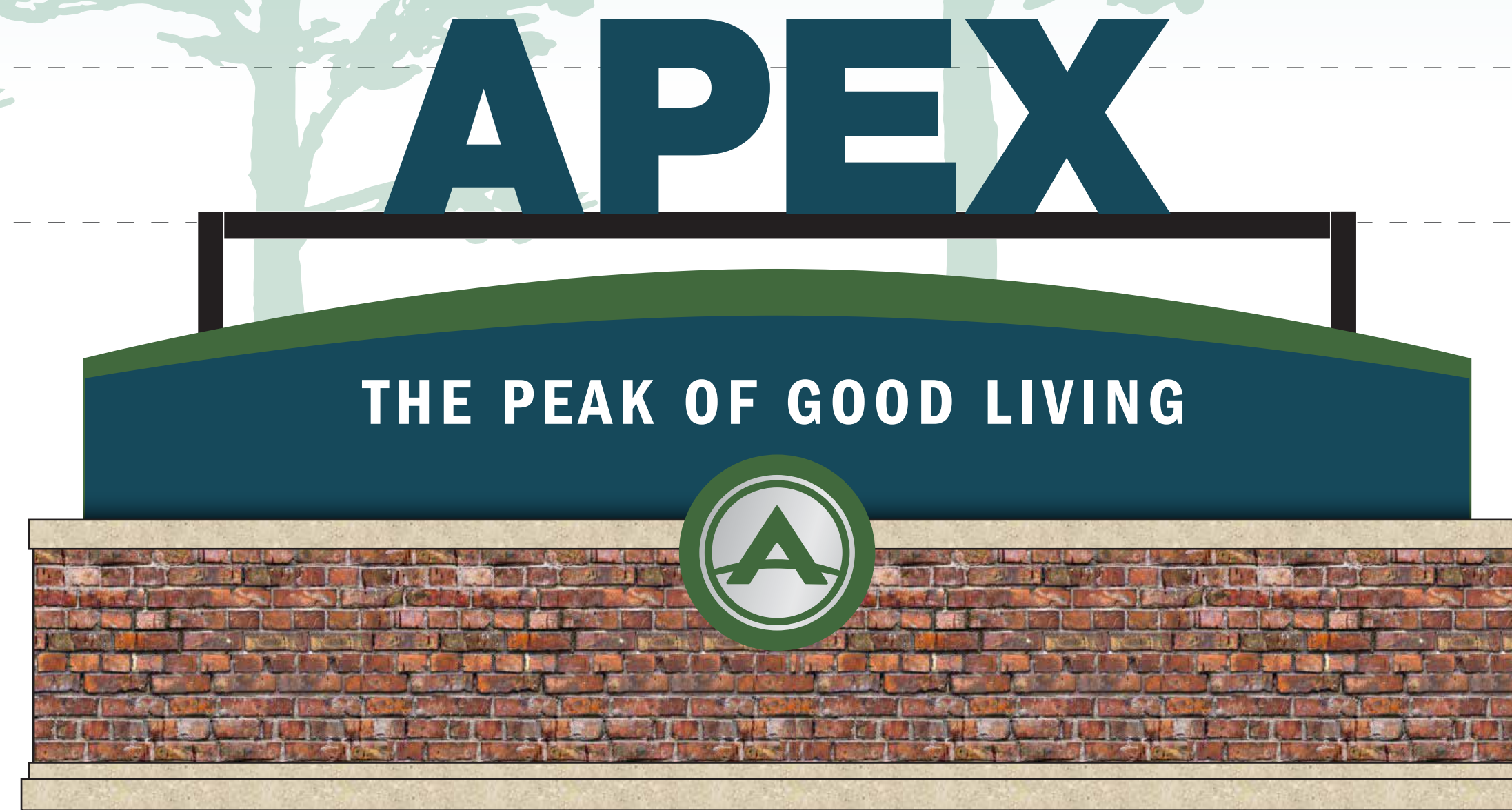


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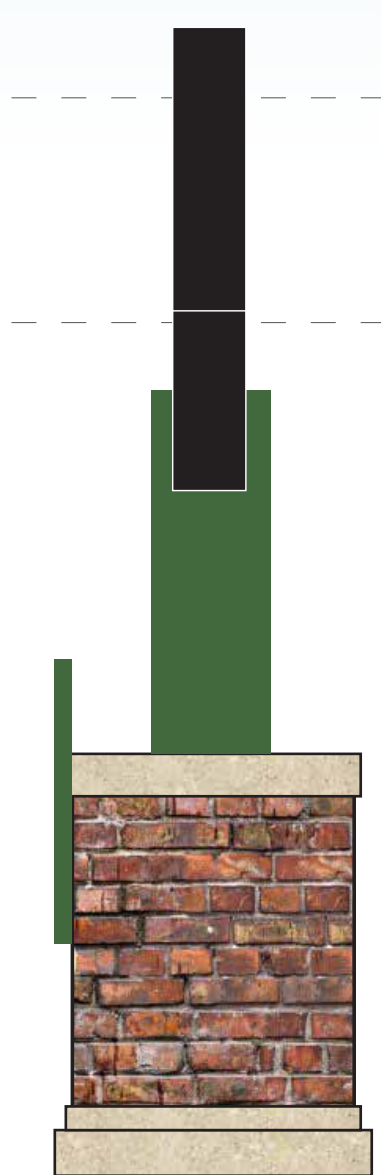


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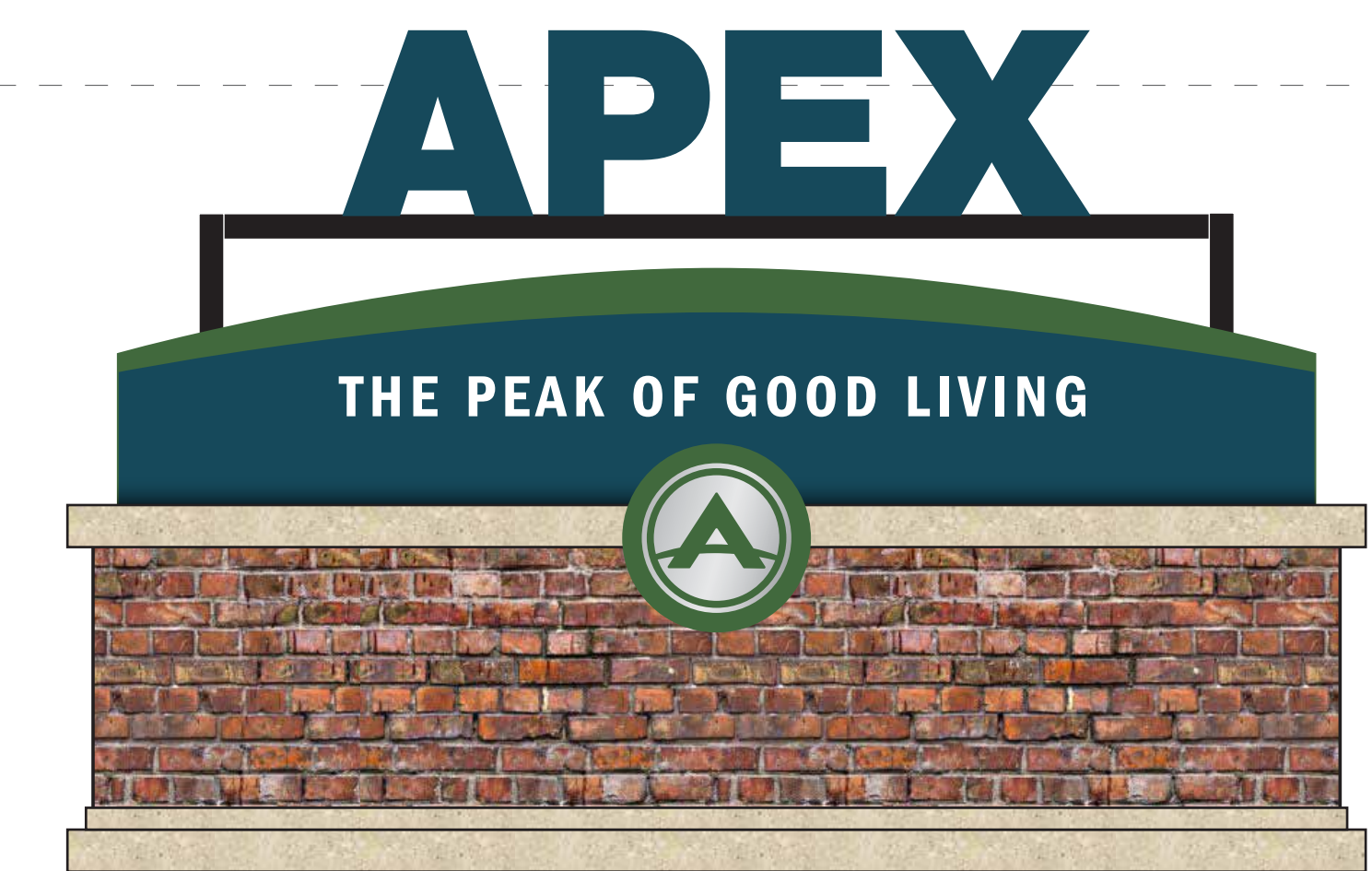
GATE.3



GATE.1



Side View



GATE.2a

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| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: NEW BUSINESS

Meeting Date: March 9, 2021

Item Details

Presenter(s): Shelly Mayo, Planner II

Department(s): Planning and Community Development

Requested Motion

Possible motion to approve revisions to the Design and Development Manual Native and Adaptive Plant List.

Approval Recommended?

The Planning and Community Development Department recommends approval.

The Planning Board will review this item at their March 8, 2021 meeting. Their recommendation will be presented at the Town Council meeting.

Item Details

Attachments

- Staff Report & Attachments



STAFF REPORT

Design & Development Manual – Native & Adaptive Plant List Update

March 9, 2021 Town Council Meeting



EXISTING CONDITIONS:

The [Design and Development Manual](#) includes recommended plant lists, planting details, site details, and architectural recommendations for the Small Town Character Overlay District. The last update was completed in 2010. The [2018 Trees & Stormwater](#) study made a number of recommendations, including a few that required updates to the Design and Development Manual. The specific recommendations addressed are listed below:

- Update Town planting lists to include mostly native species and exclude non-native invasive species.
- Divide tree species into three (3) categories (small, medium, and large trees) to match the categories for soil volume requirements.

PROPOSED CHANGES:

For the last eighteen months, the Planning and Community Development Department has worked on updating the recommended plantings lists in the Design and Development Manual. Additional improvements made to the lists stem from feedback received from residents, engineers, developers, and staff over the years. As a result, the following changes are proposed:

- Prohibit invasive species listed on the NC Invasive Plant Council website
- Separate the tree lists into three categories: large, medium & small trees
- List native species first on each list and introduced adaptive species next
- Update and simplify the overall list
- Add separate lists by use or situation
 - Parking Lot Shade Trees
 - Parking Lot Screening Shrubs
 - Suggested Type A Buffer Trees & Shrubs
 - Trees and Large Shrubs Under Power Lines
 - High-Quality Shade Trees

The proposed changes were shared with the Environmental Advisory Board, Tree CAP, and the Bee City Committee. In response, we labeled specific species as bird- or pollinator-friendly.

PLANNING STAFF RECOMMENDATION:

Planning staff recommends approval of the proposed changes.

PLANNING BOARD RECOMMENDATION:

Planning Board will hear the proposed changes at their regularly scheduled meeting on March 8, 2021. Staff will relay their recommendation to Town Council.



APEX

NORTH CAROLINA

Design and Development Manual

Updated 2021

Native and Adaptive Plant Lists

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Native and Adaptive Plant Lists

The Native and Adaptive Plant Lists are in chart form and include descriptions of trees and shrubs. Native species shown are native to the eastern half of the United States. These plant lists are not intended to be all-inclusive. The intent of these lists is to encourage the use of landscape plants that are hardy in Apex and exhibit tolerance of urban conditions. Plants not on the native and adaptive plant list may be used with approval from the Planning Department.

Invasive species are prohibited. Please refer to the NC Invasive Plant Council for a list of prohibited plants.

<http://nc-ipc.weebly.com/nc-invasive-plants.html>

The Native and Adaptive Plant Lists are divided into the following categories:

- Large Trees (50+ feet tall)
- Medium Trees (30 – 50 feet tall)
- Small Trees (up to 30 feet tall)
- Large Shrubs (8+ feet tall)
- Small/Medium Shrubs (2 to 8 feet tall)

The following additional lists are provided, which show specific tree and shrub recommendations for specific situations.

- Parking Lot Shade Trees
- Parking Lot Screening Shrubs
- Trees & Large Shrubs Under Power Lines
- Suggested Type A Buffer Trees & Shrubs
- High-Quality Shade Trees

Large Trees (height ≥ 50 ft)					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Acer rubrum</i>	Red Maple	40-60	30-40	D	Don't Plant Near Pavement; Natural Areas Only; Pollinator Friendly
<i>Acer saccharum</i>	Sugar Maple	60-75	40-50	D	Pollinator Friendly
<i>Acer x fremanii</i>	Freeman Maple	40-60	20-40	D	
<i>Betula nigra</i>	River Birch	40-70	40-60	D	
<i>Carya cordiformis</i>	Bitternut Hickory	50-70	40-50	D	Pollinator Friendly
<i>Carya glabra</i>	Pignut Hickory	50-60	25-35	D	Pollinator Friendly
<i>Carya illinoensis</i>	Pecan	70-100	40-75	D	Large Edible Nuts
<i>Carya ovata</i>	Shagbark Hickory	60-80	30-50	D	Pollinator Friendly

Native and Adaptive Plant Lists

Large Trees (height ≥ 50 ft)					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Celtis laevigata</i>	Sugarberry	40-60	40-60	D	Bird & Pollinator Friendly
<i>Celtis occidentalis</i>	Common Hackberry	40-60	40-60	D	Bird & Pollinator Friendly
<i>Cladrastis lutea</i>	American Yellowwood	30-50	40-55	D	Large Attractive Flowers; Pollinator Friendly
<i>Diospyros virginiana</i>	American Persimmon	30-70	25-30	D	Large Fruit; Plant Away From Parking & Sidewalk
<i>Fagus grandiflora</i>	American Beech	50-70	30-40	D	Edible Nuts
<i>Fraxinus americana</i>	White Ash	50-80	40-50	D	Pollinator Friendly
<i>Fraxinus pennsylvanica</i>	Green Ash	50-60	20-30	D	Pollinator Friendly
<i>Gleditsia triacanthos var. inermis</i>	Thornless Honeylocust	30-70	30-70	D	Pollinator Friendly
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	60-75	40-50	D	
<i>Ilex opaca</i>	American Holly	40-50	20-40	E	Tolerates Some Shade
<i>Juglans nigra</i>	Eastern Black Walnut	50-75	50-75	D	Edible Nuts
<i>Juniperus virginiana</i>	Eastern Red Cedar	40-50	10-20	E	Bird Friendly
<i>Liquidambar styraciflua 'Rotundiloba'</i>	Sweetgum, Fruitless	60-75	20-30	D	Quick Growth
<i>Liriodendron tulipifera</i>	Tulip Poplar	70-90	30-40	D	Quick Growth; Pollinator Friendly
<i>Magnolia acuminata</i>	Cucumber Magnolia	40-70	20-35	D	Pollinator Friendly
<i>Magnolia grandiflora</i>	Southern Magnolia	60-80	40-50	E	Pollinator Friendly
<i>Nyssa sylvatica</i>	Black Gum	30-50	20-30	D	Bird & Pollinator Friendly
<i>Pinus echinata</i>	Shortleaf Pine	50-60	20-35	E	
<i>Pinus palustris</i>	Longleaf Pine	60-80	30-40	E	
<i>Pinus taeda</i>	Loblolly Pine	60-100	25-35	E	Pollinator Friendly
<i>Platanus occidentalis</i>	American Sycamore	75-100	75-100	D	Large Root System; Not Good For Small Areas
<i>Prunus serotina</i>	Black Cherry	50-80	30-50	D	Bird & Pollinator Friendly; Tasty Fruit
<i>Quercus alba</i>	White Oak	50-80	50-80	D	
<i>Quercus bicolor</i>	Swamp White Oak	50-60	50-60	D	
<i>Quercus coccinea</i>	Scarlet Oak	60-80	40-50	D	
<i>Quercus falcata</i>	Southern Red Oak	60-80	60-70	D	
<i>Quercus imbricaria</i>	Shingle Oak	50-60	50-60	D	

Native and Adaptive Plant Lists

Large Trees (height ≥ 50 ft)					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Quercus laurifolia</i>	Laurel Oak	60-70	35-45	D	
<i>Quercus lyrata</i>	Overcup Oak	40-70	35-50	D	
<i>Quercus michauxii</i>	Swamp Chestnut Oak	40-60	30-50	D	
<i>Quercus nuttallii</i>	Nuttall Oak	40-60	35-50	D	
<i>Quercus phellos</i>	Willow Oak	40-60	30-40	D	
<i>Quercus prinus</i>	Chestnut Oak	60-70	60-70	D	
<i>Quercus rubra</i>	Northern Red Oak	60-75	35-45	D	
<i>Quercus shumardii</i>	Shumard Oak	40-60	40-60	D	
<i>Quercus velutina</i>	Black Oak	50-60	40-70	D	
<i>Quercus virginiana</i>	Live Oak	40-80	60-100	E	
<i>Salix nigra</i>	Black Willow	30-60	30-60	D	Pollinator Friendly
<i>Sassafras albidum</i>	Sassafras	30-60	25-40	D	Pollinator Friendly
<i>Taxodium distichum</i>	Baldcypress	50-70	30-40	D	Drought Tolerant
<i>Tilia americana</i>	Basswood	50-80	30-50	D	Quick Growth; Pollinator Friendly
<i>Tsuga canadensis</i>	Eastern Hemlock	40-70	25-35	E	Susceptible To Hemlock Wolly Adelgid
<i>Ulmus americana 'Princeton'</i>	Princeton Elm	50-70	30-50	D	Susceptible to Dutch Elm Disease
Introduced Adaptive Species:					
<i>Cedrus deodara</i>	Deodar Cedar	40-70	20-40	E	
<i>Cercidiphyllum japonicum</i>	Katsuratree	40-60	20-30	D	
<i>Cryptomeria japonica</i>	Japanese Cryptomeria	50-60	20-30	E	Not Drought Tolerant
<i>Cunninghamia lanceolata</i>	Chinese Fir	30-70	10-30	E	
<i>Fagus sylvatica</i>	European Beech	50-60	35-45	D	
<i>Ginkgo biloba</i>	Ginkgo	25-50	25-35	D	Female Trees Have Unpleasant Odor
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	70-100	20-30	E	
<i>Pinus nigra</i>	Austrian Pine	50-60	20-40	E	
<i>Pinus sylvestris</i>	Scotch Pine	30-60	30-40	E	
<i>Pinus thunbergi</i>	Japanese Black Pine	20-60	10-20	E	
<i>Ostrya carpinifolia</i>	European Hop Hornbeam	40-50	30-40	D	

Native and Adaptive Plant Lists

Large Trees (height ≥ 50 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Quercus acutissima</i>	Sawtooth Oak	40-60	40-60	D	
<i>Quercus robur 'Fastigiata'</i>	Fastigiante English Oak	50-60	10-20	D	Narrow Canopy
<i>Salix alba</i>	Weeping Willow	30-40	30-40	D	
<i>Tilia cordata</i>	Little Leaf Linden	50-60	30-40	D	
<i>Tilia tomentosa</i>	Silver Linden	50-70	30-50	D	
<i>Thuja standishii x plicata 'Green Giant'</i>	Green Giant Arborvitae	50-60	10-20	E	Quick Growth
<i>X Cupressocyparis leylandii</i>	Leyland Cypress	60-70	15-25	E	Quick Growth
<i>Zelkova serrata</i>	Japanese Zelkova	50-80	50-75	D	

Native and Adaptive Plant Lists

Medium Trees (height 30-50 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Acer negundo</i>	Boxelder	30-50	35-40	D	
<i>Carpinus caroliniana</i>	American Hornbeam	20-35	20-35	D	
<i>Catalpa bignonioides</i>	Southern catalpa	30-40	30-40	D	Pollinator Friendly
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	40-50	10-20	E	
<i>Cladrastis kentuckea</i>	American yellowwood	30-50	40-55	D	Pollinator Friendly
<i>Halesia Carolina</i>	Carolina Silverbell	30-40	20-35	D	Pollinator Friendly
<i>Ilex opaca</i>	American Holly	40-50	20-40	E	Pollinator & Bird Friendly
<i>Maclura pomifera</i>	Osage orange	30-40	20-40	D	Thorns
<i>Magnolia macrophylla</i>	Bigleaf magnolia	30-40	20-30	D	Large Flowers
<i>Magnolia tripetelata</i>	Umbrella magnolia	20-40	30-40	D	Large Flowers
<i>Oxydendrum arboreum</i>	Sourwood	20-50	10-25	D	Pollinator Friendly
<i>Pinus virginiana</i>	Virginia Pine	15-40	10-30	E	
<i>Thuja occidentalis</i>	Eastern Arborvitae	20-40	10-15	E	Many Cultivars Available; Shrub-Forms Available
Introduced Adaptive Species:					
<i>Acer buergerianum</i>	Trident Maple	25-35	15-25	D	
<i>Alnus cordata</i>	Italian alder	30-50	20-40	D	
<i>Carpinus betulus</i>	European Hornbeam	30-40	20-30	D	
<i>Cupressus arizonica</i>	Arizona cypress	30-40	8-12	E	
<i>Parrotia persica</i>	Persian ironwood	20-40	20-35	D	
<i>Phellodendron amurense</i>	Amur corktree	30-45	30-45	D	
<i>Ulmus parvifolia</i>	Chinese elm	40-50	35-50	D	

Native and Adaptive Plant Lists

Small Trees (height ≤30 ft)					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Acer leucoderme</i>	Chalkbark Maple	20-30	20-25	D	
<i>Aesculus pavia</i>	Red Buckeye	15-20	15-20	D	Toxic; Pollinator Friendly
<i>Amelanchier arborea</i>	Downy Serviceberry	10-25	10-15	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Amelanchier canadensis</i>	Shadblow Serviceberry	25-30	15-20	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Asimina triloba</i>	Pawpaw	15-30	15-20	D	Large Edible Fruit
<i>Cercis canadensis</i>	Eastern Redbud	20-30	25-35	D	Early Spring Flowers; Pollinator Friendly
<i>Chionanthus virginicus</i>	White Fringe Tree	15-20	15-20	D	Pollinator Friendly
<i>Cornus florida</i>	Flowering Dogwood	10-30	15-30	D	Spring Flowers; Pollinator & Bird Friendly
<i>Cornus alternatifolia</i>	Pagoda Dogwood	15-30	10-20	D	Spring Flowers; Pollinator & Bird Friendly
<i>Cotinus obovatus</i>	American Smoketree	10-30	15-20	D	Pollinator Friendly
<i>Crataegus phaenopyrum</i>	Washington Hawthorn	25-30	20-25	D	Pollinator & Bird Friendly
<i>Crataegus viridis</i>	Green Hawthorn	20-30	20-30	D	Pollinator & Bird Friendly
<i>Halesia diptera</i>	Two-Wing Silverbell	20-30	20-30	D	Showy Flowers; Pollinator Friendly
<i>Hamamelis virginiana</i>	Common Witchhazel	15-30	15-30	D	Pollinator Friendly
<i>Ilex cassine</i>	Dahoon Holly	20-30	10-15	E	Pollinator Friendly
<i>Ilex decidua</i>	Possumhaw	20-30	15-20	E	Pollinator & Bird Friendly
<i>Ilex vomitoria</i>	Yaupon Holly	15-20	10-15	E	Pollinator & Bird Friendly
<i>Ilex x 'Emily Bruner'</i>	Emily Bruner Holly	15-20	8-10	E	
<i>Magnolia grandiflora 'Little Gem'</i>	Little Gem Magnolia	15-20	8-10	E	Pollinator & Bird Friendly
<i>Magnolia virginiana</i>	Sweetbay Magnolia	10-30	15-20	E	Pollinator & Bird Friendly
<i>Malus angustifolia</i>	Southern Crabapple	25-30	25-30	D	Pollinator & Bird Friendly
<i>Malus coronaria</i>	American/Sweet Crabapple	15-30	20-30	D	Needs Moist Soils; Pollinator Friendly
<i>Morus rubra</i>	Red Mulberry	20-45	35-40	D	Pollinator & Bird Friendly; Messy Edible Fruit
<i>Myrica cerifera</i>	Southern Wax Myrtle	15-25	15-25	E	Bird Friendly
<i>Myrica pennsylvanica</i>	Northern Bayberry	5-10	5-10	D	Bird Friendly
<i>Prunus americana</i>	American Red Plum	15-25	15-20	D	Pollinator & Bird Friendly

Native and Adaptive Plant Lists

Small Trees (height ≤30 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Prunus caroliniana</i>	Carolina Cherrylaurel	20-30	15-25	E	Toxic; Pollinator & Bird Friendly
<i>Prunus virginiana</i>	Common Chokecherry	15-20	10-15	D	Pollinator & Bird Friendly
<i>Rhus copallina</i>	Shining Or Winged Sumac	15-25	15-25	D	Pollinator & Bird Friendly
<i>Rhus typhina</i>	Staghorn Sumac	15-25	15-25	D	Pollinator & Bird Friendly
Introduced Adaptive Species:					
<i>Abies firma</i>	Japanese Fir	20-30	10-15	E	
<i>Acer carpiniifolium</i>	Hornbeam Maple	15-25	15-25	D	
<i>Acer cissifolium</i>	Ivy-Leaved Maple	20-30	20-30	D	
<i>Acer ginnala</i>	Amur Maple	15-20	15-30	D	
<i>Acer griseum</i>	Paperbark Maple	20-30	15-20	D	
<i>Acer palmatum</i>	Japanese Maple	15-20	10-15	D	
<i>Acer tartaricum</i>	Tatarian Maple	15-25	10-15	D	
<i>Acer truncatum</i>	Purpleblow Maple	20-25	15-20	D	
<i>Cephalotaxus harringtonia</i>	Japanese Plum Yew	10-25	20-30	E	
<i>Cercis reniformis</i>	Oklahoma Redbud	15-25	15-25	D	Spring Flowers; Pollinator Friendly
<i>Chionanthus retusus</i>	Chinese Fringe Tree	15-25	10-25	D	Spring Flowers; Pollinator Friendly
<i>Cornus kousa</i>	Kousa Dogwood	10-30	15-30	D	Spring Flowers; Pollinator Friendly
<i>Cornus mas</i>	Cornelian Cherry Dogwood	20-25	15-20	D	Spring Flowers; Pollinator Friendly
<i>Cotinus coggygria</i>	Common Smoketree	10-30	15-20	D	
<i>Hamamelis x intermedia</i>	Hybrid Witchhazel	12-15	12-15	D	
<i>Ilex x attenuata</i>	Hybrid Holly	15-30	10-15	E	
<i>Ilex x 'Dr. Kassab'</i>	Dr. Kassab Holly	15-20	10-15	E	
<i>Ilex x 'Nellie R. Stevens'</i>	Nellie R. Stevens	15-25	10-15	E	Bird & Pollinator Friendly
<i>Lagerstroemia fauriei</i>	Japanese Crapemyrtle	10-25	20-25	D	Summer Flowers
<i>Lagerstroemia indica & hybrids</i>	Common Crapemyrtle	10-25	20-25	D	Summer Flowers
<i>Magnolia stellata</i>	Star Magnolia	15-20	10-15	D	Spring Flowers
<i>Magnolia x loebneri</i>	Loebner Magnolia	20-30	20-40	D	Spring Flowers
<i>Magnolia x soulangiana</i>	Saucer Magnolia	20-30	20-30	D	Spring Flowers

Native and Adaptive Plant Lists

Small Trees (height ≤30 ft)					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Malus spp.</i>	Flowering Crabapple	15-25	10-20	D	Most Crabapples Are Non-Native; Spring Flowers; Bird & Pollinator Friendly
<i>Photinia x fraseri</i>	Fraser Photinia	15-25	10-20	E	
<i>Pistachia chinensis</i>	Chinese Pistache	30-35	25-35	D	
<i>Prunus hybrids</i>	Cherry	Varies	Varies	D	Spring Flowers; Bird & Pollinator Friendly
<i>Prunus mume</i>	Japanese Apricot	15-20	15-20	D	Spring Flowers; Pollinator Friendly
<i>Prunus persica</i>	Common Peach	15-25	15-25	D	Spring Flowers; Pollinator Friendly
<i>Prunus sargentii</i>	Sargent Cherry	20-30	20-30	D	Spring Flowers; Bird & Pollinator Friendly
<i>Prunus serrulata</i>	Flowering Cherry	15-30	20-30	D	Spring Flowers; Bird & Pollinator Friendly
<i>Prunus subhirtella</i>	Higan Cherry	20-40	15-30	D	Spring Flowers; Bird & Pollinator Friendly
<i>Prunus x yedoensis</i>	Yoshino Cherry	20-30	20-30	D	Spring Flowers; Bird & Pollinator Friendly
<i>Quercus glauca</i>	Blue Japanese Oak	20-30	10-15	D	
<i>Styrax japonicus</i>	Japanese Snowbell	20-30	15-30	D	Spring Flowers; Pollinator Friendly
<i>Syringa reticulata</i>	Japanese Tree Lilac	25-30	20-25	D	Spring Flowers; Pollinator Friendly
<i>Thuja orientalis</i>	Western Arborvitae	20-25	10-25	E	

Native and Adaptive Plant Lists

Large Shrub List (8-25 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Aesculus parviflora</i>	Bottlebrush buckeye	8-12	8-15	D	Summer Flowers; Pollinator Friendly;
<i>Aronia arbutifolia</i>	Red Chokecherry	6-10	3-5	D	Pollinator & Bird Friendly;
<i>Calycanthus floridus</i>	Carolina Allspice	6-9	6-12	D	Great Fragrance.
<i>Camellia sasanqua</i>	Sasanqua Camellia	6-10	5-7	E	Showy Early Spring Flowering.
<i>Chimonanthus virginicus</i>	Fringetree	12-20	12-20	D	Showy Flowers.
<i>Clethra acuminata</i>	Cinnamonbark	8-15	4-6	D	Summer Flowers; Pollinator Friendly;
<i>Cornus amomum</i>	Silky Dogwood	10-15	6-12	D	Summer Flowers; Pollinator Friendly;
<i>Corylus americana</i>	American Hazelnut	12-15		D	Edible Nuts. Suckers. Pollinator & Bird Friendly;
<i>Fothergilla major</i>	Large Fothergilla	6-10	6-8	D	Showy Flowers; Pollinator Friendly;
<i>Hamamelis vernalis</i>	Witchhazel	6-10	6-10	D	Showy Flowers; Pollinator Friendly;
<i>Ilex verticillata</i>	Winterberry Holly	6-10	6-10	D	Berries; Pollinator & Bird Friendly;
<i>Ilex vomitoria</i>	Yaupon Holly	15-20	8-12	E	Many Cultivars Available.
<i>Illicium floridanum</i>	Florida Anise	10-15	6-8	E	Showy Flowers; Pollinator Friendly
<i>Illicium parviflorum</i>	Yellow Anise	10-15	6-10	E	Showy Flowers; Pollinator Friendly
<i>Kalmia latifolia</i>	Mountain Laurel	7-15	7-15	E	Showy Flowers; Pollinator Friendly
<i>Leucothoe populifolia</i>	Florida Leucothoe	8-12	6-8	E	Toxic; Forms Thickets; Pollinator & Bird Friendly;
<i>Lindera benzoin</i>	Spicebush	8-15	6-10	D	Pollinator & Bird Friendly;
<i>Myrica cerifera</i>	Wax Myrtle	10-15	8-12	E	Good For Light Screening. Ice Damage.
<i>Rhododendron catawbiense</i>	Mountain Rosebay	6-10	8-10	E	Spring Flowers; Pollinator Friendly;
<i>Rhododendron periclymenoides</i>	Pinxter Azalea	4-10	4-5	D	Spring Flowers; Pollinator Friendly;
<i>Rhododendron vaseyi</i>	Pinkshell Azalea	5-15	5-10	E	Spring Flowers; Pollinator Friendly;
<i>Sambucus canadensis</i>	American Elderberry	5-12	6-12	D	Suckers; Pollinator & Bird Friendly; Tasty Berries
<i>Vaccinium corymbosum</i>	Highbush blueberry	6-12	3-10	D	Good Fall Color; Pollinator & Bird Friendly; Tasty Berries
<i>Viburnum dentatum</i>	Arrowwood Viburnum	6-10	6-10	D	Pollinator & Bird Friendly;
<i>Viburnum lentago</i>	Nannyberry Viburnum	12-18	6-12	D	Pollinator & Bird Friendly;
<i>Viburnum prunifolium</i>	Smooth Blackhaw	12-15	6-12	D	Pollinator & Bird Friendly;
<i>Viburnum nudum</i>	Possumhaw or Witherod	5-12	5-12	D	Pollinator & Bird Friendly;
<i>Viburnum trilobum</i>	American Cranberrybush	8-15	8-10	D	Pollinator & Bird Friendly;

Native and Adaptive Plant Lists

Large Shrub List (8-25 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Weigela florida</i>	Weigela	6-9	6-12	D	Showy Spring Flowers.
Introduced Adaptive Species:					
<i>Aucuba japonica</i>	Acuba	6-10	4-8	E	Dwarf Varieties Available. Tolerates Poor Drainage
<i>Berberis julianae</i>	Wintergreen Barberry	6-8	6-8	E	Thorns. Good For Screening.
<i>Buxus sempervirens</i>	Common Boxwood	15-20	15-20	E	Many Cultivars Available
<i>Camellia japonica</i>	Japanese Camellia	10-15	6-10	E	Showy Early Spring Flowering
<i>Chimonanthus praecox</i>	Fragrant Wintersweet	10-15	8-12	D	Fragrant Winter Flowers.
<i>Cleyera japonica</i>	Japanese Cleyera	8-12	6-7	E	
<i>Cotoneaster salicifolius</i>	Willowleaf Cotoneaster	10-15	7-12	E	
<i>Deutzia scabra</i>	Pride of Rochester	6-10	4-8	D	Showy Spring Flowers.
<i>Euonymus japonicus</i>	Dwarf Japanese Euonymus	10-15	5-7	E	
<i>Euonymus kiautschovicus</i>	Spreading Euonymus	8-10	4-8	D	
<i>Exochorda racemosa</i>	Pearlbush	10-15	10-15	D	Spring Flowering.
<i>Forsythia x</i>	Forsythia	8-10	10-12	D	Early Spring Flowers.
<i>Hibiscus syriacus</i>	Rose of Sharon	8-12	6-10	D	Showy Summer Flowers; Aggressively Self-Seeds.
<i>Hydrangea paniculata</i>	Panicle Hydrangea	10-20	10-20	D	
<i>Ilex aquifolia</i>	English Holly	8-12	8-12	E	
<i>Ilex cornuta</i>	Chinese or Burford Holly	8-10	8-10	E	Many Cultivars Available
<i>Ilex latifolia</i>	Lusterleaf Holly	20-25	7-11	E	
<i>Ilex x 'Nellie R. Stevens'</i>	Nellie Stevens Holly	15-25	15-25	E	Good For Screening; Bird Friendly.
<i>Illicium anisatum</i>	Anisetree	6-10	6-10	E	Good For Screening.
<i>Lonicera fragrantissima</i>	Winter Honeysuckle	8-12	6-10	D	
<i>Loropetalum chinense</i>	Chinese Fringe-flower	6-10	6-10	E	
<i>Magnolia figo</i>	Banana Shrub	6-8	6-8	E	
<i>Magnolia stellata</i>	Star Magnolia	15-20	10-15	D	
<i>Osmanthus fragrans</i>	Sweet Osmanthus	10-12	10-14	E	
<i>Osmanthus heterophyllus</i>	False Holly	8-10	8-10	E	
<i>Prunus laurocerasus</i>	English Laurel	10-18	25-30	E	Many Cultivars Available
<i>Viburnum dilatatum</i>	Linden Viburnum	8-10	6-8	D	Red Fruit.

Native and Adaptive Plant Lists

Large Shrub List (8-25 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Viburnum opulus</i>	Cranberrybush Viburnum	8-12	10-15	D	
<i>Viburnum plicatum</i>	Doublefile Viburnum	8-10	9-12	D	Accent Plant. Spring Flowers.
<i>Viburnum rhytidophyllum</i>	Leatherleaf Viburnum	10-15	10-15	E	
<i>Virurnum x burkwoodii</i>	Burkwood Viburnum	8-10	5-7	S	Fragrant Pink Spring Blossoms. Nice Accent Plant.
<i>Vitex agnus castus</i>	Chaste Tree	10-12	8-10	D	Summer Flowers; Bee Favorite

Native and Adaptive Plant Lists

Small to Medium Shrub List (height ≤ 8 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Amorpha canescens</i>	Lead Plant	2-3	2-6	D	Pollinator Friendly; Showy Flowers.
<i>Amorpha nana</i>	Fragrant False Indigo	1-2	1-3	D	Pollinator Friendly; Showy Flowers.
<i>Aronia melanocarpa</i>	Black Chokeberry	3-5	3-5	D	Pollinator Friendly; Spring Flowers.
<i>Callicarpa americana</i>	American Beautyberry	3-8	4-6	D	Pollinator & Bird Friendly; Showy Berries.
<i>Ceanothus americanus</i>	New Jersey Tea	2-3	3-4	D	Pollinator Friendly; Showy Flowers.
<i>Cephalanthus occidentalis</i>	Buttonbush	5-8	3-6	D	Pollinator Friendly; Showy Flowers.
<i>Clethra alnifolia</i>	Summersweet Clethra	4-8	4-6	D	Pollinator Friendly; Summer Flowers
<i>Cornus stolonifera</i>	Red Osier Dogwood	7-8	4-6	D	Pollinator Friendly; Summer Flowers
<i>Diervilla sessilifolia</i>	Southern Bush Honeysuckle	3-5	3-5	D	Pollinator Friendly; Summer Flowers
<i>Diervilla lonicera</i>	Bush Honeysuckle	2-4	2-4	D	Pollinator Friendly; Showy Flowers.
<i>Euonymus americanus</i>	Strawberry Bush	4-5	3-5	D	Pollinator Friendly; Summer Flowers
<i>Fothergilla gardenii</i>	Dwarf Fothergilla	2-3	2-3	D	Pollinator Friendly; Summer Flowers
<i>Hydrangea arborescens</i>	Smooth Hydrangea	3-5	3-5	D	Pollinator Friendly; Summer Flowers
<i>Hydrangea quercifolia</i>	Oakleaf Hydrangea	6-8	6-8	D	Pollinator Friendly; Summer Flowers
<i>Hypericum densiflorum</i>	Dense St. Johns Wort	4-6	4-6	D	Pollinator Friendly; Summer Flowers
<i>Hypericum prolificum</i>	Shrubby St. Johns Wort	1-4	1-4	D	Pollinator Friendly; Summer Flowers
<i>Ilex glabra</i>	Inkberry Holly	6-8	8-10	E	Pollinator & Bird Friendly
<i>Itea virginica</i>	Virginia Sweetspire	3-5	4-6	S	Pollinator Friendly; Summer Flowers
<i>Juniperus horizontalis</i>	Creeping Juniper	1	4-8	E	Good For Banks/Slopes As A Groundcover.
<i>Leucothoe axillaris</i>	Doghobble	3-4	4-6	D	Pollinator Friendly; Spring Flowers.
<i>Leucothoe fontanesiana</i>	Drooping Leucothoe	3-5	2-3	E	Pollinator Friendly; Spring Flowers.
<i>Lyonia lucida</i>	Fetterbush	3-6	3-6	E	Pollinator Friendly; Spring Flowers.
<i>Physocarpus opulifolius</i>	Ninebark	5-8	4-8	D	Pollinator Friendly; Summer Flowers.
<i>Rhododendron atlanticum</i>	Dwarf or Coastal Azalea	2-6	2-5	D	Spring Flowers; Pollinator & Bird Friendly
<i>Rhododendron carolinianum</i>	Carolina Rhododendron	3-6	3-6	E	Spring Flowers; Pollinator & Bird Friendly
<i>Rhododendron calendulaceum</i>	Flame Azalea	4-8	8-10	D	Pollinator Friendly; Late Spring Flowers
<i>Rhus aromatica</i>	Fragrant Sumac	2-6	6-10	D	Stabilizes Slopes; Pollinator Friendly; Appearance Similar To Poison Ivy.
<i>Rosa carolina</i>	Carolina Rose	3-6	5-10	D	Stabilizes Slopes; Pollinator Friendly

Native and Adaptive Plant Lists

Small to Medium Shrub List (height ≤ 8 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Rosa paulstris</i>	Swamp Rose	3-6	3-6	D	Pollinator Friendly
<i>Spiraea alba</i>	Meadowsweet	3-4	3-4	D	Pollinator Friendly
<i>Spiraea betulifolia</i>	White Spirea	2-3	2-3	D	Pollinator Friendly
<i>Spiraea tomentosa</i>	Steeplebush	2-4	3-5	D	Pollinator Friendly
<i>Vaccinium ashei</i>	Rabbiteye Blueberry	4-6	3-5	D	Edible Fruit; Pollinator & Bird Friendly
<i>Vaccinium pallidum</i>	Lowbush Blueberry	2-3	2-3	D	Pollinator & Bird Friendly; Spring Flowers; Edible Fruit;
<i>Virburnum acerifolium</i>	Mapleleaf Viburnum	4-6	3-4	D	Pollinator & Bird Friendly; Spring Flowers.
<i>Viburnum cassinoides</i>	Witherod Viburnum	5-6	5-8	D	Pollinator & Bird Friendly; Spring Flowers.
<i>Viburnum nudum</i>	Smooth Witherod	4-6	5-8	D	Pollinator & Bird Friendly; Spring Flowers.
Introduced adaptive species:					
<i>Abelia x grandiflora</i>	Glossy Abelia	4-6	3-5	S	Showy Summer Flowers.
<i>Berberis verruculosa</i>	Warty Barberry	3-6	3-6	E	Thorns; Many Cultivars Available;
<i>Berberis x chenaultii</i>	Chenault Barberry	3-4	3-4	E	Thorns; Many Cultivars Available;
<i>Berberis x mentorensis</i>	Mentor Barberry	4-6	5-7	D	
<i>Buxus microphylla</i>	Littleleaf Boxwood	3-4	3-4	E	
<i>Callicarpa japonica</i>	Japanese Beautyberry	4-6	4-6	D	Showy Berries
<i>Chaenomeles japonica</i> <i>Japanese</i>	Flowering Quince	2-3	2-3	D	Spring Flowering.
<i>Cotoneaster divaricatus</i>	Spreading Cotoneaster	5-6	6-8	D	Red Berries.
<i>Cotoneaster horizontalis</i>	Rockspray Cotoneaster	2-3	5-8	S	Red Berries.
<i>Cytisus scoparius</i>	Scotch Broom	5-6	5-8	D	
<i>Deutzia</i>	Deutzia	2-4	3-4	D	Showy Spring Flowers.
<i>Hydrangea macrophylla</i>	Mophead Hydrangea	3-6	3-6	D	Large Flowers;
<i>Ilex crenata</i>	Japanese Holly	5-10	5-10	E	Many Cultivars Available. Low Screening.
<i>Jasminum nudiflorum</i>	Winter Jasmine	3-4	4-7	D	Showy Flowers. Stabilizes Slopes
<i>Juniperus chinensis</i>	Chinese Juniper	2-6	2-6	E	
<i>Juniperus conferta</i>	Shore Juniper	1-2	6-9	E	Many Cultivars Available; Stabilizes Slopes.
<i>Juniperus procumbens</i>	Japanese Garden Juniper	1-2	10-15	E	
<i>Kerria japonica</i>	Japanese Kerria	3-6	6-9	D	Yellow Flowers In The Spring.
<i>Lonicera nitida</i>	Box Honeysuckle	5-6	3-4	E	Fragrant White Flowers.

Native and Adaptive Plant Lists

Small to Medium Shrub List (height ≤ 8 ft)

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Mahonia aquifolium</i>	Oregon Grape Holly	3-6	3-5	E	
<i>Prunus laurocerasus</i>	Dwarf English Laurel	3-4	3-4	E	
<i>Rosmarinus officianalis</i>	Rosemary	4-6	3-6	E	Edible;
<i>Spiraea japonica</i>	Japanese Spiraea	4-5	4-5	D	
<i>Spiraea thunbergii</i>	Thunberg Spirea	3-5	3-5	D	
<i>Spiraea x bumalda</i>	Bumald Spiraea	2-3	3-5	D	Good Fall Color, Spring Flowers.

Native and Adaptive Plant Lists

Parking Lot Shade Tree List

This list is intended to provide trees that adapt well to parking lot conditions and meet the requirements of UDO Sec. 8.2.5.C.2.

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Amelanchier canadensis</i>	Shadblow Serviceberry	25-30	15-20	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Gleditsia triacanthos</i> var. <i>inermis</i>	Thornless Honeylocust	30-70	30-70	D	Pollinator Friendly
<i>Liquidambar styraciflua</i> 'Rotundiloba'	Sweetgum, Fruitless	60-75	20-30	D	Quick Growth
<i>Nyssa sylvatica</i>	Black Gum	30-50	20-30	D	Pollinator & Bird Friendly
<i>Quercus lyrata</i>	Overcup Oak	40-70	35-50	D	
<i>Quercus nuttallii</i>	Nuttall Oak	40-60	35-50	D	
<i>Quercus shumardii</i>	Shumard Oak	40-60	40-60	D	
<i>Taxodium distichum</i>	Baldcypress	50-70	30-40	D	Drought Tolerant
<i>Ulmus americana</i> 'Princeton'	Princeton Elm	50-70	30-50	D	
Introduced Adaptive Species:					
<i>Acer buergerianum</i>	Trident Maple	25-35	15-25	D	
<i>Acer truncatum</i>	Purpleblow Maple	20-25	15-20	D	
<i>Carpinus betulus</i>	European Hornbeam	40-60	30-40	D	
<i>Gingko biloba</i>	Gingko	25-50	25-35	D	Flowers On Female Trees Have Unpleasant Odor
<i>Lagerstroemia indica</i> & hybrids	Common Crapemyrtle	10-25	20-25	D	Summer Flowers
<i>Parrotia persica</i>	Persian ironwood	20-40	20-35	D	
<i>Pistachia chinensis</i>	Chinese Pistache	30-35	25-35	D	
<i>Tilia tomentosa</i>	Silver Linden	50-70	30-50	D	
<i>Ulmus parvifolia</i>	Chinese elm	40-50	35-50	D	
<i>Zelkova serrata</i>	Japanese Zelkova	50-80	50-75	D	

Native and Adaptive Plant Lists

Vehicle Use Area Screening Shrubs

This list is intended to provide evergreen shrubs that adapt well to parking lot conditions and meet the requirements of UDO Sec. 8.2.5.B.2.a.

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Sun/Shade	Comments
Native Species:					
<i>Ilex glabra</i>	Inkberry	6-8	8-10	Sun	Pollinator & Bird Friendly
<i>Ilex vomitoria</i>	Yaupon Holly	3-5	3-5	Sun	Pollinator & Bird Friendly
<i>Illicium floridanum</i>	Florida Anise	10-15	6-8	Shade – Part Shade	Showy Flowers; Pollinator Friendly
<i>Juniperus virginiana</i>	Red Cedar – shrub form	3-8	3-6	Sun	Bird Friendly
<i>Kalmia latifolia</i>	Mountain Laurel	7-15	7-15	Sun – Part Sun	Showy Flowers; Pollinator Friendly
<i>Myrica pusilla</i>	Dwarf Wax Myrtle	5	5	Sun – Part Sun	Bird Friendly
<i>Pinus strobus</i> ‘Nana’	Dwarf Eastern White Pine ‘Nana’	6	10	Sun	
<i>Rhododendron carolinianum</i>	Carolina Rhododendron	3-6	3-6	Sun – Part Shade	Pollinator & Bird Friendly
<i>Thuja occidentalis</i>	Arborvitae – shrub form	2-10	2-6	Sun	
<i>Tsuga Canadensis</i>	Dwarf Eastern Hemlock	5-8	3-6	Sun – Part Shade	
Introduced Adaptive Species:					
<i>Abelia x grandiflora</i>	Glossy Abelia	4-6	3-5	Sun – Part Sun	Bird Friendly
<i>Acuba japonica</i>	Japanese Acuba	6-10	4-8	Shade	
<i>Buxus microphylla</i>	Littleleaf Boxwood	3-4	3-4	Sun – Part Sun	
<i>Buxus sempervirens</i>	Boxwood	15-20	15-20	Sun – Part Sun	
<i>Camellia japonica</i>	Japanese Camellia	10-15	6-10	Shade – Full Shade	
<i>Euonymus japonicus</i>	Japanese Euonymus	10-15	5-7	Sun – Part Sun	
<i>Gardenia jasminoides</i>	Gardenia	3-10	2-10	Part Sun	
<i>Ilex cornuta</i>	Chinese Holly	8-10	8-10	Sun – Part Sun	
<i>Juniperus chinensis</i>	Chinese Juniper	2-6	2-6	Sun – Part Sun	
<i>Prunus laurocerasus</i>	English Laurel	3-4	3-4	Sun – Part Sun	
<i>Rhododendron x</i>	Azalea	3-15	3-12	Shade – Part Shade	
<i>Spirea japonica</i>	Japanese Spirea	4-5	4-5	Sun – Part Sun	
<i>Viburnum awabuki</i>	Chindo Viburnum	6-12	6-10	Sun – Part Sun	Bird Friendly
<i>Viburnum tinus</i>	Laurustinus ‘Compactum’	6-10	6-10	Sun – Part Sun	Bird Friendly
<i>Viburnum x pragense</i>	Prague Viburnum	10-12	8-10	Sun – Part Sun	Bird Friendly

Native and Adaptive Plant Lists

Recommended Trees & Large Shrubs Under Electric Lines

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Aesculus pavia</i>	Red Buckeye	15-20	15-20	D	
<i>Amelanchier arborea</i>	Downy Serviceberry	10-25	10-15	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Amelanchier x grandiflora</i> 'Autumn Brilliance'	Autumn Brilliance Serviceberry	15-20	15-20	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Aronia arbutifolia</i>	Red Chokecherry	8-12	4-6	D	Spring Flowers; Pollinator & Bird Friendly
<i>Chionanthus virginicus</i>	White Fringe Tree	15-20	15-20	D	Spring Flowers; Pollinator & Bird Friendly
<i>Cotinus obovatus</i>	American Smoketree	15-25	20-25	D	Spring Flowers; Pollinator & Bird Friendly
<i>Ilex vomitoria</i>	Yaupon Holly	15-20	10-15	E	Pollinator & Bird Friendly
<i>Ilex x 'Emily Bruner'</i>	Emily Bruner Holly	15-20	8-10	E	Pollinator & Bird Friendly
<i>Juniperus virginiana</i> 'Blue Arrow'	Blue Arrow Red Cedar	10-15	4-6	E	Bird Friendly
<i>Juniperus virginiana</i> 'Skyrocket'	Skyrocket Red Cedar	10-20	3-4	E	Bird Friendly
<i>Magnolia grandiflora</i> 'Little Gem'	Little Gem Magnolia	15-20	8-10	E	Pollinator & Bird Friendly
<i>Magnolia virginiana</i>	Sweetbay Magnolia	10-30	15-20	E	Pollinator & Bird Friendly
<i>Myrica cerifera</i>	Southern Wax Myrtle	15-25	15-25	E	Bird Friendly
<i>Prunus americana</i>	American Red Plum	15-25	15-20	D	Pollinator & Bird Friendly
<i>Prunus caroliniana</i>	Carolina Cherrylaurel	10-20	10-15	E	Pollinator & Bird Friendly
<i>Prunus virginiana</i>	Common Chokecherry	15-20	10-15	D	Pollinator & Bird Friendly
<i>Rhus copallina</i>	Shining Or Winged Sumac	15-25	15-25	D	Pollinator & Bird Friendly
<i>Rhus typhina</i>	Staghorn Sumac	15-25	15-25	D	Pollinator & Bird Friendly
<i>Thuja occidentalis</i>	"Emerald" Arborvitae	15-20	5	E	
<i>Viburnum lentago</i>	Nannyberry Viburnum	12-18	15	D	Pollinator & Bird Friendly
Introduced Adaptive Species:					
<i>Acer buergerianum</i>	Trident Maple	30	30	D	
<i>Acer carpinifolium</i>	Hornbeam Maple	15-25	15-25	D	
<i>Acer ginnala</i>	Amur Maple	15-20	15-30	D	
<i>Acer palmatum</i>	Japanese Maple	15-20	10-15	D	
<i>Acer tartaricum</i>	Tatarian Maple	15-25	10-15	D	
<i>Acer truncatum</i>	Purpleblow Maple	20-25	15-20	D	
<i>Cephalotaxus harringtonia</i>	Japanese Plum Yew	10-25	20-30	E	

Native and Adaptive Plant Lists

Recommended Trees & Large Shrubs Under Electric Lines

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
<i>Cercis reniformis</i>	Oklahoma Redbud	15-25	15-25	D	Pollinator Friendly
<i>Chionanthus retusus</i>	Chinese Fringe Tree	15-25	10-25	D	Spring Flowers; Pollinator Friendly
<i>Cornus mas</i>	Cornelian Cherry Dogwood	20-25	15-20	D	Spring Flowers; Pollinator Friendly
<i>Cornus kousa</i>	Kousa Dogwood	20	20	D	Spring Flowers; Pollinator Friendly
<i>Cotinus coggyria</i>	Smoketree	15	15	D	Spring Flowers; Pollinator Friendly
<i>Ilex x 'Dr. Kassab'</i>	Dr. Kassab Holly	15-20	10-15	E	Bird Friendly
<i>Ilex x 'Nellie R. Stevens'</i>	Nellie R. Stevens	15-25	10-15	E	Bird & Pollinator Friendly
<i>Juniperus scopulorum 'Wichita Blue'</i>	Wichita Blue Juniper	10-15	6-8	E	Bird Friendly
<i>Lagerstroemia fauriei</i>	Japanese Crapemyrtle	10-25	20-25	D	Summer Flowers
<i>Lagerstroemia indica & hybrids</i>	Common Crapemyrtle	10-25	20-25	D	Summer Flowers
<i>Magnolia stellata</i>	Star Magnolia	15-20	10-15	D	
<i>Photinia x fraseri</i>	Fraser Photinia	15-25	10-20	E	Bird Friendly
<i>Prunus cerasifera</i>	Cherry Plum	15-20	15-20	D	Spring Flowers; Bird & Pollinator Friendly
<i>Prunus mume</i>	Japanese Apricot	15-20	15-20	D	Spring Flowers; Pollinator Friendly
<i>Prunus persica</i>	Common Peach	15-25	15-25	D	Spring Flowers; Pollinator Friendly
<i>Prunus serrulata</i>	Flowering Cherry	15-25	20-30	D	Spring Flowers; Bird & Pollinator Friendly
<i>Styrax japonicas</i>	Japanese Snowbell	20-25	20-25	D	Spring Flowers; Pollinator Friendly
<i>Syringa oblata</i>	Early Lilac	10-15	10	D	Spring Flowers; Pollinator Friendly
<i>Syringa reticulata</i>	Japanese Tree Lilac	25	20-25	D	Spring Flowers; Pollinator Friendly
<i>Viburnum sieboldii</i>	Siebold Viburnum	20	15	D	Spring Flowers; Bird & Pollinator Friendly

Native and Adaptive Plant Lists

Type A Buffer Tree List

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Sun/Shade	Comments
Native Species:					
<i>Chamaecyparis thyoides</i>	Atlantic white cedar	40-50	10-20	sun	
<i>Ilex cassine</i>	Dahoon Holly	20-30	10-15	sun	Pollinator Friendly
<i>Ilex opaca</i>	American Holly	40-50	20-40	sun	Pollinator & Bird Friendly
<i>Ilex vomitoria</i>	Yaupon Holly	15-20	10-15	sun	Pollinator Friendly
<i>Juniperus virginiana</i>	Eastern Red Cedar	40-50	10-20	sun	Bird Friendly
<i>Magnolia grandiflora</i>	Southern Magnolia	60-80	40-50	sun – part sun	Pollinator & Bird Friendly
<i>Magnolia virginiana</i>	Sweetbay Magnolia	10-30	15-20	sun – part sun	Pollinator & Bird Friendly
<i>Pinus virginiana</i>	Virginia Pine	15-40	10-30	sun	
<i>Prunus caroliniana</i>	Carolina Cherry Laurel	20-30	15-25	sun	Toxic; Pollinator & Bird Friendly
<i>Thuja occidentalis</i>	Eastern Arborvitae	20-40	10-15	sun	Many Cultivars Available; Shrub-Forms Available
<i>Tsuga canadensis</i>	Canadian Hemlock	40-70	25-35	sun	
Introduced Adaptive Species:					
<i>Abies firma</i>	Japanese Fir	20-30	10-15	sun – part sun	
<i>Cedrus deodara</i>	Deodar Cedar	40-70	20-40	sun – part sun	
<i>Cryptomeria japonica</i>	Japanese Cryptomeria	50-60	20-30	shade	
<i>Cunninghamia lanceolata</i>	Chinese Fir	30-70	10-30	sun – part sun	
<i>Cupressus arizonica</i>	Arizona cypress	30-40	8-12	sun – part sun	
<i>Ilex x attenuata</i>	Hybrid Holly	15-30	10-15	sun – part sun	
<i>Ilex x 'Dr. Kassab'</i>	Dr. Kassab Holly	15-20	10-15	sun – part sun	Bird Friendly
<i>Ilex x 'Nellie R. Stevens'</i>	Nellie R. Stevens	15-25	10-15	sun – part sun	Pollinator & Bird Friendly
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	70-100	20-30	sun – part sun	
<i>Photinia x fraseri</i>	Fraser Photinia	15-25	10-20	sun – part sun	Pollinator Friendly
<i>Pinus nigra</i>	Austrian Pine	50-60	20-40	sun – part sun	
<i>Pinus sylvestris</i>	Scotch Pine	30-60	30-40	sun – part sun	
<i>Pinus thunbergi</i>	Japanese Black Pine	20-60	10-20	sun – part sun	
<i>Thuja orientalis</i>	Western Arborvitae	20-25	10-25	sun – part sun	
<i>Thuja standishii x plicata 'Green Giant'</i>	Green Giant Arborvitae	50-60	10-20	sun – part sun	
<i>X Cupressocyparis leylandii</i>	Leyland Cypress	60-70	15-25	sun – part sun	

Native and Adaptive Plant Lists

Type A Buffer Shrub List

This list is intended to provide evergreen shrubs that meet the requirements of UDO Sec. 8.2.2.B.3.d. and 8.2.6.B.5.a.

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Sun/Shade	Comments
Native Species:					
<i>Camellia sasanqua</i>	Sasanqua Camellia	6-10	5-7	Part Shade	Showy Flowers; Pollinator Friendly
<i>Ilex glabra</i>	Inkberry Holly	6-8	8-10	Sun	Pollinator & Bird Friendly
<i>Ilex verticillata</i>	Winterberry Holly	6-10	6-10	Sun – Part Sun	Berries; Pollinator & Bird Friendly;
<i>Illicium floridanum</i>	Florida Anise	10-15	6-8	Sun – Part Sun	Showy Flowers; Pollinator Friendly
<i>Illicium parviflorum</i>	Yellow Anise	10-15	6-10	Shade – Part Shade	Showy Flowers; Pollinator Friendly
<i>Juniperus virginiana</i>	Eastern Cedar – shrub form	2-10	2-10	Sun	Bird Friendly
<i>Kalmia latifolia</i>	Mountain Laurel	7-15	7-15	Shade – Part Shade	Showy Flowers; Pollinator Friendly
<i>Leucothoe populifolia</i>	Florida Leucothoe	8-12	6-8	Shade – Part Shade	Toxic; Forms Thickets; Pollinator & Bird Friendly;
<i>Myrica cerifera</i>	Wax Myrtle	10-15	8-12	Sun – Part Sun	Good For Light Screening. Ice Damage.
<i>Rhododendron catawbiense</i>	Mountain Rosebay	6-10	8-10	Part Shade	Spring Flowers; Pollinator Friendly;
<i>Rhododendron vaseyi</i>	Pinkshell Azalea	5-15	5-10	Shade – Part Shade	Spring Flowers; Pollinator Friendly
<i>Thuja occidentalis</i>	Arborvitae – shrub form	3-15	2-6	Sun	
<i>Tsuga canadensis</i>	Eastern Hemlock – shrub form	2-8	2-6	Sun – Part Sun	Susceptible To Hemlock Woolly Adelgid.
Introduced Adaptive Species:					
<i>Aucuba japonica</i>	Acuba	6-10	4-8	Shade – Part Shade	Dwarf Varieties Available. Tolerates Poor Drainage
<i>Buxus sempervirens</i>	Common Boxwood	15-20	15-20	Sun	Many Cultivars Available
<i>Camellia japonica</i>	Camellia	10-15	6-10	Shade – Part Shade	Showy Early Spring Flowering
<i>Cleyera japonica</i>	Japanese Cleyera	8-12	6-7	Sun – Part Sun	
<i>Ilex crenata</i>	Japanese Holly	5-10	5-10	Sun – Part Sun	Many Cultivars Available. Low Screening.
<i>Ilex aquifolia</i>	English HollyS	8-12	8-12	Sun – Part Sun	Bird Friendly
<i>Ilex cornuta</i>	Chinese or Burford Holly	8-10	8-10	Sun – Part Sun	
<i>Ilex latifolia</i>	Lusterleaf Holly	20-25	7-11	Sun – Part Sun	
<i>Illicium anisatum</i>	Anisetree	6-10	6-10	Sun – Part Sun	
<i>Juniperus chinensis</i>	Chinese Juniper	Varies	Varies	Sun – Part Sun	Choose Disease Resistant Cultivars.
<i>Lonicera nitida</i>	Box Honeysuckle	5-6	3-4	Sun – Part Sun	Fragrant White Flowers.
<i>Mahonia aquifolium</i>	Oregon Grape Holly	3-6	3-5	Sun – Part Sun	Bird Friendly

Native and Adaptive Plant Lists

Type A Buffer Shrub List

This list is intended to provide evergreen shrubs that meet the requirements of UDO Sec. 8.2.2.B.3.d. and 8.2.6.B.5.a.

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Sun/Shade	Comments
<i>Prunus laurocerasus</i>	English Laurel	10-18	25-30	Sun – Part Sun	Many Cultivars Available.
<i>Rosmarinus officianalis</i>	Rosemary	4-6	3-6	Sun – Part Sun	Edible
<i>Viburnum rhytidophyllum</i>	Leatherleaf Viburnum	10-15	10-15	Sun – Part Sun	Bird Friendly

Native and Adaptive Plant Lists

High Quality Shade Trees					
Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Native Species:					
<i>Acer rubrum</i>	Red Maple	40-60	30-40	D	Don't Plant Near Pavement; Natural Areas Only
<i>Acer saccharum</i>	Sugar Maple	60-75	40-50	D	
<i>Acer x fremanii</i>	Freeman Maple	40-60	20-40	D	
<i>Amelanchier canadensis</i>	Shadblow Serviceberry	25-30	15-20	D	Very Early Spring Flowers; Pollinator & Bird Friendly
<i>Betula nigra</i>	River Birch	40-70	40-60	D	
<i>Carya glabra</i>	Pignut Hickory	50-60	25-35	D	Bird & Pollinator Friendly
<i>Carya illinoensis</i>	Pecan	70-100	40-75	D	Edible Nuts
<i>Carya ovata</i>	Shagbark Hickory	60-80	30-50	D	Pollinator Friendly
<i>Celtis laevigata</i>	Sugarberry	40-60	40-60	D	Bird & Pollinator Friendly
<i>Cladrastis lutea</i>	American Yellowwood	30-50	40-55	D	Large Attractive Flowers; Pollinator Friendly
<i>Fagus grandiflora</i>	American Beech	50-70	30-40	D	Edible Nuts
<i>Fraxinus americana</i>	White Ash	50-80	40-50	D	
<i>Juglans nigra</i>	Eastern Black Walnut	50-75	50-75	D	Edible Nuts
<i>Liquidambar styraciflua</i> 'Rotundiloba'	Sweetgum, Fruitless	60-75	20-30	D	Quick Growth
<i>Nyssa sylvatica</i>	Black Gum	30-50	20-30	D	Bird & Pollinator Friendly
<i>Platanus occidentalis</i>	American Sycamore	75-100	75-100	D	Large Root System; Not Good For Small Areas
<i>Tilia americana</i>	Basswood	50-80	30-50	D	Quick Growth; Pollinator Friendly
<i>Quercus alba</i>	White Oak	50-80	50-80	D	
<i>Quercus bicolor</i>	Swamp White Oak	50-60	50-60	D	
<i>Quercus coccinea</i>	Scarlet Oak	60-80	40-50	D	
<i>Quercus lyrata</i>	Overcup Oak	40-70	35-50	D	
<i>Quercus michauxii</i>	Swamp Chestnut Oak	40-60	30-50	D	
<i>Quercus phellos</i>	Willow Oak	40-60	30-40	D	
<i>Quercus rubra</i>	Northern Red Oak	60-75	35-45	D	
<i>Taxodium distichum</i>	Baldcypress	50-70	30-40	D	Drought Tolerant
<i>Ulmus americana</i> 'Princeton'	Princeton Elm	50-70	30-50	D	Susceptible to Dutch Elm Disease

Native and Adaptive Plant Lists

High Quality Shade Trees

Scientific Name	Common Name	Height (Feet)	Spread (Feet)	Evergreen/Deciduous	Comments
Introduced Adaptive Species:					
<i>Acer truncatum</i>	Purpleblow Maple	20-25	15-20	D	
<i>Metasequoia glyptostroboides</i>	Dawn Redwood	70-100	20-30	E	
<i>Parrotia persica</i>	Persian Ironwood	20-40	20-35	D	
<i>Pistachia chinensis</i>	Chinese Pistache	30-35	25-35	D	
<i>Quercus acutissima</i>	Sawtooth Oak	40-60	40-60	D	
<i>Ulmus parvifolia</i>	Chinese Elm	40-50	35-50	D	
<i>Zelkova serrata</i>	Japanese Zelkova	50-80	50-75	D	

| Agenda Item | cover sheet

for consideration by the Apex Town Council

Item Type: NEW BUSINESS

Meeting Date: March 9, 2021

Item Details

Presenter: Vance Holloman, Finance Director

Department: Finance Department

Requested Motion

Possible motion to approve resolution authorizing the filing of an application with the Local Government Commission to issue \$42 million of GO Bonds for Street and Sidewalk Improvements.

Approval Recommended?

Yes

Item Details

This resolution states that the Town has determined the need to finance street and sidewalk improvements by the issuance of bonds, authorizes and directs staff to file an application with the North Carolina Local Government Commission for approval of up to \$42 million of bonds for that purpose, authorizes the Town Clerk to publish a notice of intent to file that application and designates Womble Bond Dickinson (US) LLP as the bond attorney in connection with the authorization, sale and issuance of the bonds. A referendum is anticipated on November 2, 2021 for citizens to vote on the bonds.

Attachments

- Preliminary Resolution \$48 Million Parks and Recreation Facilities GO Bonds
- Notice of Intent \$48 Million Parks and Recreation Facilities GO Bonds



A regular meeting of the Town Council of the Town of Apex, North Carolina was held remotely by electronic means at 6:00 p.m. on March 9, 2021.

Present: Mayor Jacques Gilbert, presiding, and Council Members

Absent: Council Members

Also Present: _____

* * * * *

_____ introduced the following resolution the title of which was read and a copy of which had been previously distributed to each Council Member:

RESOLUTION MAKING CERTAIN FINDINGS AND DETERMINATIONS, AUTHORIZING THE FILING OF AN APPLICATION WITH THE LOCAL GOVERNMENT COMMISSION AND APPOINTING BOND COUNSEL IN CONNECTION WITH THE PROPOSED ISSUANCE OF STREET AND SIDEWALK IMPROVEMENT BONDS BY THE TOWN

BE IT RESOLVED by the Town Council (the “Town Council”) of the Town of Apex, North Carolina (the “Town”):

Section 1. The Town Council does hereby find and determine as follows:

(a) Preliminary studies have been completed to demonstrate the need for financing the cost of various street and sidewalk improvements for the Town.

(b) The Town Council wishes to commence the procedures for the authorization of street and sidewalk improvement bonds to finance such capital projects.

(c) The capital projects to be funded by the proposed bonds are necessary and expedient, and the amount of proposed bonds is adequate and not excessive to fund said capital projects.

(d) The debt management and the budgetary and fiscal management policies of the Town have been carried out in compliance with applicable law.

(e) Any increase in taxes expected to be necessary to pay debt service on the proposed debt will be reasonable.

Section 2. The Town Manager and the Finance Director of the Town are each hereby authorized and directed to file an application of the Town with the North Carolina Local Government Commission for approval of not exceeding \$42,000,000 Street and Sidewalk Improvement Bonds of the Town. The Town Clerk is hereby authorized to publish a notice of intent to file such application in the manner provided by law.

Section 3. The law firm of Womble Bond Dickinson (US) LLP is hereby appointed to serve, but solely at the pleasure of the Town Council, as bond counsel to the Town in connection with the authorization, sale and issuance of the proposed bonds.

Section 4. The appropriate officers of the Town are hereby authorized and directed to do any and all things necessary, appropriate or convenient to carry into effect the provisions of this resolution.

Section 5. This resolution shall take effect immediately upon its adoption.

Upon motion of _____, seconded by _____, the foregoing resolution entitled “RESOLUTION MAKING CERTAIN FINDINGS AND DETERMINATIONS, AUTHORIZING THE FILING OF AN APPLICATION WITH THE LOCAL GOVERNMENT COMMISSION AND APPOINTING BOND COUNSEL IN CONNECTION WITH THE PROPOSED ISSUANCE OF STREET AND SIDEWALK IMPROVEMENT BONDS BY THE TOWN” was adopted by the following vote:

Ayes: _____

Noes: _____

* * * * *

I, Donna B. Hosch, Town Clerk of the Town of Apex, North Carolina, DO HEREBY CERTIFY that the foregoing is a true copy of so much of the proceedings of the Town Council of said Town at a regular meeting held on March 9, 2021, as relates in any way to the introduction and adoption of the foregoing resolution and that said proceedings are to be recorded in the minutes of said Town Council.

I DO HEREBY FURTHER CERTIFY that proper notice of such regular meeting was given as required by North Carolina law, including the notice of the holding of such meeting by electronic means as may be required by Section 143-318.13 and Section 166A-19.24 of the General Statutes of North Carolina, as amended.

WITNESS my hand and the official seal of said Town this 9th day of March, 2021.

Town Clerk

[SEAL]

To be published once in The News and Observer on Friday, March 12, 2021:

**NOTICE OF INTENT TO
APPLY TO THE LOCAL GOVERNMENT COMMISSION
FOR APPROVAL OF BONDS**

NOTICE is hereby given of the intention of the undersigned to file an application with the Local Government Commission, Raleigh, North Carolina, for its approval of the issuance of the following proposed bonds of the Town of Apex, North Carolina, which bonds shall be subject to the approval of the voters of said Town at a referendum:

\$42,000,000 STREET AND SIDEWALK IMPROVEMENT BONDS for the purpose of providing funds, together with any other available funds, to construct, extend, widen, resurface and improve streets, sidewalks and multi-use paths inside and outside the corporate limits of said Town, including, without limitation, any related land, easements, rights of way and streetscape, traffic signal and utility improvements.

Any citizen or taxpayer of the Town of Apex, North Carolina who objects to said bonds in whole or in part may file with the Local Government Commission a statement setting forth his or her objections and containing his or her name and address as provided in Section 159-50 of the General Statutes of North Carolina, in which event such person shall also file a copy of said statement with the undersigned, at any time within seven days from the date of publication of this notice. Objections set forth in said statement will be considered by said Commission, along with said application, in determining whether to approve or disapprove said application.

TOWN COUNCIL OF THE
TOWN OF APEX, NORTH CAROLINA

By: Donna B. Hosch, MMC
Town Clerk

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for consideration by the Apex Town Council

Item Type: PRESENTATION BY
TOWN MANAGER
Meeting Date: March 9, 2021

Item Details

Presenter(s): Ralph Clark, Interim Town Manager

Department(s): Administration

Requested Motion

Update on Town operations by Interim Town Manager Ralph Clark

Approval Recommended?

N/A

Item Details

N/A

Attachments

- N/A

